ENGAGEMENT STRATEGIES AND CHALLENGES FOR ADOPTION OF STAKEHOLDER MANAGEMENT APPROACHES (SMA) IN SOUTH AUSTRALIAN CONSTRUCTION INDUSTRY: PRELIMINARY OBSERVATIONS

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With a focus on internal stakeholder management approaches (SMA), engagement strategies and challenges have been suggested in literature. However, there is a paucity of studies in relation to external stakeholders and in particular, South Australia. This paper aims to investigate the engagement strategies and challenges affecting the external stakeholders in adopting SMAs. 21 engagement strategies and 9 challenges were identified through a literature review, and consolidated by 5 interviews. A questionnaire instrument containing these 21 engagement strategies and 9 challenges were sent out to project management practitioners in South Australia, and 19 completed questionnaires were retrieved. The top three ranked strategies for SMAs were "stakeholder identification", "well defined communication strategy and plan", and "stakeholder expectations are understood". The least ranked were "open information sharing", and "delegating responsibility to the stakeholder". The top three challenges were "conflicting agendas", "scarce resources", and "power conflicts". In contrast, the least ranked three challenges were: "subversive stakeholders", "passive involvement of stakeholders", and "low turn out to meetings". Strategies identified from the interviews included identifying stakeholders as early as the design phase of the projects. This study provides insights and raises awareness on the engagement strategies and challenges for the effective adoption of stakeholder management approaches.

Keywords: South Australia, stakeholder management, engagement strategies, mixed methods, descriptive statistics

INTRODUCTION

Stakeholders in any project can be of benefit or threat to the project's objectives depending on how they are engaged with by the project manager, the project team and the organization. Synchronizing these issues to implement the project successfully can become a challenge to the project manager. A stakeholder has been defined as an individual or group of people that can affect or be affected by the project (Assudani and Kloppenborg, 2010). Project Management Institute, PMI (2013, p.391) defines a stakeholder as 'an individual, group or organization who may affect, be affected by, or

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perceive itself to be affected by a decision, activity, or outcome of a project'. By including the stakeholder who perceives that a project can affect them, greater uncertainties in a project arise and make it difficult to plan the management of such a stakeholder. Furthermore, stakeholders have the power to be of benefit or prove as threat to project depending on how they view it and their interest can prove to be difficult to document. Inadequate attention to their concerns leads to differences and disagreements throughout the project life cycle. The significance of stakeholders is well documented in literature (Olander and Landin, 2005; Yang et al., 2009b). For example, Landin (2000 cited in Yang et al., 2009b) linked the long term performance of any construction and its ability to satisfy stakeholders as being dependant on the decisions made in stakeholder communication. In most instances, project implementers view external stakeholders as a barrier to achieving the project objectives. Earlier studies such as Aaltonen and Kujala (2010); Olander and Landin (2005) had recommended the inclusion of all stakeholders since the project affects both their society and surroundings. Both studies had also highlighted the influence of stakeholders through their linkages to project outcomes. For example, Olander and Landin (2005) showed that understanding external stakeholders therefore helps to forge a relationship thus arresting any misconceptions and assumptions before they escalate to the point of affecting the project. Similarly, Aaltonen and Kujala (2010) reported that the understanding and involement of stakehoders also reduces operational costs and consequently, the undesirable impacts on the project.

In spite of several research on stakeholder management being done, they have generalized the concept of stakeholder management. Furthermore, some of the South Australian specific studies have investigated the social forces that shape perceptions of risk and sustain community-based protest projects (Teo and Loosemore, 2010). However, with the exception of the Baroudi and Rapp (2014) study which focused on disaster restoration projects, construction specific stakeholder engagement studies within the context of South Australia are very limited. A review by Aaltonen and Kujala (2010) verified that most studies have been on the internal stakeholder leaving a gap on the external stakeholder. Therefore, a need to explore the engagement strategies and subsequent challenges associated with the stakeholder management approaches in South Australia becomes relevant. The present study is aimed at filling the knowledge gap by conducting a survey among construction professionals' in South Australia. It is aimed at eliciting perception, identifying, evaluating and ranking the choices of stakeholder management engagement strategies and challenges associated with the implementation of the stakeholder management approaches. The upshot of the study will result in pinpointing the best strategy for effective management in order to achieve the expected outcome.

The following is an overview of some of the approaches to stakeholder engagement and their associated challenges. A brief summary of discussions is provided on the extant literature on the approaches to stakeholder theory; external stakeholder management approaches; challenges affecting the external stakeholders in adopting stakeholder management approaches (SMAs), and the knowledge gape. This is followed by the methodological approach adopted, a discussion of the findings and implications of the study. Some advocated engagement strategies and challenges for the effective adoption of stakeholder management approaches are also suggested. The final section concludes with recommendations and conclusions drawn.

REVIEW OF LITERATURE

Table 1 presents a summary of studies undertaken on the following: (1) stakeholder concept; (2) Stakeholder management in the project life cycle (PLC); (3) stakeholder theory; (4) stakeholder influence strategies; and (5) stakeholder management approaches (SMA) including the (6) associated challenges. The selected studies were narrowed down to the year of publication ranging from 2003 to 2013 in order to obtain the current studies. It should further be noted that a number of stakeholder management approaches and necessary skills for stakeholder engagement have been proposed in literature. From the literature review and examination of Table 1, it is evident that stakeholders, whether internal or external, are a component that project management must include in their plans to get forecasted results. A number of studies such as Aaltonen and Kujala (2010); Chinyio and Olomolaiye (2009) have provided the following interpretation of 'internal' and 'external' stakeholders: "internal stakeholders are those who have a formal association with the project while external stakeholders do not have any formal relationship with the organization but, when their issues are not handled, can become potential threat to the project results". Despite the classification provided, Table 1 shows that the majority of studies have concentrated on the internal stakeholder than the external stakeholder as evidenced by frequency of studies reviewed with 93% against 33% for each category. Secondly, the execution and operation phases of a project have equally received minimal attention with 27% and 13% of the studies reviewed respectively compared to 53% for planning phase. This resulted from the ability to change the designs and decisions made about a project. Several authors consider stakeholders a threat (27%) to the organization hence the adoption of instrumental approach management strategies (33%) compared to 20% of normative theory.

RESEARCH METHODS

To investigate the perception of project management professionals on the engagement strategies and challenges associated with adopting stakeholder management approaches (SMAs) when engaging with external stakeholders, the following mixed research methods were employed in the study.

Measurement instrument: Quantitative approach (questionnaire design)

The questionnaire survey was distributed to the South Australian project management organisations (SAPM) comprised three distinct sections as follows: Section 1 encompassed general demographics; Section 2 comprised four subsections (2a; 2b; 2c and 2d) as follows: Subsection (2a) was aimed at ascertaining the number of external stakeholders that the organisation had relationships; (2b) was focussed on the 'stakeholder analysis' and designed at evaluating the varying degrees of the impact of the stakeholders; (2c) comprised the 21 engagement strategies, and (2d) had the 9 challenges influencing the effective implementation of SMA. Subsections (2c and 2d) formed the basis of this paper. These were further compared with previous studies as summarised in Table 1. The third and final section was designed at evaluation of the measurement of the project outcomes. Given that both industry associations have branches in every state in Australia, specific instructions were included within the questionnaire indicating who the targeted respondents were. In particular, questionnaires used in studies conducted by Olander and Landin (2008) and Yang et al., (2009a) were refined and adopted for this study. While previous studies such as Yuan et al., (2011) identified the criticality of their variables by deeming those with mean values of greater than 3.00 as important or critical, our study conducted the

analysis -T-test of the mean to measure the significance of the 'engagement strategies' and 'challenges' affecting the adoption of SMA. Drawing upon Ling and Nguyen (2013), the cut off point for 5–point scale was set at "3.5" ($\mu = 3.5$), and the hypothesis introduced to measure the criticality of the variables under investigation. The findings reported here relate to only the first and part of the second section (subsections 2c and 2d) of the questionnaire dealing with the engagement strategies and challenges. It was also beyond the scope of this study to report all the results.

Data analysis

This paper seeks to investigate the perception of project management professionals 'on the on the engagement strategies and challenges affecting the external stakeholders in adopting SMAs in South Australia. For the quantitative data from the questionnaire survey, the *Statistical Package for Social Sciences* (SPSS) computer program was also used to analyse the data generated by the research questions. In order to analyse the data as provided by the questionnaire, the following three types of analyses were used: (1) frequency analysis; (2) ranking analysis; and (3) relative importance index (RII). Such approaches have been adopted before in survey and stakeholder management related studies (Yang *et al.*, 2009b).

Reliability analysis

The measurement instrument was also tested for validity and internal consistency. According to Cronbach (1951 cited in Nunnally, 1978), one of the most popular reliability statistics is the Cronbach alpha. This was found to be 0.929 (*F*-statistic = 2.936, sig. = 0.000); and 0.829 (*F*-statistic = 7.011, sig. = 0.000) for the 'engagement strategies' and 'challenges' sub instruments respectively. The Cronbach values were greater than 0.7, thus conforming the high reliability of the measurement sub-instruments (Nunnally, 1978).

Population and sampling

The questionnaire survey distributed in July 2014 using Survey Monkey and link sent to Australian Institute of Project Management (AIPM) and Project Management (PMI) so that members who logged on would complete and respond. The link was also embedded in the end of month newsletter that is sent by mail to all AIPM members. This survey was left open for a period of 45 days. This study used ordinal scales in order to rank the data gathered from the respondent established on the Relative Importance Index (RII). By the end of the survey period, 19 responses were received. Being a web-based survey, the response rate is incalculable due to unknown potential respondents who actually receive and examine the document provided (Rhodes *et al.*, 2003).

Characteristics of the sample

The respondents to the questionnaire survey comprised eight senior managers (42.1%), an equal number three of project managers (15.8%), one senior engineer (5.3%), and an equal number two general managers and "others" category (10.5%). Of these, 13 had more than 6-10 years' experience (68.4%), five of them with 16-20 years (26.3%) and one with more than 26 years (5.3%). Based on the type of organisation, the majority 9 (47.4\%) clients (private and public); 5 (26.3\%) contractors, 4 (21.1\%) consultants. Sector wise, the majority 13 (68.4\%) were public organisations and 5 (26.3\%) private. These findings are indicative of a variety of respondents in terms of the positions in the organization. Further, it could thus be inferred that the majority of the respondents were involved in the provision of

technical, operational and strategic perspectives of stakeholder management in the study. However, it's evident regarding the proliferation of senior managers and the limited number of project managers as employed in the study sample. As opined by Rhodes *et al.*, (2003) study, sample representativeness was identified as one of the challenges faced in web-based surveys. However, it is assumed that all of the respondents have had some experience in projects.

Qualitative approach: Interviews

Interviews were used to supplement the findings from the questionnaire survey and to obtain in-depth views from the project management practitioners in South Australia.

							14	teferen	Ces								
Stakeholder management factors (SMA)	1	2	3	4	5	9	7	90	6	10	=	12	13	14	15	No.	F *(%)
Stakeholder concept			1	2		3		-	Ş		2					ł	ŝ
Internal	7	~	~	7	~	~	~	~	~	~	~	~	~		~	14	93
External		~	7		7								7	7		S	33
Potential benefit to the project						7										-	L
Potential threat to a project		~		7		~				~						4	27
Stakeholder management in the PLC																	
Planning phase	7	7	7	7		~		~	~					~		~	53
Execution phase	7	7		7										7		4	27
Operation phase	7	7														5	13
Stakeholder theory																	
Descriptive																0	0
Instrumental		7			7	~				~						S	33
Normative			7	7						~						e	20
Stakeholder influence strategies																	
Grassroots' collective action		7	7				7		~					7		S	33
Crowd behaviour theory		7					7		~							m	20
Critical mass, threshold and diffusion theory		7					~		~					~		4	27
Resource mobilisation theory		~					~		~							e	20
Political opportunity theory							~									-	L
Stakeholder management approaches			3								2					į	G
Stakeholder classification		~	7		7					7	~			2		0	40
Stakeholder engagement			~		~					~	~	~				S	33
 Communication 			7	7				7	~	7	~			7		L	47
 Relationship building 			~		~	~		~				~	~			9	40
 Conflict management 		7	7								~			~	~	S	33
 Assigning roles to stakeholders 					7	7										2	13
Analysing change in stakeholder influence				7						~						2	13
Challenges in stakeholder management approaches								7								-	2
Notes: 1. Zou et al. (2007); 2. Aaltomen and Kujala (20	010); 3. 01	ander	and Lar	odin (2)	005); 4	. Sutter	rfield e	t al. (2)	006); 5	Berin	ger et o	d. (201	2); 6.	l'ang ei	t al. (2	7 ;(600	. Teo and
Loosemore (2010); 8. McGurk et al. (2006); 9. Edeler	mbos et al	(201	1); 10.	Chinyi	io and	Olomo	laiye (2009);	11. Bo) amno	2008);	12. Va	lagaasa	r (201	1); 13.	Aaltor	nen et al.

A semi-structured interview approach was used aimed at capturing views around the engagement strategies and associated challenges. The information collected was transcribed and analysed through an iterative review process.

The profile of interviewees according to their positions were as follows: Certified practising project director (R1); Lead planning coordinator (R2); Senior project manager (R3); Stakeholder engagement advisor (R4); Team leader for design projects (R5). This level of expertise demonstrates that all interviewees were at management level in their organizations and provided vast depth of knowledge on project management and in particular, stakeholder management. Secondly, their years of experience ranged from 9 to 32 years with an average age of 20.2 years. The interviews had also managed projects ranging from 1.5\$m to 1.2\$bn. Relative to the type of organisations, three of the interviewees were from the client's; and one each was from contracting and consulting sector.

Code	Engagement strategy	t-value (μ = 3.5)	Sig (2- tailed)	Mean	Std. Dev	RII	Rank
An11	Stakeholder identification	11.180	0.000	4.750	0.4472	0.950	1
Com1	Well defined communication strategy and plan	9.922	0.000	4.688	0.4787	0.938	2
An12	Stakeholder expectations are understood	9.922	0.000	4.688	0.4787	0.938	2
Rb2	Leadership	7.889	0.000	4.688	0.6021	0.938	4
Cofm	Timely action on criticism	9.000	0.000	4.625	0.5000	0.925	5
Eplc4	Project performance standards are identified and communicated	7.268	0.000	4.625	0.6191	0.925	6
Eplc3	Stakeholder needs and expectations are addressed	6.204	0.000	4.571	0.6462	0.914	7
Rb1	Trust and collaboration	5.842	0.000	4.563	0.7274	0.913	8
Com3	Stakeholders are properly informed on project progress	7.746	0.000	4.500	0.5164	0.900	9
Eplc1	Stakeholders involved at the initiation phase of the project	6.325	0.000	4.500	0.6325	0.900	10
Com5	Efficient flow of information	7.319	0.000	4.438	0.5124	0.888	11
Com4	Regular communication with stakeholders	5.960	0.000	4.438	0.6292	0.888	12
An13	Assess the stakeholder salience	5.960	0.000	4.438	0.6292	0.888	12
Cofm	Collaboration among stakeholders	4.869	0.000	4.375	0.7188	0.875	14
Cofm	Proactive interaction with stakeholders affected	6.789	0.000	4.313	0.4787	0.863	15
Anl4	Evaluate and understand stakeholder behaviour	6.789	0.000	4.313	0.4787	0.863	15
Com7	Open communication channels established and utilized	5.398	0.000	4.313	0.6021	0.863	17
Eplc2	Stakeholders are allowed to contribute to the project	4.097	0.001	4.313	0.7932	0.863	18
Com6	Clear and planned agenda of meetings	5.196	0.000	4.250	0.5774	0.850	19
Com2	Open information sharing	3.020	0.009	4.188	0.9106	0.838	20
Rb3	Delegating responsibility to the stakeholder	0 627	0.540*	3.688	1.1955	0.738	21
Notes	\overline{I} . Engagement strategy codes where $Anl = 1$	Stakaholda	n mahei	c. Com	=		

Table 2: External stakeholder management approaches critical to project outcomes

Communication; Eplc = Engagement in relation to project life cycle; Rb = Relationship building; Cofm = Conflict management; * results not significant (p > 0.05)

SURVEY RESULTS AND DISCUSSION

Ranking of engagement strategies

The respondents were asked to rate their opinions on these 21 'engagement strategies' using a five point Likert-scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 =agree, and 5 = strongly agree). Table 2 shows the results of these mean agreement responses, t-values and sig (2-tailed).

For ease of discussion, only a few selected strategies are discussed here. Based on the mean scores and RII, stakeholder identification was the highest ranked strategy (mean = 4.50; RII = 0.950). This finding is also consistent with SMA literature regarding the strategies (Kivits 2011; Vaagaasar, 2011). Examination of Table 2 shows that with the exception of "Delegating responsibility to the stakeholder" (t (15) = .629, p = 0.540 > 0.05), the mean values of the remaining 20 engagement strategies are significantly different from t-test value of 3.500.

In order to enhance the validation of the results, the findings from the quantitative study were triangulated with those from the qualitative approach. The interviewees were asked to identify some of the external stakeholders involved in their projects, the forms of interaction used and the frequency of such interactions. The most common external stakeholders identified from the qualitative study included the following: (i) Local aboriginal community; (ii) State and local government; (iii) Environmental Protection Authority (EPA); (iv) Property owners; (v) Business owners; (vi) Media; and (vii) Special interest groups. Well defined communication strategy and plan and 'stakeholder expectations are understood' were the second ranked SMA strategies (mean = 4.688; RII=0.938). Communication strategies that foster positive suggestions on alternative approaches to project execution are well acknowledged in literature (Aaltonen and Kujala, 2010; Olander and Landin, 2005; McGuk et al., 2006; Teo and Loosemore, 2010). Similarly, Teo and Loosemore (2010) emphasise this arguement and states that the project manager should therefore effectively engage with hidden reservoirs of power exercised by stakeholders by addressing their concerns throughout the PLC.

Ranking of stakeholder management approaches challenges

Table 3 shows the mean agreement responses, t-values and sig (2-tailed) for the 9 stakeholder management challenges.

Codeal	Stakeholder management challenges	t-value	Sig (2-tailed)	Mean	Std.	RII	Rank
Codes		(µ = 3.5)			Dev		
SMC1	Conflicting agendas	9.922	0.000	4.688	.4787	0.9375	1
SMC4	Scarce resources	5.155	0.000	4.500	.5164	0.9000	2
SMC8	Power conflicts	7.746	0.000	4.438	.5124	0.8875	3
SMC3	Resistance to change	7.319	0.000	4.438	.7274	0.8875	4
SMC2	Hidden intents	7.000	0.000	4.375	.5000	0.8750	5
SMC6	Lack of extensive client participation	3.478	0.003	4.125	.7188	0.825	6
SMC9	Passive involvement of stakeholders	1.373	0.190*	3.813	.9106	0.7626	7
SMC7	Subversive stakeholders	2.267	0.039	3.938	.7720	0.7876	8
SMC5	Low turn out to meetings	0.280	0.783*	3.563	.8921	0.7126	9
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Table 3: Challenges faced in stakeholder management approaches (SMA) adopted

Notes: ¹SMC = Stakeholder management challenge; * Examples included use of surveys, reports, press release and news conference

Based on the mean scores, conflict agendas was the highest ranked challenge (mean = 4.688; RII = 0.93575). This finding is also consistent with SMA literature regarding the associated challenges (Pan, 2005; Teo and Loosemore, 2010; Yang *et al.*, 2009b; Cuppen *et al.*, 2016). For instance, Pan (2005) identified that, during project execution, power conflicts can arise due to the kind of interaction among the stakeholders or from the influence of other stakeholders. Maintaining good relationships between the project manager and the external stakeholders was found to

expedite the process of conflict resolution since both parties are aware of the project's progress and its impacts. Similarly, Cuppen *et al.*, (2016) acknowledged the existence of uncertainties and disagreements among stakeholders. 'Scare resources (mean = 4.500)' and 'power conflicts (mean = 4.438)' were the second and third ranked challenges respectively. Interestingly, examination of Table 3 shows that with the exception of "Passive involvement of stakeholders" (t (15) = 1.373, p = 0.190 > 0.05), and "Low turn out to meetings" (t (15) = 0.280, p = 0.783 > 0.05), the mean values of the remaining 7 challenges are significantly different from t-test value of 3.500.

Relative to the second challenge of "scarce resources", the study by Olander and Landin (2008) drew similar conclusions. This finding was also reinforced by **Interviewee R5** who appreciated the strategic decision of the management to intentionally allocate resources for the management of the stakeholders on the project that he was involved in. Similarly, Aaltonen and Kujala (2010) observed that perceptions of parties involved in a project contribute highly to conflicts. Conflicts can be a strategy that the stakeholder adopts to influence decisions. For example, all the interviewees noted that stakeholders who have power such as the regulatory authorities were considered more important. Some of the challenges were further also reinforced by the interviewees as discussed in the following subsection.

Strategies in overcoming the challenges

The interviewees were asked the specific alternatives that they had used to overcome some of the challenges. **Interviewee R1** suggested the inclusion of the stakeholders, people, and ensuring that the right information was provided in response to 'conflicting agendas'. Similarly, the issue of dealing with 'anger' among the stakeholders which was manifested in the 'conflicting agendas', **Interviewee R3** recommended the following: "Deal with anger and do not take it personally; for those unhappy with the project, management them by talking about it; knock on the doors and talk to the people; manage all competing agenda so that everyone feels they are being listened to and they are being involved but may not necessarily get their way". 'Effective communication' and 'engagement of stakeholders' were identified as solutions to 'lack of extensive client participation (SMC6)'. These views are also supported in literature. For example, Cuppen et al., (2016) in the areas of 'public engagement' and 'project management' have suggested the need for continuously monitoring of external stakeholders throughout the course of the project.

LIMITATIONS

While the study makes several contributions to stakeholder management theory and practice, a number of limitations of the research need to be acknowledged. Firstly, this study was purely preliminarily in nature. Therefore the relationship between sector specific engagement of external stakeholders and their effects on project outcomes could not be established. Secondly, the sample covered was small hence further analysis of such relations could not be conducted. Thirdly, the study was conducted among project management practitioners in South Australia and specifically construction projects. Their opinions may thus differ from their counterparts in other regions of the world and industries. However, despite that limitation, the findings represent a snapshot engagement strategies and challenges of the affecting the external stakeholders in adopting SMA.

CONCLUSION AND RECOMMENDATIONS

Through a questionnaire survey and a series of interviews, this study investigated the perception of project management professionals on the engagement strategies and challenges associated with adopting stakeholder management approaches (SMAs) when engaging with external stakeholders in South Australia. A comprehensive literature review identified 21 engagement strategies and 9 challenges associated with adoption of SMA. The findings conclude that stakeholder identification is the most important followed a well-defined communication strategy and plan. Conflicting agendas and scare resources were found to affect the SMA adopted. A number of strategies in overcoming the challenges were suggested such as identifying stakeholders as early as the design phase of the projects. One of the main contributions lies in identifying and confirming the challenges affecting the implementation of SMA. Secondly, the extensive literature review on the stakeholder management factors as illustrated in this study, and further summarised in Table 1 confirmed the importance and significance of the 'stakeholder management approaches' within a previously underexplored South Australian context. Finally, the study contributes to the body of knowledge on SMA among project management practitioners in South Australia, an area previously under explored.

One of the notable finding was that senior management commitment and involvement were deemed as critical during the external stakeholder's engagement process. This indicates a sense of commitment thereby creating trust. Furthermore, the findings from this study extends the previous work undertaken by Yang *et al.*, (2009a) and Aaltonen and Kujala (2010) which highlighted the need for further studies on stakeholder management strategies; and engaging with the stakeholders early in the project to ensure project success (Kivits 2011).

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