Title: Project manager's perception of the local communities' stakeholder in megaprojects. An

empirical investigation in the UK.

Abstract: Based on an exploratory study conducted in the UK using thematic and cluster analysis, this

paper investigates how the local communities' stakeholder is perceived, defined and categorized by

project managers in major public infrastructure and construction projects (MPIC), and how their

involvement could improve the performance of these projects. Due to the perceived benefits shortfall

of MPIC, well organized actions from 'secondary stakeholder' groups have led to delays, cost overruns,

and significant damage to the organization's reputation. Stakeholder management is an essential process

which aims to maximize positive inputs and minimize detrimental attitudes by taking into account the

needs and requirements of all project stakeholders. However, current project stakeholder management

mechanisms are reactive rather than proactive, mainly offering an instrumental perspective, which aims

to make the stakeholders comply with project needs. Therefore, a broader inclusiveness of secondary

stakeholders who could be harmed by the organization's strategy, such as the local communities, is

required to enhance the performance of MPIC.

Keywords: Megaprojects; managing secondary stakeholders; local community inclusiveness;

perception of local community; project performance

1

1. Introduction

1.1. Background

Mega construction projects are massive investments of infrastructure, initiated by the government, which have extreme complexity, long schedules, immense lifespans and significant social impacts (Flyvbjerg et al., 2003; Sun and Zhang, 2011). Megaprojects attract high social-economic and political interest, and high industrial and public attention (Turner and Zolin, 2012). Many countries see major public infrastructure and construction projects (MPIC) as a tool to enhance their status in global political and economic systems, satisfy human, economic and social needs, and elevate a country's social image (Jia et al., 2011). Therefore, it is not surprising that more and larger MPICs are being proposed and introduced as the preferred delivery model for goods and services (Flyvbjerg, 2014) with the global infrastructure market continuing to grow between 6-7% yearly to 2025 (PwC, 2014). This is the biggest investment boom in history (The Economist, 2008), with estimated spending of US \$3.3 trillion a year for the period 2016 to 2030 (McKinsey Global Institute, 2016).

However, megaprojects performance in private and public sectors have seen little improvements in recent years and their inability to meet basic targets of cost, time and benefits realization is well documented (Flyvbjerg, 2014; McKinsey Global Institute, 2016). Decisions made by project managers have significant impact on the strategic value delivered by megaprojects in the construction industry (Eweje et al., 2012), but organizational strategy frequently fails to achieve the desired results and, historically, megaprojects have performed poorly in terms of benefits and public support due to their impact on people and places and wastage of public resources (Bruzelius, 2002). This study aims to provide constructive insights which will be useful for managing the often underestimated political and social issues around megaprojects and the social interactions in which they are embedded. Therefore, by focusing on benefits realization as an important element for improving project performance (Laursen and Svejvig, 2016; Turner 2014), the authors draw on stakeholder theory which is a recognized framework for analyzing the behavioral aspects of the project management process (Sutterfield et al., 2006). By positioning the study towards a normative or ethical perspective to stakeholder management

(E.g. Cleland, 1986; Eskerod and Huemann, 2013; Freeman, 1984; Freeman et al., 2007; 2010; Hart and Sharma, 2004; Huemann et al., 2016), this paper reinforces the need for a broader inclusiveness of (project) stakeholders essential to enhance the benefits of MPIC projects.

Taking into account the needs and requirements of both primary and secondary project stakeholders is recognized as an essential element to achieve better project performance (Cleland 1986, Donaldson and Preston, 1995; Eskerod et al., 2015; Freeman et al., 2007; Olander 2007; Sutterfield et al., 2006). However, despite the fact that in the last decade secondary stakeholders have received greater attention both from practitioners and academics in the stakeholder management arena (Di Maddaloni and Davis, 2017), research has principally focused on those actors important to the project's economic interests, such as suppliers, sponsors and customers (Aaltonen and Kujala, 2010; Eskerod et al., 2015; Hart and Sharma, 2004). According to Eskerod and Huemann (2013), this approach offers an instrumental perspective to stakeholder management which aims to make the stakeholders comply with project needs and where stakeholders are often seen as provider of resources. This study aims to provide a better understanding towards a more inclusive and holistic approach for engaging with a broader range of stakeholders (Eskerod and Huemann, 2013; Freeman et al., 2007, 2010), who could be harmed by the organization's strategy while executing MPIC. By meeting or exceeding their needs and expectations and balancing the projects' economic, ecologic, and social interests, it is believed that benefit realization has a great impact for improving the performance of MPIC projects.

However, it was noted that the focus on MPIC benefits has been associated with national government level or large public or private organizations (Mok et al., 2015; Turner, 2014), where the local context of MPICs and related stakeholder management practices are often overlooked and therefore, warranted investigation (Di Maddaloni and Davis, 2017). Whilst the secondary stakeholders and the local community within them possess the attribute of legitimacy, because they are the risk bearers in the projects (Olander, 2007), little attention has been given to the stakeholder local community both from practitioners and academics in the project management arena. In spite of their ability to impact and stall the projects through well organized protests (Bornstein, 2010; Olander and Landin, 2005; Teo and Loosemore, 2014; 2017), the local community seems often to be excluded from communication plans

and their inputs and needs remain not well perceived by project managers in the initiation phase of MPIC projects (Aaltonen and Kujala, 2010; Olander and Landin, 2008). This can be related to the limited time spent on the front end of a project (Pinto and Winch, 2016) and the rush towards project approvals (Flyvbjerg, 2005) which, in turn, prevents a solid stakeholder identification, classification and assessment strategy and the engagement of a broader range of stakeholders being in place.

This study presents empirical findings of investigations into the role of the local community as a growing important class of stakeholders (Aaltonen, 2011; Xue et al., 2015; Zhai et al., 2009) and how their management and engagement could improve project performance by reducing benefits shortfalls in MPIC projects. However, literature has underlined the findings of Dunham et al. (2006), which claim that there is a lack of definition of the local community in the stakeholder management field. This limitation is even more evident in the context of MPIC projects, preventing stakeholder management practices at the local level being effectively captured (Di Maddaloni and Davis, 2017). Nevertheless, it also precludes a stakeholder analysis being successfully accomplished and supportive in project management decision making and strategy formulation (Aaltonen, 2011; Yang, 2014). For instance, the aim of the study is to offer an in-depth investigation of the role covered by the local community stakeholders in MPIC projects to both academics and practitioners. This will present the reasons for the apparent lack of public and local support that megaprojects historically suffer. Specifically, it will achieve a greater understanding of how project managers define and categorize this class of stakeholder and how this perception contributes to the development and approval of more ethical and sustainable megaprojects. This aims to enable those, who embark on projects, to work for a greater number and viable projects over time by bringing their benefits equally at the local, regional, national, and international level.

1.2. Stakeholders management in megaprojects

The literature shows how one of the major challenges affecting large infrastructure developments is a lack of understanding of the various interest groups, the motivation behind their actions and their potential influence during the project life cycle (IFC, 2007; Miller and Olleros, 2001; Winch and Bonke

2002). During MPIC projects, stakeholder needs are often different and disputes occur, a vast number of interests will be affected both positively and negatively throughout a MPIC project and the representatives of these interests are referred to as the project stakeholders (Olander, 2007). Therefore, listening and responding to stakeholder interests and concerns is a process that helps project managers maximize stakeholder positive input and minimize any negative impact (Bourne and Walker, 2005; Cleland and Ireland 2007).

Although many researchers have emphasized the importance for effective communication through empirical studies concerning stakeholder management and relationships in megaprojects (Feige et al., 2011; Lizarralde, 2011; Pinto et al., 2009); problems arising from stakeholder management in MPIC projects have only been recently discussed. Mok et al.'s (2015) recent work underlines how the majority of literature and related stakeholder issues focus on regular size construction projects, rather than megaprojects exceeding US\$ 500 million. The authors revealed that stakeholder management approaches in megaprojects are subject to national context of the project, indicating recommendations and the need for further research on stakeholder management in the specific context of MPIC. Moreover, Mok et al. (2015) evidence how the various stakeholder analysis methods presented in previous research concerning stakeholder identification, classification and assessment do not provide enough details. In fact, within the broader context of stakeholder theory, the literature suggests how stakeholder groups are generically identified and classified such as, external/internal (Aaltonen and primary/secondary Sivonen, 2009), (Clarkson, 1995), direct/indirect (Lester, 2007), proponents/opponents (Winch and Bonke, 2002), core and fringe (Hart and Sharma, 2004), actively/passively involved (Vos and Achterkamp, 2006) fiduciary/non-fiduciary (Goodpaster, 1991).

Therefore, in traditional stakeholder theory, stakeholder identification has assumed a generic and artificial nature (Crane and Ruebottom, 2011), which according to McVea and Freeman (2005) requires moving away from the simplifications offered by 'role-based identification' and towards identification as individuals with specific identities and interests and a 'names and faces approach'. In this way, the moral value of stakeholders can be more easily recognized. However, scholars have mainly distinguished primary stakeholders from secondary stakeholders and classified them using the

literature's prevailing stakeholder salience model proposed by Mitchell et al. (1997). Their model is based on three attributes of power, legitimacy and urgency and this classification system indicates the amount of attention that project managers should give to stakeholder needs. Despite many scholars citing this model in their work (e.g. Bourne and Walker, 2005; Johnson et al., 2005), it does not reflect the dynamic changing attitudes of stakeholders through the different phases of the project life cycle (Olander, 2007) and neither that the resources, nor the network positions of stakeholders can be considered static (Pajunen, 2006).

Although many conceptual frameworks and analytical models have been suggested by stakeholder theory scholars, managerial priorities and concerns have been focused almost exclusively on those primary stakeholders important to the project's economic interests (Aaltonen and Kujala, 2010; Hart and Sharma, 2004). Primary stakeholders are characterized by contractual relationships with the project, such as customers, supplier, or those which have direct legal authority over the project, such as governmental organizations. Secondary stakeholders do not have a formal contractual bond with the project or direct legal authority over the project (Eesley and Lenox, 2006), but they can influence the project (Clarkson, 1995). According to Aaltonen et al. (2008), while actors of such interests include community groups, lobbyists, environmentalists and other non-governmental organizations, if secondary stakeholders are excluded by project managers, they may engage in a set of actions to advance their claims, with negative consequences to direct operational costs and the reputation of the focal organization (Eesley and Lenox, 2006). Nevertheless, examples are becoming more common which highlight the ramifications of projects overlooking social and political context. For example, the 20 years of protests in Susa Valley against the High-Speed Rail connecting Italy (Turin) to France (Lyon) (Hooper, 2012), the riots during the World Cup in Brazil (Watts, 2014), or the violent protests in Turkey over the construction of a shopping center in 2013 (Letsch, 2013). For instance, greater attention and investigation should be placed in understanding and minimizing the negative effects of megaprojects on people and places through a tailored stakeholder approach which integrates both the views of primary and secondary stakeholders (Huemann et al., 2016). The desired outcome is to help

managers in the construction industry to improve megaproject's performance, by reducing public opposition, scope creep and benefits shortfall, which are a common threat for MPIC projects.

1.3. Secondary stakeholders in megaprojects

Often MPIC projects are associated with 'planning disasters' (Altshuler and Luberoff, 2003) due, in part, to their limited social benefits (Wells, 2014), lack of transparency and accountability (Flyvbjerg et al., 2003), corruption (Locatelli et al., 2017) and public resistance (Bruzelius et al., 2002). Nevertheless, the performance of megaprojects has seen little improvement in recent years where up to 50% of such projects are recorded as having benefits shortfalls (Flyvbjerg, 2014).

Although it is widely recognized that minimizing benefit-shortfalls and enhancing positive inputs is achievable through better stakeholder management procedures (Cleland and Ireland, 2007; Huemann et al., 2016; Olander, 2007), little is known about how to align project objectives with those of the secondary stakeholders in MPIC projects. Despite the fact that Freeman (1984) was the first scholar who clearly identified the strategic importance of other groups and individuals to the organization, "the resulting work on stakeholder management has focused almost exclusively on the former primary groups that are critical to the firm survival in its current business" (Hart and Sharma, 2004, p.9).

However, both academics and practitioners in the context of MPIC projects have only recently taken into account secondary stakeholders. This shows that relevant publications on megaprojects and stakeholder management are increasingly including a broader range of stakeholders in their analysis (Di Maddaloni and Davis, 2017; Huemann et al., 2016). The evolution in the last decade demonstrates that both practitioners and academics are seeking better project performance and sustainable development through a holistic approach to stakeholder management which includes both primary and secondary stakeholders. In fact, although current project management practices represents mainly a 'management-of-stakeholder' approach, where stakeholders are seen as providers of resources driven by an instrumental perspective and aims to make the stakeholders comply with project needs (Derry, 2012); in the last decade the literature shows a growing interest for more ethical projects through a more

inclusive stakeholder engagement, namely 'management-for-stakeholders' (Eskerod and Huemann, 2013; Eskerod et al., 2015; Freeman et al., 2007).

What has been proposed as 'management-for-stakeholders' is the development of more sustainable and rational projects through a conscious endeavor for fairness and engagement of all stakeholders. This perspective aligns with the seminal work of Freeman (1984), to which this study aims to contribute to, by meeting or exceeding both the primary and secondary stakeholders' needs and expectations and therefore balance the projects social and economic interests. Increasing emphasis has been recently paid to issues concerning social responsibility and many countries have established a legislation that requires extensive consultation prior to any major project approvals (e.g. in the UK). It is nevertheless questionable whether this consultation and engagement exercise has added real value to the decision making process or whether it is a mere compulsory 'tick box' exercise to gain project approval. Thus, the management of MPIC projects needs to increase transparency, fairness and participation throughout the entire project life cycle and project managers need to consider a long-term perspective for ethical and sustainable development which will take into account the global, regional and local stakeholders (Eskerod and Huemann, 2013).

Nevertheless, it should be recognized that due to a project's limited resources, especially at its front end (Pinto and Winch, 2016), project managers cannot always address the concerns of every potential stakeholder and the prevalence of the instrumental perspective in stakeholder management is thus evident (e.g. Bourne and Walker, 2005; Johnson et al., 2005; Mitchell et al., 1997). However, it is believed that a broader view that takes into account the 'less important' secondary stakeholders is highly essential in the context of MPIC projects. This is due to the environmental and societal impact that such projects typically have (Xue et al., 2015; Zhai et al., 2009) especially in the construction of transportation links, dams and oil and gas developments. There are clear examples of how organizations have seen local stakeholder's involvement as valuable and considered them as an important issue in any project (Buuren et al., 2012; Hertogh and Westerveld, 2009; Hertogh et al., 2008). The NETLIPSE research (Hertogh and Westerveld, 2009; Hertogh et al., 2008), based on best practices and lessons learnt in large infrastructure projects in Europe, demonstrates the beneficial outcomes of involving

stakeholders on an extended level in many megaprojects, such as the Øresund Crossing in Denmark, the West Coast Main Line in UK, the Bratislava Ring Road, the Lisboa-Porto High Speed Line and the North/South Metro line in the Netherlands.

However, whilst recognizing the major steps made in recent years, there has not been an academic effort to articulate the underlying assumptions that makes the 'management-for-stakeholders' approach beneficial (or not) to megaproject performance. What is noticeable is the inefficiency of the classic stakeholders' methods to capture and include the views of a broader range of stakeholders. This has not only prevented a more inclusive approach to stakeholder engagement, but has reinforced the lack of public support that megaprojects are historically facing. There is therefore a need to address the above mentioned issues through empirical investigation. The aim is to provide both practitioners and academics with a better understanding of the phenomena under investigation which can be of use in advancing the current body of knowledge relevant to stakeholder management of MPIC projects.

1.4. Local community in megaprojects

Cluttered by misrepresentation and flawed decision making (Flyvbjerg, 2014; Flyvbjerg et al., 2009; 2002), megaprojects are often seen a built-in recipe for producing local impact, but not local benefits (Major Project Association, 2014). Little has been done by managers and academics alike to achieve a people centered vision for cities which enhances quality of life and produces prosperous neighborhoods. The decision making of megaprojects is typically not driven by the real needs of society, but only by the technological, political, economic and aesthetic sublimes presented by Flyvbjerg (2014, p.8) which "ensure coalition between those who benefit from these projects and who will therefore for more such projects".

The recent literature review by Di Maddaloni and Davis (2017) uncovered how managerial attention has historically excluded those who are severely impacted on in their everyday lives through the social disruptions of MPIC projects, namely the local community. To date, the understanding of megaproject impact on the local community level and how this can be minimized through a more inclusive approach to stakeholders' engagement remains marginal. Although understanding and minimizing the effect of

megaprojects on people and places can help to manage project benefits by moving towards more 'community-inclusive' megaprojects (Bornstain, 2010); literature provides only a generic classification on the types of environmental (Melchert, 2007; Zimmermann et al., 2005) and social (Vanclay, 2002) impact of construction projects on communities. A more in-depth study has been presented by Xue et al., (2015) which empirically identifies four major environmental and social impact factors of urban subway construction affecting citizen's daily lives. They presented resident's travel, transportation, environment and daily life as the major factors impacted by infrastructure projects. However, people and places can be affected by megaproject's developments in many ways, and Xue et al.'s (2015) study is restricted to a case in China which does not qualitatively capture moral issues, different needs or expectations of residents.

Although the impact that the local community can exert on project results it is not new (Aaltonen and Kujala, 2010; Olander and Landin, 2005, 2008; Xue et al., 2015), stakeholder management procedures at the micro level of MPIC projects have not been fully evaluated. The authors have analyzed how the local community, regularly affected by megaprojects, was treated in the current domain of stakeholder management and underlined how their interests often differ from those of the project (Choudhury, 2014; Newcombe, 2003; Teo and Loosemore, 2014; 2017). What emerged was that academic thinking of MPIC projects seldom aligns project objectives with those of the local community (Choudhury, 2014) and historically megaprojects have faced unpopularity and local opposition, with secondary groups trying to influence the implementation of facility development projects (Boholm et al., 1998; Teo and Loosemore, 2014; 2017). This attitude is commonly labelled 'Not in My Backyard' (NIMBY) syndrome, which is defined by Dear (1992, p.288) as "the protectionist attitude of and oppositional tactics adopted by community groups facing an unwelcomed development in their neighborhood", and it should be recognized as an expression of people's needs and fears (Olander and Landin, 2008).

While stakeholder theory recognizes the growing importance of communities as a new class of stakeholders, the issues of their identification and prioritization has never been fully resolved (Crane and Ruebottom, 2011). The literature review revealed conflicting definitions and conceptualizations of the local community. From the pioneering work of Hillery (1955), over 90 definitions of the term

'community' emerged, and the only common characteristic among them was that they dealt with people. Although Webber (1963) first set the stage, from a perspective of a construction project, for broadening the notion of community away from purely place-based definitions, community refers to a multitude of overlapping, competing and conflicting interests groups, which shift over the project life cycle and whose interests are potentially affected by that project (Teo and Loosemore, 2011). The local community cannot be treated as a single homogeneous, easily identified group (Atkinson and Cope, 1997; Skerratt and Steiner, 2013), and in the stakeholder management literature, the concept of community has been left constantly unclear and undefined.

Dunham et al. (2006) raised the 'problem of community' as indicative of the definitional problems within stakeholder theory and the lack of application of knowledge to the local community in practice. To date, after more than ten years, Dunham et al.'s work has not been advanced by scholars in the stakeholder management field. The authors identified and described four distinct sub-categories of community; 'community of place', 'community of interest', 'virtual advocacy groups', and 'community of practice'. Community of place refers to those community stakeholders that live in close proximity to the organization's operations. Community of interest refers to individuals that are unified by a common purpose or interest and may or may not be in close proximity to the organization's operation. The virtual advocacy groups are those whose purpose appears to be the short-term goal of disruption, rather than any problem resolution. Community of practice denotes professional work groups united by a sense of shared interests, values and purpose (Dunham et al., 2006).

Due to the physical impact of megaprojects, this study emphasizes the traditional view based on geography, or place-based communities which, centered on the physical proximity of the members to project developments (Dooms et al., 2013; Driscoll and Starik, 2004). It is believed that managing the local community will help to manage benefits (Eweje, 2010; Li et al., 2012a; 2012b; Turner, 2014), by aligning MPIC objectives and interests with those of the local community and enhancing a shared view of project objectives to aid in achieving better project performance. However, it is highlighted that if there is no clear definition, it is not possible to determine whether the relevant components of the community of place have been correctly identified and, consequently, whether a stakeholder analysis

has been successfully accomplished. Therefore, a compulsory step towards a better understanding of the current body of knowledge and further development of stakeholder theory requires empirical investigation of the most common conceptualizations of what is meant by community by project managers of MPIC projects.

By exploring the literature, it was evident how stakeholder management practices at the local level of MPIC projects still are not fully captured by practitioners and academics alike in the stakeholder management arena. Given these observations, the research setting of investigating secondary stakeholder management in MPIC projects seems likely to provide an excellent opportunity to extend current theories and reveal novel insights. The key contribution is thus providing answers to the following research questions:

- 1) How is the local community stakeholder perceived, identified and categorized by project managers in MPIC projects?
- 2) How can stakeholder management practices enhance the inclusiveness of the local community and thus the overall performance of MPIC projects?

It is therefore evident that the scope of this study focuses on the perspective of project managers. As suggested by the reviewed literature, there is a need to qualitatively explore the understanding around the notion of the local community in MPIC projects, which the authors assumed necessary before more extended interrogations with the local communities' groups. By doing this, the claimed benefits towards a broader inclusiveness of stakeholders can be revealed and also emphasis will be given in elucidating how the local community can be better valued for improving MPIC project performance.

2. Methodology

2.1. Research approach

A qualitative approach can help to unravel the richness and depth of information of MPIC projects impacting the local community and will add further empirical evidence to the majority of investigated studies in the literature which, to date, are conceptual in nature. The literature review uncovered that 68% of the selected papers favored a qualitative approach in this area, 26% a quantitative and only 10% employed mixed methods. Due to the novelty of the topic which calls for descriptive and exploratory research approach, within the 62 qualitative studies, 45% applied a case study methodology, 29% a conceptual approach and 18% a literature review to investigate stakeholder management procedures both in regular size construction projects and MPIC (e.g. Aaltonen et al., 2015; Eskerod and Huemann, 2013; Eskerod and Vaagaasar, 2014; Flyvbjerg, 2014; Yang, 2014). Therefore, although more mixed-methods studies are still required in project management (Cameron et al., 2015), the authors take the view that qualitative research is essential to provide the rich context to the study before any quantitative analytical methods can be employed (Clark, 1998).

Drawing from the two research questions, it is noticeable how the philosophy behind the study is mainly driven by a phenomenological orientation toward an exploratory and inductive approach. The aim is to expand knowledge of the concept of local community in stakeholder management of MPIC projects in which theory is developed from the observation of empirical reality. Therefore, the study's epistemological position is towards interpretivism (Yimaz, 2013). This involves an examination of the relationship between the researcher and that which is being researched (Bryman and Bell, 2015). In fact, it is assumed that both the observable phenomena and subjective meaning provide acceptable knowledge (Saunders at al., 2012). The conceptual representation of the research method is represented in Figure 1.

INSERT FIGURE 1 HERE

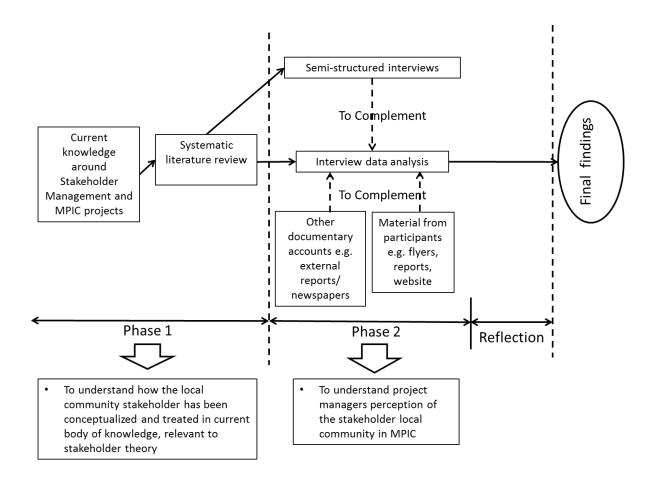


Figure 1 Conceptual representation of the research method, adapted from Teo and Loosemore (2014)

2.2. Data collection and analysis

Semi-structured interviews are employed in this study. According to Blumberg et al. (2011), they provide rich data collection, allowing for clarification and expansion of questions and answers during the interview, therefore increasing internal validity. The issue of confidentiality was minimized as the authors agreed prior access before commencing the research. Initial phone and email contact with potential interviewees confirmed their interest to take part in the study. Interest from practitioners was also enhanced through the Major Projects Association (MPA), which created awareness of the study via their bulletin in July 2016. Also, the interviewees were informed that responses will remain completely anonymous and they could sign off their transcript before data was used to promote honesty and trust.

2.2.1. Pilot Study

According to Saunders et al. (2012), a process of prior clarification of questions and pilot testing the questions was adopted to ensure that the appropriate information was collected to answer the research questions. Three pilot interviews took place between 9th March and 25th April 2016 with industry experts in the field of project management of large infrastructure projects. The interviews scripts were transcribed and sent to the pilot interviewees for approval and comment. Comments were received and questions amended and refined accordingly. It was found that some questions had to be adapted as the interviewees could have different degrees of interaction with projects and the terminology taken from the literature (e.g. project front-end; secondary stakeholders; megaprojects) was perceived slightly differently and needed explanation. Explanations prior to interview questions was therefore provided to respondents to ensure clarity and adapted questions were consulted and agreed with two academics and three industry experts.

2.2.2. Interviews purposive samples

Sampling is primarily associated with quantitative research; however samples consisting of one or more units of observations are always applied in qualitative research (Ghauri and Gronhaug, 2002). A non-probability sampling (non-random sampling), based on authors' subjective judgement, has been used and interviews were conducted with key people in the organization that best enabled the authors to answer their research questions. According to Bazeley (2013), purposive sampling enables researchers to meet the goals defined by the research aim in conjunction with controlling the level of variation among the interviewees. The purposive samples of this study are senior managers in strategic planning, project managers and communication managers directly responsible for the management of stakeholders. All the interviewees have a senior managerial role and are currently involved, or have been involved in MPIC projects in the UK. The population of the study is presented in Table 1.

INSERT TABLE 1 HERE

Element/Individual

Project managers, Communication managers, Senior managers

Sampling unit	MPIC projects
Extent	United Kingdom

Table 1 Research Population for the study

Fifteen of the most representative MPIC projects in UK were discussed and contextualized between 17th May 2016 and 6th February 2017. This resulted in a total of 19 interviews with key people in the construction industry, consisting of nine communication managers, six project managers and four senior managers which led to the satisfactory achievement of theoretical saturation (Boddy, 2016). While 19 interviews may seem a small sample, according to Mason (2010), the size of sample in qualitative research becomes irrelevant due to the fact that the value of the study is based on the quality of data. All interviewees either directly managed stakeholders or ensured that there was a stakeholder management strategy in place from the initiation project phase. Nevertheless, as some interviewees could have been involved in later phases of the project, the reliability of the results was increased through the use of secondary data such as materials from the interviewees, internal reports and newspapers. The use of secondary data helped to capture the evolution of the stakeholder management strategy towards the project life cycle. Therefore, it was not the aim of this study to compare different groups views as, on comparison of the results, the answers from those involved in the MPIC projects were the same or similar. This can also be related to the fact that all the selected projects for discussion are public funded, all are major infrastructure developments, based in the UK, and present similar cultures, similar economics, similar politics, similar public relations. The interviewees and MPIC projects profile is shown in Table 2.

INSERT TABLE 2 HERE

ID	Interviewees	Years of experience in managerial position	MPIC Project	Capital cost	Status
CM4	Communication	20+ years	A14	£1.8	On-going
	Manager			Billion	
CM11	Communication	20+ years	A14	£1.8	On-going
	Manager	-		Billion	

OF - :					
CM1	Communication Manager	20+ years	Crossrail	£14.8 Billion	On-going
CM8	Communication	20+ years	Hinkley Nuclear	£2.8	On-going
	Manager		Connection	Billion	
CM7	Communication	20+ years	Lower Thames	£6.2	On-going
	Manager		Crossing	Billion	
CM9	Communication	20+ years	Lower Thames	£6.2	On-going
	Manager		Crossing	Billion	
CM14	Communication	20+ years	Bank Station	£607	On-going
	Manager	•	Capacity Upgrade	Million	
CM6	Communication	20+ years	HS2	£7.5	On-going
	Manager	·		Billion	
CM17	Communication	20+ years	Stonehenge A303	1.4	On-going
	Manager		project	Billion	
PM19	Project Manager	20+ years	DLR Capacity	£1.1	On-going
			Upgrading	Billion	
PM3	Project Manager	20+ years	Magnox Swarf	£12	On-going
	, c	·	Storage Silos	Billion	
PM10	Project Manager	20+ years	Astute Nuclear	£14	On-going
	•	·	Submarine	Billion	
PM15	Project Manager	20+ years	Southwark	£4	On-going
	, ,	·	Regeneration	Million	0 0
			Programme	yearly	
PM12	Project Manager	20+ years	Thames Tideway	£4.2	On-going
	. J	3		Billion	- 6- 6
PM13	Project Manager	20+ years	Bank Station	£607	On-going
			Capacity Upgrade	Million	
SM5	Senior Manager	20+ years	London Olympics	£8.77	Completed
	J	•	7 1	Billion	•
SM16	Senior Manager	20+ years	Hamworthy	£126.5	On-going
			Regeneration	Million	
			Programme		
SM2	Senior Manager	20+ years	London Olympics	£8.77	Completed
	_			Billion	_
SM18	Senior Manager	20+ years	Montgomeryshire	2.8	Abandoned
		•	Wind Farm	Billion	
T. 11 0					

Table 2 Interviewees and MPIC projects profile

Interviews were conducted and recorded either face to face, Skype or over the phone. The interviews took between 21 and 110 mins. The research framework recently presented by Chileshe et al. (2016) was also adapted for the purpose of this study as shown in Figure 2. The framework offered useful guidance in complementing and reinforcing the qualitative data generated with the opportunity to capitalize on the reporting of useful statistics. It is therefore noticeable that when analyzing the interview transcripts the process involved two steps. First, coding and categorization of the interviews into different themes (thematic analysis), as suggested by Braun and Clarke (2012). Second, running

word frequency tests (cluster analysis) to link the discovered hierarchy of concepts to the established identified themes (Bazeley and Jackson, 2013).

INSERT FIGURE 2 HERE

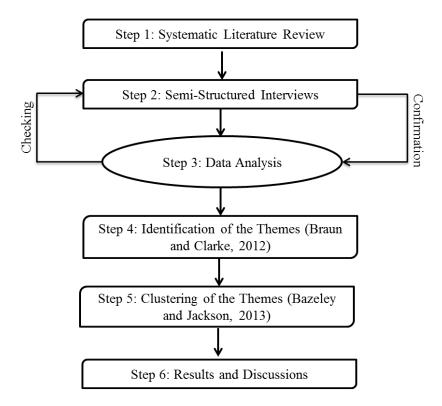


Figure 2

The research framework, adapted from Chileshe et al. (2016).

The interview scripts were transcribed and sent to the interviewees for approval and comment. This process of 'confirmation' and 'checking' acted as a verification stage to reinforce the reliability of the collected data (Chileshe et al, 2016). All the interview transcripts were imported into a qualitative data analysis software package (NVivo 11) and inductively coded, not referring to the literature review thematic analysis results, which helped to minimize bias and develop themes from the interviews as opposed to using the themes identified from the literature review (Davis, 2017). The thematic analysis followed the six-phase suggested by Braun and Clarke (2012) which includes: familiarization with the data; generating initial codes, searching for themes; reviewing potential themes; defining and naming themes and producing the report. The themes from the interviews were then matched to the literature

review themes for comparison, contrast and similarity (Bazeley and Richards, 2000) and provided the grounds for the subsequent cluster analysis.

NVivo 11 enhances the rigor of data analysis through cluster analysis to visualize patterns in the data set and group themes that shared similar words or were coded similarly by nodes (Bazeley and Jackson, 2013). According to Gibbs (2002), strong support is given to the validity of the results when two patterns coincide. Therefore, cluster analysis was employed because it provided the authors with 'cross-validation' to identify a reliable structure for their data (Guest and McLellan, 2003; Uprichard, 2009).

Nevertheless, secondary data such as materials from the interviewees e.g. flyers, reports, website and other documentary accounts, such as external and internal reports and newspapers were used to integrate and triangulate the responses from the interviews. The use of secondary data helped to increase the internal validity and trustworthiness of the study.

3. Results

This section discusses the results generated from the interviews by providing new insights into the stakeholder local communities in MPIC projects and their management. The qualitative analysis led to answer the two research questions set for the study, namely how the local community stakeholder is perceived by project managers in MPIC projects and how stakeholder management practices are applied at the local community level. The answers from those questions are presented in this section, which highlighted how the understanding, management and better inclusiveness of the local communities could improve megaprojects' performance.

3.1. Interview results

The analysis of the 19 interviews produced more than 900 initial codes. The desired outcome of the coding process was to capture both diversity and patterns within the data. 21 sub-themes were initially developed to obtain important insights in relation to the research questions. However, after shaping the thematic analysis into a process focusing on comparison, contrast and similarity against patterns in the

data set (Bazeley, 2013), the cluster analysis unearthed the underlying context behind the enunciations of interviewees, returning 14 most relevant sub-themes for the study against those themes less coded (frequency %) in the 19 interviews.

A combination of Braun and Clark (2013) and Bazeley and Jackson (2013) methods narrowed down the focus of the paper in relation to the two research questions, and also provided the most illuminating and in-depth data for the scope of the study. This process generated the themes and subthemes by collapsing or clustering codes that seemed to share some unifying features, so that they reflected and described a coherent and meaningful pattern in the data (Braun and Clarke, 2012; Guest and McLellan, 2003). Therefore, it was noticeable that codes clustered around 'project manager's perception of the local communities stakeholder' and 'stakeholder management practices at the local level'. Upon examination of these in more detail, it was identified that the codes either focused on experiences in managing secondary stakeholders, such as the local community, or responses to and ways of managing the stakeholder local community. The thematic overview charts and percentage of themes coded are provided in Figures 3 and 4.

INSERT FIGURE 3 HERE

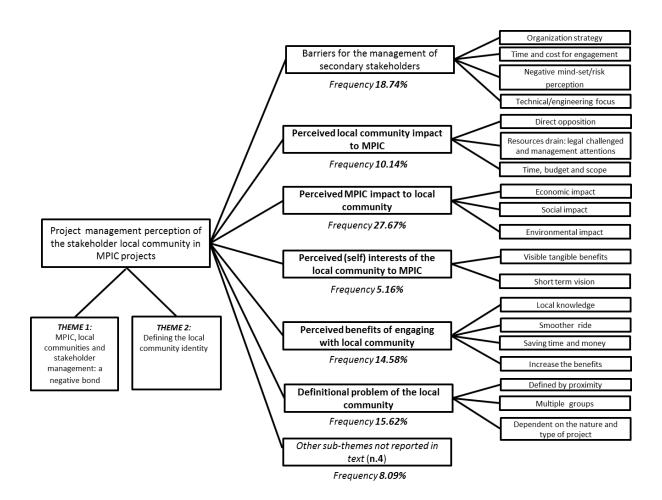


Figure 3 Overview of a thematic chart and percentage of themes coded

INSERT FIGURE 4 HERE

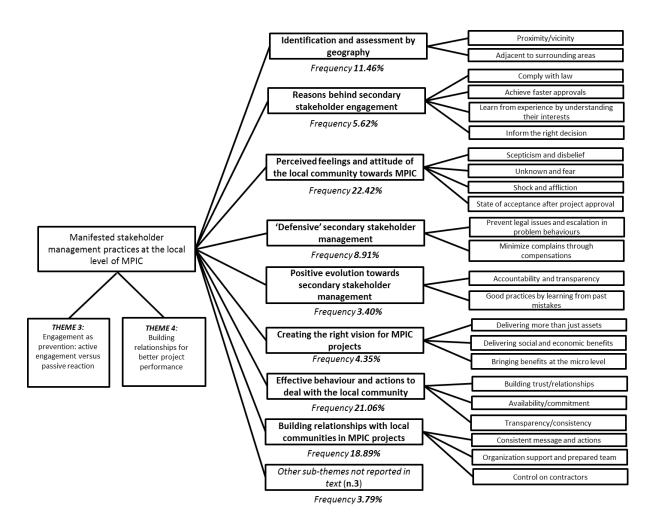


Figure 4
Overview of a thematic chart and percentage of themes coded

When analyzing the interviews, it was prevalent that interviewees' feelings, perceptions and understanding of the topic under scrutiny, resulted in four sets of themes that captured the most important elements of the data. The process highlighted four main themes; (1) MPIC, local communities and stakeholder management: a negative bond, (2) defining the local communities identity, (3) engagement as prevention: active engagement versus passively reaction, (4) building relationships for better project performance. It is noted that in line with Braun and Clarke (2012), each theme presents a single focus and builds from previous theme. The results from these four areas will be presented.

3.2. Project management perception of the stakeholder local communities in MPIC projects

A better understanding of the dynamics in which secondary stakeholder management operates at the local level of MPIC projects was highly required in the current body of knowledge. In the same way, both academics and practitioners were in need for a better conceptualization of the stakeholder local communities in MPIC projects. Drawing from interviewees' experience, feelings and beliefs, two themes which illustrate the project management perception of the stakeholder local communities in MPIC projects are presented in this study. These are (1) MPIC, local communities and stakeholder management: a negative bond, and (2) defining the local communities' identity.

3.2.1. MPIC, local communities and stakeholder management: a negative bond

The management of secondary stakeholders in MPIC projects starts and operates in a negative bond. Based on the perceptions of the interviewees, the findings indicate that the MPIC impact at the local level is perceived negatively by project managers of megaprojects. In fact, general beliefs from the interviews consider the negative consequences of MPIC to local communities exceeding the positive aspects of these developments. This is mainly associated with the disruption that these projects typically have in peoples day-to-day lives. Some of the common negatives that emerged from the interviewees were noise, dust, pollution, lighting, traffic congestion, land acquisition, changes in landscape and unaffordable rent due to increased value of the property.

Although it is recognized that the local community has to be seen as multiple separate components with their own needs, expectations and attitudes and it cannot be treated as a single homogeneous group towards the entire project life cycle; it is perceived that MPIC projects are not generally welcomed by local communities groups. In fact, according to participants' feelings, too often local communities see MPIC projects as a threat rather than an opportunity. Evidence from the interviews shows how project managers sense that local communities have a general disbelief towards MPIC projects which can cause them shock, fear and affliction. In the same way, participants' believe is that usually the local communities start the engagement process highly skeptical and with a negative mindset on how MPIC

projects are ultimately going to have a negative effect on them. What is perceived is that there are preexisting prejudices behind an organization's strategy and people suspect that engagement is all about manipulation. Stakeholder engagement and consultation at the local level is often perceived as paid lips service, where decisions are already made and cannot be influenced or changed in any way. Table 3 presents an example of sub-themes with illustrative data extracts (direct quotes and percentage of themes coded) in support of the presented findings.

INSERT TABLE 3 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 18.74	ORGANIZATION STRATEGY	NEGATIVE MIND- SET	PERCEPTION OF RISK	EFFECT OF PAST MISTAKES	TECHNICAL/ENGINEERING FOCUS
Barriers for the management of secondary stakeholders	The organization created a department, which created a buffer They don't want their project managers dealing with secondary stakeholders, because it's going to drive them crazy. They are seen as an irritant and something to deal with rather than something to engage with (CM2)	A number of people started off very much skepticalYou start off in a negative mindset about how it's ultimately going to have an effect on you. Initially they [the local community] don't necessarily trust what you are telling them, for them is a done deal (CM4)	I think that they [organizations] think a lot about the local community. But I think, primarily, they are looking at it as a risk. They are looking from a perspective of the implications of delays around public consultationThe fear of engaging with local community is that it just gives more information to object things (SM5)	Stakeholders groups had pre-existing prejudicesPeople suspect that the engagement is all about manipulation (PM10)	Engineers are a lot of things and they are very, very smart and clever people and technical people as are project managers, but they are not always the best people in terms of thinking through things like social issues like community engagement and communication (SM5)
Sub-Theme	Code	Code	Code	Code	Code
Frequency % 27.67	NEGATIVE PERCEPTION	ENVIRONMENTAL IMPACT	STRESS AND DISRUPTION	SOCIAL IMPACT	ECONOMIC IMPACT
Perceived MPIC impact to local community	Those that benefit from the infrastructure are not the same people that the people who suffer the infrastructure (SM5)	We realize we're having a massive impact on their lives and their live hoodsWe're causing those landowners pain, we know that, the impact is huge, absolutely huge, We are very conscious that the impact on the communities and environment is in many cases horrendous. Some people will lose their homes, their land. We don't deny that has terrible impact (CM7)	I think very much it depends on the project and the benefit, but I think the impact is always disruption. The impact is always a change of the status quo. So I think that the impact is perceived as negative which is usually around disruption and can cause distress and stress to individuals (CM8)	It has a huge impact on the local community, it effects their life day-to-daypeople actually plan their life differently around the traffic (PM19)	We can close a road and there is no payment, but there is an impact on businesses and commuters (CM1)

Table 3

Illustrative data extracts (direct quotes and percentage of themes coded)

The negative dynamics, in which secondary stakeholder management operates at the local level of MPIC projects, is also reflected in the project management perception of the local communities' stakeholder. Although the interviews indicate that the recognized benefits are different when engaging with this class of stakeholders, such as increasing efficiency by having a smoother ride toward project

completion, saving time, money, increasing organization's reputability, gain local intelligence/knowledge and increase the benefits of MPIC projects; participants perceive the stakeholder local communities negatively. Organizations often do not want their project managers to deal with the external world and they are primarily looking at the local communities as a risk from a perspective of the implications of delays around public consultation. Among others, the local communities were also defined as an irritant, narrow minded, without vision and driven by selfinterests. Figure 5 shows the negative dynamics which occur between MPIC, the local communities and stakeholder management.

INSERT FIGURE 5 HERE

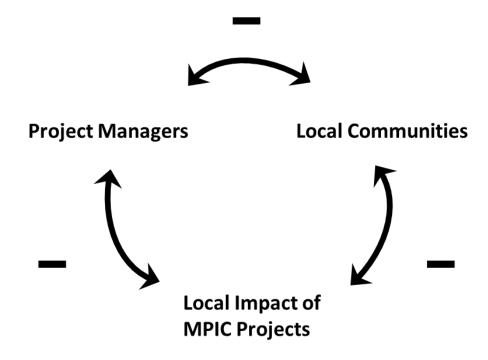


Figure 5 Negative stakeholder management dynamics at the local level of MPIC projects

3.2.2. Defining the local communities identity

The problem when defining the term 'local community' represents a common issue for managers in the construction industry. The local community can assume multiple forms and includes multiple groups depending on the type of MPIC project. Results from the interviews show how the most common conceptualization of the local community stakeholder is based on their proximity to MPIC project development. Proximity represents a key sub-theme which will be further explained in section 3.3.1.1. Table 4 gives an example of the extracted quotes.

INSERT TABLE 4 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 14.58	INCREASING MPIC BENEFITS	SAVING MONEY	INCREASING REPUTATION	SAVING TIME	INCREASING EFFICIENCY
Perceived benefits of engaging with local community	It is definitely the right thing to do and the right thing to try and, you know, spread the benefits wider than what we have done in the past (CM4)	The amount of cost and effort applied to dealing with community groups that don't want the project there is huge. So by having that agreement from the community that it's acceptable, can absolutely make the project run smoother, quicker and financially more viable (CM8)	Engagement is absolutely the right thing to do. We recognize if we don't do it, then we are not going to be seen as a good neighbor. We want to have a long lasting relationship with the community in which we are operating. We want to be seen as a responsible business (SM16)	The way big infrastructure is, we affect so many people around us, you have to carry everyone with you, so when you came across problems later down the line you can close them out much quickerIt gives you that level of moral authority. Working with those local groups now that we're there just makes life so much easier. You get a better reputation (PM13)	It's going to give you a smoother ride. You are not going to have the strength of opposition if you involve people (PM12)
Sub-Theme	Code	Code	Code	Code	Code
Frequency % 15.62	MULTIPLE SELF- ORGANIZED GROUPS	DEFINED BY PROXIMITY	NOT DEFINED IN TERMS OF BENEFITS	DIVERSE WITH DIFFERENT NEEDS	DEPENDANT ON TYPE/NATURE OF PROJECT
Definitional problem of the local community	The communities largely self-organized interest groups. So there are not, it is not a single homogeneous lump of the community (PM3)	I would tend to focus on generalizations of local areas, the people living near. We don't really look enough at the demographics within that area and adapt our approach (CM11)	They are not defined in terms of benefits realization in the business case, yet they are impacted by the scheme, either short-term or long- term (PM13)	I don't think you can do it [provide a definition]. I really don't think. They are all different and have different needs, I don't think you can characterize the community as one thing at all (CMI)	It's quite a challenge. I would recognize that remark, largely we saw the community as just the community as just the really depends on the type and nature of the project (CM9)

Table 4
Illustrative data extract (direct quotes and percentage of themes coded)

Evidence from the interviews suggests that although the local communities' stakeholders in MPIC projects cannot be treated as a single homogenous group, different cohorts make up the local community as the norm rather than exception in MPIC projects. These cohorts are the residents community, the

businesses community and the users community which, as shown in Figure 6, will form the shape for other sub-cohorts namely the property owners (i.e. land, house, business), the customers (i.e. commuters, road users) and the NGO's interest groups (i.e. schools, churches, local association groups). The media, which sits outside the local community cohorts but has a direct influence to them, has to be considered by managers. Although each of these groups can show different interests, levels of engagement and opposition or support at each phase of the project life cycle, to which managers are asked to respond; results from the interviews show how the local authority is considered the most influential cohort of the component local communities.

The local authority is the representative of the local communities. The majority of the participants recognized that having them on board since the early stages of the project is a key element for better project performance. The perceived benefits are different when building a long lasting relationship with local authorities in the affected vicinity. Those benefits include the provision of local intelligence such as the identification of local stakeholders, the actual issues of the local area and the real needs of the local area. Managers recognized the importance of working closely with local authorities by shaping together the right project for the communities. However, on the other hand it is also recognized that often the local authorities are driven by a political agenda behind their actions, and their opposition to the project can result in legal actions which brings to delays and cost overruns and fosters local opposition from the different subgroups.

INSERT FIGURE 6 HERE

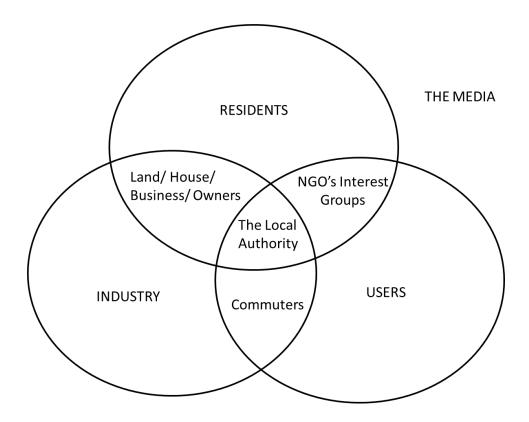


Figure 6 Local communities' identified cohorts in MPIC projects

3.2.2.1. Conceptual categorization of the local communities in MPIC projects

Although the physical identification of the local communities stakeholders in MPIC projects does not represent a simple exercise as its conceptualization is really dependent on the nature and type of project, its geographical location (in the city or out of the city) and peoples demographic backgrounds such as culture/race, gender, age, welfare; common behavioral attitudes and actions of the local communities in regards to MPIC projects developments have emerged from the interviews which allow their categorization.

Based on participants' experience, feelings and reflections, the interviewees identified six distinct categories of local communities relevant to stakeholder theory. By putting emphasis on geography (proximity), interest (opinions), perceived impact and benefits of the MPIC project, these include 'community of interests', the 'silent majority', the 'opportunists', the 'negatively affected', the 'beneficiary' and the 'unconditional opponents'.

- 1. The 'community of interest' refers to individuals that are unified by a common purpose or interest and may not be in close proximity to the organization's operation. These can be commuters or road users, which have little or no emotional attachment and are not sensitive receptors. This category might overlap with the 'silent majority' due to either their proximity or opinions.
- 2. The 'silent majority' refers to individuals that, although they are in the proximity of project development, they do not express direct or official opinions about the project and they do not engage with the organization. These can be people who are dis-engaged due to cultural barriers or having no time. They have a small to medium emotional attachment and are little sensitive receptors.
- 3. The 'opportunists' refer to individuals that might be in the proximity of the project and have direct opinions, but they have no direct impact (either positive or negative) on the project development. They are motivated by self-interest and exploiting opportunities to get something from the project, but they do not have an honest *bona fide* interest. These can be people with a medium to high emotional attachment and are sensitive receptors. This category might overlap with the 'negative affected' due to their proximity and/or emotional attachment.
- 4. The 'negatively affected' refers to individuals that receive no direct or tangible benefit from the project. They might be in the close proximity or have an opinion, but the impact of the project is perceived to outweigh the benefits. These can be landowners, house owners, small business who have no ability to transfer their operations somewhere else. They have a very high emotional attachment and are very sensitive receptors. This group is very keen to oppose the project.
- 5. The 'beneficiary' community refers to individuals that receive direct or tangible benefits from the project. They might be in close proximity, have an opinion, and the impact of the project is perceived to be positive. These can be residents, businesses and users driven by the long-term vision for a positive change. They have a very high emotional attachment and are very sensitive receptors. This group is very keen to support the project.

6. The 'unconditional opponents' refer to individuals that might or might not be in the proximity to the project, have an opinion or impact, but they do not want *a priori* the project to happen. They are highly oppositional and difficult to engage in constructive dialogue, whose purpose appears to be the short-term goal of disruption, rather than any problem resolution. They might or might not have an emotional attachment or be sensitive receptors, but they can exert highly negative influence to the other groups.

Based on the above characteristics, the conceptual categorization of the local communities in MPIC projects is shown in Figure 7.

INSERT FIGURE 7 HERE

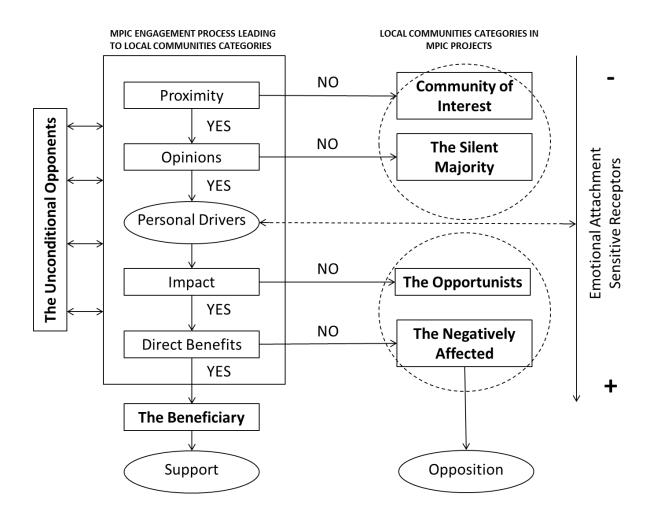


Figure 7
Categorization of the local communities' stakeholder in MPIC projects

Therefore, drawing from the interviews, the underlining logic proposed for those categories in Figure 7 puts emphasis on the engagement process starting with the local communities' proximity to project development (close or remote), their interest (having a direct or indirect opinion) and their perceived impact of the MPIC project (positive or negative). Moreover, it is also elucidated how personal drivers play an important role in conceptualizing and categorizing the local communities groups as their emotional attachment and sensitivity will require managers to work with them closely by cooperation, collaboration or containment.

The analysis pointed out that the local communities and secondary stakeholders have often little or no power to change project scope and objectives. Although they can inform, and sometimes influence project decision makers, especially before project approval, objectives are fixed and decided at the corporate level with little chance of being jeopardized by secondary groups. Table 5 presents an example of sub-themes with illustrative data extracts (direct quotes and percentage of themes coded) in support of the presented findings.

INSERT TABLE 5 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 10.14	RESOURCES DRAIN	IMPACT ON BUDGET	IMPACT ON SCOPE	IMPACT ON TIME	DIRECT OPPOSITION
Perceived local community impact to MPIC	I don't think they [the local communities] have an impact on the outcome because the outcome is fixed. What they do have an impact is on resource drain and the management's attention it takes to address their concerns (PM3)	The world is a much different and sophisticated place now. The organization did not recognize the environment that they were working in. They did not recognize how people would respond. So they wasted large amounts of time and fairly significant amounts of money and in the end came to a solution that people were happy with (PMIO)	Because their knowledge of the local area, their knowledge of the type of flooding issues, their knowledge of the ground conditions and their knowledge of driver behaviors in local areas. Stuff that we won't necessarily know, because we are not there all the time, and I think that would, in some cases, change the design dramatically, if you took that on board up front (CM11)	We were kind of forced to go through the statutory planning process and we did a very good job in consulting with everybody and reducing what we saw was a massive, massive risk for us. We held about £15 million worth of risk against getting that statutory planning, of which really, a big part it's about public consultation (PM13)	Local communities can get themselves very organized very quickly and the minute they've got a bit of money behind them they can start challenging on legal basis what is or is not being done (SM16)
Sub-Theme	Code	Code	Code	Code	Code
Frequency % 5.16	SELF-INTERESTS	SHORT-TERM VISION	SHORT-TERM DIRECT BENEFITS	OPPORTUNISM	VISIBLE/TANGIBLE BENEFITS

Perceived interests of the local community to MPIC

They [the local communities] engage from a self -interest point-of-view out of curiosity, but I think their prime interest is 'what are you going to do for me?' (PM3)

Once the project is finished, you're going to benefit even if you don't use the railway...You won't see that directly. You won't be able to track it but it will happen (CM1)

They engaged because they knew there was money there (PM15) Small changes makes a big difference to them, although you have those that just want to try and get something extra out of the scheme (CM4) Getting agreement form the community very much depends on the tangible benefits that's brought (CM8)

Table 5
Illustrative data extract (direct quotes and percentage of themes coded)

It is therefore recognizable that the identified local communities' categories are not fixed but are dynamic throughout the project life cycle. It is the duty of the project managers to monitor for any warning signals and exert control by providing the most appropriate level of engagement. Following the proposed categorizations, project and communication managers can better develop meaningful and practical strategies at the local level. Current and recommended stakeholder management strategies are elucidated in the following section.

3.3. Stakeholder management practices at the local community level of MPIC projects

Drawing on the 19 interviews and the 15 discussed MPIC projects in the UK, two themes which illustrate the local stakeholder management practices in MPIC projects are presented in this study. Those are 'engagement as prevention: active engagement versus passive reaction' and 'building relationships for better project performance'.

3.3.1. Engagement as prevention: active engagement versus passive reaction

3.3.1.1. Proximity

Proximity is a permanent and key sub-theme which emerged from the interviews. Proximity is not only the element to which project managers base their conceptualization of the stakeholder local communities, but also it has been recognized that it is the element that brings organizations to engage with local communities. It was evident from the interviews that the engagement process in construction

projects starts with those in the vicinity and directly affected by project developments. In the same way, those components of the local communities directly affected, are also those more keen to engage. The interviews suggest different reasons for the directly impacted stakeholders to engage in MPIC projects; they have the most to lose, they try to influence the decision making process, because they are driven by self-interests, and out of curiosity. Table 6 presents illustrative data extracts (direct quotes and percentage of themes coded) in support of the presented findings above.

INSERT TABLE 6 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 11.46	PROXIMITY	VICINITY	ADJACENT TO THE AREA	WITHIN A SETTLEMENT ZONE	SURROUNDING AREAS
Identification and assessment by geography	Proximity is the bit that brings you to the party. Proximity is the bit that gets you engaged in the first place and you either have an opinion or you don't (CM8)	We start very early consultation to understand their [the local community] ideals, what they would like to see happen in the vicinity. In their land or their parish (CM4)	You would approach and listen more to the councils immediately adjacent to the area that you are going to be affecting rather than those who were further set back from the road (PM13)	The way to identify and assess our stakeholders really it was those that would be potentially impacted by the project. So we identified those stakeholders within a settlement zone. So we predicted the settlement zone, the ground movement for the project. It was principally based on proximity really (CM14)	I think the people who were the most willing to engage were the people in the areas that were immediately surrounding the development site. Because in a sense they had the most to lose (SM16)
Sub-Theme	Code	Code	Code	Code	Code
Frequency % 5.62	ACHIEVE FASTER APPROAVAL	COMPLY WITH LAW	UNDERSTAND THEIR INTERESTS	INFORM THE RIGHT DECISION	LEARN FROM EXPERIENCE
Reasons behind secondary stakeholder engagement	I think we did because we were quite nervous; we probably haven't dealt with the secondary stakeholders particularly well in the past. We've just kind of cracked on with the project. But here it was really because of the necessity of the statutory planning that you really need evidence to the public enquiry that you have consulted everybodyWe were particularly concerned about that and focused on that (PM13)	our directly impacted local authoritiesWe don't do it just	There are thoughts and ideas behind each of those interests, which ideally all parties need to understandand when you are trying to negotiate your way through managing, compromising and so on the interests to get satisfactory outcomes, you are using relationships to do that (PM12)	The decision isn't for the local community and duty-bound I want to reach out to the local community and the other stakeholders to get opinions that will help to inform the right decision (CM9)	Consultation strategy was written on the basis that we needed to do that [comply with law]. So I would say it come from a legal framework but also you look at what previous projects have done because you can'tyou can't do less (CM1)

Table 6
Illustrative data extract (direct quotes and percentage of themes coded)

Proximity is also the criteria used for managerial priority, and to which the UK statutory planning act must adhere to. In the same way, compensations afforded to affected parties are also based on proximity.

3.3.1.2. Shifting behavioral attitudes of the local communities

Participants have also pointed out how the stakeholder management effort at the local level is higher in the pre-approval phase of the projects. The higher management effort required at the conceptual phase of MPIC projects also reflects the shifting behavioral attitude of the local communities from project proposal and towards its approval, development and conclusion.

Those directly impacted often have an opinion in regards to MPIC project developments, and this opinion is mainly driven by personal drivers, such as their emotional attachment. It is the responsibility of the project and communication managers to capture and manage these opinions in order to achieve a clearer explanation of the organization's objectives, which will be fully captured and ideally understood by local communities' groups. Interviewees have recognized how the local communities often experience different behavioral phases throughout the project life cycle; these include a shocking phase, an oppositional phase, an acceptance phase, an understanding phase, the vision for opportunities phase and the recognition of benefits phase. Figure 8 shows the engagement effort at the local level through the MPIC project life cycle.

INSERT FIGURE 8 HERE

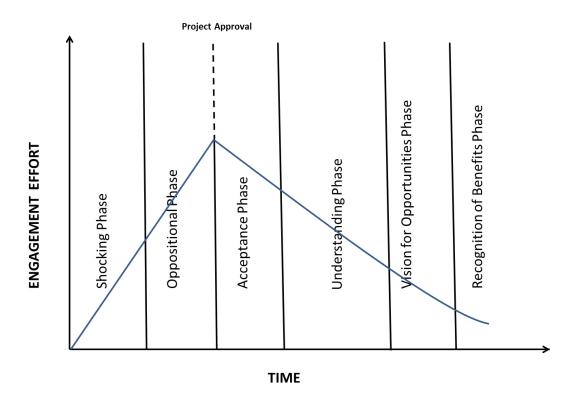


Figure 8
Engagement effort at the local level through the MPIC project life cycle

- 1. The shocking phase starts when the project becomes real. A scheme is publically proposed and the catchment impact area is defined. Here what is perceived by project managers is that the local communities enter into a phase of shock, desperation and incredulity which leads towards an oppositional phase, due the unknown effects of the project and its perceived changes to the local area. The engagement effort starts in this phase.
- 2. The oppositional phase refers to the phase when the local communities try to influence the decision making before project approval. This leads to tension dialogues, and can result in well-organized oppositions causing major delays to MPIC projects. Based on its persistency towards the entire project life cycle, this phase characterizes the 'unconditional opponents' groups. This phase is mainly strong in the pre-approval stage for the project as the local communities groups have more influence on project decision making. This phase defines the boundary for the acceptance phase and it is where the organization invests the maximum resource to achieve project approval.

- 3. As soon the project has received the green light to go ahead, the level of influence from secondary stakeholders' drops, along with their oppositional attitude. The organization has now achieved an important milestone, and the local communities are resignedly entering into a state of acceptance. From here the managerial effort and resources provided by the organization for stakeholder management start to decrease.
- 4. As the time elapses, project managers perceive that the local communities' personal drivers such as their emotional attachment weaken. Local communities are now thinking more rationally and they start to understand the purpose and objectives of the project. They have gotten used to the project and its disruptions have become the norm. This phase is the longest, and the day-to-day management of the stakeholders is often left to the contractors and subcontractors involved in the construction.
- 5. As the project progresses and first results become tangible, the local communities start to have the vision for future benefits. They realize that the process was not as bad as they thought and positive opportunities can be exploited.
- 6. In this phase the tangible asset has been delivered. The local communities fully recognize the benefits brought by the MPIC project.

Table 7 presents an example of a sub-theme with illustrative data extracts (direct quotes and percentage of themes coded).

INSERT TABLE 7 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 22.42	DISBELIEF	OPPOSITIONAL ATITUDE	UNKNOWN AND FEAR	SHOCK	UNEASY TRUCE
Perceived feelings and attitude of the local community towards MPIC	There is a tendency that those people who are opposed are more likely to step forward, there is a disbelief in the audienceI think the challenge with local community is to change this disbelief. There is disbelief amongst the population that anything good will ever come their way. So they treat officialdom with a degree of cynicism (CM9)	People concern is mainly in the pre-consent phase when project hasn't the green light yet. Changes are difficult to be made once the project has given the go-ahead, and once you get through the consent process stakeholders are generally more in a state of acceptanceMajor opposition or concerns are in the evaluation stage (CM6)	Lot of people sort of look at a community group as a really cross groupIf someone comes out and is incredibly cross, it is all unknown and it is fear. The task for us as communicators is to step people through how it is not going to be as bad as they think (SM18)	Do not underestimate the shock that a community can go into when they hear that a potential road scheme is proposed for their areaThat shock was absolutely palpable. We had people in tears, furious, screaming, swearing at us (CM7	There was an uneasy consensus in certain areas. There was an uneasy truce where people sort of where still generally unhappy about the project because, you know, it will would be impacting on their lives and impacting on their homes (CM6)

Table 7 Illustrative data extract (direct quotes and percentage of themes coded)

3.3.1.3. Local communities' stakeholder management as an individual responsibility

Although the stakeholder management process and engagement procedures should be supportive toward the entire project and especially during construction when disruption occurs, what emerged from the interviews is the dominance of an instrumental approach to stakeholder management. In fact, rather than good practices, the effort for the inclusiveness of secondary stakeholders at the front end phase of the project aims to make the stakeholders comply with project needs. This is mainly driven by the organizational obligations to comply with the statutory planning act which, in the UK, is a pre-requisite for project approval.

The interviews indicate that organization motivations behind the engagement process are often 'defensive' rather than 'proactive'. The time spent on planning for stakeholder management is often not enough at the front end of MPIC projects, and the default position is often the one of reacting to the events rather than being proactive. The 'defensive' stakeholder management approach at the local level of MPIC projects emerged from the interviews. The engagement with secondary groups was perceived as a way to obtain the smallest number of petitions for a smoother project approval, to prevent problems, to prevent reputation being damaged, to respond to those who are the loudest and create the most pain, to prevent legal potential issues and to appropriately compensate people for disruption. Table 8 shows illustrative data extracts (direct quotes and percentage of themes coded) in support of the presented findings.

INSERT TABLE 8 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 8.91	MINIMIZE COMPLAINTS	PREVENT ESCALATION IN PROBLEM BEHAVIORS	PREVENT DAMAGE OF REPUTATION	ACCOMMODATE THROUGH COMPENSATIONS	PREVENT LEGAL ISSUES

'Defensive' secondary stakeholder management	The purpose of consultation is mainly to try and arrive at the bill process with the smallest number of petitions (CM1)	Those who are the loudest and create the most pain generally get paid attention to (PM3)	You have to manage them (the secondary stakeholders) to prevent the image of your project being damaged or prevent problems" (CM11)	We are looking at how can we appropriately compensate people for the disruption or inconvenience rather than procreativity look to the positives to enhance the local community (SM5)	You are in an area where you sort of full of legal potential issues drive behavior (SM18)
---	---	--	---	---	---

Table 8 Illustrative data extract (direct quotes and percentage of themes coded)

Evidence suggests that organizations tend to be passive and reactive when necessary, rather than proactively looking at the positives of MPIC projects, and creating the right vision for such projects by building internal capabilities for better project performance. What emerged is that effective secondary stakeholder management is often related to the members of the team involved and the organization tends to heavily rely on the individuals and the individual team members to take responsibility for the management of the local communities groups. However, the benefits of those key people are still not embedded in the organization, whose main priority is often to deliver the asset within performance targets of time, cost and quality. Although participants recognize the fact that compared to 15 years ago much more effort is put in understanding those people that are going to be impacted by the build, the management of secondary stakeholders is still not being considered as a priority and their inclusiveness in the decision making of MPIC remains marginal. Table 9 illustrates an example of the data extracts.

INSERT TABLE 9 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 3.40	UNDERSTANDING OF PEOPLE NEEDS	ACCCOUNTABILITY	GOOD PRACTICE	LEARNING FROM PAST MISTAKES	TRANSPARENT ENGAGEMENT PROCESS
Positive evolution towards secondary stakeholder management	Compared to 10/15 years ago, there is an awful lot of effort into understanding those people that are going to be impacted by the build (SM5)	In the past contractors washed their hands of the communityin the last years there has been a shift between what previously agency did and expect, and the level of engagement that is now achieved (CM4)	Depending what the type of the projects, the engagement of the local community groups has become in UK a practice, an experience. If you look back the benefits were less in the local community groups. But it has been a learning process (PM15)	This time is different. We want to talk to you [the local community groups], we want to engage with you throughout the process, and the process is different this time (CM7)	Historically we were just at community events and parish events and we would rely on the local parish councils and things to message information. But there was always kind of a hidden political agenda behind itWe have now found the need for a lot of one-to-one meetings, so going out to people houses and we found that it was ok. It was quite difficult, it was quite revolting in places, but it was good to get their individual concerns (CM11)
Sub-Theme	Code	Code	Code	Code	Code

Frequency % 4.35	CREATING A VISION FOR MPIC PROJECTS	DELIVERING MORE THAN JUST ASSETS	DELIVERING SOCIAL AND ECONOMIC BENEFITS	UNDERSTANDING THE REAL VALUE OF MPIC	BRINGING BENEFITS OF MPIC AT THE MICRO LEVEL
Creating the right vision for MPIC projects	And what we don't do enough is to talk about the fact that the project is bringing prosperity, it's regenerating part of the country, it's bringing jobs. If you just call it [the asset] something different, you have a different effect on secondary stakeholders. You make it more an active thing rather than passive (PM10)	So rather than just construction arriving, walking away and leaving just a road behind, we want to leave something more than a road There is a need of delivering much more than just asset. (CM4)	They (MPIC) are much more about social and economic benefits, rather than just moving people faster or moving goods or whatever You have got to start to have that vision and start to think about reading the project differently and I suppose to sell it by involving the local communities around (PM19)	As soon we understand that the real value of the project is not just the basic utility of the infrastructure, but it's actually about the economic and the social development opportunity it presents, then I think you are into a world where you have to engage the community (SM5)	I think what doesn't work so well is that for an MPIC project is very difficult to outline micro benefits to a community. I think most of the time it is about national need, but sometimes that is not enough for the communityWe need to get to position where the benefits of the project is seen by the local community. At the moment we are not in that space, you see, because the benefit is macro (CM8)

Table 9

Illustrative data extract (direct quotes and percentage of themes coded)

In light of the interest for project approval, organizations do not tend to allocate their resources for stakeholder management rationally throughout the project. As shown in Figure 9 their main aim is driven by the code of conduct to comply with the minimum requirement through a formal consultation. It is then left to individuals to exceed stakeholder expectations through best practices and a required proactive (informal) engagement to build relationships with the affected parties and improve project performance.

INSERT FIGURE 9 HERE

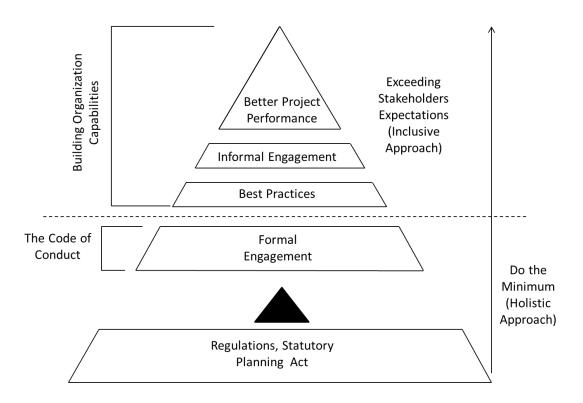


Figure 9 Building internal capabilities through an inclusive approach to stakeholder management

3.3.2. Building relationships for better project performance

Responses from the interviews have elucidated how building relationships with local communities groups is a key element for better project performance. Building relationships emerged to be an effective way of changing negative perceptions, which is how local communities groups often start their journey towards MPIC projects. However, participants have also recognized that building relationships in MPIC projects requires a high managerial effort and is made out of three main attributes; time, availability and consistency of message and actions. Moreover, for a more inclusive stakeholder management strategy to be effective three pre-requisites has to be in place; a stable, prepared and devoted team, organization support (resources), and control on contractors/sub-contractors. Figure 10 shows those relationships.

INSERT FIGURE 10 HERE

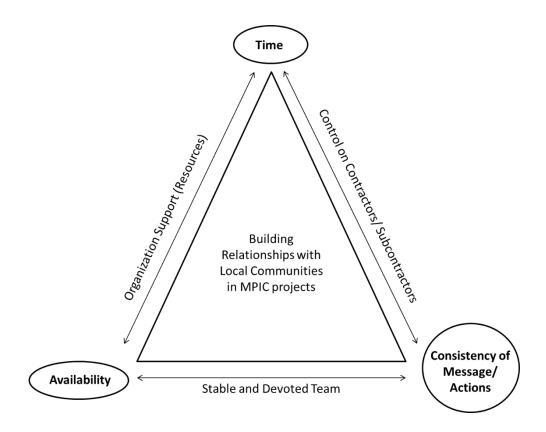


Figure 10 Building relationships with local communities in MPIC projects

3.3.2.1 Time, availability and consistency of messages and actions

Time, availability and consistency of message and actions are key sub-themes which emerged from the interviews. Building relationships is a time-intensive process which requires managers to be available through a face-to-face approach and being consistent in messages and actions from the early stages of the project and towards its entire life cycle.

Participants recognized the importance of informal engagement which goes well above a meagre tick box exercise to reach what has been often defined as an 'uneasy truce' with local communities. The interviewed managers believe that building relationships and trust through an honest, transparent and collaborative dialogue is an effective way of improving MPIC project performance. Going out and talking to people, making them part of the same journey and giving them the required information in advance are the most recognized ways of building trust. Nevertheless, interviewees have perceived how

it is extremely important 'to do what you have told them' by being consistent in actions and messages through the entire project life cycle. Table 10 gives an example of the extracted quotes.

INSERT TABLE 10 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 21.06	BUILDING TRUST	TRANSPARENCY	AVAILABILITY	COMMITTMENT	BUILDING RELATIONSHIPS
Effective behavior and actions to deal with the local community	I think it is all about building trust, going out and talking to people and answering questions that generate trust (PM3)	But when you are in construction, the key thing is not surprises. And then you making sure that even if it's going to be horrible, they know about it in advance (CM1)	Going out and talking to people and giving them in advance of what's going to happenAnd they continue in that dialogue, you do have the ability to change the perception of the project. You know it is only over time that that can get turned around (CM4)	Only with a face-to- face approach of meeting people, showing your face and answer their question to dispel some of the myths and the rumor and the conjecture that goes around, you build trust. It is time- intensive, it takes a lot of resources, but it worked incredibly well (CM6)	It was personal relationships and the reason they got the personal relationships to work was because they took the time to understand and trust one another and to understand the different motivationsAnd if you don't have the honest conversations about those motivations, then you can do things with the best will in the world but have the wrong effect (PMIO)

Table 10 Illustrative data extract (direct quotes and percentage of themes coded)

3.3.2.2. Stable and devoted team, organization support and control on contractors

Interviewees have also suggested how there are also barriers for the implementation of an inclusive approach for stakeholder management which has to be considered at the strategic level. In fact, for a more inclusive stakeholder engagement approach to be effective, organization support through the provision of more proportionate resources during the MPIC project life cycle is necessary. It has been noted how organizations aim is mainly to get project approval, which requires a compulsory consultation process with all the affected parties, such as the local communities groups. Therefore, the limited resources for stakeholder management are often invested into the pre-approval phase of MPIC projects, where hostility is also higher. However, the time at the front-end of MPIC projects is not often enough to identify the needs and expectations of the secondary stakeholders, and this naturally leads to an instrumental approach which aims to make the stakeholder comply with the project needs by 'doing the minimum'.

Moreover, it has been elucidated that stakeholder management is often left to individuals. Individuals are those committed to building relationships with local communities and motivated, through an

informal face-to-face approach, to 'exceed the stakeholders' needs and expectations'. Building relationships requires individuals' commitment by being on the ground. It is therefore important that transitional people in projects are minimized as those relationships can get lost quickly. In the same way, building relationships requires the team and team members to have a certain amount of skills, as their inability of effectively responding to local communities concerns and answering their questions can have a negative impact on keeping those relationships going.

Finally, one of the most recognized barriers for effective management of the local communities groups was the issue with contractors. After project approval, the management of stakeholders is often left to the contractors and subcontractors, and this has been perceived as a problem. The organization that runs the stakeholder engagement at the front-end is rarely the same as the one which performs the actual execution of the project. In this way, the contractors often do not keep consistency on what has been initially agreed and promised to the local communities groups. There is therefore a need to involve the contractors and sub-contractors in the stakeholder management process from the front-end of the project. In fact, through additional resources, the organization has to keep control of contractors' behavior and actions throughout the entire project life cycle. This can help to build trust by maintaining solid relationships with secondary groups for better project performance. Table 11 illustrates an example of sub-themes with illustrative data extracts (direct quotes and percentage of themes coded) in support of the presented findings above.

INSERT TABLE 11 HERE

Sub-Theme	Code	Code	Code	Code	Code
Frequency % 18.89	CONSISTENT MESSAGE	STABLE AND PREPARED TEAM	CONSISTENT ACTIONS	AVAILABILITY THROUGH ORGANIZATION SUPPORT	CONTROL ON CONTRACTORS
Building Relationships with Local Communities in MPIC projects	A consistent message is the key. You do what you have told them. You have to do it, because it pays dividends and this is very much reliant upon the information that the construction people are going to give to you rather than building relationships really (CM4)	Making sure that you are available to everyone, constantly. I allow myself to be contacted by any member of the community and then go and see them one-onone, because that is the only way that you can have a sensible conversationYou have possibly got the same people so they are recognizing an human faceBut before you go and talk to them you have to make sure	It's making sure that you have built up those relationships through being open and honest in the early stage, so that you don't promise something which you can't deliver there because consistency has been the thing that has brought their concerns down. Having the same face all the time, which is very difficult in a project	It is all about going and making yourself available to them as early as possible and going and listening to them. This is time consuming and requires resources which have to be planned and agreed by the organization (PM3)	In the initiation there is a need to bring the contractors in so that they were not making promises that the contractors couldn't deliver, so equally stand firm on controlling the contractor, so making sure that they comply with all the promises (SM2)

you're able to answer every single question they throw to you, otherwise you lost them, you have totally lost them (CM6) that has transient people moving through (CM1)

Table 11

Illustrative data extract (direct quotes and percentage of themes coded)

4. Discussion

The local community stakeholders and relative stakeholder management practices at the local level of

MPIC have not been fully captured by practitioner and academics alike (Di Maddaloni and Davis,

2017), deserving empirical investigation to advance the current body of knowledge in project and

stakeholder management. This study addressed a gap to identify and categorize multiple local

communities groups in MPIC projects. The original contribution to academic knowledge improves the

rigor of project management research which will offer a more precise way of managing the stakeholder

local communities in MPIC. Knowledge is widened as it was found that project managers did not have

an established method or conceptual map for identifying, categorizing and assessing this class of project

stakeholder necessary for enhancing their inclusiveness in the decision making process of MPIC

projects.

4.1. Theoretical contribution

Based on stakeholder theory, knowledge is added to empirical research by identification of new areas

of development towards a normative or ethical approach in which the project does what is needed for

the stakeholders (Eskerod and Huemann, 2013; Freeman et al., 2007, 2010). This study empirically

reinforces the perceived benefits towards a broader inclusiveness of stakeholders to sustain managerial

strategy in achieving more ethical and sustainable (project) developments over the time (E.g. Cleland,

1986; Eskerod and Huemann, 2013; Eskerod et al., 2015; Freeman, 1984; Freeman et al., 2007;

Huemann et al., 2016; Hart and Sharma, 2004).

44

By meeting and exceeding stakeholders' expectations and balancing the projects' economic, ecologic, and social interests, it is believed that the benefits of MPIC projects will override the negatives and improve project performance at the local level. However, there is still a need to move away from the instrumental perspective of stakeholder management and towards a more holistic and inclusive approach which will help to minimize the perceived benefits shortfall of MPIC and therefore reduce the unpopularity and local opposition which is widely recognized as a common threat for megaprojects.

Moreover, this study bridges the existing gap towards a better definition of the local community stakeholder in megaprojects and their effective inclusiveness in project decision making. By answering to the call of Dunham et al (2006) in extending the current understanding around the notion of the local communities groups, this study provided theoretical grounding on how this class of stakeholder is perceived, identified and categorized by project managers in the construction industry. Despite the local community in megaprojects has been recognized as a growing important class of stakeholder, it was clear that its lack of definition has prevented stakeholder management practices at the local level being captured, and a stakeholder analysis being successfully accomplished and supported in project management decision making and strategy formulation.

Although there is vast literature which recognizes the (negative) impact that the local communities stakeholder can exert on project outcomes (e.g. Aaltonen and Kujala, 2010; Boholm et al., 1998; Bornstein, 2010; Newcombe, 2003; Olander and Landin, 2005, 2008; Teo and Loosemore, 2014; 2017), they do not clarify the role covered by the local community from the project management perspective; neither is its identity elucidated (identification and categorization). Nevertheless, despite more than two decades of refinement and integration of stakeholder thinking into multiple disciplines, current studies did not provide explanations or in-depth understanding on how current managerial approaches at the local level are manifested and how these can be improved to enhance the inclusiveness of the local community stakeholder and thus the overall performance of MPIC projects..

By connecting the proposed findings with identified stakeholder theories, this study shed light on advancing current knowledge of managing the local communities' stakeholder in megaprojects. The next section discusses the practical managerial implications of the study.

4.2. Managerial implications

By matching the interviews findings with the extant literature, the need to move from an instrumental approach for stakeholder management was emphasized, to one where organizations actually operate at the local level of MPIC projects and towards a more inclusive stakeholder management approach, in line with Eskerod et al. (2015). Benefits associated with an inclusive stakeholder management approach have been recognized by construction project managers, such as giving them a smoother ride towards project completion. However, strategies and actions of managing the local communities groups at the local level seem to be more 'defensive' than 'proactive'. Stakeholder management at the local level of MPIC projects operates within negative dynamics, where local communities groups are perceived as a risk by project managers and, on the other hand, the engagement process applied to the local communities groups seems to be perceived as a mere paid lips service where decision are done and cannot be changed in any way. This, inevitably, requires project managers to give extra managerial effort in terms of time and resources, such as building relationships through a face-to-face approach, also claimed by Hart and Sharma (2004).

What is perceived is that local communities are driven by self-interests and their management is often left to individuals. The approach of 'exceeding stakeholders needs and expectations' (Freeman et al., 2007) is mainly achieved through individuals' high commitment and knowledge, which organizations often fail to capture in order to enhance their internal capabilities. In line with Pinto et al. (2009) this study reinforces that building trust is an effective way of inclusion which helps project managers to recognize the needs and expectations of the different affected groups in MPIC projects. However, the process of building relationships with local communities groups requires time and resources, which organizations might only provide until the project approval is reached and, according to Aaltonen and

Kujala (2010), local opposition is often higher. Although major important steps have been made in the last 15 years, the management of secondary stakeholders is still not being perceived as the priority. Performance targets of time, cost and quality remain the most important criteria to measure project performance, and the time and resources spent on stakeholder management at the front-end of the project is still limited. Project managers should recognize the importance of creating a vision for MPIC projects which do not deliver purely assets, but also bring benefits either at national, regional or local level by challenging people's negative perceptions. However, it has to be recognized that creating the right vision for MPICs represents a challenging task for any project managers which requires a supportive organization culture being established. It is therefore believed that the vision for MPIC projects should be created and implemented from a top senior/strategic management level and transmitted to the tactical and operational level to be effective.

In support of the work of Choudhury (2014), it was noted that the benefits for the local communities are not well defined in the business case. MPIC projects often have a national agenda and their impact at the local level is often perceived negatively. Expanding the findings of Dooms et al. (2013), this study asserts that the impact, salience and management strategies of secondary stakeholders in MPIC projects are assessed by proximity, which also represents the most common conceptualization that project managers have of the local communities' stakeholders in MPIC projects. The interviews reinforced that the local communities' stakeholders in MPIC projects cannot be treated as a single homogenous group (Skerratt and Steiner, 2013), and their physical identification and assessment is dependent on the nature and type of MPIC project. However, three main cohorts of local communities in MPIC projects, as the norm rather than exception, have been conceptualized and can be used by project managers for a better identification of this class of stakeholders. These cohorts include the residents' community, the businesses community and the users' community (the media is positioned outside). These cohorts create the bases for other sub-groups to which the local authority is the representative. The local authority assumes a position of control to other groups and it has been considered the most influential cohort which organizations aim to work closely with.

Evidence from the interviews suggests the difficulties when identifying the local communities involved in MPIC projects. However, common themes emerged in their behavioral attitudes and actions towards MPIC projects which facilitated categorization. This study expands and integrates the work of Dunham et al. (2006) by identifying six categories of the local communities' stakeholder. These categories include 'community of interests', the 'silent majority', the 'opportunists', the 'negatively affected', the 'beneficiary' and the 'unconditional opponents'. Drawing from local communities perceived behaviors and attitudes can help managers to allocate the right resources and effort on those stakeholders possessing a proactive, neutral or oppositional perception about the project. The aim is to maximize local communities' positive inputs towards cooperation and collaboration, or minimize their negative attitude by containment, as shown in Table 12.

INSERT TABLE 12 HERE

		Community of Interest	The Silent Majority	The Opportunists	The Negatively Affected	The Beneficiary	The Unconditional Opponents
PROXIN	MITY		X	X	X	X	X
Daharianand	Proactive	X	X			X	
Behavior and Actions	Oppositi onal			X	X		X
	Formal	X	X	X			X
Consultation	Informal (face-to-face)		X	X	X	X	
	Collabor ation		X			X	
Engagement	Cooperat ion	X	X	X	X		
Aim	Contain ment				X		X

Table 12 Recommended stakeholder management strategies at the local level of MPIC projects

On the basis of the summarized findings, it has been elucidated that the organization must take account of the effects of their behavior upon those who live in close physical *proximity* to their operations. Based on their proximity and perceived impact (positive or negative) of the MPIC project, different communities groups can show a *proactive* or *oppositional* behavior towards the project. It is the

responsibility of the project manager to monitor and anticipate any shifting attitudes towards the entire project life cycle and develop appropriate strategies. Nevertheless, it is important to start the consultation process in the right way. Stakeholders' needs and expectations have to be fully understood, and the consultation process should be able to capture insightful information to help to inform the right strategic decision for the project. It is therefore the responsibility of the project manager to lead this process either in a *formal* or *informal* (face-to-face) way. Based on the information acquired, project managers of MPICs are finally called to engage with the different local communities groups with the aim of maximizing positive inputs and minimize detrimental attitudes.

According to Dunham et al. (2006) three distinct strategies can be adopted when approaching communities groups: *collaboration*, *cooperation* and *containment*. While the aim of collaboration is to support stakeholder development through open and trust-based interaction and building shared vision for the project; cooperation strategy is more about building a win-to-win solution along a cordial and reciprocal interaction which will lead to sharing selective information through an on-going dialogue. On the other hand, containment strategy has a process focused on identifying and monitoring which aims to minimize potential damages by stakeholder groups and where the nature of the interaction is often adversarial.

Although they do not fit perfectly, these strategies have different objectives and can be broadly mapped against the six categories of community which have been developed in this study. Of course, each project and stakeholder's personal drivers are distinct, and it remains the responsibility of the practitioner to develop a more specific understanding of each stakeholder group and then determine the appropriate strategy throughout the entire project life cycle.

5. Conclusions

The objective of this exploratory study was to investigate how the local communities' stakeholder is perceived, defined and categorized by project managers in MPIC projects, and how their involvement could improve the performance of these projects. These results are deemed important in assessing

current practice and extending current theories in the stakeholder management field. By investigating the stakeholder management practices applied at the local level of MPIC projects, the UK setting offered an advanced perspective of secondary stakeholder management which represents a starting point for future developments in the area. The findings from the interviews emphasized the need for a 'proactive' stakeholder management approach which takes into account both the views of primary and secondary stakeholders. Through building internal capabilities for secondary stakeholder management, organizations have to recognize the importance of creating the right vision for MPIC projects and delivering not just assets but bringing extra values either at national, regional and local level. Therefore, by listening and taking on board the views of the affected people through informal and honest engagement, project managers can re-think their strategies for a more sustainable MPIC project through time.

5.1. Directions for future research

Indeed this study focuses on the perspective of project managers rather than the local communities' stakeholder. On the one hand, we used secondary data in order to triangulate and enrich the information collected through the interviews and thus to encompass, at least partially, the perspective of the local community. On the other hand, the focus on project managers was consistent with the key aim of this study, i.e., to explore how project managers themselves identify the local communities' stakeholder and enhance their inclusiveness. The authors assumed that capturing current project managers' perceptions and actions of this class of stakeholder represents a preliminary and necessary step before more extended interrogations with the local communities' groups. It is suggested that future efforts of scholars might build upon this study and focus on the perspective of the local community so that they can complement the presented findings and expand current knowledge of how project managers might enhance the inclusiveness of the local community and thus the long term success of MPIC. The desired outcome will be to establish a model for analyzing stakeholders that integrates both the views of primary and secondary stakeholders, which will move away from the simplification offered by role based identification and towards identification as multiple separate components with their own needs, fears and expectations.

Nevertheless, this study also presents limitations associated with the drawbacks in conducting qualitative research. Recognized disadvantages are related to the time-consuming process when collecting and analyzing data. If the rich data produced provides an illuminating picture of the subject, on the other hand, the researcher can be overwhelmed by the information collected. Moreover, because the researcher is the main instrument of data collection and the research is very much a product of his/her predilections, other drawbacks include bias (Neuman, 2011), reliability, lack of anonymity (Saunders et al., 2012), interview environment such as noise (Neuman, 2011), interviewer skill and small sample size (Blumberg et al., 2011). Nevertheless, the qualitative interviews that took place (19) were all based in one country (UK). As the research questions pertaining to the empirical data collection and analysis were concerned with project managers' perceptions of the stakeholder local community, this suggests a need for comparison with other geographical settings to enhance the robustness of the illustrated results.

References

Aaltonen. K., 2011. Project stakeholder analysis as an environmental interpretation process. International Journal of Project Management 29 (2), pp.165-183.

Aaltonen, K., Kujala, J., Oijala, T., 2008. Stakeholder salience in global projects. *International Journal of Project Management* 26, pp. 509-516.

Aaltonen, K., Sivonen, R., 2009. Response strategies to stakeholder pressures in global projects. International Journal of Project Management 27, pp. 131-141.

Aaltonen, K., Kujala, J., 2010. A project lifecycle perspective on stakeholder influence strategies in global projects. *Scandinavian Journal of Management*, 26, pp.381-397

Aaltonen, K., Kujala, J., Havela, L., Savage, G. 2015. Stakeholder dynamics during the project frontend: The case of nuclear waste repository projects. *Project Management Journal* 46 (6), pp. 15-41.

Altshuler, A., Luberoff, D., 2003. Mega-projects: The changing politics of urban public investment. *Brooking Institute*, Washington D.C. Atkinson, R., Cope, S., 1997. Community participation in urban regeneration in Britain. In Hoggett, P. (Eds.), Contested communities. *Bristol Policy Press.*, pp.201-221

Bazeley, P. (2013), Qualitative Data Analysis: Practical Strategies, Sage, Thousand Oaks, CA.

Bazeley, P., Jackson, K., 2013. Qualitative Data Analysis with NVivo, Sage, London.

Bazeley, P., Richards, L., 2000. "Part 7: ordering concepts", in Bazeley, P. and Richards, L. (Eds), *The NVivo Qualitative Project Book*, Sage Publications Ltd, London, pp. 112-132.

Blumberg, B., Cooper, D.R., Schindler, P.S., 2011. Business research methods, 3rd edition. *McGraw-Hill Higher Education*, Berkshire.

Boddy, R. 2016. Sample size for qualitative research. Qualitative Market Research: An International Journal, 19 (4), pp. 426-432.

Boholm, A., Lofstedt, R., Strandberg, U., 1998. Tunnelbygget genon Hallandasas: Lokalsamhallets dilemma [Construction of the tunnel through Hallandsas: the dilemma of the local community]. *CEFOS* (*Centre for Public Sector Research*), *Gothenburg University*, Sweden. In: Olander, S., Landin, A., 2008. A comparative study of factors affecting the external stakeholder management process. *Construction Management and Economics*, 26, pp. 553-561.

Bornstein, L. 2010. Mega-projects, city-building and community benefits. *City, Culture and Society*, 1, pp.199-206.

Bourne, L., Walker, D., 2005. Visualising and mapping stakeholder influence. *Management Decision* 43 (5/6), pp. 649-60.

Braun, V., Clarke, V. 2012. Thematic Analysis. APA Handbook of research methods in psychology, 2, pp.57-71.

Bruzelius, N., Flyvbjerg, B., Rothengatter, W. 2002. Improving accountability in mega projects. *Transport Policy*, 9, pp.143-154.

Bryman, A., Bell, E., 2015. Business research methods, 4th edition. *Oxford University Press*, Oxford Buuren, A., Boons, F., Teisman, G. 2012. Collaborative problem solving in a complex governance system: Amsterdam airport Schiphol and the challenge to break path dependency. *System Research and Behavioral Science*, 29, pp. 116-130.

Cameron, R., Sankaran, S., Scales, J., 2015. 'Mixed Methods Use in Project Management Research', Project Management Journal, 46 (2), pp. 90–104.

Chileshe, N., Rameezdeen, R., Hosseini, M.R., 2016. 'Drivers for adopting reverse logistics in the construction industry: a qualitative study", *Engineering, Construction and Architectural Management*, Vol. 23, No. 2, pp. 134-157.

Choudhury, B.2014. Aligning Corporate and Community Interests: From Abominable to Symbiotic. *Brigham Young University Law Review*, 2 (3), pp. 257-308.

Clark, A.M., 1998. The qualitative-quantitative debate: Moving from positivism and confrontation to post-positivism and reconciliation. *J. Adv. Nurs.* 27, 1242-1249.

Clarkson, M., 1995. Stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, 20 (1), pp. 92-117.

Cleland, D.I., 1986. Project stakeholder management. *Project Management Journal*, 17 (4), pp.36-44. Cleland, D.I., Ireland, L.R., 2007. *Project Management: Strategic Design and Implementation*, 5th edition. *McGraw-Hill*, New York.

Crane, A., Ruebottom, T. 2011. Stakeholder theory and social identity: Rethinking stakeholder identification. *Journal of Business Ethics*, 102, pp.77-87.

Davis, K. 2017. An empirical investigation into different stakeholder groups perception of project success. *International Journal of Project Management*, 35, pp. 604-617.

Dear, M., 1992. Understanding and overcoming the NIMBY syndrome. *Journal of the American Planning Association*, 58, pp. 288-300.

Derry, R. (2012). Reclaiming marginalized stakeholders. *Journal of Business Ethics*, 111, pp. 253–264. Di Maddaloni, F., Davis, K. 2017. The influence of local community stakeholders in megaprojects: Rethinking their inclusiveness to improve project performance. *International Journal of Project Management*. 35 (8), pp. 1537-1556.

Donaldson, J., Preston, L., 1995. The stakeholder theory of the corporation: concepts, evidence, and implications. *Academy of Management Review*, 20, pp.65-91.

Dooms, M., Verbeke, A., Haezendonck, E., 2013. Stakeholder management and path dependence in large-scale transport infrastructure development: the port of Antwep case (1960-2010). *Journal of Transport Geography*, 27, pp.14-25.

Driscoll, C., Starik, M., 2004. The primordial stakeholder: advancing the conceptual consideration of stakeholder status for the natural environment. *Journal of Business Ethics*, 49, pp. 55-73.

Dunham, R., Freeman, R.E., Liedtka, J., 2006. Enhancing stakeholder practice: A particularized exploration of community. *Business Ethics Quarterly*, 16 (1), pp.23-42.

Eesley, C., Lenox, M.J., 2006. Firm responses to secondary stakeholder action. *Strategic Management Journal, Strategic Management*, 27, pp. 765-781.

Elmlund, P. 2015. Key Messages. *Future of Places International Conference*. 29 *June -1 July*, *Stockholm*. Avaialable at: http://futureofplaces.com (Accessed 03/08/2015).

Eskerod, E., Huemann, M. 2013. Sustainable development and project stakeholder management: what standards say. *International Journal of Managing Projects in Business*, 6 (1), pp. 36-50.

Eskerod, P., Huemann, M., Ringhofer. 2015. Stakeholder inclusiveness: enriching project management with general stakeholder theory. *Project Management Journal*, 46 (6), pp. 42-53.

Eskerod, P., Huemann, M., Savage, G. 2015. Project stakeholder management - Past and present. *Project Management Journal*, 46 (6), pp. 6-14.

Eskerod, P., Vaagaasar, A. 2014. Stakeholder management strategies and practices during a project course. *Project Management Journal*, 44 (5), pp. 71-85.

Eweje, J. 2010. Investigating factors that affect project manager decisions on oil and gas megaprojects, and how they impact the realization of strategic value. PhD Thesis, *Skema Business School*, Lille, France.

Eweje, J., Truner, R., Muller, R., 2012. Maximizing strategic value from megaprojects: The influence of information-feed on decision-making by the project manager. *International Journal of Project Management*, 30, pp. 639-651.

Feige, A., Wallbaumand, H., Krank, S. 2011. Harnessing stakeholder motivation: towards a Swiss sustainable building sector. *Building Research and Information*, 39, pp. 504-517.

Flyvbjerg, B., 2014. What you should know about megaprojects and why: An overview. *Project Management Journal*, 45 (2), pp. 6-19.

Flyvbjerg, B., 2005. Design by Deception: The Politics of Megaproject Approval. *Harvard Design Magazine*, 22, pp.50-59.

Flyvbjerg, B., Bruzelius, N., Rothengatter, W., 2003. Megaprojects and risk: An anatomy of ambition. *Cambridge University Press*, Cambridge.

Flyvbjerg, B., Holm, M.K.S., Buhl, S.L., 2005. How (in)accurate are demand forecasts in public works projects? The case of transportation. *Journal of The American Planning Association*, 71 (2), pp.131-146.

Flyvbjerg B, Garbuio, L., Lovallo, D., 2009. Delusion and deception in large infrastructure projects: Two models for explaining and preventing executive disaster. *California Management Review*, 51 (2). pp.170-193.

Freeman, R.E., 1984. Strategic Management: A Stakeholder Approach. Pitman Inc., Boston.

Freeman, R.E., Harrison, J.S., Wicks, A.C. 2007. Managing for Stakeholders: Survival, Reputation and Success. *New Haven Yale University Press*.

Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B.L., De Colle, S., 2010. Stakeholder theory: "The State of the Art". *Cambridge University Press*, Cambridge.

Ghauri, P., Gronhaug, K., 2002. Research methods in business studies: A practical guide, 2nd edition. *Prentice Hall*, Dorset

Gibbs, G., 2002. Qualitative data analysis: Exploration with NVivo (Understanding Social Research), *Open University Press*, Buckingham.

Goodpaster K.E., 1991. Business Ethics and Stakeholder Analysis. *Business Ethics Quarter*, 1 (1), pp. 53-73.

Guest, G., McLellan, E., 2003. Distinguishing the trees from the forest: Applying cluster analysis to thematic qualitative data. *Fields Methods*, 15 (2), pp. 186-201.

Hart, S.L., Sharma, S., 2004. Engaging fringe stakeholders for competitive imagination. *Academy of Management Executive*, 18 (1), pp. 7-18.

Hertogh, M., Westerveld, E. 2009. Playing with complexity – Management and organization of large infrastructure projects. *NETLIPSE*. Amsterdam, the Netherlands.

Hertogh, M., Baker, S., Staal-Ong, P.L., Westerveld, E. 2008. Managing large infrastructure projects

–Research on best practices and lessons learnt in large infrastructure projects in Europe. *NETLIPSE*.

Amsterdam, the Netherlands.

Hillery, G.A., 1955. Definitions of community: areas of agreement. *Rural Sociology*, 20, pp.111-123. Hooper, J. 2012. Italy's high-speed train line under the Alps gathers pace. *The Guardian*, 9th of April 2012.

Huemann, M., Eskerod, P., Ringhofer, C. 2016. Rethink! Project stakeholder management. *Project Management Institute (PMI)*. Pennsylvania, United States.

IFC, 2007. Stakeholder engagement: A good practice handbook for companies doing business in emerging markets. *International Finance Corporation*.

Jia, G., Yang, F., Wang, G., Hong, B., You, R., 2011. A study of mega project from a perspective of social conflict theory. *International Journal of Project Management*, 29, pp. 817-827.

Johnson, R.B., Onwuegbuzie, A.J. 2004. Mixed Methods Research: A research Paradigm Whose Time Has Come. *Educational Researcher*, 33 (7), pp. 14-26.

Johnson, G., Scholes, K., Whittington, R., 2005. Exploring corporate strategy: Text and cases, 6th edition, *Prentice Hall*, Harlow.

Laursen, M., Svejvig, P., 2016. Taking stock of project value creation: a structured literature review with future directions for research and practice. *International Journal of Project Management*, 34 (4), pp. 736-747.

Letsch, C. 2013. Turkey protest spread after violence in Istanbul over park demolition. *The Guardian*, 31st May 2013.

Lester, A., 2007 Project Management-Planning and control., 5th edition, Elsevier Ltd., Burlington.

Li, T.H.Y., Ng, S.T., Skitmore, M., 2012a. Public participation in infrastructure and construction projects in China: From an EIA-based to a whole-cycle process. *Habitat International*. 36, pp. 47-56.

Li, T.H.Y., Ng, S.T., Skitmore, M., 2012b. Conflict or consensus: An investigation of stakeholder concerns during the participation process of major infrastructure and construction projects in Hong Kong. *Habitat International*, 36, pp. 333-342.

Lizarralde, G. 2011. Stakeholder participation and incremental housing in subsidized housing projects in Colombia and South Africa. Habitat International, 35, pp. 175-187.

Locatelli, G., Mariani, G., Sainati, T., Greco, M. 2017. Corruption in public projects and megaprojects: There is an elephant in the room! *International Journal of Project Management*, 35 (3), pp.252-268.

Major Projects Association, 2014. A Fool with a Tool is still a Fool –Risk Management for Megaprojects and Major Programmes. *Said Business School*, Webinar, 20th of February 2014.

Mason, M. (2010), "Sample size and saturation in PhD studies using qualitative interviews", *Forum: Qualitative Social Research*, Vol. 11 No. 3, pp. 1-19.

McKinsey Global Institute, 2016. Bridging Global Infrastructure Gaps. June 2016. *McKinsey and Company*.

McVea, J.F., Freeman, R.E. 2005. A names-and-faces approach to stakeholder management: How focusing on stakeholders as individuals can bring ethics and entrepreneurial strategy together. *Journal of Management Inquiry*, 14, pp.57-69.

Melchert, L., 2007. The Dutch sustainable building policy: a model for developing countries? *Building* and *Environment*, 44 (2), pp.893-901.

Miller, R., Olleros, X., 2001. Project shaping as a competitive advantage. In Miller, R., Lassard (Eds.)

The Strategic Management of Large Engineering Projects – Shaping Institutions, Risks and Governance, *MIT Press*, Cambridge.

Mitchell, R.K., Agle, B.R., Wood, D.J., 1997. Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. *Academy of Management Review*, 22 (4), pp.853-886.

Mok, K.Y., Shen, G.Q., Yang, J., 2015. Stakeholder management studies in mega construction projects: A review and future directions. *International Journal of Project Management*, 33, pp.446-457.

Moulaert, F., Rodriguez, A., Swyngedouw, E., 2003. The Globalised City: Economic Restructuring and Social Polarization in European Cities. *Oxford University Press*. Oxford.

Newcombe, R., 2003. From client to project stakeholders: A stakeholder mapping approach. Construction Management and Economics, 26, pp. 841-848.Nguyen, N.H., Skitmore, M., Worg,

Neuman, W.L. 2011. Social research methods. 6th edition. Pearson Education Limited, Boston

Olander, S., 2007. Stakeholder impact analysis in construction project management. *Construction Management and Economics*, 25, pp. 277-287.

Olander, S., Landin, A., 2005. Evaluation of stakeholder influence in the implementation of construction projects. *International Journal of Project Management*, 23, pp. 321-328.

Olander, S., Landin, A., 2008. A comparative study of factors affecting the external stakeholder management process. *Construction Management and Economics*, 26, pp. 553-561.

Pajunen, K., 2006. Stakeholder influences in organizational survival. *Journal of Management Studies*, 43 (6), pp. 1261-1288.

Pinto, J.K., Slevin, D.P. English, B. 2009. Trust in projects: an empirical assessment of owner/contractors relationships. *International Journal of Project Management*, 27, pp. 638-648.

Pinto, J.K., Winch, G. 2016. The unsettling of "settled science". The past and future of the management of projects. *International Journal of Project Management*, 34, pp.237-245.

PwC. 2014. Infrastructure spending to more than double to \$9 trillion annually by 2025. *PwC Global Press Room*.

Saunders, L., Lewis, P., Thornhill, A., 2012. Research methods for business students, 6th edition. *Pearson Education Limited*, Essex.

Skerratt, S., Steiner, A. 2013. Working with communities of place: complexities of empowerment. *Local Economy*, 28 (3). pp. 320-338.

Sun, J., Zhang, P. 2011. Owner organization design for mega industrial construction projects. International Journal of Project Management, 29 (7), pp. 828-833.

Sutterfield, J. S, Friday-Stroud, S. S., Shivers-Blackwell, S.L. 2006. A case study of project and stakeholder management failure: Lesson learned. *Project Management Journal*, 37 (5), pp.26-35.

Teo, M., Loosemore, M. 2017. Understanding community protest from a project management perspective: A relationship-based approach. *International Journal of Project Management*, 35 (8), pp.1444-1458.

Teo, M., Loosemore, M. 2014. The role of core protest group members in sustaining protest against controversial construction and engineering projects. *Habitat International*, 44, pp.41-49.

Teo, M., Loosemore, M. 2011. Community-based protest against construction projects: a case study of movement continuity. *Construction Management and Economics*, 29 (2), pp. 131-144.

The Economist, 2008. Building BRICs of Growth. *The Economist*, June 7, 2008, p.80.

Turner, R., 2014 *Re: Systematic Literature Review*. [Email sent to Francesco Di Maddaloni, 12th August 2014].

Turner, R., Zolin, R., 2012. Forecasting Success on Large Projects: Developing Reliable Scales to Predict Multiple Perspectives by Multiple Stakeholders Over Multiple Time Frames. *Project Management Journal*, 45 (5), pp.87-99.

Uprichard, E., 2009. Introducing cluster analysis: what can it teach us about the case?, in Byrne, D., Ragin, C.C. (Eds), *The SAGE Handbook of Case-Based Methods*, Sage Publications Ltd, London, pp. 132-147.

Vanclay, F., 2002. Conceptualizing social impacts. *Environmental Impact Assessment Review*, 22 (3), pp.183-211.

Vos, J.F.J., Achterkamp, M.C., 2006. Stakeholder identification in innovation projects: going beyond classification. *Eur Journal Innovation Management*, 9 (2), pp. 161-168

Watts, J. 2014. Anti-World Cup protest in Brazilian cities mark countdown to kick-off. *The Guardian*, 12th June 2014.

Webber, M., 1963. Order in diversity: Community without propinquity. In *Cities and Space*, ed. L.Wingo. *John Hopkins Press*. Baltimore.

Wells, J. 2014. Corruption and Collusion in Construction: a View from the Industry. In: Søreide, T., Aled, W. 2014. Corruption, Grabbing and Development. *Real World Challenges, Edward Elgar Publishing Ltd*, pp. 23–34

Winch, G., Bonke, S., 2002. Project stakeholder mapping: analyzing the interests of project stakeholders. In: Slevin, D.P., Cleland, D.I., Pinto, J.K. (Eds). The frontiers of project management research. *Project Management Institute Inc.* Newtown Square, PA.

Xue, X., Zhang, R., Zhang, X., Yang, J., Li, H., 2015. Environmental and social challenges for urban subway construction: An empirical study in China. *International Journal of Project Management*, 33, pp.576-588.

Yang, R.J., 2014. An investigation of stakeholder analysis in urban development projects: Empirical or rationalistic perspectives. *International Journal of Project Management*, 32 (5), pp. 838-849.

Yimaz, K., 2013. Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education* 48(2), pp. 311-25.

Yin, R.K., 2014. Case study research: Design and methods, 5th edition. *Sage Publications*, Thousand Oaks

Zhai, L., Xin, Y., Cheng, C., 2009. Understanding the value of project management from a stakeholder's perspective: Case study of mega-project management. *Project Management Journal*, 40 (1), pp. 99-109.

Zimmermann, M., Althaus, H.J., Haas, A., 2005. Benchmarks for sustainable construction – a contribution to develop a standard. *Energy and Buildings*, 37 (1), pp.1147-1157.