Title: An empirical investigation into different stakeholder groups perception of project success

Abstract: Organizations use projects to manage customized, one-off events across a wide range of functions. Project management is an essential operational tool and process that is utilized to effectively and efficiently manage resources, tasks and activities, and associated timelines. The purpose of this paper is to investigate the possibility that failure is a result of different interpretations of the criteria and factors used for success by multiple stakeholder groups. Currently, there is no recorded theory to determine project success within the project management literature, which includes both the perspective of multiple stakeholder groups and shared use of success dimensions for a given project. This omission is the basis of the current work, which explores the impact of using all stakeholder views as opposed to a selected few to define project success. The research outcomes are important for informed managerial decision making that enables the minimization of major financial losses.

Keywords: project success and strategy; managing stakeholders; project success; perception of project success; multiple stakeholders.

1. Introduction

1.1. Background

The Standish Group (2012) survey found that 18% of projects fail and 43% were challenged. In KPMG's (2013, p. 11) survey, they noted that "project activity is on the increase and so are failure rates" with only 33% of respondents agreeing that their project was completed on budget, 29% on time and 35% to scope, this was compared to the 2010 survey whereby 48% were on budget, 36% on time and 59% to scope. Despite these statistics, project activity is increasing across all sectors of the economy. KPMG (2013, p. 17) noted that "54 percent of organizations surveyed completed more than 21 projects. This is a significant change from 2010, where in response to the same question, 98 percent of those surveyed reported completing only five projects or fewer". Further, project management is criticized for being

practitioner oriented and lacking rigor, basis in literature, focusing mainly on technical tools, such as critical path analysis (Turner, 2010). This study is important as it aims to provide a rigorous approach based in literature that will align stakeholder views to reduce project failure rates.

Previous work identified a post-positivist structured approach to recognize gaps in research and create interview questions for future empirical work. These papers investigated the stakeholder perception of project success in the literature and how this was measured through current methods and models. It was concluded in the author's previous work that the perceptions of success by stakeholders are significant to the final project judgment and therefore, warranted investigation.

The reviewed literature revealed that the most cited instrument used to assess project success is Pinto and Slevin's (1987) quantitative 'diagnostic behavioral instrument'. Their instrument has been developed over a years by numerous authors (see Jugdev and Müller, 2005, for a review) to identify significant key dimensions for project success. The author's previous work reviewed this and additional methods that have been used to measure project success and identified areas that have previously been excluded for empirical research into multiple stakeholder groups' perception of project success that could be applied to projects. The measurement methods could be traced back to the 'diagnostic behavioral instrument' of Pinto and Slevin (1987) to measure project manager's perception. However, it was noted that this instrument dates back to 1987 and has been used widely, but has not been adapted to take account of the various different stakeholder groups which affect a projects outcome as a success or failure. The previous study identified new areas for investigation in their tool of benefit to the stakeholder group, client/ customer specific issues and time/ cost/ quality and suggested interview questions for empirical work.

Whilst it is recognized that other studies (Metcalfe and Sastrowardoyo 2013, McKenna and Baume, 2015) have offered methods for stakeholder groupings, the aim of this study is to offer an instrument based on a rigorous approach, to examine multiple stakeholder perception of project success, from stakeholders other than the project manager. This will determine the reasons for the apparent high failure

rate of projects. Specifically it will achieve a greater understanding of how senior management, project core team and project recipient stakeholder groups perceive project success and how this perception contributes to its achievement. This understanding aims to enable those, who embark on projects, to manage multiple stakeholder expectations more effectively, and thereby increase the number of successful projects.

This article provides empirical research to create a proposed survey for wider data collection to establish how the selected dimensions are recognized as important by the different stakeholder groups. The purpose is to achieve a greater understanding of how project success dimensions can be measured, to facilitate a shared stakeholder view to increase project success rate.

1.2. Project success in the literature

As mentioned, previous work identified and defined the dimensions of project success, the stakeholders identified and measurement methods in the literature. A summary will be presented here; however, the previous papers should be referred to for evidence.

1.2.1. Summary of stakeholder's perception of success

The main theme found common to five stakeholder groups (project manager, client, owner, user and project team) was communication. Four stakeholder groups (project manager, client, sponsor and user) considered setting and meeting a schedule as essential for measuring and understanding project success.

Identifying and agreeing objectives/ mission, stakeholder satisfaction, makes use of finished product/ acceptance and cost/ budget were the third most frequent. Finally, project manager competencies and focus, the project delivering the strategic benefits and top management support were recognized in two stakeholder groups, which were related to project manager, organization and senior management. This is consistent with there being less empirical research conducted into the organization and senior management perception of success.

The groups with most success dimensions in common were client and user (success dimensions - communication, time, stakeholder satisfaction, makes use of finished product/ acceptance and cost/ budget), which was expected, as there is overlap when defining client and user. There were four success dimensions in common between project manager and user/ client (success dimensions - communication, time, stakeholder satisfaction and cost/ budget). There were fewer success dimensions in common between project manager and sponsor/ owner, which could account for the project manager needing 'top management support'. The results revealed that the project manager and project team (success dimensions - communication and identifying/ agreeing objectives/ mission), and project team and user/ client (success dimensions - communication and makes use of finished product/ acceptance) only had two success dimensions in common. It could be assumed that these would be the closest groups, as the project manager would inform the project team of the success dimensions and these would be filtered to the user/ client. There was only one success dimension in common between those in senior management (sponsor, owner) and the client/ user (sponsor and user success dimension – time; owner and user success dimension – communication), which could result from the project manager dealing with the client/ user and not senior management.

The main cause for concern were the stakeholder groups where there were no success dimensions in common (client and executive, sponsor and owner, sponsor and executive, sponsor and project team, owner and executive, executive and user etc.), which were all linked to senior management (executive, sponsor, owner). This highlights the differences in perception between the three main stakeholders of senior management, project core team and project recipients. This identifies three stakeholder groups for further investigation and it reveals a gap to examine the three stakeholders in detail, to evaluate why perceptions of success dimensions differ and whether any differences lead to the apparent high rate of perceived project failure.

1.2.2. Appropriate measurement method

Nine recurring methods for measuring project success were determined from the literature examined. Of these, the most cited method was Pinto and Slevin's (1987) 'diagnostic behavioral instrument' (Jugdev and Müller, 2005). An additional eight methods were identified where each author developed their own method for measuring success (Davis, 2014, 2016). Despite subsequent publication of alternative methods to measure project success, it is evident that they can be traced back to the original measurement tool of Pinto and Slevin (1987). This was evidenced through comparison of Pinto and Slevin's instrument with the success dimensions from the additional methods. Two main themes associated with success were determined, from the additional methods, which emphasized the stakeholders involved in a project and the project structure. All the theoretical models and theories presented had similar views of involving elements across the organization, but failed to present options for how the stakeholder perception of success can determine a projects outcome. The micro and macro views and balanced scorecard were concerned with the organization as a whole, KPIs need to be set and used with other measures, square root method, four universal dimensions of success and seven influencing forces present success dimensions to interpret success, four conditions of success presents a theory and maturity models are inflexible, looking at improving the whole organizations maturity. This research required a tool with clear guidelines and a basis for questions to examine stakeholder perception.

Davis (2014) identified 10 project success themes in the analysis, of which seven were used in Pinto and Slevin's list. This demonstrated that their factors have been replicated in other studies and are valid measurements of project success. It also highlighted a gap in their instrument to measure the benefit to the stakeholder group, client/ customer specific issues and time/ cost/ quality in more detail. These gaps, along with the dimensions from Pinto and Slevin's (1987) instrument, formed interview questions to create an adapted method to investigate perceptions of project success. This paper will present the results from the in-depth interviews in which the responses will develop a survey appropriate to measure project success in multiple stakeholder groups. The results of the survey will form the basis of a multiple stakeholder model to aid in problem-solving through recognition and reconciliation of different

stakeholder views to ensure that all stakeholder groups are in agreement, leading to successful project delivery.

1.2.3. Recent developments

It has been noted that similar studies have examined aspects of project success and the stakeholders involved. These will now be presented; however, none of them has examined the senior management, project core team, and project recipient stakeholder groups in one empirical study, supporting the point that empirical work focusing on multiple stakeholder groups is rare.

Thomson (2011) examined performance metrics in the construction industry based on client judgement. He highlighted that a client becomes more aware of their requirements the further into the project they get, but a project sponsor sets the initial requirements. This resulted in the client stating that practitioners did not take into account their needs, and a project can be deemed a failure as a result. He examined one 'refurbishment of office space' project containing three recipients, two senior management, and five project core team members in one organization. He found that practitioner and client stakeholders had conflicting requirements, which required careful consideration. He offered a revised project sponsor role to address client perception of project success in the construction industry. Whilst this study could be considered to offer empirical research on multiple stakeholder groups, emergent issues were concerned with physical aspects, such as computer mounts and relocation logistics. Al-Tmeemy et al. (2011) added that success criteria and categorization models are applicable in the short term to building projects, focusing on how contractors evaluate success, to create their own categories, including "project management success, product success, along with market success" (p.337). Nour and Mouakket (2011) presented a classification framework of critical success factors for enterprise resource planning (ERP) systems based on stakeholder perspectives. This was constructed from a literature review and categorized the factors into six stakeholders and three phases of the project lifecycle. The tool was proposed to help organizations identify Critical Success Factors (CSF) and the stakeholders affecting them for better implementation of ERP systems. They emphasized the role of top management, IS managers and ERP

users but did not test the tool or provide empirical evidence. The framework also provides no guidance or differentiation for dealing with the distinct stakeholders, even though the authors stressed the importance of their individual perspectives.

Shaul and Tauber (2012) created 15 categories of CSFs based on previous research for ERP implementation. They administered a questionnaire asking project core team members and recipients which project phase their identified factors should be applied to. They did not ask senior management. They concluded that factors affect different project phases and provide practical guidelines as to which factors are relevant and when they should be considered for ERP system implementation, e.g., "monitor users' feedback during testing and training" (p.375).

McLeod et al. (2012) investigated how project outcomes are subjectively perceived in one IS case study project by senior management and the project core team but did not consult the project recipients. They asserted that a project can be perceived as successful by one stakeholder and a failure by another, but the stakeholder who evaluates it provides the final judgement. This echoes the findings of Turner and Zolin (2012) in that the importance placed on criteria of project success changes over time depending on the stakeholder. All stakeholders, apart from one senior manager, evaluated success on time, budget, and meeting specifications. Whilst the paper stated that using time, budget, and specifications oversimplifies project success, the results support their importance. Other criteria included client satisfaction and business/user/strategic benefits, which are identified in the literature analysis for the current study. Zanjirchi (2012) surveyed owners and contractors involved in oil, gas, and petrochemical projects in Iran and failed to examine project recipients. He found that consultants 'play the most important role' when determining success and owners the least and concluded that consultants' performance should be concentrated on to achieve project success. Adinyira et al. (2012) noted that success criteria for building projects were clearly defined to measure success from start to finish, but not after. A survey was sent to experienced professionals containing 13 criteria identified in the literature specifically targeted to building projects, such as 'cost of individual houses' and 'extensive use of local materials'. Time, cost, quality, and satisfaction arose as important criteria, which are recurrent in other studies; however, they did not

state who the ‘professionals’ were, and it was not possible to assess whether they were multiple stakeholders or solely project managers. Turner and Müller (2012) confirmed that the ‘most famous’ list of success factors is Pinto and Slevin’s (1987) whilst focusing on the necessary skills of a project manager to lead a project.

Turner and Zolin (2012) developed a model of forecasting performance indicators for managers to examine how stakeholders perceive success after project deployment. They recognized that projects have various stakeholders and that perception can change over time, so the project manager needs to address this. They took it outside the typical project lifecycle by examining success months and years after the end of the project to gain insight into how success can be viewed after project completion. They stated that evaluation of success across multiple stakeholder groups is rarely conducted (Turner, 2014a, 2014b). They asserted that project success and its criteria must encompass “the perceptions of multiple stakeholders” as “inappropriate evaluation of the success criteria of an existing project could misdirect the project’s decision making, de-motivate employees and establish an unproductive organizational culture” (Turner and Zolin, 2012, p.13). Turner and Zolin (2012) not only evaluated the views of multiple stakeholders during the project lifecycle but also interviewed project managers and programme directors, examining their perception of success months and years after the end of a project. They stated that, to gain insight into how success can be viewed after project completion, “one needs to consider the views of multiple stakeholders over multiple time frames” (p.10). However, their work did not refer to portfolio directors, nor did it collect empirical data from those at the board level. In addition, the author questioned whether the dimensions they created, such as ‘impact on team’ and ‘impact on customer’, can be judged from asking only two stakeholder groups as opposed to directly asking the team and customers. They showed, for the first time, that stakeholders can have different perceptions of success criteria because they will focus on factors related to the criteria they perceive as important. McLeod et al. (2012, p.72) agreed that “project outcomes are subjectively perceived by different stakeholders”; however, their study drew only on the viewpoints of one project sponsor and project team members.

There is growing recognition of the importance of owner and sponsor involvement. Turner and Zolin (2012) and Turner (2014a, 2014b) defined the owner and sponsor as separate roles. The owner is the investor, whereby the main contact occurs at the start of the project, whereas the sponsor is a pre-, during, and post-project role. Turner (2014a, 2014b) stressed that success criteria must be agreed among stakeholders before the project starts and that these conditions all have to be achieved to gain success, but it still does not guarantee success. His approach moves responsibility for project success from the project manager to the project owner. Again, this reinforces the notion that the project manager should not be the only viewpoint sought; those of other stakeholders involved in a project, including the project owner, should also be involved.

A gap in Turner's earlier work in this period is that the identified stakeholder groups failed explicitly to mention the board, leading to the assumption that its view is absorbed into the investor or owner groups. In addition, the programme director and portfolio director were not differentiated, and they could be within either the project executive or project team group. Furthermore, other stakeholders within an organization involved in the project (e.g., business departments such as finance and marketing) were not mentioned. Therefore, these four groups (board, programme director, portfolio director, and other organizational involvement) need to be defined as included in either another group or additional groups, as they are involved in the project process.

Bryde et al. (2013) created success criteria for construction projects using content analysis of the literature. Their findings aimed to help project managers report cost reduction. They noted control as important and a challenge when engaging stakeholders but neglected to ask both project managers and additional stakeholders their perceptions. Lech (2013) proposed success criteria from an organization's perspective for ERPs. His mixed methods study, which surveyed sponsors, members of the steering committees, and project managers, found that the organizations acknowledged criteria but did not attribute them as 'determinants of success' for achieved goals; e.g., if a project's time, cost, and quality differed from the plan, this was considered a success in the organization but would be deemed a failure in the literature. He determined that a project was successful if it met "business/organizational goals (i.e.,

product success) and functionality/schedule/budget, or functionality/schedule/budget adjusted for uncertainty (e.g., business change and project planning)" (p.274).

Basamh et al. (2013) applied Pinto and Slevin's 'diagnostic behavioral instrument' to examine project and change management practices in government linked companies in Malaysia. They found that there was a need for more consideration of human resources and resource allocation. At no point did they define success or present an explanation, critique, or basis of selection for six of the ten factors from Pinto and Slevin's instrument. They claimed to study CSF but discussed the results in the context of understanding different criteria. This suggested that, in 2013, the issue of using the terms 'factors' and 'criteria' interchangeably without understanding was still prevalent. Their study stated that they examined multiple stakeholder groups, including project managers, team members, change managers, and top managers, but this was contradicted, as they sent the survey to project managers and team members. Further, they did not provide a breakdown of the 30 respondents, meaning that the results could have been favored by one group. As the study was based on a survey, there was no opportunity for the elaboration of answers or gap identification in the instrument, so the results are based on the instrument questions and present no new information.

Basu (2014) conducted a mixed methods approach to examine the role of quality in the 'iron triangle'. This examined key stakeholders, but only through project and programme managers. He found that project quality was defined by achieving customer requirements and the "quality of the product (design specifications), the quality of management processes (conformance to specifications) and the quality of the organization (leadership, skills and communication)" (p.185). Locatelli et al. (2014) investigated complex projects in terms of time, cost, and quality/benefits. They suggested the application of a systems engineering approach to the governance of projects and stakeholder management to enhance performance. Further work was proposed on organizational structure and culture for complexity, but they do not consider project success dimensions. This raised the question of how they aim to improve governance without the need to understand stakeholders' perceptions of governance and success. Mazur et al. (2014) examined a project manager's personal attributes and project success. They found that emotional

intelligence was related to the strength of relationships with other stakeholders, but again, they did not ask any other stakeholders. Missonier and Loufrani-Fedida (2014) examined stakeholder analysis and engagement related to Actor-Network Theory in IS projects. This theory asserts that stakeholders should form alliances to achieve goals. Their empirical work examined 'actors' but they did not state who these actors are. They stated the importance of stakeholder involvement, engagement, and communication early in the project and the development of relationships in projects and attributed failure to 'inappropriate social interactions'. They offered an approach for project managers to assess stakeholder project networks, but not in the context of success. Johansen et al. (2014) examined how stakeholders should be managed when setting objectives to achieve project success. Uncertainty, risk, and opportunity are discussed in the context of involving stakeholders and senior management. They considered which internal and external stakeholders benefit if change in the project occurs; e.g., "Who will benefit if the market conditions become more favorable in the execution period?" (p.587). However, they noted that the management of opportunities is problematic, as it needs senior management involvement. They did not conduct empirical work.

Laursen and Svejvig (2015) conducted a literature review on project value creation using 111 contributions from the 1980s to the present, including literature from the fields of "benefits management, strategic management, and value management, besides project management" (p.10). In fact, they quoted the researcher's paper (Davis, 2014) when referring to work on project success. They found that creating value is still prevalent for the practitioner and suggested future research to 'rejuvenate value management' through a holistic approach to benefits realization and costs. This echoes the findings of the current study to focus on benefits.

Serrador and Turner (2015) examined the relationship between efficiency and overall success. They surveyed 1,386 projects and revealed that there was a 60% correlation efficiency between time, cost, and quality and stakeholder satisfaction. In a personal communication with one of the authors on 11 March 2015, Turner stated that data were gathered to demonstrate the lack of agreement between stakeholders about the success dimensions, but the data were not published. He confirmed that the data showed that

there were strong differences of opinion between the stakeholders about what the success dimensions were and that the factors each stakeholder recognized as important were related to the criteria they thought were important.

2. Methods

2.1. Research approach

This study adopts a post-positivist philosophy in combination with a critical multiplist view. This not only eradicates the choice between qualitative and quantitative methods, but also means the researcher can attain objectivity when studying the social world through the application of a scientific method and inviting open scrutiny. Previous author work details the research philosophy and approach and detailed method used for thematic analysis of the literature.

A citation analysis was performed on the data output from Web of Science using Bibexcel within a Windows operating system, to identify key authors from 708 articles. The articles were imported into a qualitative data analysis software package (NVivo) to organize the data and enable the identification of themes (Fereday and Muir-Cochrane, 2006). Due to previous concerns with literature selection returning 708 results via Web of Science, the author replicated the searches which identified the key authors in Scopus and Google Scholar databases in 2015 to compare against the Bibexcel citation analysis results. For example, a "project success" keyword search returned 2523 document results in Scopus and 57,500 results in Google Scholar. The number one cited article, with 569 citations in Google Scholar, was Pinto and Slevin (1988) mirroring the results from Web of Science. Note that Pinto and Slevin (1987) published the same results as in Pinto and Slevin (1988). Additional searches were done within the "project success" results for each of the key author names identified in the Bibexcel analysis (see Davis, 2014 for details) e.g. Pinto was searched for in the "project success" Scopus results and returned 336 document results and 4150 results in Google Scholar.

2.2. Interviews

Semi-structured interviews are employed to "learn the respondent's viewpoint regarding situations relevant to the broader research problem" (Blumberg et al., 2008, p.386). They provide rich data collection, allowing for clarification and expansion of questions and answers (in interviewees' own words, therefore increasing validity) during the interview (Blumberg et al., 2011). The data collected can be analyzed qualitatively and then quantified. Any ambiguous answers or possible errors in the data collected can be clarified with the interviewee, as the data are not collected anonymously.

Disadvantages include the large amount of time needed when collecting (recording) and analyzing (transcribing) data, bias (Neuman, 2011), reliability, lack of anonymity (Saunders et al., 2009), interview environment (noise, Neuman, 2011), interviewer skill and small sample size (Blumberg et al., 2011). Saunders et al. (2009, 2012) and Ghauri and Grønhaug (2010) suggest interviewer training, prior clarification of questions and pilot testing the questions. This ensures that the appropriate information is collected to answer the research problem. This stresses the importance of appropriate question selection and method, e.g. open-ended questions allow discussion to develop theme creation not considered by the researcher. Closed questions increase speed of collection and speed of quantitative analysis, but curb the opportunity for answer elaboration. The study addressed this by using semi-structured questions which guided the topic, but allowed interviewees the opportunity to elaborate which led to additional themes being identified. The main practical concern when conducting the empirical research was access to data and confidentiality issues. The issue of confidentiality was raised; however, the researcher agreed prior access before commencing the research. Initial talks with the organizations confirmed access to the three groups of stakeholders required for both qualitative and quantitative data collection. Also, the interviewees were informed that responses were anonymous and they could sign off the transcript before the data was used to promote honesty and trust.

The interviewees were selected on a convenience basis to allow for faster and cheaper data collection, as the sample is already determined (Christensen et al., 2011). Potential bias of the sample was noted, however, this was minimized as no one group was favored, through an equal number from each of the identified stakeholder groups being selected (Lucas, 2014).

2.3. Data analysis related issues

Validity and reliability are often viewed as quantitative measures, causing contention in the literature regarding their applicability to qualitative studies (Long and Johnson, 2000; Rolfe, 2006; Sandelowski, 1993). It is noted that the analysis in the current study is primarily qualitative, so these terms may not seem appropriate. Noble and Smith (2015) proposed a solution to look at the 'credibility' of qualitative research and replace 'validity' with 'truth value' ("Recognizes that multiple realities exist; the researchers' outline personal experiences and viewpoints that may have resulted in methodological bias; clearly and accurately presents participants' perspectives", p.34), 'reliability' with 'consistency/confirmability' ("Relates to the 'trustworthiness' by which the methods have been undertaken and is dependent on the researcher maintaining a 'decision-trail'; that is, the researcher's decisions are clear and transparent. Ultimately an independent researcher should be able to arrive at similar or comparable findings", p.34), 'neutrality' ("Achieved when truth value, consistency and applicability have been addressed. Centers on acknowledging the complexity of prolonged engagement with participants and that the methods undertaken and findings are intrinsically linked to the researchers' philosophical position, experiences and perspectives. These should be accounted for and differentiated from participants' accounts", p.34), and 'generalizability' with 'applicability' ("Consideration is given to whether findings can be applied to other contexts, settings or groups", p.34). Therefore, these qualitative terms were applied to the current study.

To ensure that credibility was achieved, a rigorous, transparent, and detailed account of the data collection and analysis procedures has been provided. Furthermore, academics and industry experts were

consulted to discuss the literature findings and to corroborate empirical findings. Table 1 details the solutions to increase credibility in the work.

INSERT TABLE 1 HERE

2.3.1. Pilot Study

Three pilot interviews took place between 29th August and 17th September 2012 with industry experts in the field of project management. The interview scripts were transcribed and sent to the pilot interviewees for approval and comment. These were agreed and the amended interview questions were sent to them for comment. Comments were received and the questions then refined. It was found that, whilst the majority of the questions for the three stakeholders groups were identical, some questions had to be adapted for each stakeholder group as they have differing degrees of interaction with projects. For example, the project team is directly involved with writing the project purpose, but senior management do not write it, but may see it and the project recipient may not see it. The question adaptions were consulted with three academics and three industry experts.

2.3.2. Interview organizations

Four organizations were interviewed between January 10th and May 24th 2013 including two senior management, two project core team and two project recipients from each of the four organizations, resulting in a total of 24 interviews. It was desired to interview two public and two private organizations, however, it was only possible to interview three public organizations and one private organization. On comparison of the results, the answers from those in private and public organizations were the same or similar.

All interviews were conducted via Skype with the software 'MP3 Skype Recorder' recording the interviews. The interviews took between 25 and 72 minutes. The interview scripts were transcribed and sent to the interviewees for approval and comment. The interview transcripts were imported into NVivo. The transcripts were inductively coded, not referring to the literature review thematic analysis results.

This was to minimize bias and develop themes from the interviews as opposed to using the themes identified from the literature review. The themes from the interviews were then matched to the literature review themes and those of Pinto and Slevin's (1987) quantitative survey 'diagnostic behavioral instrument' for comparison and survey development.

3. Results and Discussion

3.1. Interview results

When analyzing the interviews, it was prevalent that some themes from the literature were not present. This highlighted three main areas for discussion to develop the survey; benefit to stakeholder group, time/ cost/ quality and accountability. The results from these three areas will be presented. It is noted that some areas will compare criteria against Pinto and Slevin's factors, but the reasons will be made explicit.

3.2. Benefit to stakeholder group

The benefit to stakeholder group theme was a key identified theme in the study (Table 2). The benefits were grouped into those that were measurable in either a quantitative (e.g., cost) or qualitative way (e.g., benefits to organization); those that have a specific link with a project stage; and those seen by different stakeholder groups. The results indicate that cost/money benefits are most easily recognized (11 out of 24 responses); with almost equal responses from the SM and PCT. It is also apparent that benefits are usually considered at the start of a project and tracked and reviewed at the end of the project, as there is little variation in the total number of responses (9, 10, and 11 interviewees). It was noted that the PR group's recognition of benefits was poor and surprisingly greatest at the start of the project, with no response after delivery when the benefit of a project is realized. The PR and SM were recognized as receiving benefits from a project, but there was little recognition that the PCT received any benefits from a project, which might reflect the attitude that it is part of their job.

INSERT TABLE 2 HERE

3.2.1. Summary of benefit to stakeholder group

Examination of the key themes for each of the three stakeholder groups revealed that SM recognize the need to identify benefits after the project is delivered and the fact that financial measurable benefits are key. The PCT echoed these findings, recognizing the benefits throughout the project and then the benefits after delivery and measurable financial benefits. The PR highlighted that the benefits should be set at the start of the project (these should be for the PR) and then echoed the theme of financial measurable benefits. When scrutinizing the differences in perceptions among the three stakeholder groups this showed that the PR view does not equally recognize five themes, the PCT two themes, and SM four themes (Table 3).

INSERT TABLE 3 HERE

3.3. Time/ cost/ quality

Table 4 shows the 'time, cost, and quality' theme.

INSERT TABLE 4 HERE

3.3.1. Time

Twenty-three interviewees mentioned time as an issue on a project. When estimating time, interviewees discussed issues including how to meet time schedules, imposed timescales, or a set timeframe and that there was no choice in how time constraints are met. The need to set end dates for project delivery and working backwards from end dates and deadlines were discussed. Issues that determined the end date included the allocation of staff, people's time, SM imposing deadlines, and working out the necessary resources. There was discussion around dictated and imposed deadlines, drop-dead dates, and fixed schedules; however, this contradicted the theme of needing to set realistic deadlines. Setting, meeting, and delivering against milestones was mentioned, with interviewees noting unrealistic timescales, referring to a lack of commitment to meet deadlines. There was limited acknowledgement if time distracted from

stakeholders' main duties and that limited or no time was given to work on projects. Interviewees noted that it was important to deliver a project on time. Themes included the focus to deliver allocated parts of the project on time, a lack of concern with meeting time, and not being informed with the need to meet time requirements. Few interviewees noted that projects finished ahead of timescale and a need to shorten the timescale, as resources would not be available for the next project. Delaying projects was common, with interviewees noting that the wrong person delayed the project, causing further problems. In some cases, it seemed acceptable to move timescales, defer completion of a project, delay the launch of the project, or repeatedly move the project deadline back with no consequences. One interviewee stated that a loss of goodwill can result from repeated delay. Slippage was briefly mentioned with the need to identify the drivers, but it does not affect whether a project goes live. It was a common problem that a project went over time and again; in most cases, this did not incur consequences. It seemed more important to get the project right than to hit the deadline. One interviewee noted that there would be a fine for not meeting a deadline and one noted that, if there were consequences, the performance would be better, as the project would be forced to be completed on time.

3.3.2. Cost/money issues

When discussing the criteria of cost, interviewees noted a focus on meeting the budget, some interviewees did not know how the budget was determined, and two noted that no budget was set. The interviewees stated that, once the budget was identified, it should be broken down into the costs throughout the project and there should be strong governance to meet the budget. Budgets tend to be reassigned to other projects, meaning that overspending was common, resulting in other areas being sacrificed if the project was over budget. In addition, interviewees stated that there are sometimes no consequences for going over budget. Interviewees mentioned cost linked to budget; the issues included cost savings, cost benefits, the fact that costs are important, and the need to meet costs. Limited consequences were mentioned when exceeding costs. Consequences were linked to fines and penalty payments; however, as previously mentioned, in most cases, there were no consequences when exceeding

budgets. Additional terms linked to budgets in the interviews included investment, with the need to make a case for the investment, along with a need for return, who decides what to invest in, and the basing the project on the available investment. Funding was a limited area for discussion in relation to determining whether changes take place and requesting funding. This could also fall within the investment theme. Saving and getting value for money also arose as themes. This again echoes the sub-themes in the investment and funding themes. Price was linked to the concept of tending, charging a fair price, prices in proposals, and penalties for not meeting fixed prices. Interviewees noted that projects compare their expenditures and that there was a need to manage overspends continually. Financial benefits, impact, objectives, outcomes, and rewards and return were mentioned, which were echoed in the themes on benefits and impact. The need for profitability and to increase the margin was noted by interviewees. This could be a result of the fact that the focus of some projects linked not to making money but to softer benefits such as making people's lives easier. Invoicing was briefly mentioned in relation to sales development, evaluation of transactions, and client satisfaction with what they paid for.

3.3.3. Quality

The interviewees discussed quality linked to objectives, outcomes, and deliverables. Quality was defined by project defects, end point, content, delivery, and service. Interviewees mentioned that quality is normally sacrificed when a project exceeds time or budget.

3.3.4. Combination of more than one and scope

Some interviewees did not separate time, cost, quality, and scope. They noted a need to balance these and determine them according to the client needs. Interviewees discussed scope in the context of clarity, defining scope, the need to add or remove scope, and managing scope.

3.3.4.1. Summary of time, cost, and quality

Examination of the key themes common to the three stakeholder groups revealed that all were in agreement that 'time' is the most recognized theme. SM also considered scope and a combination of time, cost, and quality important, whereas the PCT considered 'quality' and PR considered 'cost/money issues' the most important. Only the PR did not equally recognize issues in the 'scope' theme.

3.4. Accountability

The interviewees discussed 'accountability', and this was identified as a new area for investigation (Table 5). Accountability was defined as roles and responsibilities, not my job, ownership and delegations of authority, doing what you are told, feeling responsible for delivery, being in charge of the project, looking after the programme to the end, owning the project, owning the process or documents, owning the issues, and giving restrictions on what people can and cannot do. Accountability was noted as everything to do with the project and being linked to project delivery ('accountability linked to something' theme), area delivery, cost/budget, benefits, objectives, control framework, governance, quality of delivery, target delivery, outcomes, requirements, and being associated with a project or programme. Accountability was recognized as being set by the project leads ('accountability linked to people' theme) or SM, with all stakeholders being accountable, including, project managers, team leader, clients, owners, sponsor, steering groups, and end users. It was noted that accountability depended upon seniority that it was difficult to get people to take accountability, and that escalation is needed when accountability is not taken. In addition, if there is no accountability, there is no motivation to complete tasks on the project, and this would become apparent only if the project went wrong. Accountability should clearly define the roles and responsibilities, which must be acknowledged and transparent so everyone knows what they have to do and understands their roles and where they stand. This can include a debate to ensure agreement.

INSERT TABLE 5 HERE

3.4.1. Summary of accountability

Examination of the key themes common to the three stakeholder groups revealed that all groups agreed that accountability should be defined and linked to something, e.g., SM or the project manager. This also showed that the PR and SM did not equally recognize the same one theme as the PCT ('roles, responsibilities, relationships').

3.5. Summary of interviews

The interviews emphasized the need to understand why people get involved in a project to increase engagement. The lack of engagement was attributed to people with the incorrect skillset being selected for the project. Necessary traits included experience, being logical, a good communicator and trustworthy. It was noted that the project team often did not have any input into selecting who was on the project. Also, end users were frequently not involved in developing the project, but as they were the recipients, deemed it a failure as they chose not to use the new IT system implemented. It was prevalent that accountability was important as roles and responsibilities should be clearly defined and transparent with procedures for follow up. Assurance, governance and compliance arose as a topic and the lack of procedures for decision making, dealing with conflict and change, monitoring and post project follow up. The areas identified in the interviews were compared to those in the reviewed works and were further developed for use in the survey.

3.6. Using the interviews to refine the survey

After the interview transcripts were initially coded, similar codes, for example, about vision and mission were collated. These interview codes were then compared with the themes created in the literature review coding stage. The themes from NVivo were exported into Microsoft Excel and then put into tables in Microsoft Word. This allowed for easier reading of the themes and sub themes. The codes were analyzed and the 'review comment' Microsoft Word function was used to add comments. Review comments were added to make suggestions for statements to be added to Pinto and Slevin's instrument

(Table 6). This was done before comparison to Pinto and Slevin to minimize bias when creating the possible new statements to be added to the survey.

INSERT TABLE 6 HERE

On completion of the suggested statements, each of Pinto and Slevin's factor statements was added next to the most closely matching suggested survey statement. This aimed to highlight limitations in Pinto and Slevin's statements and provide credibility that their statements were current in the industry. The suggested survey statements were re-read to assess whether each statement could be asked of all three stakeholder groups (senior management, project core team, and project recipient) or whether individual surveys needed to be designed for each group. It was determined that one survey could be designed for all stakeholder groups as long as the wording of the statements did not refer to one particular stakeholder. Any differences in stakeholder groups would become apparent in the analysis of survey results. Feedback from the pilot interviews about the question area ordering indicated that the areas should be designed to be in a similar order to that of Pinto and Slevin's instrument. The proposed survey statements were also worded to use similar wording as Pinto and Slevin's instrument to ensure consistency. For example, 'I feel' was changed to 'I am aware'.

3.7. Matching the systematic literature review themes to interview/survey themes

The systematic literature review themes were matched to the themes from the interviews (called Survey Area Title in Table 7). This revealed that the majority of Pinto and Slevin's statements could be matched to the proposed survey items; for example, the proposed 'Communication – Method' survey question asks the following:

- When project updates are available (e.g., reports, emails), I read them before the specified deadline for changes.
- I will read an update if it is over a page if the content is relevant to me.
- I would prefer updates to be kept to a one-page summary.

This was matched to Pinto and Slevin's (1987, p.25) communication factor, statement one – "The results (decisions made, information received and needed, etc.) of planning meetings are published and distributed to applicable personnel". As the proposed statements were more specific, they would remain as opposed to being replaced them directly with Pinto and Slevin's.

INSERT TABLE 7 HERE

3.8. Survey practice

The pilot survey was sent to three industry experts and four academics, selected on a convenience basis, for feedback on 18 December 2013. It was paramount that the feedback from the survey reflected what the respondent thought might contribute to success rather than how they defined success. Additionally, it was important to ensure that all respondents interpreted each question in the same way and understood how a project was defined. A definition of the term 'project' was included in the survey introduction to minimize margins of error.

The pilot survey comprises 13 question headings; however, some questions had multiple parts, resulting in 24 questions covering a total of eight pages. It incorporates questions that were part of Pinto and Slevin's (1987) diagnostic tool as well as questions to find out more about the identified gaps discovered in the systematic literature review (Table 7). The final survey includes only items that covered the three identified gaps from the systematic literature review and interview analysis, 'time, cost, and quality', 'accountability', and 'benefit to the stakeholder group', with eight questions. A total of 80 selection items and an additional two background questions resulted in a more focused, manageable survey for completion. To compare the new model to the current instrument, the survey uses the same seven-point Likert scale as Pinto and Slevin (1987) to offer a good balance for selection.

Background questions one and two ask the respondents about their role in the project they were using to answer the survey and a brief description of previous experience before the current role. Questions three to six concerned elements of 'time, cost, and quality'. An additional question arose out of the interviews

as to how to balance these elements. Questions seven to nine examined elements of 'accountability' for a stakeholder and senior manager. Question ten explored the 'benefits to a stakeholder group'. Questions three to ten have been categorized in Table 8 into the three gap areas from the systematic literature review and interview stages.

INSERT TABLE 8 HERE

4. Conclusions

The definition of project success from this paper goes beyond the technical definitions offered by the reviewed literature. Pinto and Slevin's (1987) diagnostic behavioral instrument was found to be the most cited tool for assessing the perception of project success. The factors were extracted from this and compared to other models and methods identified in the reviewed works. Thematic analysis identified gaps in the tool to investigate three areas; 'the benefit to the stakeholder group', 'client/ customer specific issues' and 'the iron triangle'. These gaps along with the dimensions from Pinto and Slevin's instrument formed interview questions, therefore creating an adapted method to investigate perceptions of project success in the four selected organizations.

The findings from the interviews emphasized the need to understand why people get involved in a project to increase engagement. Accountability arose as a new dimension for investigation as roles and responsibilities should be clearly defined and transparent with procedures for follow up. Pinto and Slevin's diagnostic behavioral instrument showed a high level of consensus between stakeholder groups. By contrast, the study interviewees took a very different view which revealed that projects are messier and not as clear cut as they may appear. Project management is paradoxical as it can be seen as all-encompassing and yet there are controls forced on it to lend definitions of how a project is defined as successful. These controls are enforced from top down management limiting the involvement, participation or engagement from stakeholders. The empirical work suggests the need for a more participative approach using collaboration between the stakeholders involved in determining a projects

outcome as a success or failure. This would also take account of the need for negotiation of resources and required skills that the project manager is often lacking (Harrison et al., 2010; Leisyte and Westerheijden, 2014).

Areas identified in the interviews were compared to those in the literature review and highlighted areas for further investigation into, the criteria of the 'iron triangle' (time, cost, and quality) and factors of 'accountability' and 'benefit to the stakeholder group'. The interview analysis was used to create a survey for future work.

This study addressed a gap to compare multiple stakeholder groups differing points of view to improve mutual understanding. The original contribution to academic knowledge improves the rigor of project management research, which identifies multiple stakeholder groups' perception of project success dimensions. Knowledge is widened as it was found that all stakeholders do not value all dimensions of equal importance to achieve project success and therefore, relevant dimensions varied between stakeholder groups with different perspectives in the literature. Knowledge is added to through empirical research identifying new areas of development for Pinto and Slevin's (1987) instrument to investigate stakeholder perceptions of project success.

4.1. Academic implications

The current work was based on contingency and stakeholder theory, which acknowledge that there is more than one approach to managing a project (Anbari, 1985; Bredillet, 2007; Söderlund, 2002) and stress the importance of meeting stakeholder needs (Harrison et al., 2010; Leisyte and Westerheijden, 2014). Project managers adopting contingency theory have to deal with multiple conflicting stakeholder inputs, which may contribute to the perception of project failure.

A new multiple stakeholder theoretical model that has stakeholder opinion at its center is proposed to develop whereby previously unconsidered dimensions are used to judge project success that evolved from the views of experts and practitioners. The model relies on anonymity, which avoids conflict between

stakeholders but allows their personal view to be put forward and considered for the best project outcome. The collation of these views by a neutral person will permit agreement of the success dimensions to be used for specific projects. Hence, the model will use dimensions that all stakeholders recognize as key to project success rather than dimensions elicited from a single stakeholder group, justifying the claim that it will be stakeholder centered.

This process, in turn, will enhance the dynamic engagement of stakeholders and the ability to respond to possible changing priorities of different stakeholders by altering success dimensions. It is believed that this is the first study whereby a model will be developed which incorporates individual views of the appropriateness of success dimensions to their roles.

It is proposed that through use of the model, organizations will be able to be more precise in their choice of success dimensions used to judge project success, leading to more informed decision making and subsequent motivation of employees and therefore a more productive organizational culture, which will ultimately aid in successful project delivery.

Currently, there is no recorded model within the project management literature that is stakeholder centered. The model will allow the proven differing views from multiple stakeholders, as shown in the interview results, to be included when formulating KPIs to ensure that success dimensions are met.

4.2. Practical implications

This study uses contingency theory to explain that successful project management is dependent on the recognition that both internal and external factors will influence the final outcome and that these might change throughout the project lifecycle. The theory suggests that effective project managers use their people skills and provide structure together with accountability for the stakeholders concerned. While this will not necessarily guarantee success, the findings from this paper identified apparent discrepancies in the perceptions of success between senior management, project core team and project recipient stakeholder groups. Results from the qualitative study indicate that each stakeholder group gave priority to different project performance attributes. This substantiated commonly held views among practitioners

and will lead to the creation of a multiple stakeholder theoretical model founded on the project success dimensions revealed from empirical data. The model will be used to design a tool that gives an opportunity for stakeholders to collaborate and capture and manage expectations, thus retaining their engagement and allowing the monitoring of each stakeholder group priorities. Early testing data suggests that use throughout the project lifecycle will increase the consensus of project success as opposed to failure.

5. Directions for Future Research

It was recognized that the literature reviewed in this study is specifically limited to project management literature which recognized areas for development linked to stakeholder groups. It is acknowledged that future work could combine the results with stakeholder management literature in mainstream management theory and other emerging conceptualizations of projects as networks, power relations, responsibility, globalization, instability, corporate social responsibility and changing forms of work organization.

This study proposes further in-depth interviews and an action research approach with a wider audience in more public and private organizations to ensure comparable results. A small number of qualitative interviews took place (24) as they were used to inform the development of the proposed survey instrument. As the research questions pertaining to empirical data collection and analysis were concerned with stakeholder perception of success, this suggests a need for an adequate number in the quantitative survey stage of the study to allow for comparison between groups.

The findings of the qualitative study will be extended to a quantitative study to confirm whether the initial findings were similar across a larger sample of stakeholders. The results from both studies will be used to create an idealized, multiple stakeholder model, considering all the critical attributes to measure project success. This model will be tested with a focus group to identify the extent of ease and the barriers

that adopting this new perspective would present in practice. These results will be presented in subsequent papers.

This will be valuable because it will create an opportunity for stakeholders to stay dynamically engaged, collaborate, capture and manage expectations to monitor possible changing priorities of different stakeholders of success dimensions. The model will also aid in identification of individual stakeholder issues as opposed to overall project issues and will also identify stakeholders who may cause difficulties with opposing views. This will create a focus on what success dimensions the organization needs to concentrate on throughout the project for each stakeholder group. This provides organizations with the knowledge necessary for effective problem-solving to structure and reconcile different stakeholder views to ensure that all stakeholder groups are in agreement, to aid in successful project delivery.

Finally, this study provides a background to a proposed set of articles. It provides the 'what' (the success dimensions and stakeholders perception of these), the 'who' (the identified stakeholders) and the 'when' (reviewing the success dimensions literature over time), these findings have been published (Davis, 2014). The 'how' (through a review of the current methods used to measure project success dimensions) (Davis, 2016). This paper addresses the 'why' (empirical research to create and validate a proposed method to establish why the selected dimensions are recognized as important by the different stakeholder groups) and the 'where' (by empirically studying stakeholders in both public and private organizations). Future articles will address the 'so what' aims to achieve a greater understanding of how project success dimensions can be measured, to facilitate a shared stakeholder view of project success, as a successful project inspires motivation, improves communication, better team working and an increase in productivity.

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Table 1

Credibility Solutions

Area for Concern	**Research Stage**	**Solution**
Systematic literature review findings	Qualitative	Conclusions drawn from the findings of the systematic literature review developed the qualitative interviews.
Interview questions	Qualitative	Pilot testing questions as, according to Saunders et al. (2009), this allows questionnaire refinement and assessment of the questions' credibility. The questions were reviewed by academic and industry experts and pilot tested to ensure clarity of terms.
Interview findings	Qualitative Quantitative	A quantitative survey will be used to further test the qualitative interview findings to increase the credibility of the study.
Proposed Survey questions	Quantitative	Pilot testing with academic and industry experts.
Findings from empirical work	Qualitative Quantitative	Cross comparison of qualitative and quantitative results provides multiple perspectives and reduces the limitations whilst increasing credibility.
Proposed Multiple stakeholder model	Qualitative	Validation from an academic and industry expert panel aids in the credibility of applying the academic theories. Industry findings will be validated by specialists in the field they are tested in. A focus group will discuss limitations and produce an amended model to increase credibility. Multiple stakeholder model will be tested with a sample of stakeholders.

Table 2

Benefit to stakeholder group: interviewee results

Sub-theme within Benefit to Stakeholder Group	**Sub-sub-theme**	**Total SM**	**Total PCT**	**Total PR**	**TAI**	**Example Quote (Interviewee Number)**
Measurable benefits	Cost/ money benefit	5	4	2	11	PR – Financial benefits was one of the targets'.
Benefits relating to project stage	Delivery after project	6	5	0	11	SM – 'Benefits can only be seen after the project'.
Benefits relating to project stage	Throughout project	3	6	1	10	PCT – 'We have a benefits tracking grid'.
Benefits relating to project stage	Start of project	3	3	3	9	PCT – 'Part of our business case, asks us to upfront identify benefits'.
Benefit to project recipient		2	1	3	6	PR – 'It should benefit me as I use it'.
Measurable benefits	Benefit visibility	1	3	0	4	PCT – 'Everyone has to be able to see the benefits'.
Benefit to senior management		0	3	0	3	PCT – 'My sponsor keeps on my back about them getting their bonus'.
Benefit to project core team		1	1	0	2	PCT – 'I want to promotion after this project'.

Table 3

Benefit to stakeholder group: conflicting results

Sub-theme	**Sub-sub-theme**	**SM**	**PCT**	**PR**
Measurable benefits	Benefit visibility	1	3	0
Benefit to senior management		0	3	0
Benefit to project core team		1	1	0
Benefits relating to project stage	Throughout project	3	6	1
Measurable benefits	Benefit type	1	3	1
Benefit to project recipient		2	1	3

Table 4

Time, cost, and quality: interviewee results

Sub-theme within Time, Cost, and Quality Theme	**Total SM**	**Total PCT**	**Total PR**	**TAI**	**Example Quote (Interviewee Number)**
Time	8	8	7	23	SM – 'We have no choice a lot of the time… 99% of the deadlines that I work to are black and white. They would never move'.
Cost/money issues	4	5	4	13	PCT – 'I've seen that several times where for whatever reason budgets may need to be reassigned in certain areas and projects can be stopped'.
Quality	4	6	3	13	PCT – 'The quality perspective really for me comes into the outcomes and deliverables so you understand what good looks like'.
Combination of more than one	6	4	3	13	SM – 'There's always a balance between time, cost, quality'.
Scope	6	5	0	11	PCT – 'We have to clarify what the purpose is in order to scope out what needs to happen'.

Table 5

Accountability: interviewee results

Sub-theme within Accountability Theme	**Total SM**	**Total PCT**	**Total PR**	**TAI**	**Example Quote (Interviewee Number)**
Definition of accountability	8	8	7	23	SM – 'Who's actually responsible or accountable for delivering this project'.
Accountability linked to something	6	5	3	14	PCT – 'They're accountable for their specific areas'.
Accountability linked to people	3	3	5	11	PR – 'The approved persons who are ultimately responsible for delivery of the regulatory requirements'.
Roles, responsibilities, relationships	3	1	2	6	PR – 'I guess a bit around responsibilities, who's going to be responsible for what, and having that clearly defined as well',

Table 6

Example theme with comments and suggested statements

Theme from interviews	**Review comment**	**Suggestions for statements to be added to Pinto and Slevin's instrument**
Personnel skills issues – Project – How project linked to people	The interviews highlighted that projects are linked to the people involved in terms of them understanding their roles and achieving a balance of the people working together. They also emphasized that their role should challenge the project manager and provide a positive experience for the people involved.	I understand the impact that the project will directly have on me. I understand the impact that the project will directly have on those in my department. The project manager should be open to ideas and comments from their team or from other stakeholders. I clearly understand the role I play in the project process. Being involved in a project (this could be working on the project directly, or using the final end product e.g. a new IT system) provides a positive experience. I feel that I have the knowledge appropriate to fulfil my role on the project.

Table 7

Systematic literature review themes compared to survey themes

Thematic Analysis Category from Systematic Literature Review	**Survey Area Title (Interview Theme/Sub-theme)**	**Pinto and Slevin (1987) Statement Matched Closest to Survey Area**	**To Be Added from Pinto and Slevin's Factors with Statement Numbers**
Personnel skills/issues	Resources: skills	Personnel – 1, 2, 4	Personnel – 3, 5
Benefit to stakeholder group	Benefit to stakeholder group	Project performance – 5, 11. This is not a factor, it is an additional area. Therefore, this is still an area to be added to the survey in line with the systematic literature review.	
Client/Customer specific	Area no longer exists. It was more appropriate for the statements to be put into other areas. These are Communication, Monitoring and Feedback, Unexpected Problems, Systems, Post-Project.		
Communication	Communication	Communication – 1, 2 Client consultation – 1, 5 Top management support – 2, 4	Top management support – 1, 3, 5 Communication – 3, 4
	Monitoring and feedback	Project mission – 4 Monitoring and feedback – 1, 2, 4, 5 Client consultation – 2	Monitoring and feedback – 3
Satisfaction	Area no longer exists. This did not occur in the interviews, as satisfaction was specifically measured by, for example, people being involved or meeting their expectations.		
Delivery	Outcome/delivery Expectations Post-project	Project performance – 3, 4, 7 Client acceptance – 2, 3, 5 Client acceptance – 1 Project performance – 9	
Systems	Project planning, documentation Unexpected problems: Resources Expectations	Project performance – 6, 8,10 Project schedule/plan – 1, 2, 3, 4, 5 Client acceptance – 4 Communication – 5 Trouble-shooting – 3, 5 Technical tasks – 2 Project mission – 2	 Trouble-shooting – 1, 2, 4 Technical tasks – 1, 3, 4, 5 Client consultation – 3,4
Time, cost, and quality	Time, cost, and quality	Project performance – 2 This is not a factor; it is an	Project performance – 1

		additional area. Therefore, this is still an area to be added to the survey in line with the systematic literature review.
Technical aspects	Area no longer exists. It was more appropriate for the statements to be put into the Systems (Resources) area.	
Organization issues (renamed to organization issues from organization structure)	Organization issues	Project mission – 1, 3, 5
Accountability	Accountability. New area that emerged from the interviews to be added to the survey.	None.

Table 8

Survey Questions Mapped to Identified Gaps

Identified Gaps from Literature and Interviews	**Survey Question**
Time, cost, and quality	Q3 – Cost Q4 – Time Q5 – Quality and scope Q6 – Balancing time, cost, and quality
Accountability	Q7 – Accountability Q8 – Involvement (stakeholder) Q9 – Senior management involvement
Benefit to stakeholder group	Q10 – Benefits to stakeholder group