DOES THE DEPLOYMENT OF PROJECT MANAGEMENT ITSELF PROVIDE BENEFITS? BOTH TANGIBLE AND INTANGIBLE

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In the project management literature, it has been argued that value encompasses more than the iron triangle especially as value means different things to different stakeholders along the continuum from project lifecycle to product lifecycle. However, examination of the extant literature on project management suggests that when value is discussed, it is usually considered in terms of the benefits of the project outcome. More recently, the additional value derived from deploying project management (management of projects) methodology itself has been recognised. By identifying the benefits from project management deployment and applying an intangibility test, intangible benefits were identified to be types of Organisational, Human and Social capital. The value derived from project management deployment itself can therefore be subdivided into tangible and intangible benefits; where the intangible benefit contributes to organisational competitiveness and human intellectual capital. The authors have also found that whilst organisations have an understanding of the tangible value of managing work by projects, there is a lack of recognition of the intangible value derived from undertaking the project management process itself.

Keywords: intangible benefit, project management, value.

INTRODUCTION

Intangible benefits from project management deployment are not concerned with the effectiveness of project management or project management maturity; rather the benefits generated from the project management methodology itself. Extant literature argues that project management deployment generates value but the value is hard to define and measure (Thomas and Mullaly (2007), Hurt and Thomas (2009), Mathur et al. (2007), Jugdev et al. (2007), Murphy and Simon (2002)). The traditional view of project management deployment is to deliver a project (product or service) that meets the cost, time and quality specified usually described as the iron triangle (Atkinson, 1999, Toor and Ogunlana, 2010). This approach is changing as Winter and colleagues argued that there is a shift from this traditional view of project management to one that emphasises that project management creates value and benefits (Winter et. al, 2006). From the perspective of permanent organisations, the value of an organisation is usually described in terms of intangible or tangible aspects (Lonnqvist, 2002).

Jugdev and Mathur (2006) have shown that project management creates value and competitive advantage. This was based on a conceptual model linking the achievement of the VRIO characteristics (Barney's VRIO framework helps to allocate

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Oliomogbe GO and Smith NJ (2013) Does the deployment of project management itself provide benefits? Both tangible and intangible *In:* Smith, S.D and Ahiaga-Dagbui, D.D (Eds) *Procs 29th Annual ARCOM Conference*, 2-4 September 2013, Reading, UK, Association of Researchers in Construction Management, 881-891.

the different strategic assets into Valuable (provide economic value), Rare (unique), Inimitable (difficult to copy) and involve Organisational Support (management support, processes, and systems) (Barney, 2002) of project management process (dependent variable) to tangible and intangible assets (independent variable). Fortune and White (2002) captures the real world experiences of people active in project management reporting desirable and undesirable effects from project management deployment. Similarly, Hurt and Thomas (2009) investigated three organisations project management offices and their value contribution. The study identified both tangible and intangible benefits of project management deployment. Kerzner (2006) also gives a summary of the benefits organisations believe to accrue from project management deployment. More understanding of intangible benefits of project management is required. Three reasons have been identified by the authors for why intangible benefits matter for value from project management deployment, therefore for project management practice and project based organisations. They are:

1. It matters for permanent organisations; as the gap between book value and market value has been argued to be as a result of intangible value (Kaplan and Norton 2004, Roos et al 1997, Brooking 1996, Lev 2001). Therefore it matters for project management and project based organisations as they exist in the same business environment.
2. How organisations create value due to effects of globalisation and over-competition; influencing the business strategies of organisations informing mergers and acquisitions (Carillo (2001), Delaney and Wamuziri (2001), PWC (2012)); the type of product/services offered (Wikström et al., 2010); new forms of division of labour, competitive products based on more complex scientific knowledge and more demanding customers (Welzl 2011) etc
3. Traditional none users of project management now deploy project management as part of operations or business (Thiry and Deguire, 2007, Gareis, 1991) and as coping mechanism (Hobbs et al., 2008, Hurt and Thomas, 2009) even though projects mostly miss targets for time, cost and quality (put refs). The author argues that the intangible benefits generated, at least partly, explain the motivation for deployment of project management.

DEFINITIONS, TERMINOLOGY & THE RESEARCH PROBLEM

The default interpretation is that value is related solely to the project outcome i.e. from the value management research work by Thiry (2002), Male (2007) and Hamilton (2002). Therefore there is a need to differentiate between project outcome and project benefit. Zhai and colleagues make this distinction clear; that there is value generated as a result of the project outcome and value from the project management deployment itself (Zhai et al. 2009).

What is an Intangible Benefit or Dis-benefit

Intangible benefit and dis-benefit are two sides of the same coin. Using dictionary definitions (The Free Dictionary (2011a), (Oxford Dictionary 2011) and the work of other researchers (Bradley (2010), Murphy and Simon (2002)) the authors therefore define a benefit as ‘an outcome of change that is perceived as positive that enhances and promotes the wellbeing of an organisation and including staff’. Furthermore, the term dis-benefit is defined as ‘the outcome of change that is perceived as negative that inhibits the wellbeing of an organisation and including staff’.

Therefore intangible benefit of project management implementation is defined as

"The outcome accrued from deploying project management that is perceived as positive that enhances and promotes the wellbeing (the ability to remain competitive and sustainable) of the project stakeholders, the base organisation and the society and it is not the project objective(s) itself. The inverse is also true for intangible dis-benefits."

Criteria to be an Intangible benefit or dis-benefit

From literature reviewed (Kaplan and Norton (2004), Yang (1978), Edvinsson (1997), Roos et al. (1997), Kitts et al. (2001), Brooking (1996), Lev (2001) and Ulrich (1998) to mention a few), and dictionary definitions (The Free Dictionary (2011b), Oxford Dictionary Online (2011)) there are two conditions to determine if a benefit is intangible, the 'Intangibility Test' (put refs):

- Immateriality, not easily identifiable or concrete and
- The value of the asset must be difficult to measure precisely

Within the context of project management, intangibility must also meet the criteria for immateriality and realisation of value. This suggest that project management implementation has two value streams, the conventional and the hidden where the conventional covers all the tangible benefits like meeting the cost, quality and time specifications and the hidden will cover the intangible benefits with the definition and characteristics discussed above.

Defining the Research Problem

The research problem is twofold:

1. What are the intangible benefits of project management deployment that generate value and competitive advantage?
2. How can intangible benefits be measured; managed and optimised within an approach that organisations can use in practice?

This paper is part of a wider research on the investigation of the generation of intangible benefits which will map out the areas within an organisation where intangible value from project management deployment manifests itself; helping to develop an approach that helps organisations therefore identify; measure, manage and optimise value generated from project management deployment. The first part of this paper reports on the research that has been done so far while the second part describes further work which is underway to develop an approach that will help organisations maximise the value from project management.

To determine what intangible benefits are, knowledge about tangible and intangible value is required. This involves the review of literature on value from the perspective of permanent organisations and temporary organisations (projects) as these would have been captured in the text of existing literature (Kolltreit et al., 2007). The data should show the differences in how value is perceived in permanent organisation and temporary organisations (e.g. frequency of the use of term 'value' in titles, keywords and abstracts; what other terms are used in place of term 'value' etc.). It should also highlight the differences between tangible and intangible value and throw more light on how this is perceived in permanent and temporary organisations. For example in project management literature, tangible value often equates to the iron triangle. This should then help to generate a list of what researchers say are the value generated from project management deployment and by applying the new knowledge about value in permanent organisations, categorised into tangible and intangible benefits.

RESEARCH METHODOLOGY

Given the nature of the research problem and the aims of the research; a mixed method approach, using both qualitative and quantitative research methods is likely to be the most appropriate. Cresswell (2008) defines methodology as types of qualitative, quantitative, and mixed methods design or models that provide specific direction for procedures in research design. Quantitative and qualitative approaches are strongly associated with objectivity (quantitative) and subjectivity (qualitative) (Hughes, 2006). Tshakkori and Teddlie (1998) opine that the term 'mixed method' typically refers to both data collection techniques and the analyses given that the type of data collected is so intertwined with the type of analysis used.

Qualitative research provides a means of accessing unquantifiable facts about actual people researchers observe and talk to (Berg, 2009) and researchers speak a language of 'cases and contexts' (Neuman, 2003). According to Hughes (2006), the problem of adequate validity or reliability is a major criticism because of the subjective nature of qualitative data and the viewpoints of both researcher and participants have to be identified and elucidated because of issues of bias. For example, the questionnaire used in a case study can gather data that are both objective (fact: eg what project management methodology is used in your organisation) and subjective (opinion/perception: what is the most effective to share knowledge in your organisation). Another weakness is that contexts, situations, events, conditions and interactions cannot be replicated therefore challenging generalisations (Hughes 2006). Yin (2003) addresses this by arguing that case studies provide the opportunity for analytical generalization whether in single (from theory) or multiple case study (predict similar results (literal replication) or predict contrasting results but for predictable reason (theoretical replication).

In contrast, quantitative methods seek to gather factual data, to study relationships between facts and how such facts and relationships accord with theories and the finding of any research executed previously (Fellows and Liu, 2008). In quantitative research, researchers speak a language of 'variables and hypotheses' (Neuman, 2003) and uses reliable measurement, is controlled, uses statistical techniques to allow for sophisticated analyses and is replicable (Hughes, 2006). Some of the weaknesses of quantitative research are that quantification may become the end in itself and does not take into account people's unique ability to interpret their experiences, construct their own meanings and act on these (Hughes, 2006).

To gather data whether through qualitative, quantitative or mixed methods, several techniques can be used including interviews, case studies, surveys, experiments, observation, measurement, photography and questionnaires Yin (2003). Fellows and Liu (2008) also include content analysis as a research strategy. The different research methods have their strengths and weaknesses and in selecting the ones applied in this research, critical evaluation of the available methods was undertaken.

According to Fellows and Liu (Fellows and Liu, 2008) action research involves participation by the researcher in the process under study, in order to identify, promote and evaluate problems and potential solutions. However given the research objectives, the authors need to be independent of the process and inquiring looking in.

Fendt and Sachs (2007) consider grounded theory method to be essential research method for the development of new insights into social phenomena and involve the generation of theory from data through inductive and deductive thinking. However

this method is not appropriate as the development of theory is not the aim of this research.

Fellows and Liu (2008) state that the experimental style of research is best suited to 'bounded' problems or issues in which the variables involved are known, or at least hypothesised with some confidence. Experiments are inappropriate as it is difficult to have a 'control' as people behave differently as they engage with different people, technologies and different project scenarios.

According to Cresswell (2008) ethnography is a strategy of inquiry in which the researcher studies an intact cultural group in a natural setting over a prolonged period of time by collecting primarily observational and interview data. This research has limited time and is not concerned with why the project actors behave the way they do.

Krippendorf (2004) defines content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use'. Content analysis could be quantitative e.g. used in media research or qualitative e.g. used in nursing and education (Graneheim and Lundma, 2003). Qualitative content analysis is defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes and patterns (Hseih and Shannon 2005). One of the major criticisms of content analysis is the issue of trustworthiness of the written text (Graneheim and Lundma, 2003) as texts always involve multiple meanings and there is always some degree of interpretation required.

According to Neuman (2003), the researcher often uses sample or a smaller group from a larger group of people and then generalises the results for the survey for that larger group or population. Surveys operate on the basis of statistical sampling with samples commonly surveyed through questionnaires or interviews (Fellows and Liu, 2008).

Yin (2003) states that the case study method is an empirical inquiry that investigates a contemporary phenomenon within its real life context especially when the boundaries between phenomenon and context are not clearly evident. According to Eisenhardt (1989) case studies typically combine data collection methods such that triangulation of data is possible providing stronger substantiation of constructs and hypotheses. Similarly, Yin (2003) argues that by using multiple case studies, the research is considered more robust. Yin (2003) opines that case studies provide the opportunity for analytical generalization whether in single (from theory) or multiple case study (predict similar results (literal replication) or predict contrasting results but for predictable reason (theoretical replication).

The research literature on project management intangible value so far is limited and fragmented; often touching different areas of project management work (PMOs; Hurt and Thomas 2009), (real project experiences; Fortune and White 2002), (intangible aspects of project work, Aronson, Shenhar and Patanakul (2013). For this research therefore, the mixed method approach is the preferred approach. The use of the mixed method approach in project management research is evidenced from the literature review where over thirty journal papers were identified to have used the mixed method approach; combining mostly surveys, single/multiple case study and action research using research methods such as observations, interviews, use of company information from documents and websites etc. Examples include work by Kasvi et al. (2003), Modig (2007), Becerik (2006) and Wikström et al. (2010).

ADDRESSING THE FIRST PART OF THE RESEARCH PROBLEM

This section reports the work done so far in answering the research question using literature review and content analysis. Hart (1998) says that a systematic search and critical reading of the literature is essential to contributing to knowledge. Content analysis is complimentary to literature review as it can help make sense of the information been found out. Therefore qualitative content analysis using both frequency and latent content analysis (interpretation of content (Hseih and Shannon 2005) on the journal articles and relevant text books and online articles was conducted on literature reviewed on value both from the perspective of permanent organisations and temporary organisations (projects) and project management benefits based on common databases (Ebsco host, Science direct, Wiley Online library and ASCE library) and relevant text books and online articles. The research approach is shown in figure 1. However, the issue of trustworthiness of the sources been investigated was not considered an issue as the findings will be further tested by the multiple case study research method.

Content analysis has been applied in the project management research field. Kolltveit et al (2007) using content analysis on selected text books on project management investigate what perspective today's authors mostly used in the field of project management. The choice of content analysis was based on the fact that content analysis of what is published reveals what is thought to be important and disseminated also influencing what is used. Similarly, Yu et al (2006) conducted a qualitative content analysis on data generated from survey questionnaires investigating the critical success factors of construction project briefing.

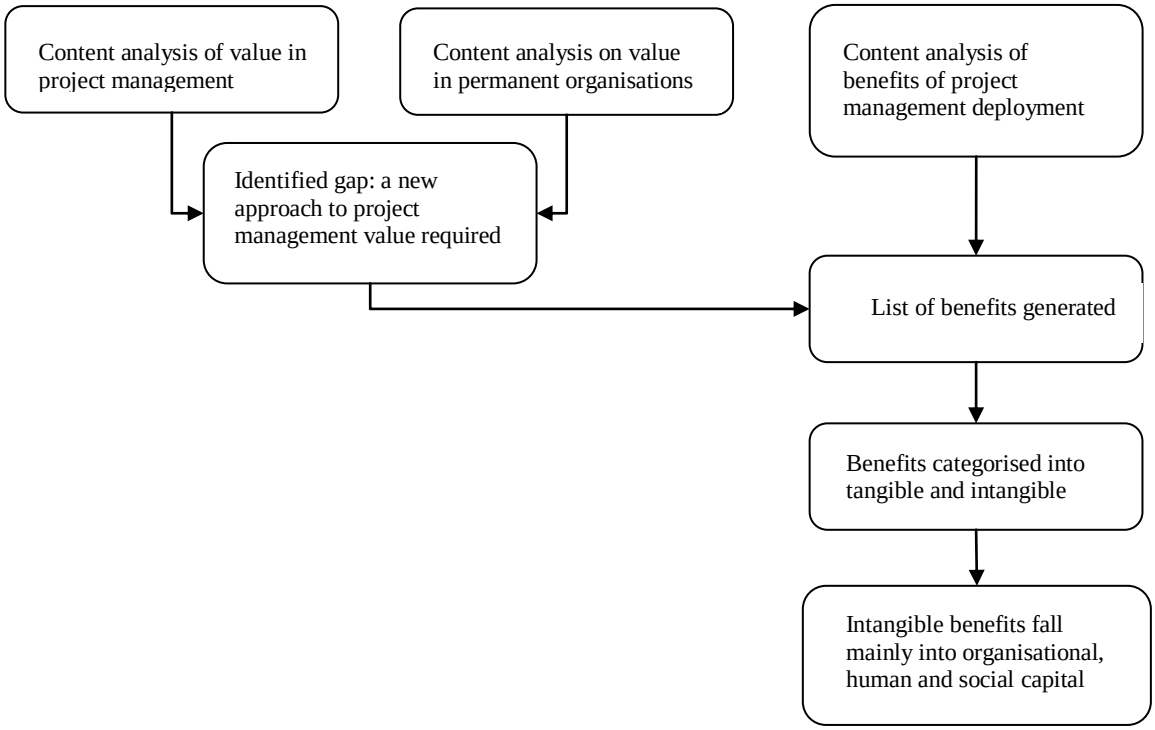

Figure 1: Research approach

A search of the term 'value' and 'project management' in the title, keywords and abstract of journal articles in the several databases usually returned articles that

referred to value in the context of value management only a few referred to value in the context of organisational value or competitive advantage. It was found that within the project management literature tangible and intangible benefits were often used to refer to value when viewed in the context of organisational value.

The second task involved content analysis on value from the perspective of permanent organisation. The measurement of intangible assets has been studied mostly in two main fields and the perspective of the intellectual capital and intangible assets field closely related to knowledge management field (Lonnqvist, 2002) was more suited to achieve the research objective. Value was discussed in terms of tangible or intangible assets and often argued that intangible value creates competitive advantage (e.g. Brookings, 1996, Lev, 2001, Svieby, 2001, Kaplan and Norton, 2004). It was also argued that intangible liabilities also existed which had a negative impact on the organisation (Harvey and Lusch 1999). Some of the assets include organisational capital, human capital, social capital, intellectual capital, innovation related capital etc; however the discussion of these is beyond the scope of this paper. There are four main measurement categories for intangible assets; the direct intellectual capital method, the market capitalisation method, return of assets methods or the scorecard methods (Sveiby, 2001), however the authors concluded that these methods are more suited to permanent organisations and their operations and that a different approach based on extant project management literature may be more appropriate for intangible benefits generated from project management deployment.

The third task involved content analysis carried out on the project management literature and a list of benefits was generated from what researchers said were the benefits of deploying project management. A key finding was that the benefits were not obvious from the articles title or keywords and may not use the term ‘benefits’ to describe it.

Equipped with the lens of value from permanent organisations, the next step involved categorising the benefits into tangible or intangible using the ‘Intangibility Test’. Several benefits were categorised clearly as either tangible or intangible while a few were categorised under tangible or intangible by the participants (involved in project management) depending on their own understanding and personal experience. The authors concluded that benefits fall within a continuum from tangible at one end and intangible at the other with a fuzzy area in the middle; where both tangible and intangible characteristics may be observed. This is also supported by existing literature where Bradley (2010) argues that categorising as tangible or intangible implies that in each instance there are only two states but that there is a spectrum of benefit value types and using just two words ignores useful distinguishing information.

This theoretical approach allowed learning from how intangible value has been investigated from the perspective of permanent organisation to be applied to temporary organisations (project management context). The use of content analysis also fits into the pragmatic approach (Aubry and Hobbs, 2011) to understanding the intangible value generated by project management deployment. By capturing what other researchers have argued to be the benefit of project management from existing texts and studying the patterns and relationships and comparing the intangible benefits with characteristics of the different types of ‘capitals’ identified from the literature reviewed on value from the perspective of permanent organisation, the authors identified that the intangible benefits of project management deployment fall into

organisational capital, human capital and social capital which is now the subject of further study in phase two of the research.

ONGOING WORK: ADDRESSING THE SECOND RESEARCH QUESTION

The research approach for this part of the research is to use the multiple case studies in phase 1 (data to be generated from semi-structured interviews and documents) to investigate the organisational, human and social capital generated from project management deployment and the findings would be used to generate hypotheses that will then be tested by survey in phase 2. According to Johnson and Onwuegbuezie (2004), time ordering of the qualitative and quantitative phases is an important dimension amongst several dimensions of mixed method approaches. They also opine that it can occur sequentially or concurrently and this part research uses the sequential arrangement. The rationale is to test the resultant hypotheses across a wider range of projects and organisations to further investigate to determine the prevalence or frequency of a particular phenomenon (Yin 2003) and will determine whether they are contextual, general or industry specific. This approach will also add to the robustness of the research process and outcome.

Some of the criticism against case study research has been the possible lack of generalisation and external validity (Yin (2003) and Cresswell (2008)). In other to reduce the effects of this and to ensure that the findings are robust, the research design involves multiple data sources (interviews and documents); use of both semi-structured interviews in phase 1 and survey in phase 2. Also the impact of subjective and objective data have been considered and the interview questionnaire to has been designed to capture both data types and will also be considered in the analyses and interpretation. In line with the argument by Yin (2003), by using multiple case studies and triangulating the data (Eisenhardt, 1989) external validity can be achieved. The case study protocol (Yin, 2003) will also be used in this research to maintain objectivity of the interview process and the researcher.

The case study part of this research is in the early stages, four organisations who are members of the Major Projects Association have agreed to participate in the research and one serves as the pilot case study. Interviews with semi-structured questions are currently been conducted at two organisational levels: project level to capture project specific data and organisation level to capture organisation specific data all within the context of project management. Once the pilot case study is completed, the data will be used to validate the research methods and test the analysis before the other remaining case studies can be analysed.

CONCLUSION

This is on-going work and the authors would be interested to hear from researchers or practitioners who wish to contribute or collaborate in this work. The final outcome of this research would be to develop an approach for organisations to be able to identify, measure, manage and optimise the intangible benefits generated from project management deployment.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the grant and support from the Major Projects Association, UK; the Petroleum Technology Development Fund for funding the PhD research and Dr Apollo Tutesigensi for his help.

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