

**AN EXPLORATION OF INTRA-
ORGANISATIONAL PROJECT BENEFIT
KNOWLEDGE TRANSFER BARRIERS**

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Submitted in fulfilment of the requirements for the degree of
Master of Philosophy (Management)

QUT Business School
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Queensland University of Technology
2020

Keywords

Benefit, Benefits management, Case study, Knowledge, Knowledge management, Knowledge transfer, Project, Project management.

Abstract

The unique characteristics of projects combined with the challenges of project benefits management suggest the existence of possible impediments to project benefit knowledge transfer. Impediments may be particularly evident when project benefits knowledge is transferred from a project environment to a benefits management environment. An existing model containing nine knowledge transfer barriers is employed to explore the specific problem of project benefit knowledge transfer barriers at the individual level within an organisation. The problem is explored using an interpretive case study method, including semi-structured interviews, to gather evidence supporting the existence of a priori project benefit knowledge transfer barriers. Evidence gathered in support of two research questions reveals four barriers may be prevalent when transferring project benefit knowledge. This finding provides a contemporary addition to the knowledge transfer theory body of knowledge. Practitioners could use the findings to review project management and benefits management processes and procedures focussing on key barriers to project benefit knowledge transfer.

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List of Definitions

Benefits

Benefit - “The measurable improvement resulting from an outcome perceived as an advantage by one or more stakeholders, which contributes towards one or more organisational objectives” (APM, 2017, p. 51).

Benefit knowledge - “Knowledge accumulated throughout the period a benefit is managed. Benefit knowledge may include benefit owner, beneficiaries, baseline, target and measurement methodology, frequency of measurement and associated risks”. (Study Author, 2020).

Benefit owner – “A person representing the business area who will ensure the actual realisation of the benefit (APM, 2017, p. 51).

Benefits management – “Consisting of five elements; identification, definition, tracking, realisation and optimisation” (APM, 2017, p. 12).

Benefits realisation - “generally the responsibility of organizational management, which may use deliverables of the project to realise benefits in alignment with the organizational strategy”. (ISO 21500, 2012, p. 4).

Knowledge

Explicit knowledge – “Information or knowledge that is set out in tangible form”. (McInerney and Koenig, 2011, p. 45).

Knowledge management – “Managing activities and processes to leverage knowledge through coordinated efforts to enhance individual and group resources” (Heisig, et al., 2016).

Knowledge transfer - “a process of the exchange of explicit or tacit knowledge between two agents during which one agent purposefully receives and uses the knowledge provided by another” (Kumar & Ganesh, 2009, p. 163).

Tacit knowledge - “Information or knowledge that one would have extreme difficulty operationally setting out in tangible form” (McInerney and Koenig, 2011, p. 45).

Projects

Project - “A unique process, consisting of a set of co-ordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including constraints of time, cost and resources” (British Standard, 2000, p. 10).

Project knowledge management - “The process of using existing knowledge and creating new knowledge... [to ensure] that prior organisational knowledge is leveraged to produce or improve the project outcomes” (Project Management Institute, 2017, p. 98).

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: QUT Verified Signature

Date: 16 JUL 20

Acknowledgements

Associate Professor Paul Davidson provided the inspiration for my introduction to scientific research. He was instrumental in assisting me through the administrative intricacies of enrolment in the MPhil degree program and provided generous ongoing support as the principal supervisor. Associate Professor Erica French kindly took on the role as associate supervisor and provided a second point of view as the thesis journey began in earnest. When Paul moved to a role outside the university, Erica stepped up and assumed the mantle of principal supervisor. Despite a high workload, Erica was always available to discuss progress and different perspectives when warranted. Doctor Stephen Cox came on-board in an associate supervisor capacity to support Erica and provided expertise across all elements of the thesis drawing on significant research experience. This thesis is a far better body of work thanks to three very professional academics.

Finally, and most importantly, my wife Carmen. Her love and support throughout the MPhil journey ensured a much easier transition into the new challenge of scientific research.

Chapter 1: Introduction

1.1 BACKGROUND TO THE RESEARCH

Searching peer-reviewed journal articles by single concepts including project benefit realisation, project management, and benefits management revealed several articles in each search area. Articles linking two and sometimes all three of these concepts exist, although in small numbers. Specific research on project benefits realisation reveals examples almost exclusively demonstrating the inability of organisations to realise benefits on completion of projects. Articles devoted explicitly to identifying challenges from a project management or benefits management perspective and offering solutions to enhance benefit realisation success were not found.

Projects are initiated to deliver an output to an organisation upon project completion. Examples of project outputs include an office building, an organisational realignment and implementation of an information technology (IT) initiative. The output delivered by a project contributes to one or more project benefits. For example, one benefit of an IT project output, (e.g. a data processing IT system), might be ‘improved data processing time’ as the organisation moves away from manual data manipulation using outdated spreadsheet processes. The inability of organisations to consistently realise the benefits from project outputs can be costly. Dhillon (2005) provides an example from the IT industry, “...a phenomenal amount of money is lost because of an inability of organizations to realize IS/IT benefits” (p. 502). This failure to ‘realise’ the benefits from project outputs and concomitant unnecessary waste of financial and other resources provides the impetus for the current study.

Ideally, the accumulation of knowledge associated with a benefit begins before a project commences. The identification and definition of a benefit is completed as part of the business case development process. This initial benefit knowledge is gathered into a benefit profile document. As a project is initiated and then progresses, project staff track the benefit and update the benefit knowledge in the benefit profile. Upon project completion, the benefit profile document is finalised by project staff and then transferred to the person responsible for realising and optimising the benefit, the

benefit owner. The content of the benefit profile document may include knowledge associated with the benefit measurement baseline, target, methodology and frequency, and benefit realisation milestones. The exchange of benefit knowledge during and on completion of a project is undertaken by project staff, normally the project manager. Project benefit knowledge is provided to benefit owners tacitly through face to face formal meetings or discussions with benefit owners. It is also provided explicitly, through project update or other relevant project related documents.

Projects have unique characteristics, for example temporariness demonstrated by a specific start and stop date (Bakker, 2010), unique output provided through project management (Carrillo, 2011; Reich, 2012) as distinct from routine organisational outputs generated by recurring organisational actions, and unique success criteria, comprising time, cost and scope elements (Albert, 2017). Each characteristic has the potential to impede the transfer of benefits knowledge before, during or on completion of a project. Likewise, benefits management has its own challenges. For example, the lack of an organisational benefits management framework (APM, 2017; Dhillon, 2005) leads to intra-organisational disparities in benefits management processes and procedures. This is particularly concerning when benefit knowledge is transferred haphazardly or not at all (APM, 2017; d'Armagnac, 2015; PMI 2016a). A benefit owner lacking current benefit knowledge may then labour in vain to successfully realise an assigned benefit (Badewi, 2016; PMI 2016b). Unique project characteristics and benefits management challenges have the potential to contribute to barriers to the successful transfer of project benefit knowledge.

1.2 RESEARCH PROBLEM, RESEARCH QUESTIONS AND CONCEPTUAL MODEL

The research problem stems from the unique characteristics of projects along with the heedless attention to benefit knowledge management which may generate several unwanted knowledge transfer barriers that impact on successful benefit realisation. An argument is presented that the unique characteristics of projects combined with ineffective benefit knowledge management may influence the impact of knowledge transfer barriers. This leads to the call for an exploration of knowledge transfer barriers within an organisation when transferring project benefit knowledge between individuals. The nature of the exploration is to examine whether knowledge

transfer barriers previously identified in other contexts (see Szulanski, 1996) or additional barriers, occur within the benefit knowledge transfer process.

In particular, it is possible that when project benefit knowledge is transferred from a project manager to a benefit owner, the transfer of benefit knowledge may be impeded by known knowledge transfer barriers (Szulanski, 1996; Spraggon & Bodolica, 2012). Based on a review of previous research plus an empirical test, Szulanski (1996) proposed a model of knowledge characteristics and transfer barriers that occur in intra-organisational contexts that has since been widely adopted within the academic knowledge transfer literature. The model of knowledge characteristics and their associated knowledge transfer barriers (Szulanski, 1996, pp. 30-32) is portrayed diagrammatically in figure 1.1 below. The figure shows the four knowledge characteristics of knowledge transferred, source of knowledge, recipient of knowledge, and transfer context. Each characteristic has associated barriers. For example, the characteristic knowledge transferred has two associated barriers of ‘causal ambiguity’ and ‘unproven knowledge’. Due to the wide adoption of this model in the academic literature, the nine barriers in the figure represent the foundation for the exploration of project benefit knowledge transfer barriers in the current study.

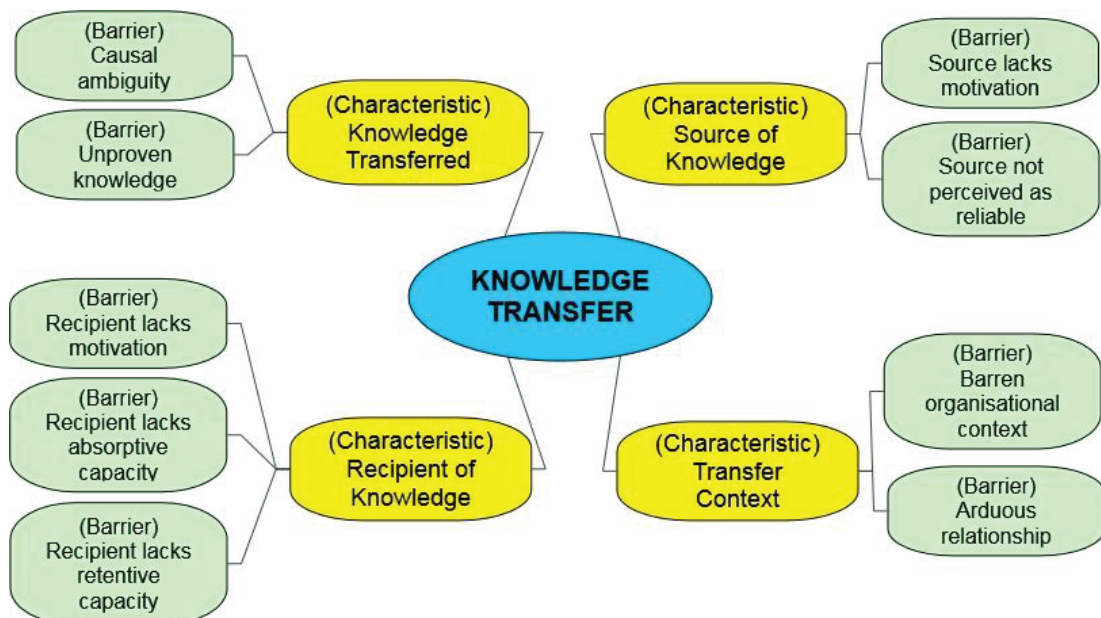


Figure 1.1. Knowledge characteristics and associated knowledge transfer barriers

The current study therefore explores the association of intra-organisational project benefit knowledge transfer practices with the knowledge transfer barriers

described in the Szulanski (1996) model when transferring project benefit knowledge to a benefit owner. Two research questions are posed to explore this phenomenon:

RQ 1 - How is project benefit knowledge transferred to a Benefit Owner?

RQ 2 - What are the barriers to the successful transfer of project benefit knowledge to a Benefit Owner?

A conceptual model of benefit knowledge transfer used in the current study is shown in figure 1.2 below. The figure portrays the concept of project staff, normally the project manager, transferring benefit knowledge associated with three different benefits, 1, 2 and 3 to three respective benefit owners. This intra-organisational knowledge transfer involves transferring specific benefit knowledge to three different benefit owners from three different business units within the organisation.

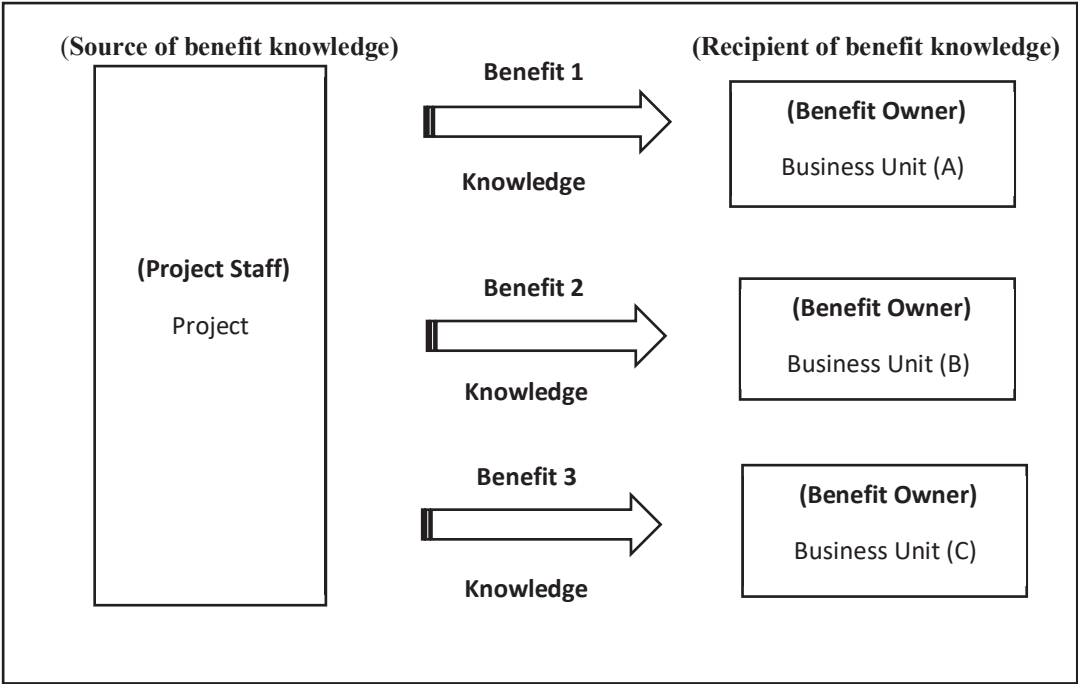


Figure 1.2. Conceptual model – benefit knowledge transfer

1.3 JUSTIFICATION FOR THE RESEARCH

The objective of the study is to explore the transfer of project benefit knowledge between the source (project staff) and the recipient (benefit owner) of benefit knowledge at the individual level of analysis. The aim is to understand the influence of knowledge transfer barriers applicable to benefit knowledge transfer from the

viewpoint of the benefit owner. Findings of evidence of knowledge transfer barriers within the explored context of benefit knowledge transfer may provide additional data for incorporation into the knowledge transfer ‘body of knowledge’. A theoretical contribution will be fulfilled through a qualitative case study exploring the barriers to knowledge transfer within an unexplored context. The study will contribute to the practice of project benefits management through an understanding of the barriers associated with project benefit knowledge transfer.

1.4 METHODOLOGY

A single, embedded case study design was selected for the current study. The individual as the unit of analysis was interviewed and a constructivist paradigm applied that offers an understanding of benefit knowledge transfer in the case study organisation. The case study involves primary data collected through face to face, semi-structured interviews with individual benefit owners and secondary data from IT project documentation. The data were interpreted by the researcher using an interpretive pattern matching analysis approach beginning with open coding, then axial coding leading to revelation of patterns of meaning. The study analytical model is shown in figure 1.3 below. The figure portrays the transfer of benefit knowledge from the source to the recipient and the possible obstacle of benefit knowledge transfer barriers.

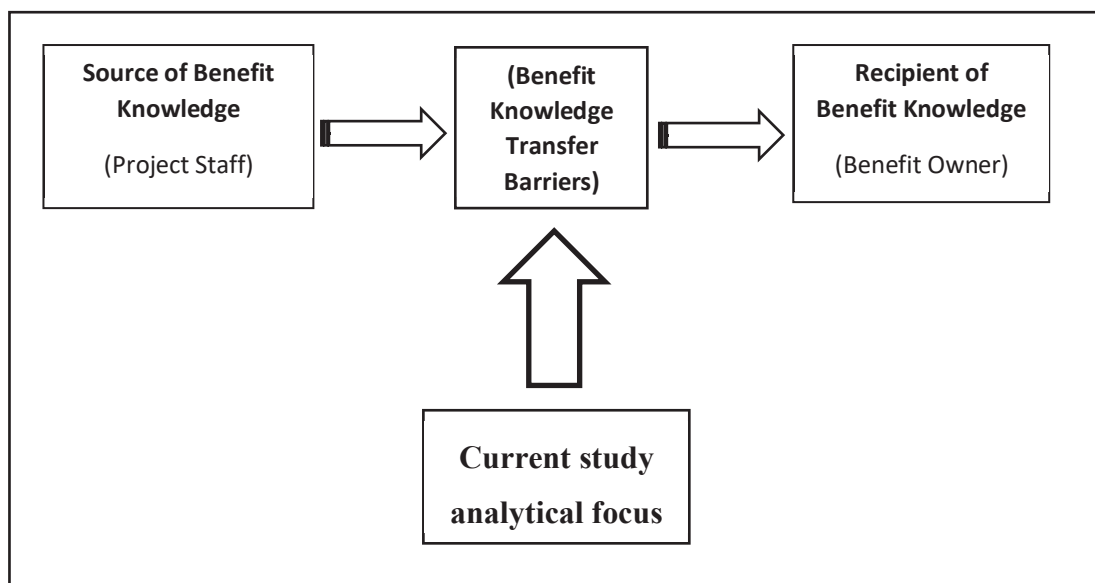


Figure 1.3. Analytical model – benefit knowledge transfer

Research quality is fortified through demonstrated attention to credibility, transferability, dependability and confirmability criteria. A comprehensive, nationally recognised ethics framework has been developed and was adhered to throughout the study.

1.5 THESIS OUTLINE

The following chapter discusses the unique characteristics of projects and challenges facing benefits management leading to articulation of the research problem. A discussion of the current study theory of knowledge transfer follows, explaining the conceptual framework (figure 1.2 above) and concluding with identification of two study research questions to address the research problem.

Chapter three discusses and identifies why the current study will be undertaken within a constructivist paradigm, an ontology espousing the need for multiple realities, and a subjectivist epistemology. This necessarily constrains the methodology to one that is hermeneutically (interpretivist) based “aiming at understanding phenomena from the point of view of those being studied” (Slevitch, 2011, p. 79). The justification for the adoption of the case study research method is then undertaken including an explanation of the research design incorporating the nature of the research questions, the use of a single case and use of individuals as the unit of analysis, data collection and data analysis procedures. A sample size was not pre-supposed, as Slevich (2011, p. 79) notes “sample size is irrelevant; transferability of findings depends on data richness and interpretation”. The chapter completes with an outline of arrangements for judging the quality of the study, and finally parameters are identified to ensure an ethically sound study.

Chapter four provides the findings and analysis resulting from the data collection and interpretive coding activities described in chapter three. The findings for research question one addressing how project benefit knowledge is transferred to a benefit owner, revealed evidence supporting the existence of seven of the nine knowledge transfer barriers described by Szulanski (1996). Evidence supporting the existence of the barrier relating to the perceived unreliability of the source of benefit knowledge was strongest. The evidence supporting this barrier manifested primarily from a lack of benefit knowledge related to benefit measurement baseline and target data. This knowledge was perceived by the source of the benefit knowledge as unreliable due to

the lack of accurate and/or worthwhile benefit measurement data. Evidence in support of the remaining six barriers of the seven barriers associated with research question one was limited.

Research question two, explicitly addressing the nine specific knowledge transfer barriers, uncovered strong evidence supporting the existence of the ‘causal ambiguity’ barrier, and evidence supporting ‘source lacks motivation’ and ‘barren organisational context’ barriers. The evidence surrounding ‘causal ambiguity’ is related strongly to the high tacit content of the benefit knowledge transferred. The source lack of motivation is due to the very senior position of the person identified as a benefit owner and low level of understanding of the benefit owner role due to competing priorities. The ‘barren organisational context’ barrier relates to the lack of understanding and use of an organisational benefits management methodology.

The final chapter discusses the findings and analysis from chapter four, and compares the literature reviewed in chapter two to the findings and analysis. The resulting comparison is outlined and offers a judgement regarding the comparison is offered. The chapter concludes with contributions of the study for both theory and practice, limitations of the study and considerations for future research.

The current study argues that the unique characteristics of projects and challenges associated with benefits management may contribute to the creation of barriers to the transfer of benefit knowledge. Unique characteristics of a project include temporariness, unique output and unique success criteria. Benefits management challenges include adherence to a benefits management process, the transfer of benefit knowledge and the responsibilities of a benefit owner. These characteristics of projects and challenges of benefits management may manifest as one or more barriers to project benefit knowledge transfer.

Chapter 2: Literature Review

2.1 INTRODUCTION

The aim of this study is to understand the influence of knowledge transfer barriers applicable to the transfer of benefit knowledge from the viewpoint of the recipients of benefit knowledge, benefit owners. As discussed briefly in chapter 1, it is proposed that a key reason why benefits from projects are often unrealised is due to problems that occur in the transfer of benefit knowledge. The chapter thus begins with a brief review of the literature relating to project management and benefits management.

Empirical studies regarding project management reveal several project characteristics that have the potential to create barriers to knowledge transfer. Likewise, studies regarding benefits management identify potential obstacles to the transfer of benefit knowledge from project staff to a benefit owner. This portion of the chapter concludes with the research problem statement.

The review then continues with an analytical treatment of the knowledge management process of knowledge transfer. The section discusses knowledge, knowledge management and knowledge management processes. The emphasis then turns to knowledge transfer, concentrating on the barriers to knowledge transfer identified in previous research. This section includes a conceptual model of the study. Concluding the chapter are the implications based on the literature reviewed along with the two research questions developed to address the research problem.

2.2 PROJECT MANAGEMENT

2.2.1 Introduction

This section focusses on characteristics unique to projects relevant to the knowledge transfer process; project temporariness, the unique nature of project outputs and success criteria used to assess projects. An argument is developed that the unique nature of these project characteristics may impede the transfer of knowledge generated through project work. Examples of knowledge created through project work is knowledge related to the unique project output and benefit knowledge associated with the benefits to be realised upon project completion.

2.2.2 Characteristics unique to projects

Several inter-related characteristics unique to projects have the potential to create impediments to the transfer of knowledge. British Standard (2000, p. 10) defines a project as “A unique process, consisting of a set of co-ordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including constraints of time, cost and resources”. The definition implies that a project is a unique activity (process), temporary (finite start and finish dates), produces a unique output in pursuit of an organisational objective and is undertaken within set success criteria (time, cost and resources). Three key project characteristics are drawn from the definition and implied meaning. These are temporariness, unique output and success criteria, each of which is briefly outlined below.

Temporariness

Many industries organise through temporary forms known as projects, Examples include motion picture, construction and, more recently, information technology (IT) industries (Bakker, 2010). The temporary, finite timeframe of projects results in the creation of some knowledge that is, by its very nature, unique. For example, knowledge created during an IT project will differ from knowledge created for a different IT project. Project staff may accumulate a high level of expertise in the project knowledge created and develop considerable trust in their level of mastery of that knowledge through the day to day exposure to the knowledge. Therefore, the transfer of project knowledge by project staff to relevant stakeholders or recipients of project knowledge as the project progresses and, more importantly, when the project completes, is essential. Bakker (2010, p. 478) relates temporariness to a knowledge transfer problem thus “...one of the most significant consequences of the finite task which temporary systems undertake is the fact that ‘knowledge that is accumulated in the course of a project is at risk of being dispersed as soon as the project team is dissolved’”. Failure to transfer unique knowledge created during a project results in lost knowledge.

The temporary nature of a project may contribute to the development of knowledge transfer impediments. Such impediments may arise through a recipient of project knowledge undervaluing the knowledge due to a lack of previous exposure to the unique knowledge. The lack of previous exposure to the unique knowledge may

increase the difficulty of the transfer. Additionally, absorption of the new knowledge into the recipient's organisational business as usual activities may be protracted, engaging staff for longer than usual on knowledge absorption activities.

Unique output

Projects are initiated, planned and executed to deliver a unique output. The development and delivery of this unique output necessarily creates new knowledge. For example, knowledge that contributes to the creation and delivery of an IT application exclusive to an organisation will create new knowledge. Projects end once the output is delivered (APM, 2017) which usually coincides with the redistribution of project staff to other projects. When this redistribution of project staff occurs "individual knowledge can be lost" (Carrillo, 2011, p. 714), particularly tacit knowledge accumulated by individual project staff members. "...with a few notable exceptions, knowledge transfer does not tend to "ripple" out from members of project teams to their companies or other organizations'. (Carrillo et al., 2011, p. 713, citing Fairclough, 2002, p. 23).

Knowledge gained during a project can be made explicit through various project documents as stipulated by the project manager. "...the project manager, who creates the conditions for knowledge sharing and oversees the knowledge practices, has a significant impact on the ability of the project team to create high quality knowledge artefacts and to keep them aligned" (Reich et al., 2012, p. 672). Transferring knowledge with high tacit content, such as knowledge relating to a unique project output or benefit related knowledge is more difficult to transfer. "High tacit knowledge is more difficult to transfer and may require more than one exchange between individuals" (Szulanski, 1996, p. 32). If the tacit knowledge held within individual project staff is not transferred to a recipient before the projects completes, unique knowledge will be lost.

Unique success criteria

Project success is measured across criteria including time (schedule), cost (budget) and scope (quality). British Standard (2000, p. 10) defines project management as "planning, monitoring and control of all aspect of a project and the motivation of all those involved in it to achieve the project objectives on time and to the specified cost, quality and performance". Although widely researched, approaches to measuring project success remain of great interest in project management. "The

basis of nearly all approaches is Barnes' Iron Triangle. The aim of the Iron Triangle was to visualise the dependencies between monitoring the independent dimensions time, budget and performance" (Albert et al., 2017, p. 797). Today, the familiar iron triangle time, cost and scope (quality) success criteria may be expanded to include other criteria. A study by Albert et al., (2017) found that "the Iron Triangle criteria are still part of the approaches used to assess project success. However, the Iron Triangle's hard criteria are more and more often not the only elements for the determination of project success. They are supplemented by individually specified soft criteria "(p. 814). A 'soft' criterion might be 'customer satisfaction'. The lack of an explicit criterion or objective related to knowledge management, including the transfer of unique project and benefit knowledge, may create an impediment to knowledge transfer. This may manifest in diminished motivation for project staff to transfer project and benefit knowledge since doing so does not contribute to project success.

2.2.3 Summary

The unique characteristics of projects of temporariness, unique output and unique success criteria have the potential to impede the transfer of unique project and benefit related knowledge. Impediments may manifest through a potential recipient of project knowledge lacking previous exposure to project and benefits knowledge as the project progresses, the high tacit content of unique knowledge gained by project staff during the project and the lack of an alignment of knowledge transfer with project success criteria. Such manifestation may lead to difficulties absorbing the unique project knowledge, lost knowledge due to the difficulty in transferring tacit knowledge and lack of motivation for project staff to transfer unique project and benefit knowledge. There is thus a need to overcome these specific obstacles associated with projects to ensure knowledge transfer associated with benefits occurs effectively, increasing the level of success in realising project benefits. The discussion now turns to benefits management, benefit knowledge and the role of the benefit owner in achieving benefits realisation.

2.3 BENEFITS MANAGEMENT

2.3.1 Introduction

This section discusses benefits management and the key elements of benefit knowledge and the role of the benefit owner as critical in benefit knowledge transfer.

The challenges presented by inconsistent use of an organisational benefits management framework, ineffective benefit knowledge transfer and misinterpretation of the role of a benefit owner may contribute to benefit knowledge transfer obstacles. Contributors to these obstacles result in the potential for missed opportunities for project benefit knowledge transfer between a source and a recipient of benefit knowledge and, more concerning, the loss of knowledge.

2.3.2 Benefits management

Each project has one or more associated benefits. Benefits are articulated prior to the project commencing and usually realised after the project has completed. APM (2017, p. 51) defines a benefit as “The measurable improvement resulting from an outcome perceived as an advantage by one or more stakeholders, which contributes towards one or more organisational objectives”. As a practical application example Dhillon (2005, p. 503) offers “the outcome of an IT system implementation [project] may be a staff reduction—the benefit is a cost saving”. Refashioning the definition in terms of a temporal relationship with a project, a benefit originates from a strategic objective, is managed by a stakeholder (or project staff) who enhance the benefit knowledge stock as the project progresses, and is realised after delivery of the project output. There is an implied relationship between a benefit and the enrichment of unique benefit knowledge as a project progresses. The transfer of all unique benefit knowledge to a recipient, the benefit owner, is essential to the future realisation of the benefit upon project completion.

Efficient benefits management contributes to ensuring relevant benefit knowledge is available to realise the benefits of project outcomes. Benefits management is the process of managing benefits including associated benefits knowledge. APM (2017, p. 12), describes benefits management as consisting of five elements; “identification, definition, tracking, realisation and optimisation”. A prototypical benefits management framework would involve several stages.

Benefits management for each benefit begins during benefits ‘identification’ and ‘definition’ activities in conjunction with development of a business case. Business case approval leads to development of a project plan or project initiation document. This plan/document includes the benefit knowledge from the business case. As the project progresses, benefits are ‘tracked’ and benefits knowledge continues to accumulate for each specific benefit. Upon project completion, benefit knowledge is

transferred to the benefit owner, the person in the relevant business unit responsible for benefit ‘realisation’ and ‘optimisation’. “Benefits management therefore follows the full extent project lifecycle (before the project, during the project and after the project” (APM, 2017, p. 12). The management of benefit knowledge as it passes from benefit identification and definition activities through to benefit realisation invokes a need for an appropriate mechanism to manage benefits knowledge. In terms of expensive IT projects, failure to deliver the advertised benefits may correspond to “...lack of a formal ‘benefits management’ approach” Peppard, Lambert and Edwards (2000, p. 292). One advantage of a formal benefits management approach is the ability to ensure the accumulated knowledge related to each benefit is managed appropriately.

Failure to use a mandated benefits management framework across an organisation may create obstacles to benefit knowledge transfer. These obstacles may manifest through inconsistent application of processes and procedures leading to inconsistent application of benefits management and commensurate loss of benefit knowledge. This may impact the ability of a benefit owner to manage a benefit through to realisation.

2.3.3 Benefit knowledge

In reviewing practices that facilitate benefits realisation on completion of a project, (PMI, 2016a) points to benefit knowledge and benefit owners as essential threads binding successful benefits realisation. Absent an empirical definition of benefit knowledge, the term is defined by the researcher as: “Knowledge accumulated throughout the period a benefit is managed. Benefit knowledge may include benefit owner, beneficiaries, baseline, target and measurement methodology, frequency of measurement and associated risks”. Benefit knowledge is tacit and/or explicit in nature.

Specific benefit knowledge first becomes available at the strategic level of an organisation when a strategic plan is updated, objectives realigned and commensurate opportunities are identified. Table 2.2 below shows benefit knowledge progress as it is incorporated into the Benefits Register and Benefit Profile documents as part of the Business Case. Benefit knowledge is then incorporated into the Project Plan or Project Initiation Document through the Benefit Realisation Plan. This plan becomes the basis for project staff to manage benefits as benefits knowledge is accumulated. Benefit Reports are provided by project staff to relevant stakeholders as the project is managed.

The Project Completion or End Project Report incorporates the crucial Benefits Handover Certificate which comprises all benefit knowledge associated with the relevant benefit accumulated to this point. This benefit knowledge is used for benefit realisation activities upon project completion.

Table 2-1 *Benefit knowledge management documents*

Benefit Knowledge Progress	Benefit Knowledge Document
Strategic (Business Case)	<p>Benefits Register - Typically an Excel spread sheet that includes line items of each benefit, a short description, the objective the benefit links/contributes to, the Benefit Owner, the beneficiaries, the baseline, target and measurement methodology. The Benefits Register is the collection of all benefits and relevant information, the details of which are broken out into separate Benefit Profiles for the Benefits Owners.</p> <p>Benefit Profile – Template that contains all information for a single benefit such as the measure, baseline, target, frequency of measurement and associated risks. It is often provided to the Benefit owner as an ‘instruction’ for how the benefit will be realised and the change that needs to take place.</p>
Project Plan / Project Initiation Document	<p>Benefit Realisation Plan – A document profiling all of the benefits and how they are forecast to be realised from baseline to target, including baseline and measurement information, dependencies, identified benefit risks and benefit realisation milestones.</p>
Project Management	<p>Benefit Report – A report produced at an agreed frequency demonstrating the realisation of benefits to date, usually comparing the baseline, target and actuals. It is important that any data provided has sufficient narrative to explain additional context and rationale to explain whether performance is as planned.</p>
Project Completion / End Project Report	<p>Benefits Handover Certificate – A formal signoff between the project and the Benefit Owner confirming responsibility for realising a benefit is transferring from the project to the most suitable person in BAU. The Benefits Handover Certificate could include the Benefits Profile, and should also include the handover date and any terms and conditions agreed (such as reporting arrangements for example).</p>

Adapted from APM, 2017, p. 48. Association for Project Management (2017). Guide for effective benefits management in major projects. www.apm.org.uk/community/benefits-management-sig/ p. 48. Accessed 13Jun18.

The benefit knowledge management approach above adapted from APM (2017, p. 48) appears to be the only comprehensive, structured and up to date literature source in terms of the management of explicit benefit knowledge. The approach is structured to capture benefit knowledge as it is created throughout the project. Implementation of such an approach may have several positive outcomes. Chief among these is overcoming a problem described by d'Armagnac (2015, p. 447) "Knowledge generation occurs during projects, but individuals do not make sufficient use of existing organizational knowledge or transfer project knowledge". The suggested content of the benefit knowledge documents would likely to be of value to recipients of the benefits knowledge, specifically the benefit owner of each benefit. Receipt of residual tacit benefit knowledge held by project staff would be enhanced through face to face interaction as the Benefits Handover Certificate is passed from the project staff to the benefit owner. Benefit owners would likely value the proven benefit knowledge and reliability of the sources of benefit knowledge. Unwillingness of project staff or benefit owner to transfer benefit knowledge through face to face interaction would likely result in lost benefit knowledge. Finally, continual interaction between project staff and the benefit owner would create a sense of 'intimacy' in the working relationship.

2.3.4 Benefit owner

A benefit owner is a person rather than an entity. PMI (2016b, p. 2) suggests "...more mature organizations have a single person accountable for managing benefits by each initiative [project] or groups of related initiatives". The accountability of a benefit owner ideally begins as benefits are identified and defined at the business case ideation point. Lin and Pervan (2003, p.14) in describing the outcome of a 1996 survey regarding benefits responsibility identified that "a vague statement of benefits, leading to an uncertain allocation of responsibility for managing their delivery, as the number one cause for project failure". Early identification of the individual benefit owner, normally drawn from business as usual staff, augments continuity as benefits mature from the business case through to successful benefits realisation. APM (2017, p.14) advises involving "operations/business as usual [staff] in benefits management activities from the beginning and then throughout the project". Badewi (2016) provides additional clarity to the importance of assigning a benefit owner to each benefit declaring

“without an owner, the benefit will never accrue because nobody will be interested in using the project output to capturing the benefits” (p. 763).

In the absence of a designated benefit owner, responsibility of benefit knowledge accumulation defers to project staff. A project manager working to achieve time, cost and quality project success criteria will likely not be inclined to also manage benefits. This dichotomy in terms of benefits responsibility before and during a project may lead to a lack of motivation by a benefit owner and project manager to transfer benefit knowledge both during a project and, crucially, upon project completion. The resultant lack of knowledge transfer may impact successful benefits realisation once the project completes.

2.3.5 Summary

Successful project benefits realisation has many challenges. “The realisation of benefits associated with information system investments ‘is a complex tangle of financial, organizational, social, procedural and technical threads’ which are mostly ignored or dealt with ineffectively by organisations” (Lin & Pervan, 2003, p. 13). The literature across benefits management, benefit knowledge and the benefit owner has uncovered possible obstacles related to project benefit knowledge transfer. These include lack of a mandated benefits management framework leading to inconsistent application of processes and procedures resulting in a possible loss of benefit knowledge. Inappropriate initiation and use of explicit benefit knowledge and failure to engage in face to face tacit transfer of benefit knowledge would likely dampen benefit realisation efforts. Finally, an unwillingness on the part of the project staff or benefit owner to participate in benefit knowledge transfer obligations may impact successful benefits realisation upon project completion.

The project and benefits literature reviewed above identify knowledge transfer obstacles. Project benefit knowledge transfer obstacles related to unique project characteristics were discussed along with obstacles related to benefit knowledge transfer created by inattention to a benefits management framework, non-adherence to available benefit knowledge processes and a lack of early assignment of an owner for each benefit. The potential existence of these obstacles suggests the existence of knowledge transfer barriers. The literature review to this point leads to the research problem articulated below.

2.4 RESEARCH PROBLEM

As articulated by Dhillon (2005), a phenomenal amount of money is lost because of an inability of organizations to realize IS/IT benefits” (p. 502). As argued in the previous sections, there are good reasons to suggest that the unique characteristics of projects combined with inattentiveness to effective benefit knowledge management may give rise to a range of knowledge transfer barriers that contribute to this limited realisation of benefits. Thus, there is a need for an exploration of knowledge transfer barriers within an organisation when transferring project benefit knowledge between individuals. The specific objective and aim of the current study are stated below.

The objective is to explore the transfer of project benefit knowledge between a source and a recipient of benefit knowledge at the individual level of analysis.

The aim is to understand the influence of knowledge transfer barriers applicable to benefit knowledge transfer as evidenced from the viewpoint of benefit knowledge recipients.

The next section of this literature review discusses knowledge transfer theory to be used to explore this research problem in more detail.

2.5 KNOWLEDGE TRANSFER THEORY AND FRAMEWORK

This section discusses the theory underpinning knowledge and its management and dissects the unique qualities of one of the knowledge management processes, knowledge transfer. Barriers to knowledge transfer identified in previous research are outlined together with conceptual and analytical approaches showing the relationship with benefit knowledge transfer. The section concludes with the influence of knowledge transfer barriers to effective delivery of benefits knowledge from project staff to the benefit owner. Two research questions are then posed that form the basis for the current study.

2.5.1 Knowledge

Knowledge is a pervasive resource throughout society and regarded by organisations as a valuable source of competitive advantage. Bender and Fish (2000, p. 128) state that “knowledge can only be employed through people and in this sense, an organisation's people become the principal source of competitive strategic advantage for the firm”. The current study borrows from Bender and Fish (2000) who

define knowledge as: “Knowledge originates in the head of an individual and builds on information that is transformed and enriched by personal experience, beliefs and values with decision and action-relevant meaning”. Applying a practical perspective, O’Dell and Hubert (2011, p. 2) define knowledge as “information in action”. This clear relationship between knowledge and individuals is a crucial element when considering knowledge as having a hierarchy.

Figure 2.1 below illustrates the knowledge hierarchy showing data, information, knowledge and expertise. The right side of the figure guides what is required by an individual to enable each level of the hierarchy to be achieved. The left side of the figure shows an arrow suggesting a cyclic relationship between knowledge and information. This demonstrates the notion that information is transformed into knowledge by an individual. When this knowledge is transferred it is received as information. Engagement of this information by another individual results in additional knowledge in the mind of the individual accessing it and the cycle continues.

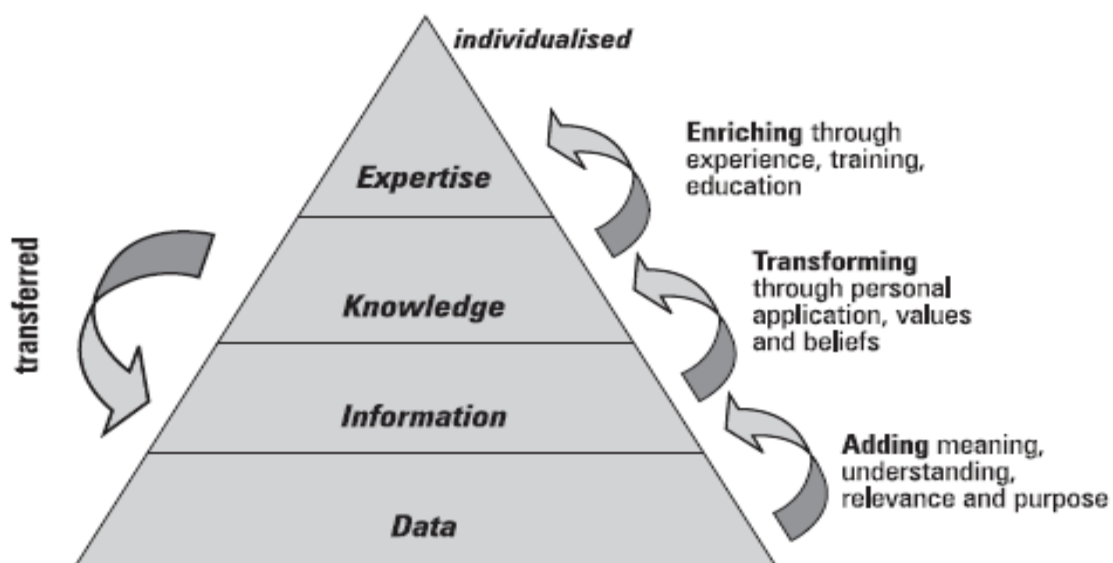


Figure 2.1. Knowledge hierarchy

From “Transfer of knowledge and the retention of expertise: the continuing need for global assignments,” by S. Bender and A. Fish, 2000, *Journal of Knowledge Management*, 4, p. 126.

Knowledge is described as tacit or explicit. Describing tacit knowledge, (Bennet, A & Bennet, D., 2014, p. 13) suggest it applies to “those connections among thoughts that cannot be pulled up in words”...or “how to do something that cannot be clearly voiced in a manner such that another person could extract and re-create that knowledge” (e.g. through understanding or meaning). Jasimuddin, Klein and Connell

(2005, p. 103) identify that tacit knowledge “is constructed from individuals’ own experience in the world and forms the basis for explicit knowledge”. Tacit knowledge is difficult to access, imitate and transfer. To alleviate this difficulty, the transfer of tacit project benefit knowledge usually necessitates numerous face-to-face transfer activities involving an individual source and an individual recipient. Tacit knowledge may remain in the mind of the individual and uncodified.

Explicit knowledge, on the other hand, “represents knowledge that can be codified in a tangible form” Jasimuddin, Klein and Connell (2005, p. 103). (Bennet, A. & Bennet, D., 2014, pp. 12-13) describe explicit knowledge as “that which can be called up from memory and described accurately in words and/or visuals (representations) such that another person can comprehend the knowledge that is expressed through this exchange of information”. Explicit knowledge is easy to transfer using documents and can be distributed across an organisation through databases and email. Examples of documents used for the transfer of explicit project benefit knowledge are shown at table 2.2 and explained earlier in the chapter.

2.5.2 Knowledge management

The ability to manage knowledge has long been a source of competitive advantage for successful organisations. “Managing knowledge is a process that requires careful consideration of the link between KM strategy and KM processes in organisations” (Bosua & Venkitachalam, 2013, p. 343). Rulke, Zaheer and Anderson (2000, p. 135) identify that competitive advantage and organisational success depend upon knowledge and the ability of an organisation to manage knowledge. Argote and Ingram (2000) expand this notion to suggest that organisations are more productive and more likely to achieve a competitive advantage through the successful transfer of knowledge from one unit to another. Heisig, et al. (2016, p. 1169) state knowledge management is the “planned and ongoing management of activities and processes for leveraging knowledge to enhance competitiveness through better use and creation of individual and collective knowledge resources”. One knowledge management process is key to the current study, the process of knowledge transfer which involves the transfer and use of knowledge resources created individually and collectively.

2.5.3 Knowledge transfer

Knowledge transfer involves the transmission of knowledge from a source to a recipient. Kumar and Ganesh (2009, p. 163) describe this as “a process of exchange of explicit or tacit knowledge between two agents during which one agent purposefully receives and uses the knowledge provided by another”. In this sense, the agent delivering the knowledge is referred to as the source of knowledge. The agent receiving the knowledge is referred to as the recipient of knowledge. Clearly, the absence of either the source or recipient of knowledge renders the knowledge transfer process incomplete. This situation may manifest when a project completes and the project staff are re-assigned before project benefit knowledge transfer is scheduled to take place. This simplistic but valid viewpoint is at the heart of knowledge transfer, especially when discussed in terms of the source and recipient as individuals. Argote and Ingram (2000, p. 5) identify that “Knowledge transfer at levels of analysis higher than the individual generally involves important social processes such as sharing, interpreting, and combining information and storing this information so that it can persist in the face of individual turnover”. Knowledge transfer between individuals is far more personal in nature.

A simple knowledge transfer model is shown in figure 2.2 below which shows that the source of knowledge transfers knowledge to the recipient of knowledge. The figure depicts that the source of knowledge and recipient of knowledge can be individuals, teams, units, organisations or clusters. The ‘individual’ is highlighted in the figure as the topic of interest in the current study. An example of knowledge transfer activity between two individuals is the transfer of benefit knowledge between project staff (usually the project manager) and a benefit owner.

Szulanski (2000, p. 17) uses the “term ‘transfer’ to emphasise that the movement of knowledge within the organization is a distinct experience, not a gradual process of dissemination”. This distinct activity may apply to the transfer of very specific project benefit knowledge which is best achieved through face to face interaction in order to harvest tacit knowledge held exclusively by the project manager. Jasimuddin et al., (2014, p. 206) argue that “tacitness is the key characteristic influencing the choice of knowledge transfer mechanism”. They add that the most suitable mechanism is face to face interaction.

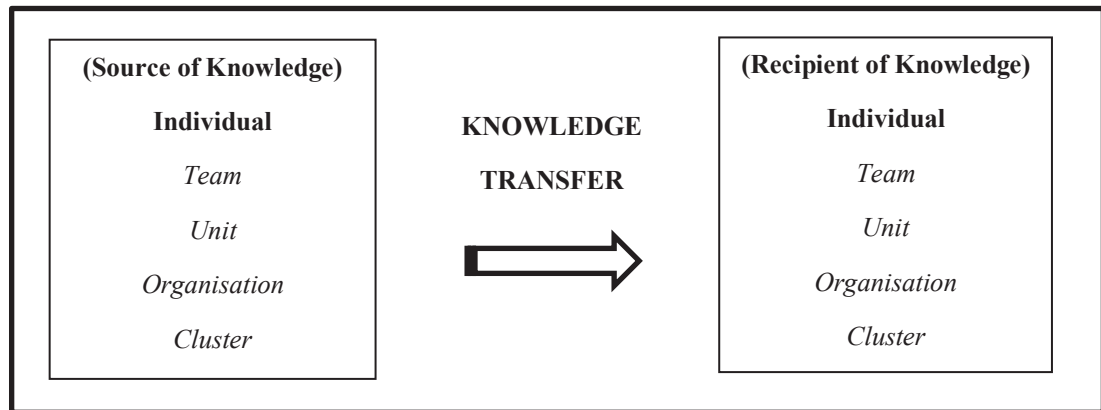


Figure 2.2. Knowledge transfer model

Adapted from “Research on knowledge transfer in organizations: a morphology,” J. A. Kumar and L.S. Ganesh, 2009, *Journal of Knowledge Management*, 13, p. 164.

A conceptual model of how this interaction is portrayed in the current study is shown in figure 2.3 below. The figure depicts the source of project benefit knowledge portrayed by project staff within a project. The project has three associated benefits, (Benefit 1, 2 and 3), each of which has specific knowledge associated with the specific benefit. The arrows depict project staff (normally the project manager) transferring project benefit knowledge specific to each benefit to the corresponding benefit owner. Each benefit owner in this case is responsible for a single benefit and is located within a different business unit (A, B and C) within the organisation. The model suggests three specific project benefit knowledge transfer activities may be required upon completion of the project.

The preference for face to face knowledge transfer becomes more pronounced when considering the transfer of specific knowledge across contexts, for example from a project context to a specific business unit context shown below. Argote and Fahrenkopf (2016) expand upon the notion of the individual in the knowledge transfer process suggesting that moving knowledge across contexts requires adaptation and that individuals are better equipped to adapt knowledge than other knowledge transfer mechanisms, for example an information system.

Information is transformed into knowledge through an individual process. An individual that is the source of knowledge transmits the knowledge to the recipient. The recipient receives the knowledge as information, then acts on that information to transform the information into knowledge (see figure 2.1). Thompson, Jensen and DeTienne (2009, p. 328) suggest that “It is only after the receiver has noticed, accepted

[absorbed], and used the information that it becomes knowledge to the receiver as well”.

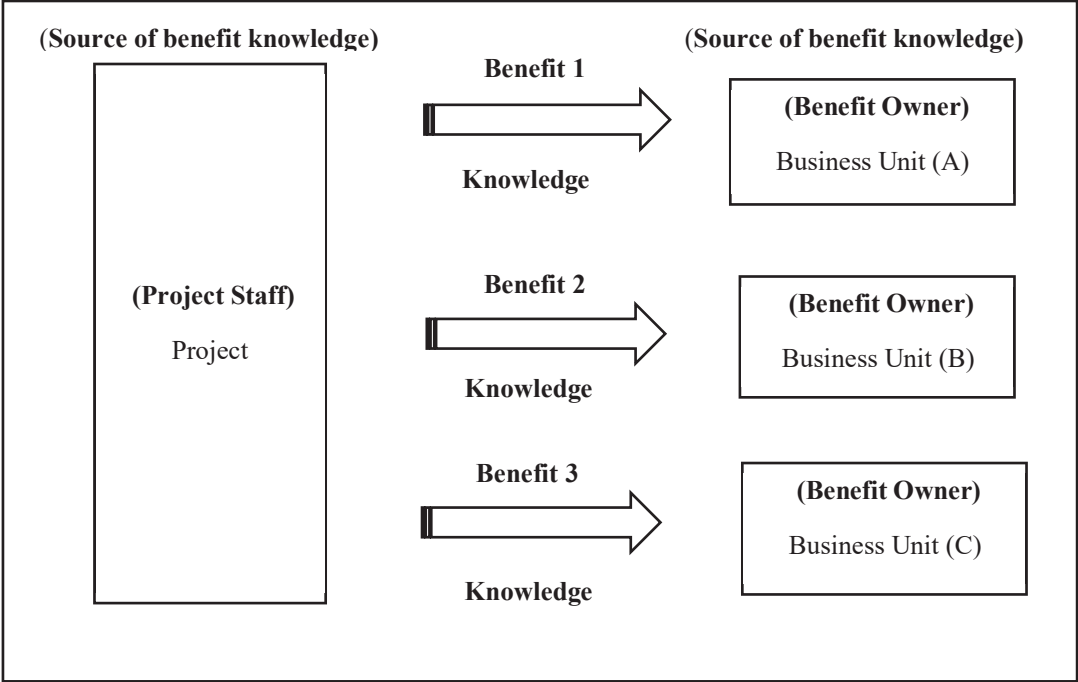


Figure 2.3. Conceptual model – benefit knowledge transfer

The word ‘used’ indicates the process of an individual using their mind to transform information into knowledge. The recipient is therefore crucial since a poor interpretation of the transferred knowledge by the recipient leads to inefficiency in the transfer process. Understanding barriers to transferring project benefit knowledge from project staff to a benefit owner is the focus of the current study.

2.6 KNOWLEDGE TRANSFER BARRIERS

The conceptual model at figure 2.3 belies the difficulty encountered when undertaking intra-organisational knowledge transfer. Argote and Ingram (2000, p. 1) argue that “successful knowledge transfer is difficult to achieve”. Eskerod and Skriver (2007, p. 118) echo this notion identifying that “In-house knowledge transfer seems to be an attractive goal for project managers and top management alike, but...it may not be easy to achieve such knowledge transfer”. Eskerod and Skriver (2007) suggest that intra-organisational knowledge transfer is difficult to achieve, while Thompson, Jensen and DeTienne (2009) describe knowledge transfer as a ‘sticky’ process that is complex and difficult to carry out. (Szulanski, 1996, p. 28) states “impediments to transfer capabilities within firms have received little attention”. The notions of

difficulty and stickiness expressed above in relation to the process of knowledge transfer suggests the existence of knowledge transfer barriers.

Several barriers have been refined down to the transfer of knowledge between an individual source of knowledge and an individual recipient of knowledge (Szulanski, 2000; Spraggon & Bodolica, 2012; Pinho et al., 2012). Contributing to these barriers, knowledge transfer is particularly complex when transferred across different intra-organisational contexts, for example from a project context to an organisational business unit context. For example, project benefit knowledge transfer from project staff to a benefit owner working in a specific business unit within the organisation.

A comprehensive study of knowledge transfer barriers originates from Szulanski (1996). This very heavily cited, seminal paper examines ‘stickiness’ surrounding the intra-organisational transfer of best practices. In discussing the origins of internal stickiness, Szulanski (1996, p. 30) referred to the four knowledge characteristics as “an eclectic model” and the associated barriers the “primary variables” within each characteristic.

Table 2-2 *Knowledge characteristics and associated knowledge transfer barriers*

Knowledge Characteristic	Associated Knowledge Transfer Barriers
Knowledge Transferred	Causal ambiguity Unproven knowledge
Source of Knowledge	Source lacks motivation Source not perceived as reliable
Recipient of Knowledge	Recipient lacks motivation Recipient lacks absorptive capacity Recipient lacks retentive capacity
Transfer Context	Barren organisational context Arduous relationship

The four knowledge transfer characteristics are; knowledge transferred, source of knowledge, recipient of knowledge and knowledge transfer context (Szulanski, 1996). Table 2.3 below portrays the four knowledge transfer characteristics and associated nine knowledge transfer barriers portrayed as used in the current study. For example,

the knowledge characteristic ‘Knowledge Transferred’ is associated with two knowledge transfer barriers, ‘Causal Ambiguity’ and ‘Unproven Knowledge’.

The associated knowledge transfer barriers from the second column of table 2.3 above are portrayed diagrammatically in figure 2.4 below. The information in the figure represents the foundation for the exploration of project benefit knowledge transfer barriers in the current study. Attention now turns to describing the nine knowledge transfer barriers in more detail based on previous research. For each barrier, a brief description is provided from Szulanski (1996) followed by a more detailed explanation of key elements of the barrier as they apply to the current study.

Causal ambiguity

Uygur (2013, p. 745) broadly defines ambiguity as “a lack of clarity in interpretation and understanding”. ‘Causal ambiguity’ refers to “the lack of understanding of the linkages between actions and their results” (Uygur, 2013, p. 745) and may result from “imperfectly understood idiosyncratic features of the new context in which knowledge is put to use” (Szulanski, 1996, p. 31). Unclear interpretation and understanding of benefit knowledge founded on the high tacit benefit knowledge content may result in a superficial understanding of the knowledge. Ambiguous benefit knowledge brought into a new organisational environment may lead to ‘causal ambiguity’ through a lack of understanding in terms of how the benefit knowledge contributes to benefit realisation.

Unproven knowledge

This barrier relates to the potential for conjecture surrounding the effectiveness of the transferred knowledge (Szulanski, 1996). The barrier refers to the level of benefit knowledge recipient agreement regarding the value of the transferred knowledge. It is easier to transfer knowledge with “a proven record of past usefulness” Szulanski, (1996, p. 31). The less agreement regarding the utility of the knowledge by the recipient, the more difficult the transfer. Moreover, knowledge used briefly or on a limited scale prior to transfer may be questioned by a recipient as to its validity in a new context (Szulanski, 2002). As an example, a benefit owner receiving benefit knowledge from project staff may not value benefit knowledge that has proven unhelpful in the past.

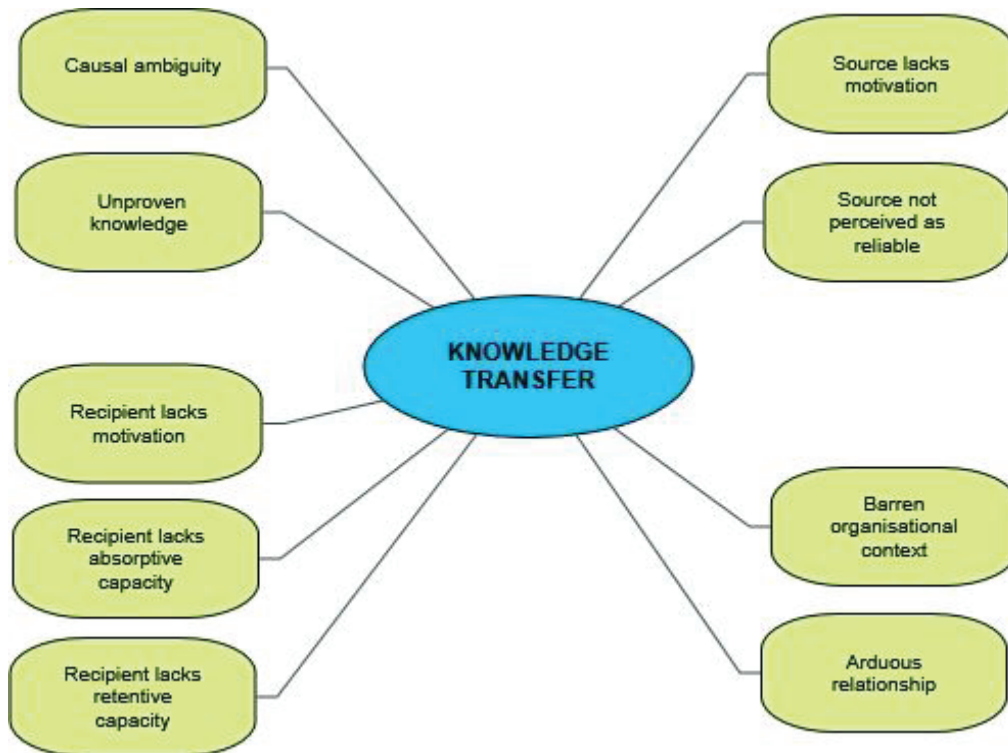


Figure 2.4. Knowledge transfer barriers

Source lacks motivation

A benefit knowledge source lacking motivation to support knowledge transfer (Szulanski, 1996) will likely impact on the quality and quantity of the knowledge transferred. (Minbaeva, 2007) argues that the individual decision to engage in knowledge transfer may rely on “the willingness of knowledge senders to share knowledge” (p. 577). Thompson, Jensen and DeTienne, (2009) advocate that knowledge and experience is embedded into an organisation through tools, processes and procedures, artefacts and databases and that this knowledge is only transferred when an individual engages with it. Finite time and resources or higher priorities may reduce the motivation of a benefit knowledge source to share benefit knowledge or take action to embed benefit knowledge into organisational artefacts. A consequence may then be poor documentation of benefit knowledge, in contrast to the more uniform benefits management processes advocated by APM (2017) at table 2.2.

Source not perceived as reliable

A recipient perception regarding the reliability of a source of benefit knowledge (Szulanski, 1996) will diminish the sense of validity of the benefit knowledge. In this sense, reliability refers to expertise and trustworthiness (Szulanski, 1996), and credibility (Szulanski, 2002) as perceived by the recipient. A perception by a benefit

owner that a source lacks expertise, is untrustworthy or is not credible would likely lead to a rejection of the benefit knowledge provided.

Recipient lacks motivation

This barrier refers to benefit knowledge recipient to support knowledge transfer (Szulanski, 1996). Just as knowledge sources may lack motivation to ensure adequate knowledge transfer, so too knowledge recipients may also lack motivation to absorb and understand knowledge being transferred. Signals that suggest this barrier may be evident include hesitancy in accepting knowledge external to a business unit (Szulanski, 1996); hesitancy in absorbing and understanding knowledge provided by a source; and reluctance to solve unexpected challenges created by incorporation of the new knowledge (Szulanski, 2002). Lack of recipient motivation may lead to insincere acceptance of knowledge and/or a refusal to accept and use new knowledge.

Recipient lacks absorptive capacity

This relates to the “Ability of the recipient unit to identify, value and apply new knowledge” (Szulanski, 1996, p. 34). “The inability of knowledge receivers to absorb new knowledge (low absorptive capacity) is one of the most often cited impediments to internal knowledge transfer” (Minbaeva, 2007, p. 575). The notion of absorptive capacity suggests that an organisation “needs prior related knowledge to assimilate and use new knowledge” (Cohen & Levinthal, 1990, p. 129). A benefit owner with a low level of pre-existing benefit knowledge will likely find it more difficult to absorb a substantial amount of new benefit knowledge.

Recipient lacks retentive capacity

Once benefit knowledge is absorbed and understood, attention move to integrating the knowledge into business as usual activities. Szulanski (1996) refers to this as the “Ability of the recipient unit to routinize the use of new knowledge”, (p. 34). This ability is reflected in the recipient’s ability to “institutionalize the utilization of new knowledge” Szulanski, (1996, p. 31). A business unit that has trouble in integrating new knowledge may discontinue the integration effort (Szulanski, 2002). Moreover, a benefit owner unable to integrate new benefit knowledge into business as usual may contribute to diminishing the retention level of the benefit knowledge within the business unit.

Barren organisational context

Szulanski (1996) describes this barrier in terms of the “Degree to which the organizational context supports the development of transfers”, (p. 34). This refers to the level of organisational support for benefit knowledge transfer activities. (Szulanski, 1996) advises the number of attempts and outcomes of attempts at knowledge transfer within an organisational context may be influenced by “formal structure and systems, sources of coordination and expertise, and behavior-framing attributes” (p. 32). An organisation that supports more formal benefit knowledge transfer processes and procedures and embraces a willingness for participation in benefit knowledge transfer behaviours is more likely to produce positive transfer outcomes. This can be extended to include a formal, mandated and embedded benefits management framework.

Arduous relationship

Described by Szulanski (1996, p. 34) as the “Ease of communication and intimacy of the relationship” Specifically, the knowledge transfer barrier ‘arduous relationship’ is one characterised by evidence of a laborious or distant relationship between a source and a recipient that increases the difficulty of the transfer. In contrast, a relationship that facilitates knowledge transfer would be characterised by a relationship between a benefit owner and project staff that has a high degree of intimacy. At the individual level, Tortoriello et al. (2012, p. 1025) suggest the “...strength of the interpersonal relationship between two individuals influences their willingness to engage in knowledge transfer and the amount of effort they dedicate to the activity”. A strong relationship is likely to increase the opportunity, ease and frequency of communication regarding benefit knowledge transfer.

Knowledge transfer barrier explanations along with a more complete list of references are provided in table 2.3 at the end of the chapter.

2.7 CONCLUSION

2.7.1 Summary

This literature review has been developed through a critical examination of two key management areas; project management and benefits management. Project management was reviewed with relation to the unique characteristics of projects including temporariness, unique output and specific project success criteria. Each characteristic was found to have the potential to create barriers to the transfer of unique

project benefit knowledge. This may impact on knowledge transfer barriers related to the knowledge transferred, the source and/or recipient of knowledge, and the knowledge transfer context.

Benefits management was then discussed including an understanding of benefit knowledge and the role of the benefit owner. The challenges associated with benefits management include:

- failure to use a mandated benefits management framework across an organisation may create barriers to benefit knowledge transfer which may impact the ability of a benefit owner to manage a benefit through to realisation,
- benefit knowledge not provided through established organisational documents may lead to barriers created through reliability of the sources of benefit knowledge,
- unwillingness of project staff or a benefit owner to transfer benefit knowledge through face to face interaction may result in lost benefit knowledge, and
- the lack of benefit knowledge transfer may impact successful benefits realisation upon project completion.

The theory of knowledge transfer was then critically reviewed. The section briefly discusses knowledge and its management before focussing on the knowledge management process of knowledge transfer. Knowledge transfer then dominates the discussion with a critical review and explanation of the characteristics and barriers that may influence successful knowledge transfer in the context of benefits knowledge.

Several implications of the review are notable at this point. First, the unique characteristics of projects combined with the challenges of managing benefit knowledge have the potential to sabotage benefit realisation efforts on completion of a project. Second, understanding knowledge transfer and the manifestations that may indicate evidence of the existence of knowledge transfer barriers, especially when transferring benefit knowledge from project staff to a benefit owner, may increase the quality of benefit knowledge transferred.

2.7.2 Research questions

Based on this literature review, two research questions were formed to explore project benefit knowledge transfer barriers at the individual level within an organisation.

RQ 1 - How is project benefit knowledge transferred to a Benefit Owner?

RQ 2 - What are the barriers to the successful transfer of project benefit knowledge to a Benefit Owner?

The next chapter addresses the research design to be used in addressing these research questions including the research design elements, data collection and analysis procedures, along with the quality and ethical considerations of the selected research method.

Table 2-3 *Knowledge transfer barrier explanations*

Knowledge Transfer Barriers	Explanation	References
Causal ambiguity	Depth of knowledge. Relates to source and/or recipient of knowledge. Manifests through high tacit content, unique features of recipient context. Tacitness is a central attribute of knowledge with respect to its transferability. Defined in terms of how difficult it is to articulate and codify a given domain of knowledge. Unique features include imperfectly understood idiosyncratic features of the new context in which knowledge is put to use.	Szulanski, (1996, p. 30), Szulanski (2002, pp. 32-33), Minbaeva, (2007, p.573), Szulanski, Cappetta & Jensen (2004, p. 601), Spraggon & Bodolica (2012, p. 1279).
Unproven Knowledge	Agreeableness on the value of the transferred knowledge. The less agreement regarding the utility of the knowledge by the recipient, the more difficult the transfer. The less routine the problem the more difficult the transfer.	Szulanski, (1996, p. 31), Szulanski (2002, p. 34).
Source lacks motivation	Motivation of source to transfer knowledge. Originates from source resentment in not being rewarded for the transfer leading to unwillingness to devote time and/or resources to the transfer.	Szulanski, (1996, p. 31), Szulanski (2002, p. 34), Minbaeva, (2007, pp.577-578), Thompson, Jensen & DeTienne (2009, pp. 330-331), Spraggon & Bodolica (2012, p. 1279).

Table 2.3 continued.

Source not perceived as reliable	Degree of source expertise and trustworthiness as perceived by recipient. Increase difficulty of transfer and knowledge may be challenged or rejected.	Szulanski, (1996, p. 31), Szulanski (2002, p. 35) Source lacks credibility Minbaeva, (2007, pp.577-578), Szulanski, Cappetta & Jensen (2004, p. 601), Thompson, Jensen & DeTienne (2009, pp. 330).
Recipient lacks motivation	Motivation of the recipient to support knowledge transfer. Recipient may be reluctant to receive knowledge from outside their business area. May result in recipient passivity, insincere acceptance of knowledge and refusal to use new knowledge.	Szulanski, (1996, p. 31), Szulanski (2002, pp. 35-36), Thompson, Jensen & DeTienne (2009, pp. 327-329), Spraggon & Bodolica (2012, p. 1279).
Recipient lacks absorptive capacity	A function of the pre-existing level of knowledge to be transferred and therefore the ability of the recipient to identify, value and apply new knowledge. The lower the level of pre-existing knowledge the more difficult the ability to absorb knowledge with high tacit content.	Szulanski, (1996, p. 31), Szulanski (2002, p. 36), Minbaeva, (2007, pp. 575-576), Cohen & Levinthal (1990, p. 129), Camison & Fores (2010, p. 708), Thompson, Jensen & DeTienne (2009, pp. 327-329), Spraggon & Bodolica (2012, p. 1279).
Recipient lacks retentive capacity	Ability of the recipient to support the routine use of the transferred knowledge. If the recipient cannot integrate the new knowledge into business as usual the retention level of the new knowledge may diminish.	Szulanski, (1996, p. 31), Szulanski (2002, pp. 36-37) Thompson, Jensen & DeTienne (2009, pp. 327-329).
Barren organisational context	Level of organisational context support for knowledge transfers. A context that supports the implementation of knowledge transfers is more likely to produce positive transfer outcomes. Positive outcomes are more likely within a context that supports more formal processes and procedures and embraces a willingness for participation in knowledge transfer behaviours.	Szulanski, (1996, pp. 31-32), Szulanski (2002, p. 37).
Arduous relationship	Ease of communication and intimacy of the relationship. High tacit knowledge is more difficult to transfer and may require more than one exchange between individuals. This can be overcome more easily if the source/recipient relationship has a degree of intimacy. Arduous may manifest in a laborious or distant relationship that increases the difficulty of the transfer.	Szulanski, (1996, p. 32), Szulanski (2002, pp. 37-38), Tortoriello et al, (2012, p. 1024), Minbaeva, (2007, pp.579).

Chapter 3: Research Design

3.1 INTRODUCTION

This chapter describes and justifies the approach taken to address the research questions and satisfy the objective and aim of the research developed in chapter 2. The chapter begins with a discussion of the appropriate paradigm and methodology to support the method and associated research design components relevant to the current study. The components applicable to the current study are the research questions, the case, data collection and data analysis Yin (2018). Each component is expanded upon before moving to research procedures, including triangulation, data management and quality management procedures. Finally, evidence of conformance with ethical requirements is highlighted.

3.2 PARADIGM AND METHODOLOGY

Reviewing the significant amount of empirical research surrounding the terms paradigm and methodology suggests these terms mean different things to different researchers. Elements used to describe each paradigm are often couched in relation to ontology and epistemology working towards an appropriate methodology. The connection between paradigm, ontology, epistemology and methodology points to an appropriate research method.

The paradigm for the current study is constructivism. Slevich (2011, p. 79) refers to this paradigm as involving “constructed reality [through] various people’s point of view” (Slevich, 2011). In addressing the research problem and research questions, the current study will enlist individuals to provide their constructed reality in relation to benefit knowledge transfer barriers through participation in semi-structured interviews. This paradigm incorporates an ontology or view on reality suggesting “There are multiple social realities that are mind-dependent and cannot be described free from people’s points of view, particular interests, values, and purposes” (Slevich, 2011, p. 79). Ontology refers to “our most basic beliefs about what kind of being a human is and the nature of reality” (Grant & Giddings, 2002, p. 12). The use of semi-structured interviews as the primary data source for the current study will necessarily

involve interviewees creating a reality that is mind dependent and includes their values and beliefs. This leads to how knowledge will be viewed in the current study.

Epistemology refers to the theory of knowledge. It is concerned with the “nature and the scope of knowledge” (Slevitch, 2011, p. 74). Further, it describes what is deemed to be knowledge and upon “what basis we can make knowledge claims” (Grant & Giddings, 2002, p. 12). The current study will adopt a subjectivist view on knowledge. This means truth relates to how the researcher’s account aligns with individuals’ constructed reality (Slevich, 2011). Validity in terms of the current study refers to making sense subject to the researcher’s stated study objective and aim. An understanding of ontological and epistemological perspectives inevitably reveals the methodology, the final part of the ontology, epistemology, and methodology trilogy to be discussed.

An interpretive methodology is applicable for the current study. Slevich (2011, p. 79) notes that the aim of this methodology is “understanding phenomena from the point of view of those being studied...sample size is irrelevant; transferability of findings depends on data richness and interpretation”. Ringma and Brown (1991) points out that “The issue in understanding or interpretation is not to enter the inner life of the other, but to understand the matter under consideration” (p. 61). An interpretive methodology will be particularly appropriate for studying organisational artefacts and interview transcripts associated with the current study.

The current study will be undertaken within a constructivist paradigm, an ontology espousing the need for multiple realities, and a subjectivist epistemology. This necessarily constrains the methodology to one that is hermeneutically (interpretivist) based “aiming at understanding phenomena from the point of view of those being studied” (Slevitch, 2011, p. 79). This approach promotes a good methodological fit which Edmondson and McManus (2007) argue is essential for rigorous and compelling field research. The next section discusses the design of the selected research method, the case study.

3.3 RESEARCH DESIGN

The current study adopted the case study method. There exist many versions of case study research design construction and complementary elements. Yin (2018) identifies five important elements of case study research design as follows:

1. “A case study’s questions (research questions);
2. Its propositions, if any;
3. Its case(s);
4. The logic linking the data to the propositions (data collection); and
5. The criteria for interpreting the findings (data analysis)” (p. 27).

The four elements including the research questions, case, data collection and data analysis details are provided next. The exploratory nature of the current study did not extend to proposition development.

3.3.1 Research questions

The nature of the research questions points to the case study method as being appropriate. Yin (2018, p. 27) identifies that “Case study research is most likely to be appropriate for ‘how’ and ‘why’ questions...” The exploratory nature of research question one is clear. The second research question will be answered through the interpretation of individuals’ construction of their experience of knowledge transfer barriers which will likely illicit ‘how’ and ‘why’ elements. An overview of the case itself is described next.

3.3.2 Single case

The current study is a case study undertaken at a single point in time involving a single case study organisation (CSO). The single point in time and single case constraints were driven by the compressed timeframe allowed for the study.

Case study organisation

The CSO is a large, public sector organisation in Australia responsible for large scale infrastructure projects. The CSO IT branch is responsible for numerous IT related intra-organisational projects (e.g. business process flow, applications, online services and customer relations) associated with most public sector organisations. IT rather than infrastructure projects were identified due their high turnover and relatively short timeframe thus increasing the number of benefits and aligned benefit owners. Additionally, the CSO IT projects utilise common project management and benefits management methodologies, ensuring documentation was common for each benefit. One or more benefits are aligned with each IT project.

The CSO had been working to introduce a benefit management approach regarding IT projects for some time. While benefit owners were assigned, the management level of the benefit owner is at a very high level due to the apparent focus on ‘financial’ benefits vice more practical organisational benefits. The immature status of the benefit management approach was evident when it became clear that a benefit manager had not been appointed and the benefits management framework was in draft status. Nevertheless, there were positive signs the benefits management approach was being progressed as the CSO had recently begun developing a benefit profile from benefit definition workshops before commencement of an IT project.

Unit of analysis

A benefit owner is assigned to each benefit and is the person responsible for the realisation of each benefit on completion of each IT project. The unit of analysis is individuals.

Sampling approach

A purposive sampling approach was adopted to ensure individuals who were recently assigned as a benefit owner were available. Benefit owners were identified as the best informants to provide the necessary data richness during interviews. A flexible research method such as a case study requires that the researcher “attend to sampling adequacy (enough data), and sampling appropriateness (by interviewing ‘good informants’ who have experienced the phenomenon and who know the necessary information)” Robson (2011, p. 154). This sampling approach necessarily drove a separate requirement that the study involve recently completed IT projects. Crucially, examples of participation in benefits knowledge transfer from project staff to benefit owners through face to face interaction or documentation was needed. Finally, benefit owners available to participate in an interview were required.

Projects were considered as an option for the unit of analysis. As the data collection progressed it became apparent that documents were not available for all projects. Additionally, while a common benefits management framework was understood to be used for all IT projects, there were disparities in the quality and content of the benefit knowledge contained within the documents. Finally, the focus of the current study is the effect of knowledge transfer barriers on benefit owners as the recipients of benefit knowledge. Documents related to projects provide one source of benefit knowledge. Using projects as the unit of analysis would likely have created

a larger boundary on the study than was intended contributing to a deleterious effect on the transferability of the study.

3.3.3 Data collection

Semi-structured interviews

Interviews were the primary data source and selected in recognition of the ability of the interviewer to gather a richness of data not afforded to other data gathering tools, particularly through the use of probing questions. Myers and Newman (2007, p. 3) identify the qualitative interview as “the most common and one of the most important data gathering tools in qualitative research”. Qualitative interviews fall into three generally accepted types; structured, semi-structured and group interviews (Myers & Newman, 2007). Structured interviews lessen the opportunity to ask probing questions whilst the group interview may have enticed a ‘group think’ opportunity which would have degraded the richness of the data collected. The purpose of the semi-structured interviews was to provide some structure to the interview protocol (see Appendix D) whilst allowing for opportunities to ask probing questions as opportunities presented. Recker (2013, p. 90) suggests this approach provides for flexibility “as new questions can be brought up during the interview as a result of what the interviewee says”.

Each interview was conducted in the same way. As potential interviewees responded to the Interview Participation Request Email (Appendix A), a Participant Interview Information Sheet (Appendix B) was sent which described the study and identified processes for withdrawing from the interview. Once an interview schedule was agreed with the participant, the Participant Interview Consent Form (Appendix C) was sent asking that participants bring the signed consent form to the interview. The Interview Protocol (Appendix D) was sent to interviewees prior to the interview. All interviewees who agreed to participate were interviewed.

The interview questions contained within the Interview Protocol (Appendix D) were used for each interview with probing questions injected to specific interviews as the opportunity warranted. The interview comprised four sections. Sectionalising the interview allowed for some initial ice-breaker questions in the first section followed by gathering specific attribute data regarding the interviewee’s role and experience in project/benefits management in the second section. A key interview question in this section requested an opinion on the role of a benefit owner. The nine questions in the

third section specifically addressed research question one concerning how project benefits knowledge is transferred to a benefit owner. Interview questions 3.1 – 3.9 relate to sources of benefit knowledge, benefit knowledge transfer tools and processes, communication methods and benefit knowledge content. The 15 questions in the fourth section specifically addressed research question two which related to knowledge transfer barriers. For example, interview question 4.7 asks; “What barriers to successful benefit knowledge transfer (BKT) might have been created by the organisational context”? This question corresponds with the knowledge transfer barrier ‘barren organisational context’. Other questions in the fourth section of the interview protocol related to requests to identify most challenging barriers, different barriers for different projects and different barriers for individual sources.

Interviews were recorded at the interviewees’ workplace in a private meeting room. Professional transcription was undertaken on completion of each interview.

Interviewee attributes

Interviews with benefit owners were requested by the researcher and agreed by the CSO sponsor. Eleven CSO staff selected by the CSO agreed to participate in an interview. Of the eleven interviewees, only one was a benefit owner. This appeared to be due to the CSO assigning the benefit owner role to General Manager level staff. It is likely the interview requirement was delegated to other staff members due to the higher priority requirements of General Managers. This is recognised as a limitation to the study outcomes. Table 3.1 below provides the CSO interviewee attributes. It shows the interviewee role on the selected IT project, the title and number of years at the CSO and number of times as a benefit owner on other CSO projects. Interviewee 03 (Int03) is the sole benefit owner.

A review of the ‘project role’ in column two of the table shows that project roles were related to project management (e.g. senior supplier, advisor, business assurance, senior user, project executive). The remaining interviewees were associated with benefit support roles. Despite the inability of benefit owners to attend an interview, the staff selected in their stead were experienced CSO professionals. Many interviewees were director level staff, including the one benefit owner. Many had been at the CSO for a substantial period and a number had experience as a benefit owner on other projects. Interviewees Int08 and Int09 were benefit leads providing direct benefit support to the benefit owner, Int03. The staff attributes together with a first-hand

understanding of their competency in the benefits environment through the interview process suggests the study warrants significant merit. Nevertheless, it is acknowledged the lack of a significant number of actual benefit owners participating in an interview will likely impact on the transferability quality of the study. This is due to the diminished specificity and richness of the data leading to difficulty for future researchers to compare against other studies.

Table 3-1 *Case study organisation – interviewee attributes*

Interviewee	Project Role	CSO Role (Title)	CSO Role (Years)	Times as CSO Benefit Owner
Int01	Senior Supplier	Program Director	3	7
Int02	Advisor	Executive Director	5	2
Int03	Benefit Owner	Director	1	1
Int04	Business Assurance	Director	10	6
Int05	Benefit Support	Manager	12	Many
Int06	Senior User	Director	9	5
Int07	Project Executive	Program Director	3.5	0
Int08	Benefit Support	Principal Advisor	1.5	0
Int09	Benefit Support	Senior Advisor	1.5	0
Int10	Project Executive	Director	5	0
Int11	Benefit Support	Senior Manager	1	0

Documentation

This secondary source of data was collected first. Documents shed light on the context “within which research participants operate” (Bowen, 2009, p. 29). The researcher used documents to understand the context of benefit knowledge transfer, in particular understanding the benefit knowledge content from explicit sources such as project and benefit documents along with the flow of benefits knowledge as a project progressed. CSO staff provided documents including Business Cases, Benefits Realisation Plans, Project Initiation Documents, Project Highlight Reports and End Project Reports. The documents received and reviewed are shown in table 3.2 below.

The top row of the table shows the documents provided by the CSO. The left column shows the de-identified labels for each of the 10 projects. An ‘x’ in the table indicates the document was not available. This was due to the low complexity or short timeframe of the project or classified/sensitive document content. No documents were

available for Project 10RA. Most of the project documents were authored by the project manager. The critical document is the End Project Report since this document provides a summary of the status of benefits knowledge available at the end of each project.

3.3.4 Data analysis

This section discusses the data analysis approach including interpretive coding and pattern matching techniques. Coding for the current study involved reviewing interview transcripts and documents and dissecting them in a meaningful manner, while keeping the relevant parts intact (Miles & Huberman, 1994). This approach to coding was particularly useful for the current study since coding commenced on receipt of the first document and continued through until the final interview transcript was coded.

Table 3-2 *Case study organisation – documents*

Document / Project	Business Case	Benefits Realisation Plan	Project Initiation Document	Project Highlight Report/s	End Project Report
1DC	×	×	√	2	24-Aug-17
2HS	×	×	√	5	30-Nov-17
3CC	√	×	×	×	16-Jan-18
4TP	×	×	×	×	31-Jan-18
5RM	√	√	√	3	16-Jun-18
6MC	√	√	√	×	21-Sep-18
7VO	√	√	√	×	9-Oct-18
8CF	√	√	√	×	19-Feb-19
9LD	√	×	√	×	TBA (2019)
10RA	×	×	×	×	×

The analysis involved scrutinising interview transcripts from eleven interviewees and project documentation from IT projects as shown in table 3.2 above. An analytical model of the current study is shown in figure 3.1 below. The figure portrays the notion of a source of benefit knowledge, project staff, transferring benefit knowledge to a recipient of benefit knowledge, the benefit owner. The current study

analytical focus is exploring evidence supporting the existence of knowledge transfer barriers during the benefit knowledge transfer activities. As identified earlier, knowledge transfer activities include face to face discussions between a source of benefit knowledge and a benefit owner, as the recipient of benefit knowledge, or through a document containing relevant benefit knowledge.

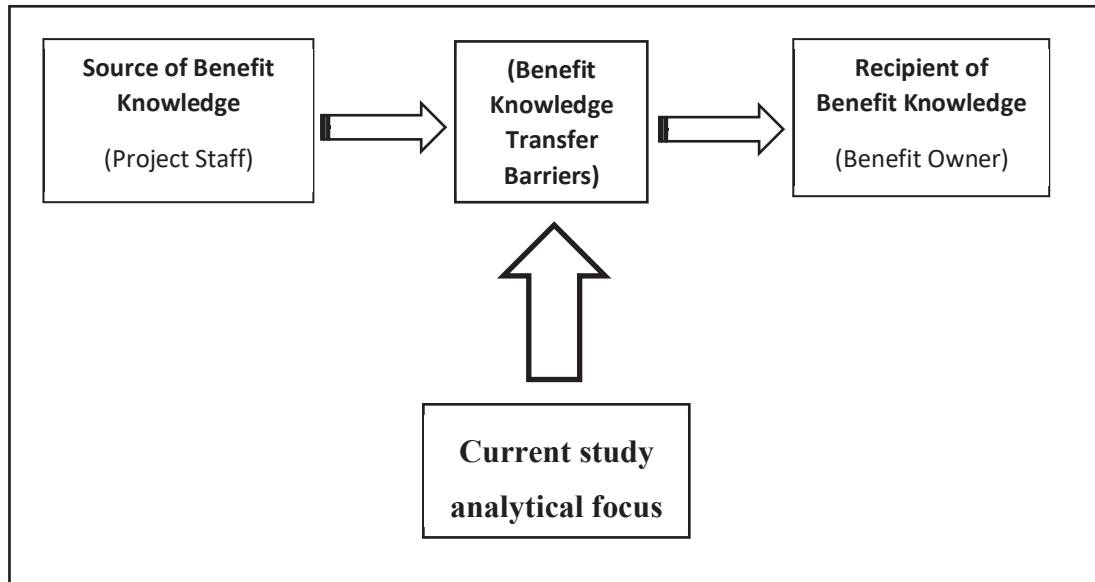


Figure 3.1. Analytical model – benefit knowledge transfer

Using computer-assisted qualitative data analysis software NVivo 12 as a data management tool, interpretive coding was used for both codes derived from the literature, and codes that emerged throughout the analysis. On the first round of analysis, interview transcripts and documents were coded into the nine knowledge transfer barriers. Additional emergent codes identified during the open coding process were added to the coding scheme. Derived from table 2.3 and figure 2.4, a diagrammatical portrayal of the nine knowledge transfer barriers is shown below. This data is also consistent with table 2.4 which explains each barrier.

Emergent codes included several benefits related codes including benefit description, terminology, management, governance, measurement and realisation. Other more general codes included project management and terminology, role clarity and knowledge management. The presence of benefits related codes stems from the expected high benefits related subject matter within the interview questions. Relevant emergent codes are included in the findings and analysis portion of the next chapter.

Axial coding was then used to winnow the coded data down to a manageable number while ensuring the coding remained focussed on the exploration of the nine knowledge transfer barriers. Coding continued in a cyclical approach through open and axial coding. Coding results for each research question highlighted patterns of data across interviewees in the form of evidence supporting the existence of knowledge transfer barriers (see table 4.1). Establishing evidence of the presence of a barrier is based upon an examination of the elements of the specific barrier. For example, the barrier ‘causal ambiguity’ refers to depth of knowledge that manifests through high tacit content and unique features of recipient context. The barrier has three key elements: knowledge depth, high tacit content, unique features of recipient context. Evidence of any of these elements suggests the barrier is present. Otherwise the barrier is considered absent. Coding was undertaken by the author only with coding outcomes discussed with supervisors as the coding progressed. This ensured a measure of coding quality was maintained. The coding results, along with the findings and analysis of the data in relation to the research questions is discussed in the following chapter.

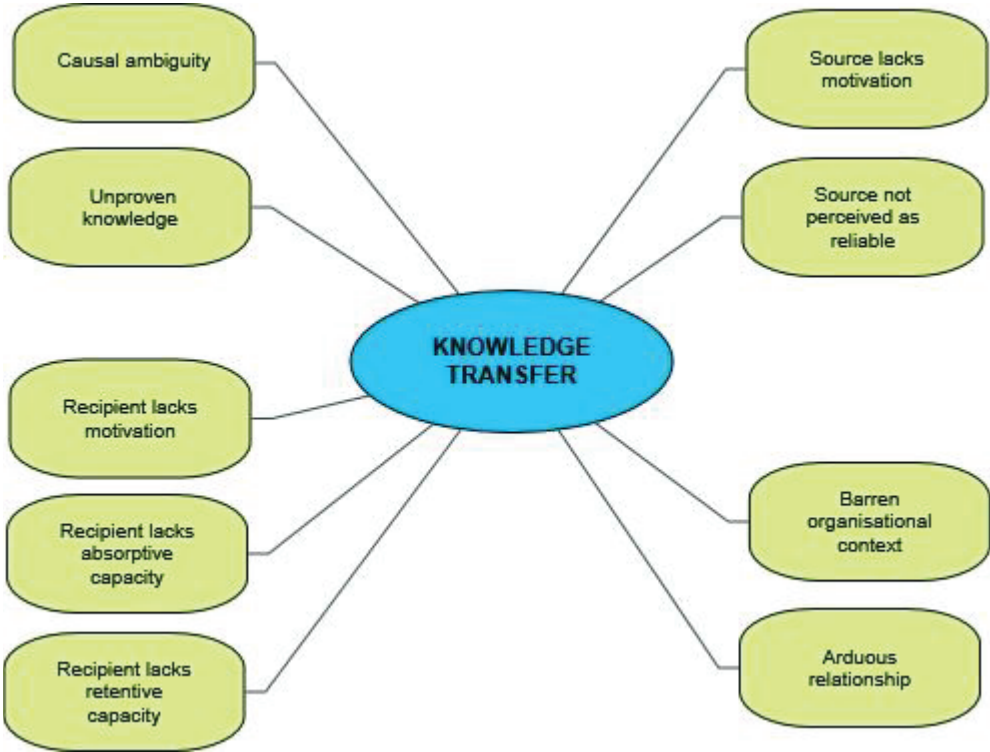


Figure 3.2. Knowledge transfer barriers

3.4 OTHER RESEARCH CONSIDERATIONS

The current case study will involve reliance on semi-structured interviews as the primary data source and documents as the secondary data source. This approach ensures corroboratory evidence is collected through a variety of sources and meets the criteria for triangulation; the collection of data from more than one source. Triangulation is a fundamental principle of qualitative research Recker (2013) and underlies the confirmability of the data. Data robustness is also enhanced as is dependability through data convergence or divergence of different data sources. Morgan et al. (2017) suggest that the accuracy and completeness of a case study is enhanced through triangulation. The current study will also rely on careful data management across both data sources.

Data management will be especially important in the current study due to the amount and diversity of data. Managing interview transcripts and documents and in a single location to allow for efficient data management will enhance the effectiveness of the findings and analysis (see chapter 4). Liamputtong (2009, p. 137) acknowledges that information technology applications including Computer Assisted Qualitative Data Analysis tools “help the researcher to find, categorise and retrieve data/texts faster than using a manual search”. The systematic data and information management processing capability within NVivo (Version 12), a qualitative software tool produced by Qualitative Research International, will be particularly suited to data management for the current study. Liamputtong (2009, p. 137) cautions however that “computer packages are unable to analyse the data for researchers”. The actual analysis of the assembled data for the current study remains the responsibility of the researcher.

3.4.1 Quality assessment

Qualitative management research includes paradigms such as constructivism/interpretivism, postmodernism and critical theory. Such paradigmatic pluralism brings with it the crucial issue of evaluation. Symon, Cassell and Johnson (2018, p. 134) acknowledge the existence of “a variety of potential evaluation criteria and recommendations for best practice for qualitative management research”. For example, they identify an assessment criterion for interpretivism which includes an “internally reflexive audit trail demonstrating: credibility, dependability, confirmability... [and] transferability” (p. 137). These criteria stand on their own in terms of judging the quality of qualitative research and therefore there is no

requirement or desire to ‘align’ the criteria with quantitative equivalents. Each of these key terms is expanded upon below.

- Credibility – refers to use of an appropriate research method (Farquhar, 2012), provision of substantiated interpretative analysis evidence (Recker, 2013) and “whether or not one's findings are ‘true’ and ‘accurate’ (Murphy, 2017, p. 302). The use of the case study method as advised by Yin (2018) and clear articulation of the key case study elements of the research questions, the case including sampling approach, data collection and data analysis provides evidence of attention to credibility. case, “A case study’s questions (research questions);
- Dependability – relates to development of a clear research design including data collection approaches (Farquhar, 2012) and whether another researcher would reach similar conclusions given the same data (Recker, 2013) Achievement of the dependability criterion primarily involves “drawing on a broad array of data sources—including not just interviews but secondary data sources as well (Murphy, 2017, p. 302). The research design outlined in this chapter provides explicit guidance regarding data collection, including the collection of interview and documentation data, and data analysis approaches.
- Confirmability – refers to the explicit nature of the study boundaries, coding process and any constraints (Farquhar, 2012), verifiability of the findings (Recker, 2013) and neutrality of the findings (Murphy, 2017). The study boundary is clearly outlined through the research questions and unit of analysis. Constraining the study to the effect of knowledge transfer barriers on benefit owners demonstrated through the two research questions and using individuals (benefit owners) as the unit of analysis (see Section 3.3.2, p. 46), clarifies the boundary for future researchers. The use of commonly understood open and axial coding techniques and a pattern matching analysis technique adds to the ease of future researcher’s replication the process.
- Transferability – concerns clear argument construction through quality research (Farquhar, 2012) and generalisability of findings to other contexts (Recker, 2013; Murphy, 2017). The literature review at chapter two provides a clear argument that project characteristics and benefits management challenges

have the potential to contribute to knowledge transfer barriers. The use of knowledge transfer theory to assist in exploring project benefit knowledge transfer barriers is well reasoned and provides a sound springboard into the selected study research method.

3.5 ETHICAL CONSIDERATIONS

Ethical considerations were in the ‘back of mind’ as the planning of the study began to take shape. Such considerations included the “potential for harm, stress and anxiety, and myriad other negative consequences for research participants” (Robson, 2011, p. 194). Approval was sought and subsequently granted from the university Human Research Ethics Committee prior to commencement of the research. Key ethically approved artefacts included; Interview Participation Request Email (Appendix A), Participant Interview Information Sheet (Appendix B), Participant Interview Consent Form (Appendix C) and Interview Protocol (Appendix D).

3.6 CONCLUSION

This chapter guides the study by providing a blueprint for how the study will be executed. The ‘constructivist’ paradigm will be the over-arching axiom for the study. This compels a multiple realities ontology together with a subjectivist epistemology necessarily arriving at a hermeneutically (interpretive) based methodology requiring an interpretive analytical approach. This approach promotes a sound methodological fit to answer the research questions and achieve the objective and aim of the study. The research design is outlined next following four criteria; research questions, single case outline and sampling approach, data collection and data analysis.

The case study will involve primary data collected through face to face, semi-structured interviews with individual benefit owners and secondary data from relevant CSO IT project documentation. The data will be interpreted by the researcher using an interpretive pattern matching analysis approach beginning with open coding, then axial coding leading to revelation of patterns of meaning. The quality of the research will be assured through demonstrated attention to credibility, transferability, dependability and confirmability criteria. A comprehensive ethics framework has been developed and was followed throughout the study. The next chapter identifies the findings and analysis of the data collection effort.

Chapter 4: Findings and Analysis

4.1 INTRODUCTION

This chapter presents the study findings and analysis based on the data collection activities discussed in the previous chapter. Findings and analysis are aligned with the model of knowledge transfer barriers reviewed in chapter two and are presented in three parts:

- interview question 2.3 (the role of the benefit owner),
- research question one (incorporating findings and analysis from interview question 2.3 above) (how benefit knowledge is transferred), and
- research question two (barriers to the transfer of benefit knowledge to a benefit owner).

Tables and figures are provided to aid clarity.

4.2 FINDINGS AND ANALYSIS

This section discusses the findings and analysis for interview question 2.3, followed by the two research questions. The discussion is presented in three parts. Interview question 2.3 regarding the benefit owner role is the impetus for the first part of this section. Implicit in research question one is the role of the benefit owner as the key recipient of benefit knowledge during the benefit knowledge transfer process. Interview question 2.3 relates specifically to this supposition and is discussed first, since the role of the benefit owner was revealed as problematic in the current study and needs to be considered when answering the two research questions. Research question one is examined in the second part of this section in terms of understanding the CSO approach to the transfer of benefit knowledge to a benefit owner. The section then moves to the third part, research question two, where responses to interview questions directed specifically at the knowledge transfer barriers are explored in detail. Table 4.1 below, derived from table 2.4, and identifies the knowledge transfer barriers along with a brief explanation. The third column provides examples of sources of evidence supporting the possible existence of the associated knowledge transfer

barrier. These examples have been drawn from the table 2.4 explanation column and then operationalised to the benefit knowledge transfer context. The purpose of the table is to assist the reader to correlate the relevant knowledge transfer barrier brief explanation and, more importantly, evidence of the presence of benefit knowledge transfer barriers with the researcher's findings and analysis. Other sources of evidence may be identified as the findings and analysis progresses.

Table 4-1 *Knowledge transfer barriers and sources of evidence*

Benefit Knowledge Transfer Barrier	Brief Explanation	Sources of evidence operationalised for benefit knowledge transfer context
Causal ambiguity	Depth of benefit knowledge.	High tacit content of benefit knowledge. Difficulty in articulating and/or codifying benefit knowledge. Unique features of benefit owner business unit context. (e.g. imperfectly understood idiosyncratic features of the business unit in which benefit knowledge is put to use).
Unproven knowledge	Agreeableness on the value of the transferred benefit knowledge.	Agreement regarding the utility or value of the benefit knowledge by the benefit owner. Infrequent benefit knowledge transfer.
Source lacks motivation	Motivation of source to transfer benefit knowledge.	Source resentment in not being rewarded for transferring benefit knowledge. Source unwillingness to devote time and/or resources to the benefit knowledge transfer.
Source not perceived as reliable	Degree of benefit knowledge source expertise and trustworthiness as perceived by recipient.	Benefit owner perceives source lacks expertise or trustworthiness. Benefit knowledge challenged or rejected.
Recipient lacks motivation	Motivation of the recipient to support benefit knowledge transfer.	Benefit owner is reluctant to receive benefit knowledge from outside their business area. Benefit owner exhibits passivity, insincere acceptance of benefit knowledge. Benefit owner refuses to use new benefit knowledge.

Table 4.1 continued.

Recipient lacks absorptive capacity	A function of the pre-existing level of benefit knowledge to be transferred.	Ability of the benefit owner to identify, value and apply new benefit knowledge. Benefit owner low level of pre-existing benefit knowledge. Benefit owner difficulty in ability to absorb benefit knowledge.
Recipient lacks retentive capacity	Ability of the recipient to support the routine use of the transferred benefit knowledge.	Inability of benefit owner to integrate new benefit knowledge into 'business as usual'. Diminished retention level of new benefit knowledge.
Barren organisational context	Level of organisational context support for benefit knowledge transfers.	Organisational support for implementation of benefit knowledge transfers. Organisational support for formal benefits management processes and procedures. Organisation embraces a willingness for participation in benefit knowledge transfer behaviours.
Arduous relationship	Ease of communication and intimacy of the benefit knowledge source/recipient relationship.	Willingness to devote more than one exchange between individuals transferring benefit knowledge with high tacit content. Degree of intimacy of source/recipient relationship. Laborious or distant source/recipient relationship.

4.2.1 The role of the benefit owner

This first part of the findings and analysis section specifically addresses the benefit owner role. All eleven interviewees responded to interview question 2.3 explicitly regarding their understanding of the benefit owner role. The interview question states:

“Please briefly describe your role as a Benefit Owner as you understand it”?

The CSO Information and Communication Technology Benefit Management Framework (2018) articulates the benefit owner role description as:

“Responsible for the realisation of a specific benefit,
Validate claimed benefits and agree to the benefit profile,
Ensure forecast benefits are realised,
Report on benefits realisation to the program/project manager,
Monitor successful delivery of outcomes,

Collect and report data to evidence the realisation of benefits” (p.12).

The response to the benefit owner role interview question identified the following role description requirements:

- accountable for the benefit longer term (Int01),
- accountable for realising the benefit (Int01, Int10),
- measurement of project output (IT system) parameters (Int04),
- monitoring and measuring benefit key performance indicators (Int05),
- responsible for benefit measuring and reporting (Int07, Int08, Int10),
- attending and provide input to benefit related workshops (Int07, Int09),
- receiving benefit from project manager on completion of the project (Int01, Int07), and
- benefits management (Int10).

Responses to the benefit owner role interview question across all interviewees identify weak, indirect references to requirements of the role description. Isolated comments regarding accountability, attending benefit workshops and benefits management were provided. Benefit measurement was mentioned most often and could be associated, directly or indirectly, with other comments. A comparison of the CSO role description of the benefit owner and the interviewee comments sheds light on a significant disconnect. This points to the existence of knowledge gaps in this area exposing a ‘role clarity’ dilemma. The role clarity shortfall may be due to the inaccurate articulation of the CSO role description and/or the lack of understanding and maturity of benefits management across the CSO exhibited through the apparent lack of certainty from interviewees regarding the role.

Three interviewees described a situation in which a barrier was subsequently coded as likely to be present when benefits knowledge is transferred. The barriers identified in the descriptions were: ‘recipient lacks motivation’; ‘recipient lacks absorptive capacity’; ‘recipient lacks retentive capacity’; and ‘arduous relationship’.

Table 4.2 below summarises the three interviewees, Int01, Int07 and Int10, who identified evidence of knowledge transfer barriers. The table shows the interview

question; knowledge transfer barriers associated with interviewee providing the evidence and the source of evidence.

Table 4-2 *Summary of benefit owner role knowledge transfer barriers and sources of evidence*

Interview Question	Knowledge Transfer Barrier	Source of Evidence
2.3 Benefit owner role description	Recipient lacks motivation	Int10
	Recipient lacks absorptive capacity	Int07
	Recipient lacks retentive capacity	Int01, Int07
	Arduous relationship	Int10

Recipient lacks motivation

One of the three interviewees identified evidence of this barrier. This barrier manifested in the large volume documents containing benefits knowledge. All these documents originated and were received from outside the benefit owner’s business unit.

“So when you got your benefits realisation plan it was a big document...we found ourselves having to spend a lot of effort in getting the benefit owners to actually sign up for what was in the plan” (Int10).

The requirement to master large amounts of information contained in a single document may dampen motivation for the benefit knowledge recipient, the benefit owner, to accept and then use the new benefit knowledge. Szulanski (1996) describes this evidence in terms of the reluctance of a recipient to accept knowledge from outside the organisation. In the case of the current study this was applicable to benefit knowledge from outside the recipient’s business unit.

Recipient lacks absorptive capacity

One of the three interviewees identified evidence of this barrier. This barrier became evident through description of what appeared to be a ‘temporal gap’ between benefit knowledge access activities.

“[project staff] rely heavily on the individuals involved having the benefits owner involved in the [benefits identification] workshop, having this knowledge of the benefit and how it was developed....then there'd be another meeting or workshop to look at, as part of handover activities when the project's looking to close, bringing those benefits owners back in, revisiting the artefacts and talking

about starting to transfer some of those benefits from the project over to those relevant owners” (Int07).

This implies that a benefit owner is involved in benefit knowledge development prior to the start of a project but then does not remain acquainted with the knowledge accumulated during the project until project completion. The ‘temporal gap’ exists between the benefit identification workshop which is conducted prior to the project commencing and the handover of benefit knowledge when the project completes.

A review of the eight End Project Reports (see table 3.2) provided by the CSO shows that the period between project commencement and project completion varied between six and 25 months. If benefit owners are involved in benefit knowledge transfer at the beginning and then at the end of this temporal gap, it is likely their pre-existing level of knowledge has faded with time. This may create more difficulty in absorbing benefit knowledge from project staff at project’s end.

Minbaeva, (2007) citing Cohen and Levinthal, (1990, p. 128) describes absorptive capacity in knowledge transfer as something that “tends to develop cumulatively, is path-dependent and builds on existing knowledge” (p. 575). Evidence of a temporal gap would appear to negate the cumulative development opportunity in knowledge transfer and discount the importance of building upon existing knowledge.

Recipient lacks retentive capacity

Two of the three interviewees provided evidence of this barrier. When probed regarding whether the benefit owner is responsible and accountable for realising a benefit, one of the responses was,

“...I am certain you would find people that would say, no...I'm just the recipient of the benefit” (Int01).

A second interviewee identified a lack of understanding of the benefit owner role,

“The main thing is actually accepting that they are the benefit owner and that they are going to be responsible for measuring and reporting and all of those sort of things moving forward” (Int07). Evidence of this barrier manifests in an apparent lack of understanding of the benefit owner role. Szulanski, (1996) describes evidence of this barrier in terms of the inability by the recipient to integrate new knowledge into business as usual. Some benefit owners may be reluctant to support the use of the

transferred benefit knowledge. Alternatively, the benefit owner may not be willing to integrate the benefit knowledge into business as usual in order to realise the benefit, thus diminishing the retention level of the benefit knowledge.

Arduous relationship

One of the four interviewees identified the existence of evidence of this barrier. The actor (benefit owner) status detracted from the intimacy of the relationship between benefit owners at the General Manager level of the CSO and project staff at lower levels. Engaging with benefit owners at the General Manager level to exchange tacit knowledge transfer may not be possible due to the competing priorities and reluctance of project staff to engage freely (and often) with General Managers due to the relatively high status of the General Manager.

“Our [Division] benefit owners are all at the General Manager level...if you say to someone, they are a benefit owner they go, that doesn't mean anything to me” (Int10).

Responding to a later interview question regarding successful benefit knowledge transfer, one interviewee responded,

“Make sure that benefit owners are the right people. So whoever's name or position title is against a benefit, make sure that they are the right one” (Int07).

Ashurst and Hodges (2010) describe relationships as a critical issue in the context of benefits realisation. “In many cases, there are big gaps of culture, language, communication and perhaps credibility between IT and other business functions, and between IT and top management” (pp. 234-235). The lack of intimacy and distant relationship between the General Manager and the project manager has the potential to create an ‘arduous relationship’.

Two inferences are drawn from the responses to interview question 2.3. First, table 4.2 identifies evidence of four different barriers; ‘recipient lacks motivation’, ‘recipient lacks absorptive capacity’, ‘recipient lacks retentive capacity’ and ‘arduous relationship’. Notably, all three recipient related barriers were identified. The nature of the question would likely contribute to drawing these barriers out noting the question addressed the role of the benefit owner, the key recipient of benefit knowledge in the current study. Second, only three of 11 interviewees provided evidence of potential barriers. The sources of evidence (Int01, Int07 & Int10) are all

director level staff who have significant experience in managing IT related projects and managing the crucial relationship with benefit owners. They have witnessed first-hand some of the benefit knowledge transfer barriers that can arise. This may point to their ability to identify evidence of barriers more directly than other interviewees.

4.2.2 Research question one: how benefit knowledge is transferred.

The previous part of this section addressed the benefit owner role. This second part addresses how project benefit knowledge is transferred.

Research question one states:

“How is project benefit knowledge transferred to a Benefit Owner?”

The purpose of this research question is to understand the approach used within the CSO context when transferring project benefit knowledge to a benefit owner. Interview questions 3.1 – 3.9 relate to how project benefit knowledge is transferred. These questions relate to sources of benefit knowledge, benefit knowledge transfer tools and processes, communication methods and benefit knowledge content. The interview questions associated with this research question revealed the CSO primarily rely on the project manager as the project related source providing benefit knowledge to a benefit owner. Non-project sources of benefit knowledge include directors, managers and subject matter experts. Explicit project related benefit knowledge sources include the project initiation document, business case and project plans. Benefit related documents include benefit profile, benefit description and benefit realisation plan.

Benefit knowledge transfer tools included meetings, benefit related documents, workshops, and benefit handover documents. Benefit knowledge transfer processes included project board, project gating and benefit realisation measurement. Communication methods included email, shared databases and collaborative tools producing documentation, newsletters and workshop minutes. Notably, informal discussions were identified as the most common verbal communication method for transferring benefit knowledge. Benefit knowledge tended to consist of measurement data, benefit realisation results and benefit criteria. Missing benefit knowledge was identified to be the benefit logic and specificity, and benefit realisation data. Missing data was able to be provided in most cases. Interviewees identified a few features that could enhance successful benefit knowledge transfer between individuals. These

included introducing benefit profile and benefit register tools, clarity regarding benefit definition and measurement, and the introduction of a departmental benefits management process, structures and responsibilities. Responses to some of the interview questions included evidence to support the existence of knowledge transfer barriers. This evidence is discussed in more detail below.

Ten of the 11 interviewees responded to interview questions 3.1 - 3.9. Six interviewees offered evidence across three different knowledge transfer barriers: 'source not perceived as reliable', 'source lacks motivation' and 'barren organisational context'. Interviewees, Int01, Int02, Int05, Int06, Int07 and Int11 describe a situation in which evidence of the barrier is likely to be present when benefits knowledge is being transferred. Table 4.3 below includes the findings from interview question 2.3 (see table 4.2) and new findings from the remaining interview questions relating to research question one. The table shows the interview question subject, the knowledge transfer barriers identified in the interview response and the interviewee providing the evidence of the barrier. Findings revealing evidence of the existence of known knowledge transfer barriers related to interview questions 3.4, 3.7, 3.8 and 3.9 are outlined below accompanied by an analysis of each finding. Note that responses to interview questions 3.4 and 3.7 provided evidence of the existence of the same barrier, 'source not perceived as reliable'. This barrier is discussed below as it relates to each interview question and discusses responses from different interviewees. As shown in table 4.3, responses to interview questions 3.1, 3.2, 3.3, 3.5, and 3.6 did not reveal evidence of a barrier.

Interview question 3.4 asked interviewees to describe the tools and processes used for benefit knowledge transfer. Tools reported included meetings, benefit related documents and workshops. Meetings and workshops were mentioned as the preferred tools. Responses identified the importance of "face to face discussions, board meetings and milestone updates" (Int09) and, "workshops, presentations developing benefits" (Int01). Processes included project board, project gating, benefit realisation measurement and benefit reviews.

These processes are briefly outlined in the CSO project brief template. The project board comprises the project executive, senior user and senior supplier. The project manager reports to this three-member board. Project gating refers to the project milestones. As the project progresses, key milestones are 'gates' that require project

board authorisation before the project can move to the next gate. Examples of ‘gates’ include a concept review assurance report and investment decision approval. Benefit reviews are undertaken to confirm the benefit remains valid, measurement data, for example baseline measurement and target measurement details. The importance of the project board process was highlighted as the activity,

“where those benefits are sort of discussed and agreed upon. And if there's any movement or, I don't think that benefits going to be realised, that the board would review and approve or otherwise” (Int04).

Two interviewees identified evidence suggesting the existence of the barrier, ‘source not perceived as reliable’.

Table 4-3 Summary of research question one knowledge transfer barriers and sources of evidence

Interview Question	Knowledge Transfer Barrier	Source of evidence
2.3 Benefit owner role description	Recipient lacks motivation	Int10
	Recipient lacks absorptive capacity	Int07
	Recipient lacks retentive capacity	Int01, Int07
	Arduous relationship	Int10
3.1 Individual Benefit Knowledge source (Project related).	Nil	N/A
3.2 Individual Benefit Knowledge source (Non-Project related).	Nil	N/A
3.3 Explicit Benefit Knowledge sources (Not individuals).	Nil	N/A
3.4 Benefit Knowledge Transfer tools and processes.	Source not perceived as reliable	Int02, Int07
3.5 Benefit Knowledge Transfer communication methods.	Nil	N/A
3.6 Benefit Knowledge content.	Nil	N/A
3.7 Benefit Knowledge missing.	Source not perceived as reliable	Int01, Int05, Int11
3.8 Missing Benefit Knowledge provided.	Source lacks motivation	Int01, Int06

Table 4.3 continued.

3.9 Successful Benefit Knowledge Transfer - Individual source to individual recipient.	Barren organisational context	Int05, Int07, Int11
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Source not perceived as reliable

An initial documentary source of benefit knowledge is the Business Case which defines the reasons for undertaking the project. It is the basis for project planning activities prior to project commencement. One of the components of the Business Case is the Benefits Register. The Register outlines “the line items of each benefit, a short description, the objective the benefit links/contributes to, the Benefit Owner, the beneficiaries, the baseline, target and measurement methodology” APM (2017, p. 48). Benefit measurement consists of a baseline measurement prior to project commencement, a target measurement expected after project completion and a description of how and what will be measured. When the Business Case measurement methodology is flawed the measurement outcomes on completion of the project may not be achievable. One respondent (Int02) discussed this issue.

“So there's been a lot of heartache around what was used in the Business Case versus what's actually measurable...” and, “aspirational might be a generous way of describing what was in some of the ones [benefits] in the Business Case.” (Int02).

This situation is compounded when the project staff who developed the benefits content for the Business Case, including the measures, and then expect the benefit owners, who have not been included in the development process, to accept the benefits data,

“...we [project] came up with measures that we thought they [benefit owners] could sign up to” and, “...their [benefit owner] issue is that they didn't have enough involvement at the time that we were developing them [benefits]” (Int07).

Szulanski (1996, p. 31) acknowledges this issue, “When the source unit is not perceived as reliable, is not seen as trustworthy or knowledgeable, initiating a transfer from that source will be more difficult and its advice and example are likely to be challenged and resisted”. This points to the imperative of ensuring the benefit owner is present at benefit development meetings. This ideally is the same person who will

be responsible for measuring and realising the benefit on completion of the project. A benefit owner then becomes the source of benefit knowledge for a specific benefit likely removing the perception of the benefit knowledge source perceived as untrustworthy or lacking benefit knowledge.

Source not perceived as reliable

Three (30%) of the interviewees who indicated required benefit knowledge was missing when responding to interview question 3.7, identified benefit measurement data as the missing information. One interviewee responded,

“I think the idea of what a benefit is, is poorly understood...and the measurement that's put forward for it is pretty weak”, and “...why that particular benefit was chosen and then why we've chosen to measure it in that way” (Int01).

Discussing the requirement to refresh initial measurement data from the business case, another interviewee responded with,

“Some [benefits realisation] measurement things need to be handed over. So with the benefits realisation plan [from the Business Case] developed quite early in the piece, now...it [benefits realisation plan] probably needs to be reviewed and revised now we're getting towards the end of the project” (Int05).

Another interviewee responded,

“They were able to provide me with the information...with the exception of the [benefit measurement] baseline. That's something that was lacking in terms of the information that they needed to provide in order to measure the benefits” (Int11).

As discussed earlier, benefits are initially identified in the Business Case along with measurement details which are used to confirm when the benefit has been realised after the completion of the project. Benefit measurement is a crucial element of benefits realisation; without measurement data you cannot identify when the benefit will be realised.

A benefit owner who perceives that the source lacks expertise or trustworthiness may challenge or reject the knowledge. Staff who provide the initial benefit measurement data to accompany the benefits in the business case may not be deemed reliable or knowledgeable. This occurs when the recipients of that data identify it as weak, borne out of an inappropriate measurement methodology or out of date.

Source lacks motivation

The lack of a source's motivation to transfer knowledge will have a deleterious effect on the recipient of knowledge in accessing benefit measurement data. One interviewee discussed the timeliness of the responses to requests for missing benefit information.

“...timeliness [is] an issue. We might put in a request [to external consultant] today that might take ten days, two weeks to answer” (Int06).

A second interviewee mentioned they were,

“100 percent dependent on the quality of the person creating that [CSO template] information or their desire to be explicit” (Int01).

Spraggon and Bodolica (2012, p. 1275) identify the characteristics of the source of knowledge in terms of “low reliability, lack of motivation and of disseminative capacity”). A lack of motivation identified by the interviewees manifests in the apparent low priority a source places on the need to provide knowledge, hence the ‘timeliness’ comment and motivation in updating artefacts in a responsible manner.

Finally, interview question 3.9 requested interviewees provide their opinion on how CSO staff could successfully transfer benefit knowledge. Clear benefit's definition and measurement (5 interviewees), improved benefit governance (4), introduce departmental benefit's management process, structures and responsibilities (4) were the strongest responses. Benefit definition and measurement were discussed in the responses to question 3.7. Benefits management, which includes organisational and governance aspects, was recognised as important and is discussed further below.

Barren organisational context

Three of the ten interviewees (30%) evidence to suggest the existence of the barrier, ‘barren organisational context’. Szulanski, (2000, p. 5) identifies a ‘barren organisational context’ as “a context that hinders the gestation and evolution of transfers is said to be ‘barren’. In a ‘barren organisational context’, transfer related problems are more difficult to resolve”. In the current study, the lack of maturity of the CSO Information and Communications Technology Benefits Management Framework and apparent lack of implementation process for benefit realisation may

have inadvertently created a 'barren organisational context' through hindering gestation and evolution of benefit knowledge transfers.

In describing benefits management process success, one interviewee described the benefits management method thus,

“The process of face to face and actually talking through the benefits works. And then clearly documenting afterward because I don't think you can rely on one or the other. I think you need to workshop, you need to have that face to face to really talk these things through. Workshop them [benefits] to the point everyone agrees and is clear and understands” (Int07).

Another interviewee suggested success could be enhanced if staff,

“Identify the process from start to end and then identify the business [benefit] owners from start to end and make sure that all those business [benefit] owners are included in the initial development and conceptualisation of the project up front” (Int11).

A third interviewee suggested,

“... the whole new [benefits management] process is trying to attract that [benefits understanding], but the organisation doesn't have the organisational structures and responsibilities defined for that type of thing” (Int05).

These responses indicate that the workshops and face to face meetings and discussions are preferred but don't happen as a matter of course. Additionally, not having a mandated end to end benefits management process to consult may absolve benefit owners from the need to attend benefit related activities such as a benefit development workshop. Finally, the lack of CSO developed organisational structures to support benefits management appears to be holding some staff back from participating in benefits management activities.

Summary

In summarising research question one, the evidence provided by interviewees supports the existence of seven of the nine known knowledge transfer barriers. Four barriers were identified in relation to the benefit owner role and three related to the way benefit knowledge is managed within the CSO. The evidence pointing to each barrier has support in the literature. However, the strength of evidence, reflected in the small number of interviewees who offered evidence to suggest a barrier exists, is limited. Int07 (four barriers) and Int01 (three barriers) were most prominent in offering

evidence of barriers. Recall from table 3.1, both interviewees are senior managers with significant experience in the CSO and operating as or with benefit owners. Nevertheless, the credibility of the study is likely diminished due to the paucity of evidence resulting from the lack of actual benefit owners participating in the study.

Figure 4.2 is a diagrammatical portrayal of the existence of evidence associated with barriers for research question one. The barriers that include supporting evidence are highlighted in an ‘amber’ colour. Barriers identified are associated with the source, the recipient and the context. Notably, evidence to suggest the existence of the barriers, ‘causal ambiguity’, and ‘unproven knowledge’, was not identified. Both these barriers are associated with the knowledge characteristic of knowledge transferred according to the literature. The lack of supporting evidence may be due to the nature of the interview questions or the fact that the depth of knowledge and agreeableness on the value of the transferred knowledge were acceptable across all interviewees. Research question two, which addresses each of the nine barriers specifically may illuminate evidence for both these barriers.

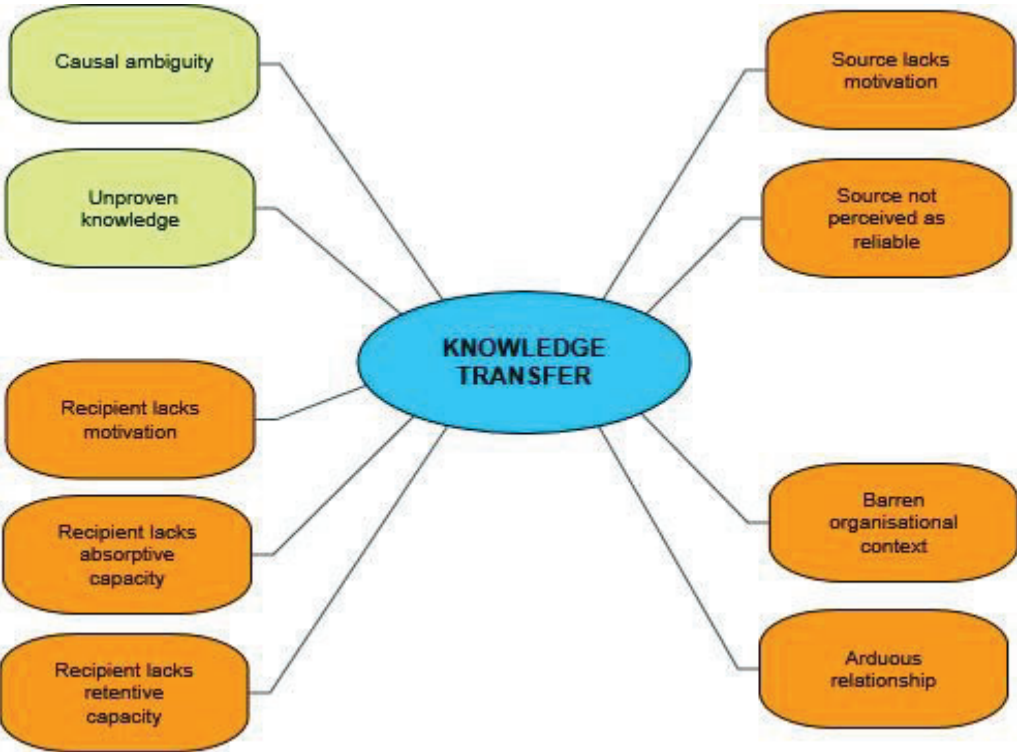


Figure 4.1. Evidence of knowledge transfer barriers associated with research question one

4.2.3 Research question two: barriers to transfer of benefit knowledge to a benefit owner.

This third and final part of the findings and analysis section of this chapter discusses research question two. The second of the two research questions states:

“What are the barriers to the successful transfer of project benefit knowledge to a Benefit Owner?”

This research question explicitly explores the existence of any evidence of the nine known knowledge transfer barriers identified in chapter two. Interview questions 4.1 - 4.8 in the Interview Protocol (Appendix D) were designed to specifically explore these knowledge transfer barriers. Interview question 4.5 relates specifically to the knowledge transfer characteristic, recipient of knowledge, and is discussed in conjunction with the three recipient of knowledge barrier questions; 4.6a, 4.6b and 4.6c. Interview questions 4.9 - 4.13 from the Interview Protocol (Appendix D) were designed to identify evidence of any additional knowledge transfer barriers. Findings from the responses to these questions are discussed later in this section. The interview question (IQ) number associated with each specific barrier is portrayed diagrammatically in figure 4.3 below.

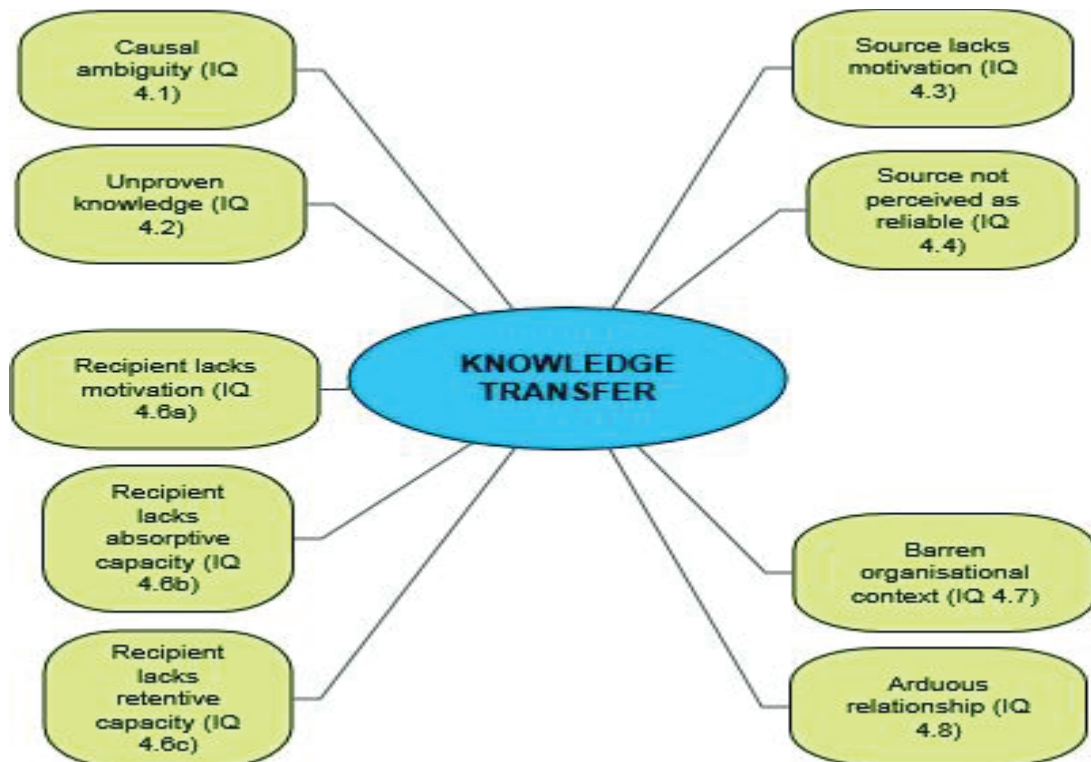


Figure 4.2. Barriers and associated interview question (IQ) numbers

Table 4.4 below shows the known knowledge transfer barriers and identifies for each whether an interviewee provided evidence that the barrier was present or absent. All eleven interviewees responded to these interview questions. The known knowledge transfer explanatory notes at table 4.2 are germane throughout this part of the section. Results are reported in terms of each knowledge transfer barrier identified in the responses of the interviewees, grouped by the knowledge characteristics as presented by Szulanski (1996, 2000). As table 4.4 below reveals, no evidence of barriers associated with the knowledge recipient were identified in interviewee responses. This may be due to the interviewees, although not all benefit owners, responding from a benefit owner perspective. Responding negatively may have been seen to reflect poorly on the CSO or interviewees chose to respond the literal nature of the question related to each barrier.

Table 4-4 *Knowledge transfer barriers – interviewee responses*

Knowledge transfer barrier	Barrier present - Source of evidence	Barrier Absent - Source of evidence
Causal ambiguity	Int01, Int02, Int04, Int06, Int07, Int10, Int11	Int03, Int05, Int08, Int09
Unproven knowledge	Int01, Int11	Int02, Int03, Int04, Int05, Int06, Int07, Int08, Int09, Int10
Source lacks motivation	Int01, Int02, Int09, Int10	Int03, Int04, Int05, Int06, Int07, Int08, Int11
Source not perceived as reliable	Int01, Int06	Int02, Int03, Int04, Int05, Int07, Int08, Int09, Int10, Int11
Recipient lacks motivation	Nil	Int01, Int02, Int03, Int04, Int05, Int06, Int07, Int08, Int09, Int10, Int11
Recipient lacks absorptive capacity	Nil	Int01, Int02, Int03, Int04, Int05, Int06, Int07, Int08, Int09, Int10, Int11
Recipient lacks retentive capacity	Nil	Int01, Int02, Int03, Int04, Int05, Int06, Int07, Int08, Int09, Int10, Int11
Barren organisational context	Int02, Int04, Int07, Int10	Int01, Int03, Int05, Int06, Int08, Int09, Int11
Arduous relationship	Int01, Int06,	Int02, Int03, Int04, Int05, Int07, Int08, Int09, Int10, Int11

Causal Ambiguity

This barrier is concerned with the depth of benefit knowledge, relating to the source and/or recipient of knowledge. It arises through the high tacit content of benefit knowledge and/or unique features of a benefit owner context. High tacit content of benefit knowledge may result in difficulty articulating and/or codifying benefit knowledge. The unique, idiosyncratic features of the benefit owner business unit context in which benefit knowledge is used may also be a feature of this barrier. Seven of eleven (7/11) interviewees acknowledged the presence of this barrier, the most evidence for any single barrier.

Evidence from interviewees included missing out on tacit benefit knowledge,

“...if you weren't actually involved in drafting the Business Case there's often [benefit knowledge] subtleties that you would lose” (Int02).

Additionally,

“...you might read it [business case] and missed stuff because there is these huge documents that have some gems in them.”

And the source lack of knowledge depth,

“... if the person communicating it [benefit knowledge] doesn't have a good grasp of what it is they're trying to communicate, either technically or just their knowledge of the specific benefits, then obviously it's [benefit knowledge transfer] going to fail ” (Int01).

Explicitly referring to the depth of benefit knowledge,

“it's not been good” (Int04),

And,

“It would be shallow I think...” (Int07).

These quotes suggest a level of complexity created by the high tacit content of benefit knowledge, and a limited depth of benefit knowledge from the source and from the recipient. In referring to the difficulty in transferring tacit knowledge, Szulanski (1996, p. 31) identifies “...it is often singled out as a central attribute of knowledge with respect to its transferability”. Recall from table 2.4, ‘tacitness’ is a central attribute of knowledge with respect to its transferability. Defined in terms of how

difficult it is to articulate and codify a given domain of knowledge. The high number of interviewees providing evidence of the existence of this barrier suggests it warrants further CSO scrutiny.

Unproven knowledge

This barrier involves the degree of shared agreement of the value of the transferred benefit knowledge. If the recipient undervalues the utility of the benefit knowledge offered by the source, the transfer will be more difficult. The irregular transfer of benefit knowledge also creates difficulty in the transfer. For example, if benefit knowledge is transferred only once or twice over the life of a two year project, the transfer is likely to be difficult simply because the benefit owner will not have an opportunity to ascertain the veracity of the benefit knowledge. Just two interviewees commented on this barrier. In describing the modest utility of benefit knowledge one interviewee commented,

“it's more common than not that I encounter people who don't actually understand the benefit that they're trying to transfer to me or the conviction they hold on it, doesn't really stand up to much challenge” (Int01).

And;

“...developing the benefit in such a way that it's capable of being measured” (Int11).

This situation may arise when the benefit owner has not been given the opportunity to participate in developing and defining a benefit, including defining the measurement parameters. When a benefit owner is only made aware of the measurement parameters when handed the benefit knowledge on completion of a project, the knowledge may be rejected, especially if the measurement parameters are unachievable.

Only 2/11 interviewees identified evidence of this barrier suggesting a lack of prevalence. Nevertheless, Szulanski (1996, p. 31) suggests “Knowledge with a proven record of past usefulness is less difficult to transfer”. The interviewees suggest a lack of agreement on the usefulness of the received benefit knowledge or a specific element of benefit knowledge.

Source lacks motivation

A source of benefit knowledge may feel unwilling to devote time and/or resources to a benefit knowledge transfer. This may lead to a lack of motivation to transfer benefit knowledge and reluctance to provide time or resources to the transfer. A little more than a third (4/11) of interviewees identified evidence of this barrier. Competing priorities was the theme for the four interviewees driving the lack of motivation to transfer benefit knowledge,

“I think there is a detachment following project delivery about the significance of the benefits realisation process...which is the importance of the artefact at the end. It's the last thing done on the way out the door and the quality reflects” (Int01),

“...motivation is normally driven by competing priorities. If benefit knowledge is important to us, you actually need to leave time and space in the budget” (Int02),

“...time and urgency of priorities” (Int09) and,

“...its priority. You might find that again, the benefit space has a lower priority, it's the meeting that gets deferred...it's the one that gets cut short” (Int10).

Minbaeva (2007, p. 577) touches on the competing priorities and time and/or resource constraints concerning knowledge transfer, suggesting that “Knowledge senders may not be interested in knowledge sharing since the time and resources spent on it could be invested in activities that are more productive for the individual”. While only four interviewees identified evidence of this barrier it is notable that all four identified the same specifics in the issue.

Source not perceived as reliable

The recipient perception of the quality of source expertise and trustworthiness may lead to increased difficulty in transferring benefit knowledge. The benefit knowledge may be challenged or even rejected. Two interviewees offered evidence of this barrier. The first interviewee challenged the reliability of source of the benefit knowledge,

“But also it's really only at that point [project completion] that possibly when they sit down to look at the benefits from the perspective of well now somebody has to measure them that they start to realise just how terribly articulated the benefits are” (Int01).

A second interviewee identified source trustworthiness as,

“...the source of a lot of our problems, where a lot of that expertise was based [external to the CSO]” (Int06).

The interviewees refer to the poor articulation of the benefits by the source when the benefits were initially developed and provision of lack of trust in the quality of benefit knowledge source from external sources. Kang and Hau (2014, p. 769) in supporting the hypothesis “A knowledge source’s expertise perceived by a recipient positively influences knowledge transfer” identified that if the recipient does not know a source well, the recipient may view the source as unreliable. Both interviewees point to a detachment from the source, in terms of time and space, which suggests weak ties with the source of benefit knowledge leading to a perception of a lack of source expertise.

Barren organisational context

Four of the 11 interviewees related evidence of this barrier. One interviewee intimated the willingness to participate in benefit knowledge transfer behaviours is hampered,

“...we have a big Department, big information, communication technology requirement and we're resource limited...being a big organisation, there's some structural challenges built in, in terms of reporting lines and those kind of things” and “Do we treat benefits management as a critical part of delivery of the projects? Probably not” (Int02).

A second interviewee supported this comment more broadly,

“But each [organisational] Branch is quite different. It's such a large organisation...you're working across all those different areas. I think you need to rely on the centralised or corporate areas having a detailed body of [benefit] knowledge that we can tap into that is applied consistently across the organisation” and therefore “...I think would be at that time probably a barrier” (Int07).

A third interviewee suggested inadequate benefits management played a role in suppressing formal benefit knowledge transfer processes and procedures,

“It'll be [organisational Branch] is the benefit owner and they haven't sort of articulated who [the specific individual] exactly” and “lack of governance around benefits realisation” (Int04).

These quotes suggest structural challenges, lack of a mandated benefits management body of knowledge combined with poor clarity regarding the individual responsible for benefit realisation stems from the CSO lack of prioritisation of benefits management.

The final piece of evidence associated with this barrier comes from the fourth interviewee identifying a gap in formal benefit management “I don't know what our formal point of benefit piece is...whether we're saying that, you must apply this type of benefit methodology across the board...not every person within [CSO] is aware of that [benefit methodology]”. Benefit knowledge transfer process and procedures were also reported as being problematic “the benefit knowledge transfer is one and maybe two [individuals] deep, that's it. So I give someone a [benefits] document, I explain it to them. Does it go two deep, sometimes, sometimes not. I'm thinking maybe what the issue is that they've got it [benefit knowledge] but it didn't go any further” and “so it's just one deep, benefit knowledge transfer is one deep” (Int10). These quotes reveal that thin institutionalisation of benefits management such that essential knowledge is shared only narrowly becomes problematic for knowledge transfer. The thin institutionalisation in terms of knowledge sharing reflects the presence of the ‘barren organisational context’ knowledge transfer barrier because the evidence suggests CSO support for the implementation of formal benefits management processes and procedures and apparent unwillingness to support participation in benefit knowledge transfer behaviours is absent.

Szulanski (1996, pp. 31-32) declares that “Intrafirm exchanges of knowledge are embedded in an organizational context” highlighting that the more formal structure and systems of an organisation including the means for coordination and the expertise of sources from an organisational context affect knowledge transfer. In the case of the current study, the interviewees identified both the size and the differences across the organisation as hampering the participation in benefit knowledge transfer behaviours. Additionally, the lack of an overarching, organisation wide benefits management approach stymied any attempt at following benefit knowledge transfer processes and procedures and thereby accentuated some very unproductive outcomes.

Arduous relationship

This barrier relates to the ease or difficulty of communication and the degree of intimacy of the relationship. Communicating benefit knowledge with a high tacit

component is more challenging to transfer and may require additional exchanges between individuals. A degree of intimacy between the source and recipient may overcome the barrier. The arduous nature may manifest in a laborious or distant relationship that increases the difficulty of the benefit knowledge transfer. Evidence of this barrier was provided by two interviewees. Noticing a breakdown in communication amongst the team, one interviewee noted

“Shuffling of seating arrangements has had a significant change in communication and, for one of my Projects, that's been significant in recovering some of the benefit [knowledge] that could have been lost” (Int01).

The second interviewee alluded to the intimacy of a relationship both in terms of the relationship itself and the geographical displacement,

“I think a lot of it gets back to the relationship and a level of understanding that both parties have about what they're trying to do and how they're going to go about it”,

and;

“it's that remoteness and geographical. So there were barriers as a result of the challenges of communication and the timeliness of that were there to varying degrees throughout the course of project” (Int06).

The first interviewee, identifying the strained relationship between two team members involved in benefit knowledge transfer demonstrated a method of overcoming an ‘arduous relationship’. The second interviewee pointed to evidence of the presence of the barrier without identifying how the barrier might be overcome. Minbaeva (2007, p. 578) believes that generally transferring knowledge across organizational units is difficult for various reasons...differences may exist in capabilities, culture, structure or technology”. The interviewees highlight their experiences with differences in capabilities and structure as contributors to this barrier.

Summary

Summarising the findings and analysis of research question two, the evidence confirms the presence of six of the nine knowledge transfer barriers offered by seven of the 11 interviewees. The interviewee responses to the questions related specifically to known knowledge transfer barriers are shown at table 4.4 above. The table is supported by figure 4.4 below depicting the table data. The figure shows ‘causal

ambiguity’ in a ‘red’ colour highlight indicating the strength of evidence for this barrier. ‘Amber’ colour highlighted barriers show the ‘source lacks motivation’, ‘barren organisational context’ barriers and three other barriers as having evidence provided by interviewees. The three recipient related barriers are green reflecting the lack of evidence for them from this study. The number of interviewees providing evidence is shown in brackets below each barrier.

Two inferences are drawn from the data in the table and figure. First, evidence to support the existence of the barrier, ‘causal ambiguity’, included the high tacit content of benefit knowledge introducing undesired complexity surrounding the benefit knowledge. Additionally, the lack of depth of benefit knowledge provided by the source and unique features of the benefit owner context conspire to create a causally ambiguous environment.

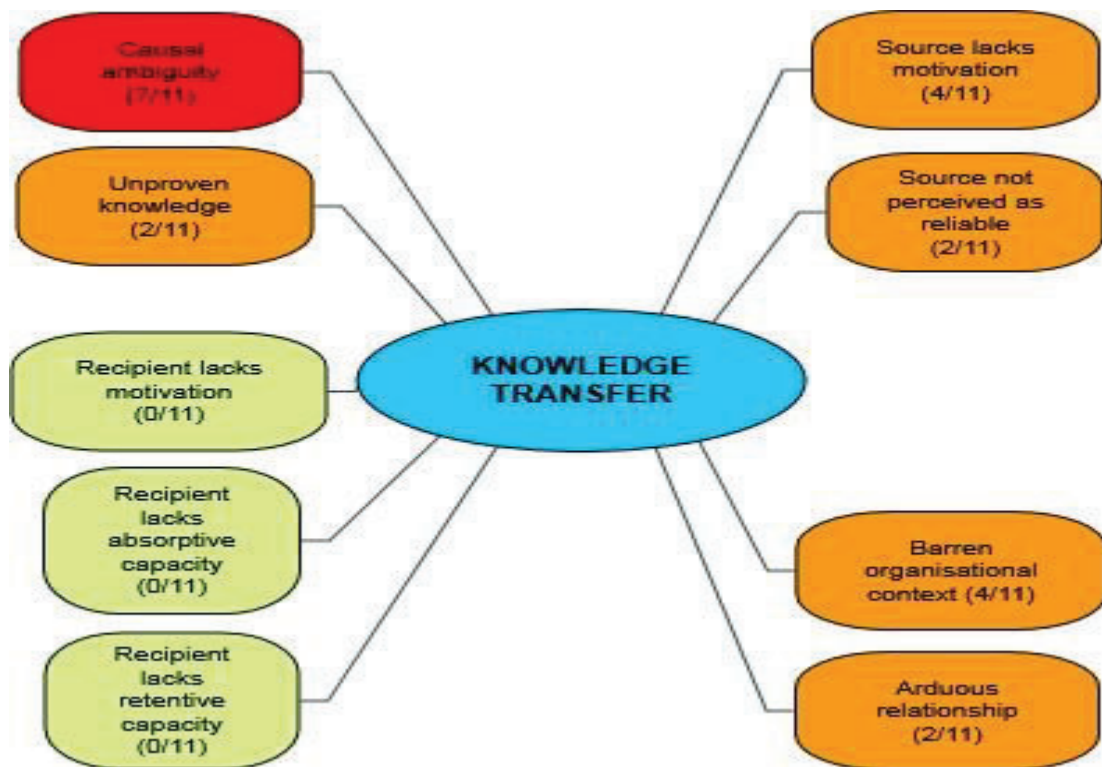


Figure 4.3. Barriers and associated response numbers

Second, no evidence was submitted to support the existence of the three barriers associated with the recipient of knowledge; ‘recipient lacks motivation’, ‘recipient lacks absorptive capacity’ and ‘recipient lacks retentive capacity’. The interview questions were developed for ‘benefit owners’ as the recipient of benefit knowledge. Since only one of the 11 interviewees was an actual benefit owner, the lack of evidence regarding the recipient related barriers may be linked to the lack of benefit owners

providing evidence. Attention now turns to the final chapter that discusses the findings and analysis above, offers conclusions to each research question and identifies both theoretical and practical contributions, study limitations and finishes with recommendations for future research.

Chapter 5: Conclusion

5.1 INTRODUCTION

This thesis presents the results of work designed to investigate the research problem articulated in chapter two:

‘Project benefit knowledge transfer barriers at the individual level within an organisation’.

Chapter two presented the literature review identifying project characteristics and benefits management challenges that had the potential to create barriers to benefit knowledge transfer in project management. Two research questions were posed to explore the research problem along with a conceptual model (see figure 2.3) of benefit knowledge transfer.

- RQ 1 - How is project benefit knowledge transferred to a Benefit Owner?
- RQ 2 - What are the barriers to the successful transfer of project benefit knowledge to a Benefit Owner?

The chapter also introduced Knowledge Transfer Theory which advocates knowledge transfer involving the transmission of knowledge from a source to a recipient. Kumar and Ganesh (2009, p. 163) suggest knowledge transfer involves “a process of exchange of explicit or tacit knowledge between two agents during which one agent purposefully receives and uses the knowledge provided by another”. Szulanski (2000, p. 17) uses the term ‘transfer’ to emphasize that “the movement of knowledge within the organization is a distinct experience, not a gradual process of dissemination”. Nine *a priori* knowledge transfer barriers (Szulanski, 1996) were used in the current study as the basis for the analysis. Chapter three described and justified the use of the case study method and associated research design parameters along with an analytical model (see figure 3.1) of the study. Findings and analysis were introduced in chapter four. This chapter presented evidence to support the existence of seven of the nine knowledge transfer barriers associated with research question one regarding how benefit knowledge is transferred to a benefit owner. Evidence supporting four barriers were identified in relation to the benefit owner role and three related to how

benefit knowledge is transferred within the CSO. The results also confirmed the presence of six of the nine knowledge transfer barriers associated with research question two regarding what barriers influenced successful benefit knowledge transfer to benefit owners.

This concluding chapter discusses the findings and analysis, and draws conclusions regarding the two research questions, through a comparison of the literature review in chapter two, the findings from chapter four and any differences resulting from a comparison of the literature review and the findings. This comparison becomes the basis for addressing the research problem. Following the conclusions, the contributions for theory and practice are identified, study limitations are presented and recommendations offered for future research.

5.2 DISCUSSION

The findings and analysis identify evidence for the presence of each of the nine known knowledge transfer barriers when benefit knowledge is transferred from project staff to a recipient of a benefit, the benefit owner. Interviewees provided evidence of barriers affecting how benefit knowledge is transferred from interview questions related to research question one. Additionally, they reported their experience of the barriers that impinged on the successful transfer of benefit knowledge to a benefit owner from interview questions associated with research question two.

When describing the role of the benefit owner, three of the interviewees indicated the presence of four barriers:

- ‘recipient lacks motivation’,
- ‘recipient lacks absorptive capacity’,
- ‘recipient lacks retentive capacity’, and
- ‘arduous relationship’.

These findings align with the benefits realisation challenges identified in chapter two. Specifically, the issue of the recipient of benefit knowledge (the benefit owner) being divorced from participating in any benefit development activities, thereby contributing to the benefit owner’s perceived lack of an absorptive capacity and/or retentive capacity. Further, an unwillingness of the sources of benefit knowledge to

participate in any benefit knowledge transfer activities contributing to the creation of an ‘arduous relationship’ between the project owner and the benefit owner.

When identifying the barriers associated with research question one on ‘how benefit knowledge is transferred to a benefit owner’, five interviewees reported evidence of three specific barriers:

- ‘source not perceived as reliable’,
- ‘source lacks motivation’, and
- ‘barren organisational context’.

The two source related barriers above relate to one of the project challenges concerning the difficulty in transferring unique knowledge accumulated during a project. Difficulty transferring this knowledge may lead to a perception by a benefit owner that the source is unreliable. Additionally, a source may be reluctant to transfer benefit knowledge as it is not part of the unique project success criteria. The third barrier above can be aligned to one of the benefit challenges related to the absence of an organisational benefits management framework. Notably, evidence related to the two barriers, ‘causal ambiguity’ and ‘unproven knowledge’ was absent. Both barriers are associated with the knowledge transferred characteristic and were likely not mentioned due to the nature of the how and why knowledge was transferred rather than what knowledge was transferred.

When identifying the barriers associated with research question two on ‘what are the barriers to knowledge transfer’, many responses specifically addressed one of the nine known knowledge transfer barriers. There was considerable evidence (7/11 interviewees) supporting the existence of the barrier known as:

- ‘causal ambiguity’.

There was also some evidence (4/11 interviewees) associated with the barrier:

- ‘source lacks motivation’,
- ‘barren organisational context’;

and, finally; there was limited evidence (2/11 interviewees) supporting the barrier:

- ‘unproven knowledge’,
- ‘source not perceived as reliable’ and

- ‘arduous relationship’.

No evidence was offered in support of the existence of the three recipient related barriers: ‘recipient lacks motivation’, ‘recipient lacks absorptive capacity’, or ‘recipient lacks retentive capacity’.

Table 5.1 below is an amalgamation of the barriers identified from evidence provided in support of research question one (see table 4.3) and the evidence provided in support of barriers associated with research question two (see table 4.4).

Table 5-1 *Amalgamated knowledge transfer barrier sources of evidence*

Knowledge Transfer Barrier	Research Question 1	Research Question 2	
	How knowledge is transferred to BO? (Sources of evidence)	What are the barriers to successful benefit knowledge transfer to BO? (Sources of evidence)	Amalgamated (Sources of evidence)
Causal ambiguity	Nil	Int01, Int02, Int04, Int06, Int07, Int10, Int11	Int01, Int02, Int04, Int06, Int07, Int10, Int11
Unproven knowledge	Nil	Int01, Int11	Int01, Int11
Source lacks motivation	Int01, Int06	Int01, Int02, Int09, Int10	Int01, Int02, Int06, Int09, Int10
Source not perceived as reliable	Int01, Int02, Int05, Int07, Int11	Int01, Int06	Int01, Int02, Int05, Int06, Int07, Int11
Recipient lacks motivation	Int10	Nil	Int10
Recipient lacks absorptive capacity	Int07	Nil	Int07
Recipient lacks retentive capacity	Int01, Int07	Nil	Int01, Int07
Barren organisational context	Int05, Int07, Int11	Int02, Int04, Int07, Int10	Int02, Int04, Int05, Int07, Int10, Int11
Arduous relationship	Int10	Int01, Int06	Int01, Int06, Int10

The table shows the nine knowledge transfer barriers in the first column, and the sources of evidence associated with research question one and research question two

in the following two columns. The final column shows the amalgamated sources of evidence for the current study. The table highlights the number of interviewees who offered evidence suggesting the existence of the most prominent barriers: ‘causal ambiguity’ (7 Interviewees); ‘source not perceived as reliable’; and ‘barren organisational context’ (6); and, ‘source lacks motivation’ (5). These four barriers are discussed next. The table is shown diagrammatically in figure 5.1 below.

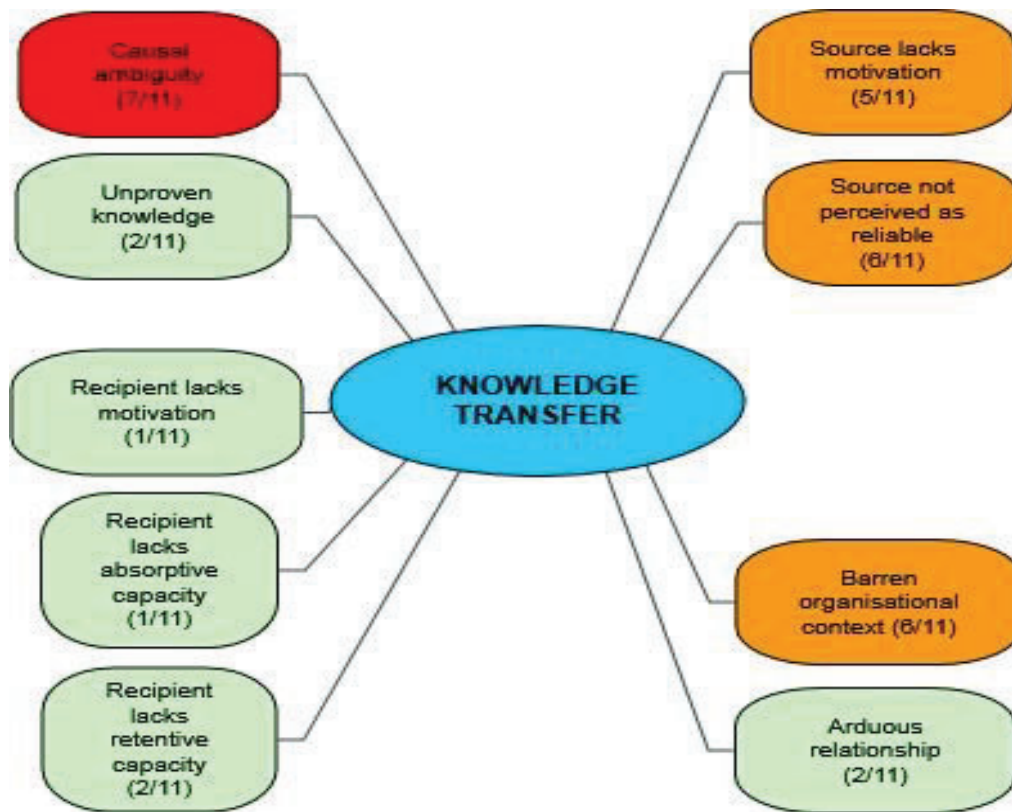


Figure 5.1 Amalgamated knowledge transfer barriers showing evidence strength

The ‘causal ambiguity’ barrier had the greatest number of interviewees referring to its existence and identifying this issue as paramount when it came to what barrier affected the successful knowledge transfer to the benefit owner. They suggested ‘causal ambiguity’ was a problem including the limited extent of the depth of benefits knowledge held by the source; and, often the project staff; the high tacit knowledge content of the benefits knowledge; and the complexity of the benefit knowledge itself. Notably, ‘causal ambiguity’ is well represented in the literature with (Szulanski, 1996; Minbaeva, 2007; Spraggon & Bodolica (2012) addressing the barrier. The academic interest in this specific barrier may be due to the complexity of the overall concept. Uygur’s (2013, p. 745) definition of ambiguity is “a lack of clarity in interpretation and understanding” and “the lack of understanding of the linkages between actions and

their results.” Evidence collected in the current study supports the limited extent of benefit knowledge depth; and the complexity of benefit knowledge itself due to the high tacit content of benefits knowledge. Moreover, the limited depth, complexity and the highly tacit nature of benefits knowledge may create considerable difficulty when introducing benefits knowledge into a “new context in which knowledge is put to use” (Szulanski, 1996, p. 31). Examples of the specific evidence of this barrier are explained next.

Much of the CSO benefits knowledge was codified and was conveyed explicitly through project documents. It was not clear from the documents where the information originated, specifically there were no identified avenues or management framework for tacit knowledge transfer encounters. The author of most of the project documents was the project manager. Since the project manager was not accountable or responsible for benefits management it is reasonable to expect the project managers’ depth of benefit knowledge was likely to be limited. This would suggest that any benefit owner within the organisation should carefully assess the potential impact of ‘causal ambiguity’ on their role of benefits realisation, especially when bringing the benefits knowledge into the context of a different business unit.

The second most identified barrier was ‘source not perceived as reliable’. Unlike ‘causal ambiguity’, this barrier was identified as an issue in both how knowledge is transferred to the benefit owner; and the barriers to what is successfully transferred to the benefit owner. This barrier refers to whether the recipient of benefit knowledge perceives the source to be reliable in terms of trustworthiness and expertise (Szulanski, 1996) and credibility (Szulanski, 2002). Evidence of this barrier in the current study drew attention to staff challenging the benefit knowledge due to not being invited to benefit development meetings and thus having to rely completely on a source to provide the data. The notion of ‘unreliability’ stems from not knowing the source of the benefit knowledge and therefore not having access to opportunities for gaining additional meaning in the benefit knowledge. Additional evidence in this study pointed to the lack of trust related to the inability of the source (often the project manager) to provide missing or incomplete benefits knowledge. This barrier has ramifications for the effective use of benefit knowledge. If a benefit owner doubts the credibility or trustworthiness of a source of benefit knowledge, the knowledge may be rejected which would likely result in lost knowledge. A management benefit framework would

need to ensure the project manager and the benefit owner had opportunities to develop a trust in each other to build and share benefit understandings.

The current study found evidence of a third barrier, 'barren organisational context', in the answers related to both research questions. Szulanski (1996) describes this barrier as support from the organisation for knowledge transfer and suggests that formalised systems and structures may lead to positive transfer outcomes. Evidence from the current study found the large size of the organisation, and the differences in benefits management processes and procedures across the organisation, hampered the participation of project staff and benefit owners in benefit knowledge transfer behaviours. Additionally, the lack of an overarching, organisation wide benefits management approach, stymied attempts to follow common benefit knowledge transfer processes and procedures creating unproductive outcomes. An organisation practising benefits management would likely appreciate that positive outcomes are more likely within a context that supports more formal processes and procedures and embraces a willingness for participation in benefit knowledge transfer behaviours. The CSO has a Benefits Management Framework document developed in September 2018. However, the draft status of this document likely precludes the common use of the processes and procedures contained within it, across the CSO.

The final prominent barrier from the amalgamated list at table 5.1 to be discussed in this section is 'source lacks motivation'. This barrier stems from a lack of motivation of the source to share knowledge. Evidence of this barrier in the current study manifested in the identified lack of desire to devote time and/or resources to the benefit knowledge transfer. Put another way, supporting a transfer of knowledge may force the source to re-direct indispensable resources from 'business as usual activities' to the transfer effort (Szulanski, 2002; Szulanski, 1996). Overcoming this barrier comes through devoting time and/or resources to the benefit knowledge transfer effort. If the CSO senior management view benefits management as a high priority, support for additional resources will need to follow and this might not be the premise of the project manager but instead the benefit owner.

There is a possible link between the four major barriers identified. First, causal ambiguity is exacerbated through the complexity of the task and the often tacit nature of benefits knowledge itself. If project staff do not acknowledge this complexity or are not encouraged to acknowledge the importance of benefits knowledge particularly

towards the closure of a project, they will likely be perceived as an unreliable source in knowledge transfer. Couple this with the lack of rewards for project staff in benefits realisation because it not often perceived as part of project management, the perception that the project staff are unmotivated in benefits realisation grows. All of this together compounds the issue in an organisational context, driving the view of a barren knowledge transfer environment in which benefit realisation flounders.

Differences across divisions and branches are normal in any large organisation. Unfortunately, differences in the CSO approach to a nascent benefits management framework hampers participation in benefit knowledge transfer behaviours. Additionally, the apparent lack of a single, organisation wide benefits management framework adhered to in a uniform manner across the CSO was not evident. This has been detrimental to a clear understanding of how benefit knowledge transfer processes and procedures contribute to creating productive knowledge transfer outcomes. Importantly, and as identified in chapter two, the inability to engage in intra-organisational project benefit knowledge transfer will likely inhibit successful benefit realisation activities.

In practice, a re-examination of the appropriateness of the draft CSO benefits management framework so that it can be finalised and published is warranted. Mandating the framework and training staff associated with benefits management and ensuring a sound governance structure to audit the framework's use may assist in developing the organisational routines required for increased efficacy in benefit knowledge transfer. Overcoming the 'barren organisational context' in this manner would likely make a sound contribution to a significant reduction in the two source related barriers namely, 'source lacks motivation' and 'source not perceived as reliable', and ultimately in addressing 'causal ambiguity'.

5.3 CONCLUSIONS

The literature review identified the potential for project characteristics and benefits management challenges to create barriers to effective benefit knowledge transfer. Nine knowledge transfer barriers were identified that may impact the success of benefit knowledge transfer. Two research questions were developed to explore the impact of barriers to benefit knowledge transfer.

5.3.1 Research question one

This research question states:

“How is project benefit knowledge transferred to a Benefit Owner”?

The literature review in chapter two suggested impediments to benefit knowledge transfer may manifest through a benefit owner not being provided with benefits knowledge as the project progresses. This is may lead to lost knowledge due to the difficulty of transferring tacit knowledge.

The findings explored in chapter four revealed that project benefit knowledge is often transferred badly primarily through poor paperwork and limited personal interaction between the project owner and the benefit owner. Evidence suggests the possible existence of seven of the nine knowledge transfer barriers. Of those, evidence supporting the barrier, ‘source not perceived as reliable’, was clearly the strongest. This manifested primarily from the lack of adequate benefit measurement knowledge. Initially provided through the business case, benefits measurement is used to confirm when any benefit has been realised after the completion of the project. If the benefit owner is not involved in developing the benefit knowledge associated with measuring the benefit, there will likely be discrepancies when benefit realisation commences. The lack of consultation in the development of the benefit measurement data may give rise to the benefit owner not considering the source as reliable.

Two factors were identified through this study as contributing to this barrier. First, participation in benefit identification, development and measurement was not identified by interviewees as a benefit owner role. The strength of the evidence for this barrier suggests the importance of benefit owners being present and responsible for the development of the benefit for which they will be accountable. In addition, the initial development of the benefit measure by the benefit owner, both baseline and upon benefit realisation, would likely add credibility to the benefit knowledge. Both these measures would remove any negative perceptions of source reliability through building a much stronger understanding of source trustworthiness. Second, the interviewees identified documents as the primary method of transferring benefit knowledge. As identified previously, the project manager is often the author of project documents containing benefit knowledge. This suggests that the project manager is

primarily responsible for codifying any tacit knowledge transferred through meetings and discussions concerning benefit knowledge.

5.3.2 Research question two

This research question states:

“What are the barriers to the successful transfer of project benefit knowledge to a Benefit Owner”?

The literature review in chapter two identified that successful benefit knowledge transfer may be impeded through the unique characteristics of projects and the challenges of poor benefits management.

The findings of this study explored in chapter four revealed strong support for the existence of several barriers in the successful transfer of project benefit knowledge to a benefit owner. The barriers include, ‘causal ambiguity’, ‘source lacks motivation’, ‘source not perceived as reliable’ and ‘barren organisational context’. Much of the evidence stems from the high tacit knowledge content of benefit knowledge, creating the potential for ‘causal ambiguity’. The actor status of the CSO benefit owners pointed to a lack of understanding of the benefit owner role producing a lack of motivation to participate in benefit knowledge transfer opportunities. Finally, the lack of a mandated CSO benefits management framework and methodology created the possibility of a ‘barren organisational context’.

5.4 CONTRIBUTIONS

5.4.1 Theoretical

The theoretical contributions of the current study are notable. Based on the literature search informing the literature review, there were no similar studies exploring *a priori* knowledge transfer barriers (Szulanski, 1996) within the unique context of intra-organisational project benefit knowledge transfer. The findings of this study make a substantial contribution to the knowledge transfer body of knowledge and informs the project management and benefits management disciplines.

The findings provide indirect support for knowledge management theory in projects. Knowledge is described as tacit or explicit. Describing tacit knowledge, Bennet and Bennet (2014, p. 13) suggest it applies to “those connections among thoughts that cannot be pulled up in words”...or “how to do something that cannot be

clearly voiced in a manner such that another person could extract and re-create that knowledge”. A direct test of knowledge management theory in projects would require examining the full knowledge exchange. However, this study identified that project staff and benefit owners identify tacit knowledge in benefits realisation as a necessary but difficult exchange that, when done badly, increases the likelihood of several benefit knowledge transfer barriers.

The study did confirm the currency of the nine *a priori* knowledge transfer barriers (Szulanski, 2002; Szulanski, 1996) with at least one interviewee identifying evidence in support of the relevant barrier. Four knowledge transfer barriers were particularly prominent as explicated in the discussion at section 5.2 above. These barriers are: ‘causal ambiguity’; ‘source not perceived as reliable’; ‘barren organisational context’; and, ‘source lacks motivation’. Moreover, the findings refine the understanding of knowledge transfer barriers in benefits realisation. The exchange between the project manager and benefit owner is vital in effective benefits knowledge transfer and to overcome the knowledge transfer barriers. The study lends support to incorporating the findings into the benefits realisation framework to raise the success rate of benefits realisation through the application of measures to avoid benefit knowledge transfer barriers, thus enhancing benefit realisation success. In terms of the current study, the development of a mandated benefits management methodology for use across the CSO would likely provide the catalyst to diminish the impact or completely overcome each of the identified knowledge transfer barriers.

5.4.2 Practical

Several practical contributions are offered. First, the combined issues of the limited depth of benefit knowledge exhibited by benefit owners and the high tacit nature of benefits knowledge suggests managerial attention to these issues may preclude the emergence of the barrier, ‘causal ambiguity’. Attention to ensuring responsibility for benefit knowledge resides with the relevant benefit owner, not the project manager, would overcome the source depth of knowledge and retention and capturing of tacit benefit knowledge. Second, two issues related to the source emerged from the findings and analysis. These were the source reliability as perceived by the benefit owner and the source lack of motivation to transfer benefit knowledge. Executing the approach above through ensuring the benefit knowledge source is a benefit owner would likely remove the reliability issue.

Third, the lack of a mandated benefits management framework appears to be an inhibitor to efficient and effective benefit knowledge transfer. Of note, the issues of tacit knowledge transfer are not likely to be negated completely. Nevertheless, processes and procedures can be introduced to ensure tacit knowledge can be captured as effectively as possible. This would involve additional face to face discussions, involving individuals and/or groups to elicit and then codify tacit knowledge

5.5 STUDY LIMITATIONS

This study has several limitations. First, while benefit owners were requested for interview, only one was available. The remaining ten interviewees were involved in project boards or benefit support activities relating to projects reviewed for the current study. As identified in chapter four, several interviewees had been benefit owners on prior projects and were well versed in the management of benefits. Additionally, interviewees who had not been a benefit owner had been exposed to various roles in supporting the benefits management process, particularly in the measurement of benefits. While each interviewee understood the benefit owner role, they were not performing the role of a benefit owner at the time of the interview. Responses to interview questions therefore relied on interviewees' considerable experience regarding the benefit owner role. Many of these limitations relate to the immature level of Benefits Management Framework implementation within the CSO.

This limitation has an impact on transferability. Findings transferred to other contexts should be mindful of this limitation. Second, the generalisability of findings to other industries or organisations should be interpreted with caution. The current study involved a single organisation, with collected data relating to information technology projects, and a small number of interviewees. Third, this is the first case study to explore benefits management through the lens of knowledge transfer. Further studies are now needed in other organisations and contexts to strengthen confirmability.

5.6 RECOMMENDATIONS FOR FUTURE RESEARCH

The current study reveals a few opportunities for future research. First, undertaking a similar study in another public sector organisation. Extend this case study approach of a public sector organisation to include a longitudinal study following the transfer of benefit knowledge on completion of a project. An evaluation of the

transfer of benefit knowledge related to the success of benefit realisation may contribute to both the knowledge transfer and benefits management fields. Alternatively, extend the current study into the private and/or non-profit sectors. Second, empirically examine the role of the benefit owner to include governance, accountabilities and responsibilities. The current study was not able to provide a definitive understanding of this crucial role in the benefits management framework. This appears due to the different levels of understanding of the role driven by the nascent state of the benefits management framework within the CSO, but there may be additional reasons the role is not well understood. Third, an examination of the transfer of knowledge through the lens of agency theory may uncover new and diverse elements of benefits knowledge transfer. Fourth, exploring the benefits knowledge flow from the benefit owner to the project may yield an interesting comparison to the flow discussed in the current thesis. Finally, undertaking a similar study within a different context. This study might include a mixed methods approach involving a survey to tighten up the research questions and interview questions and then proceeding with a case study in the vein of the current study. Each of these options would provide interesting comparisons and may continue to broaden the knowledge transfer, benefits management and project management bodies of knowledge.

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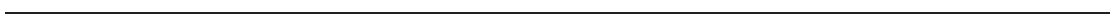
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Appendices

Appendix A

Interview Participation Request Email

Subject Title:

QUT Research Project – Interview Participation Request

Dear colleagues

Neville Marshall from the QUT Business School, Queensland University of Technology (QUT), is studying for a Master of Philosophy degree. His thesis topic is Project Benefit Realisation.

As part of this study, Neville would like to interview staff who have been or who are currently Benefit Owners. The interviews will greatly enhance the outcomes of this study. If you are or have been a Benefit Owner and you are interested in participating in a one hour interview, please view the attached Participant Information Sheet and Consent Form. These documents will give you further information on the study and the interview process.

We would appreciate your contribution to the project as we believe your involvement is important and very valuable. Please note that your participation is totally voluntary and your organisation will not know who or who has not taken part in the research. If you are able to assist in this important study or have any questions please contact Neville directly via email (see below). Please note that this study has been approved by the QUT Human Research Ethics Committee (approval number 1800000504).

Many thanks for your consideration of this request.

Regards

Study Sponsor

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Appendix B

Participant Interview Information Sheet



PARTICIPANT INFORMATION SHEET FOR QUT RESEARCH PROJECT

– Interview –

Project Benefit Realisation

QUT Ethics Approval Number 1800000504

RESEARCH TEAM

Principal Researcher: Mr Neville Marshall Master of Philosophy Student

Associate Researchers: Associate Professor Paul Davidson Principal Supervisor

Associate Professor Erica French Associate Supervisor

School of Management, QUT Business School

Queensland University of Technology (QUT)

DESCRIPTION

This research project is being undertaken as part of a Master of Philosophy degree by Neville Marshall.

The purpose of this research is to explore the barriers to project benefit knowledge transfer between project managers and benefit owners. Project benefit knowledge is knowledge from the project environment that is provided by the project manager to the benefit owner to assist the benefit owner realising the benefits of the project output on completion of a project.

Prior to undertaking the interviews, the researcher will examine organisational documents showing the approach to project, knowledge and benefit management.

You are invited to participate in this research project because you have been identified as a Benefit Owner.

PARTICIPATION

Your participation will involve an audio recorded interview at your workplace and will take approximately one hour of your time. The audio recording is a necessary part of the interview process.

Examples of the type of questions that may be asked include:

Please identify the sources of benefit knowledge (for example documents, databases, project manager, project staff, other)?

Please briefly describe how benefit knowledge transfer takes place at your organisation?

Your participation in this research project is entirely voluntary. If you do agree to participate you can withdraw from the research project without comment or penalty. You can withdraw anytime during the interview. If you withdraw within 2 weeks of your interview, on request any identifiable information already obtained from you will be destroyed. Your decision to participate or not participate will in no way impact upon your current or future relationship with your organisation.

EXPECTED BENEFITS

It is expected that this research project may benefit you directly through an enhanced understanding of the barriers to project benefit knowledge transfer barriers. It may also benefit your organisation through a clearer understanding of the barriers to project benefit knowledge transfer.

Feedback in the form of a short summary of the actual findings will be provided to you in November.

RISKS

There are no risks beyond normal day-to-day living associated with your participation in this research project.

PRIVACY AND CONFIDENTIALITY

All comments and responses will be treated confidentially unless required by law. The names of individual persons are not required in any of the responses.

As the research project involves an audio recording:

- You will have the opportunity to verify your comments and responses prior to final inclusion.
- The recording will be destroyed 5 years after the last publication.
- The recording will not be used for any other purpose.
- The named researchers and the professional transcriber (bound by a confidentiality agreement) will have access to the recording.
- It is not possible to participate in the research project without being recorded.

Any data collected as part of this research project will be stored securely as per QUT's Management of research data policy.

The research project is funded by QUT however they will not have access to the data obtained during the research project.

Please note that non-identifiable data from this research project may be used as comparative data in future research projects or stored on an open access database for secondary analysis.

CONSENT TO PARTICIPATE

We would like to ask you to sign a written consent form (enclosed) to confirm your agreement to participate. Please bring the signed form with you to the interview.

QUESTIONS / FURTHER INFORMATION ABOUT THE RESEARCH PROJECT

If you have any questions or require further information please contact one of the listed researchers. Please use email in the first instance.

Neville Marshall na.marshall@hdr.qut.edu.au 07 3138 9886

Paul Davidson p.davidson@qut.edu.au 07 3138 1248

CONCERNS / COMPLAINTS REGARDING THE CONDUCT OF THE RESEARCH PROJECT


QUT is committed to research integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the research project you may contact the QUT Research Ethics Advisory Team on 07 3138 5123 or email humanethics@qut.edu.au. The QUT Research Ethics Advisory Team is not connected with the research project and can facilitate a resolution to your concern in an impartial manner.

THANK YOU FOR HELPING WITH THIS RESEARCH PROJECT.

PLEASE KEEP THIS SHEET FOR YOUR INFORMATION.

Appendix C

Participant Interview Consent Form

	CONSENT FORM FOR QUT RESEARCH PROJECT Interview
Project Benefit Realisation QUT Ethics Approval Number 1800000504	

RESEARCH TEAM

Neville Marshall na.marshall@hdr.qut.edu.au 07 3138 9886

Paul Davidson p.davidson@qut.edu.au 07 3138 1248

STATEMENT OF CONSENT

By signing below, you are indicating that you:

- Have read and understood the information document regarding this research project.
- Have had any questions answered to your satisfaction.
- Understand that if you have any additional questions you can contact the research team.
- Understand that you are free to withdraw without comment or penalty. Your participation in this research project is entirely voluntary. If you do agree to participate you can withdraw from the research project without comment or penalty. You can withdraw anytime during the interview. If you withdraw within 6 weeks of your interview, on request any identifiable information already obtained from you will be destroyed. Your decision to participate or not participate will in no way impact upon your current or future relationship with your organisation.
- Understand that if you have concerns about the ethical conduct of the research project you can contact the Research Ethics Advisory Team on 07 3138 5123 or email humanethics@gut.edu.au.
- Understand that the research project will include an audio recording.
- Understand that non-identifiable data from this project may be used as comparative data in future research projects.
- Agree to participate in the research project.

Name

Signature

Date

Appendix D

Interview Protocol

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
1. Introduction	1.0	Greet participant.			Researcher will not have met the participant in person previously.
	1.1	Thank you for your time. As you know from the Participant Information Sheet I am a Master of Philosophy student at Queensland University of Technology conducting research to explore project benefits realisation. Your organisation has kindly agreed to be the case study organisation for this research. You have been requested to participate in the study because you have been identified as being or have been a benefit owner, the person responsible for realising the benefits of a project.	N/A	Introduction	Interview administration.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	1.2	The Participant Information Sheet has been sent to you for your information along with an Interview Consent Form for your signature, agreeing to participate in this research activity. If you haven't already, please sign the Interview Consent Form to acknowledge you have read and understood the content of the Participant Information Sheet.	N/A	Interview Consent Form signature	Interview Administration. Confirm understanding of interview. Reiterate confidentiality.
	1.3	In summary - this interview is confidential and the interview and any comments you make will be 'de-identified'.	N/A		
	1.4	The interview will be recorded using this (identify) recording instrument. On completion of the interview, the recording will be transcribed professionally and in confidence. I will keep a single copy of the audio recording and single copy of transcription document on a password protected database accessible only by me and two thesis supervisors (and QUT IT staff for maintenance purposes only). Both the audio recording and transcription	N/A		Interview Administration. Confirm understanding of interview. Reiterate confidentiality.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
		document will be de-identified. I am the only person who will know the name of the person associated with both artefacts.			
	1.5	The interview questions are designed to provide an opportunity for you to respond in your own words, to tell your story. There are no right or wrong answers.	N/A		Interview Administration. Interview outcomes.
	1.6	During the interview, if you don't feel comfortable answering a question, please say PASS and I will move on to the next question. OK?	N/A		Interview conduct. Demonstrate ethical nature of process.
	1.7	The interview is expected to last about 60 minutes. Do you have any questions of me before we start?	N/A		Interview administration. Gauge degree of participant comfort in

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
					interview process.
2. Prologue	2.0	Begin recording.			Interview Administration.
	2.1	Please tell me about your current role/position. (Probe for job title/level/specialisation).	Recipient role	Job description	Ice-breaker/General statistical data collection.
	2.2	How long have you been employed in your current role/position?	Recipient role	Depth of experience	Ice-breaker/General statistical data collection.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	2.3	Please briefly describe your role as a benefit owner as you understand it?	Recipient BO role	BO Role description	Benefit owner role description.
	2.4	Approximately what percentage of your time is taken up with BO duties?	Recipient BO role	Time	General statistical data collection.
	2.5	How many times have you been a benefit owner?	Recipient BO role	BO Experience	Gauge level of experience. General statistical data collection.
	2.6	What types of Information Technology projects have you been involved in with regard to receiving benefit related information or knowledge?	Recipient BO role	IT Projects	Gauge level of experience in various IT project types.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
3. RQ1	3.0	How is project benefit knowledge transferred from an individual source to an individual recipient?			
	3.1	Do you know the Project related job title or other job title of the individual/s who provided Benefit Knowledge (BK) to you? (Probe Examples – Project manager, Project sponsor, Project owner, Project team member, group, other (please specify)).	Individual Source		Normally the project manager or other project related role.
	3.2	Briefly describe the permanent job role of the sources you have dealt with as a BO in the organisation (if other than a permanent Project related role)?	Individual Source		Example: a project sponsor for a project is often a temporary role. The project sponsors full time role may be department head or other permanent

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
					role in the organisation.
	3.3	Please identify the sources of explicit BK other than individual sources? (Examples - business case, project data, business unit data, general organisation databases, informal discussions, project update meetings etc).	Explicit BK - Sources		Compare with relevant document artefacts reviewed prior to interviews.
	3.4	Can you please describe the tools and processes involved when project benefit knowledge transfer takes place between a BK source and BO in this organisation? (Probes – formal F2F 1 on 1 meeting, how often, prescribed/informal meeting/spreadsheets updates, project updates etc.)	BKT process	(Eskerod & Skriver, 2007.)	Compare with relevant document artefacts reviewed prior to interviews.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	3.5	What communication methods are used i.e. Explicit – database, email, project data, Verbal - phone, meetings, formal F2F 1 on 1 meeting?	BKT process	(Bradley, 2016)	
	3.6	Could you tell me about the broad content of BK passed to you by a BK source? (Examples from literature, benefit profile data, other template data, benefits already realised)	BK Types	(Bradley, 2016)	
	3.7	Was any BK you wanted from an individual source missing? If yes, please briefly describe what BK you wanted (probes??).	Tacit BK		Knowledge held within the individual source.
	3.8	Was the source able to provide you with missing BK if requested? (Probe: source could provide/source could not provide).	Tacit BK		Knowledge held within the individual source.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	3.9	In your opinion, how could your organisation successfully transfer BK between an individual source and an individual recipient?	BKT as recipient	(Eske­rod & Skriver, 2007.)	
4. RQ2	4.0	What are the barriers that impede the successful transfer of project benefit knowledge from one individual to another?			
	4.1	What barriers to successful benefit knowledge transfer (BKT) do you think could be attributable to the BK transferred?	BKT barriers (Knowledge Transferred)		
	4.2	Did you experience barriers from the BK transferred in terms of the depth of knowledge and/or value of knowledge transferred?	BKT barriers (Knowledge Transferred)	Szulanski, (1996, p. 31), Spraggon & Bodolica (2012, p. 1279)	

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	4.3	What barriers to successful benefit knowledge transfer (BKT) do you think could be attributable to the source of the benefit knowledge?	BKT barriers (Source of Knowledge)	Szulanski, (1996, p. 31), Spraggon & Bodolica (2012, p. 1279)	Source motivation, source reliability?
	4.4	Did you experience barriers from source motivation and/or source reliability?	BKT barriers (Source of Knowledge)		
	4.5	What barriers to successful benefit knowledge transfer (BKT) might have been created by you?	BKT barriers (Recipient of Knowledge)	Szulanski, (1996, p. 31), Spraggon & Bodolica (2012, p. 1279), Kang & Hau, (2014, p. 769)	

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	4.6	Could you have created a barrier through lack of motivation (perhaps due to time, work, pressures) ability to absorb the knowledge provided (perhaps due to complexity) or ability to incorporate the knowledge into business as usual activities?	BKT barriers (Recipient of Knowledge)	Szulanski, (1996, p. 31), Spraggon & Bodolica (2012, p. 1279), Kang & Hau, (2014, p. 769)	
	4.7	What barriers to successful benefit knowledge transfer (BKT) might have been created by the organisational context?	BKT barriers (Transfer context)	Szulanski, (1996, p. 32), Kang & Hau, (2014, p. 769), (Ashurst & Hodges, 2010, p. 234-235)	
	4.8	Do you think barriers to successful benefit knowledge transfer (BKT) might have been created by the level of organisational support for BKT activities and/or ease of communication and	BKT barriers (Transfer context)	Szulanski, (1996, p. 32), Kang & Hau, (2014, p. 769), (Ashurst &	

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
		intimacy of the relationship with the source (for example geographical displacement)?		Hodges, 2010, p. 234-235)	
	4.9	In what ways did these barriers impede successful BK transfer? (Probes: insufficient, inappropriate BK transferred).	BKT Impediments		
	4.10	Which barriers were most challenging to you in terms of impeding BKT?	BKT Impediments		
	4.11	Were any of the BKT barriers identified above different for different individual sources? (If yes, please specify/describe).	BKT barriers (differences)		
	4.12	Were the BKT barriers identified above different for different projects? (If yes, please specify/describe).	BKT barriers (differences)		
	4.13	Can you think of any other barriers to BKT that have not been identified to this point in the interview?	BKT barriers (Other)		

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
5. Interview Concluding Remarks	5.0				
	5.1	In your opinion, have I missed anything significant when it comes to understanding issues about KT between sources of BK and recipients of BK.	Miscellaneous	(Eskerod & Skriver, 2007.)	Final impressions on BKT.
	5.2	If needed, may I contact you to ask some clarifying questions?	N/A	Jacob & Furguson, 2012	
	5.3	No disclosure please. The questions in this interview, are being asked of other participants at your organisation. Consistency is important both in terms of the questions asked and when everyone hears them. So, as a result, it is important that you don't disclose or discuss your responses with anyone until the interviews are completed at the end of March.	N/A	Confidentiality	Closing comments.

Section	Ref.	Question or Explanation	Node / Category	Justification/ Reference	Comment
	5.4	Would you like to receive a brief written summary of the analysis of the interviews (all data will be de-identified)?	N/A		Closing comments.
	5.5	Do you have any questions? Thank you again for your time.	N/A		Closing comments.
	5.6	Stop Recording.	N/A		Interview administration.