



Contents lists available at ScienceDirect

European Management Journal

journal homepage: www.elsevier.com/locate/emj

The impact of social power and influence on the implementation of innovation strategies: A case study of a UK mega infrastructure construction project

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ARTICLE INFO

Article history:

Received 22 November 2018

Received in revised form

22 January 2020

Accepted 5 March 2020

Available online xxx

Keywords:

Social power

Influence strategies

Megaprojects

Social processes

Project innovation strategy

ABSTRACT

Influence plays a key role in reaching consensus among multiple actors involved in project-based decision-making processes. While prior literature devotes considerable attention to describing influence, little attention has been paid to influence at the individual level of the strategic project manager within the context of megaprojects. This research intended to fill this knowledge gap by identifying and describing the influence strategies that a strategic project manager applies when implementing innovation strategies on megaprojects. A qualitative case study was used to examine the complex social processes involved in a major UK capital investment programme. The findings underline a critical subset of influence strategies, notably higher-management support, inspirational appeal and bargaining. The study proposes a utilitarian structure of social power comprising selective, supportive and executory power bases.

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1. Introduction

In recent years, the pace of innovation with improved communication and increased productivity has been remarkable in many sectors, including the health sciences and consumer goods sectors (WEF, 2016). For instance, in the automobile sector, robotics, computerised design and other technical work process innovations have helped to create manufacturing processes that are productive, cost-effective and increasingly environmentally friendly (WEF, 2016). Surprisingly, the construction sector has been slower to adopt new technologies than any other global sector (Vähä, Heikkilä, Kilpeläinen, Jarviluoma, & Heikkilä, 2013; Davies & Harty, 2013). Due to the highly project-based nature of construction, innovation is typically piloted, implemented and displayed via projects (Bygballé & Ingemansson, 2014; Morris, 2013).

It is worth noting that an innovation strategy is an element that is fundamental to the success of innovative endeavours (Andersson & Chapman, 2017). Artto, Kujala, Dietrich, and Martinsuo (2008) have described 'strategy' as the direction which guides the

success of the project-based organisation in its environment. According to Andersson and Chapman (2017), an innovation strategy can be used to describe an organisation's innovation system and the future direction of its innovation efforts. Considering the complexity of projects, scholars such as Eweje, Turner, and Müller (2012), Mackie, Begg, Smith & Welsh, 2007 and Sull (2007) have contended that strategy realisation in projects is principally about decision-making under conditions of uncertainty and risk. From a sociological perspective, uncertainty can be understood not only as what is unknown, but also as the lack of consensus during decision-making processes (Pfeffer, Salancik & Leblebici, 1976). Under conditions of bounded rationality, uncertainty and information deficiency, participants in a decision-making process may each assume a position based on their perceived reality. Consequently, influence plays an important role in the introduction of a new innovation strategy in the project-based construction sector (Winch, 1998).

Regarding uncertainty, Johnson (1992) has defined resistance as a mechanism that minimises ambiguity and uncertainty while the strategy is incrementally evolving. It is a reaction to uncontrolled change (Waddell and Sohal, 1998) and is seen as responsible company management that tries to ensure the sustainable future of the company whilst permitting, at the same time, incremental changes. Todnem By, (2005) has asserted in his critical review that

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change management may reduce resistance to change, although he does not explain influence at the individual level and how it manifests itself in a peer-to-peer situation.

As established from the reviewed literature, a number of authors have appraised the concept of influence. Considering the social effects of influence, Pfeffer et al. (1976) has proposed two types of influencers. The first is a party or group of people that have influence over another group of people because of their control of a desirable resource. The second is at the individual level, derived from an individual's ability to reduce the uncertainty in a decision situation. Authors such as French and Raven (1959), Mintzberg (1985) and Schriesheim, Hinkin, and Podsakoff (1991) have suggested that influence is the expression of power, whilst power is only evidenced by influence. Shim & Lee, 2001 has defined power as an agent's capacity to influence a target individual. Thus, this study assumed influence to be at an individual level of influence, following Pfeffer et al. (1976) distinctions, and focussed on the dyadic relationship between influence and the social power sources of strategic project managers.

While prior literature has devoted considerable attention to describing influence, the concept remains vaguely defined due to its high dependence on context. In addition, far too little attention has been paid to the influence at the individual level of project managers, and there has been little discussion about influence on large-scale megaprojects. Hence, this research study aspired to examine these knowledge gaps and identify key influence strategies that could be utilised by a strategic project manager to introduce an innovation strategy on mega infrastructure projects. Thus, the main research question is the following: What influence strategies do strategic project managers and practitioners apply when implementing a new innovation strategy on mega infrastructure construction projects?

To answer this research question, a qualitative case study was used to examine the complex social processes involved in the introduction of an innovation strategy on a major UK capital investment programme. The key individuals driving the strategy took about six months to convince organisational members at multiple levels to endorse the new strategy and to commit to the delivery of the innovation programme. The focus of this study is on this initial six-month period and on the eight main individuals who played a key influence role during the decision-making processes towards reaching a consensus.

It should be noted that the study focusses on the individual level of influence, in other words, the field of action of a given person—in this case, the strategic project manager. Within the context of this research study, the term 'strategic project manager' is used to describe an individual who is involved in leading the early implementation stages of a megaproject innovation strategy in the most effective manner so that it delivers the espoused project innovation outcomes. The strategic project manager is seen as an 'emergent' role (Pryke, Badi, Almadhoob, Soundararaj, & Addyman, 2018) in that it is not formally dictated by the project organisational hierarchy. This follows Kim, Min and Cha, (1999) argument that an individual who leads a team is not necessarily appointed by hierarchy and, in certain contexts, can fulfil the role informally. The eight key participants of this study could be labelled as 'project managers' as they were tasked to lead the project organisation's innovation strategy. However, for most of them, it was not part of their formally dictated roles. Indeed, the innovation strategy was developed in this case by an organisation formed by both formal and informal roles, as discussed in the conclusion section. This emergent nature of leadership and distributed influence in the innovation process was also observed by Cox, Pearce, and Perry (2003). In addition, those eight actors were 'strategic' as their main goal was to convince others to accept the innovation strategy

(i.e., the what) because of its importance (i.e., the why), which are two fundamental elements of strategy (Morris, 2013).

In answering the research question, the study aims to extend the theory of social power in a project context by adopting a qualitative approach that explicates the complex social processes involved. A review of project innovation strategy, power and influence and their manifestation is discussed in the next sections. This is followed by an outline of the research method, which entailed a case study of a major UK capital investment programme. The fourth section presents the findings of the study. A final discussion section concludes the paper.

2. Literature review

2.1. Project innovation strategy

According to Hippel (2005), innovation is the successful commercial exploitation of new ideas. This can entail scientific, technological, organisational, financial and business activities leading to the commercialisation of new or substantially improved products, processes, services or entire business models. Innovation can also be incremental or radical and can range from small continuous improvements in existing products, processes or services at one end of the spectrum to radical changes correlated with breakthrough products at the other end (Andersson & Chapman, 2017; Hippel, 2005).

As observed from both classical and contemporary project management literature, a narrow definition of the concept of project innovation strategy is provided. As Andersson and Chapman (2017) have contended, an innovation strategy outlines future plans to expand an organisation innovation system and explicates the future trajectory of its innovation efforts. A stream of studies has suggested that there are five generic firm-level 'innovation seeds' that each drive different strategic approaches at the project level. It is vital for project managers to be aware that each of the strategic approaches leads to different innovation behaviours and innovation outcomes (Davila & Epstein, 2014; MacIntosh & Maclean, 2015). MacIntosh and Maclean (2015) have identified intent-driven strategy approaches that emphasise objectives and goals, trend-driven strategy approaches that scan the horizon looking for advance notice of future trends and technologies, and resource strategy approaches that focus on opportunities to deploy existing skills and know-how. McGrath and MacMillan (1995) and Davila and Epstein (2014) have further classified strategy approaches as discovery- and curiosity-driven approaches whilst Cooper and Edgett (2010) have recognised strategy approaches that are driven by a product or a technology roadmap. From the above literature, it can be devised that a project innovation strategy generally entails a project innovation brief specifying the project innovation seed, project innovation scope, targeted project goals, expected business benefits and the estimated project funding for, for example, allocated resources and rewards to project participants upon successful completion of the project (Tidd & Bessant, 2014). It is worth mentioning that a successful project innovation strategy may entail the development of a new or improved product, process or service, but the innovation deployed has to be desirable to the client.

2.2. Social power

Archer (1982, 2000, 2002), a prominent social theorist and sociologist examined the relationship between social identity and society, believing in individuals as social selves, and suggested that it is an inalienable relationship that occurs in the interface between the structure and the agency. According to Archer, power is intrinsic

to humankind and therefore, with no exceptions, everyone has influence over the environment and vice versa. However, not neglecting that, one individual may be more influential than others as an 'emergent' consequence of their relationships in the social structure (Archer, 2000).

From an organisational perspective, Mintzberg (1985), Kolodinsky, Treadway, and Feris, (2007), Walter, Lechner, and Kellermanns. (2008) and Walter, Kellermanns and Lechner (2012) have contended that influence can be exercised through politics. Mintzberg (1985) considered politics as constituting one among several systems of influence in an organisation. According to Mintzberg (1985), even though some of this political influence may originate from legitimate systems, in other words, systems that are officially certified, such as in terms of authority, ideology and expertise, the political arena also accepts and co-exists with illegitimate systems formed by alliances. As established by Mintzberg (1985), alliances are seen as subgroups of the collective, characterised by the hierarchy of participating actors. They can also be categorised by their intensity, duration and openness towards the organisation in a dynamic game which evolves over time. Consequently, building a case study of such alliances requires an extensive analysis of the individuals forming the coalition and the decisions that lead to the establishment of an alliance.

A third perspective is aligned with an individual's power of influence. This power has to be distinguished from control since it still permits free will in decision-making. From the numerous power typologies in the literature, the most cited model is that of French and Raven (1959) which defines five types of power: reward, coercive, legitimate, referent and expert powers. While reward power is the ability to administer a desired object or benefit, coercive power is the ability to enact an undesired object or disadvantage. The ability to administer feelings of obligation is associated with legitimate power. Feelings of personal acceptance or approval emanate from referent power, while expert power is the power emerging from knowledge and expertise.

However, this typology has undergone several developments and refinements. For instance, Pfeffer et al. (1976) and Scheer and Stern, (1992) have postulated that reward and coercive power are no more than different strategies over the same source of power: the control of physical resources. They combined these two into a new typology, which they named 'resource-based power'. Equally, Bakshy, Hofman, Mason, and Watts (2011) and Bouquet and Birkinshaw, 2008 have identified a new source of power, which is related to the possession of information and relationships. This source of power can be termed as the 'position in a network of information' and has gained permanence as the result of the communication behaviours of 21st-century societies. For example, a user of online social networks may not own any physical resource or unique expertise in comparison to other users, except by his or her high volume of connections, including weak ties (Granovetter, 1973). Consequently, such a user may potentially enjoy this unique type of power. However, some authors such as Hinkin and Schriesheim, (1989) and Schriesheim et al. (1991) have criticised this model due to its lack of conceptual consistency and, at times, confusion. They have suggested that the boundaries of the source of power are not clearly defined in some circumstances. Hence, instead of power, Hinkin and Schriesheim, (1989) and Schriesheim's et al. (1991) research pursued influence strategies and tactics to elucidate an individual's actions as a more specific approach to continue studying influencing. This line of research takes special prominence in project management literature, as is shown in subsequent sections.

2.3. Social powers as styles of influence

Individualised social power is not the only theoretical lens employed in the study of influence. Johnson and Young, (2012) has found that there are 'modes of expression' for influence, agreeing with Kim et al. (1999), who suggested that there are 'styles of influencing' and 'roles' that influence scenarios. Kim et al. (1999) classified five styles of influence: the technical expert, the strategic planner, the team-builder, the gatekeeper and the champion. An individual who is a technical expert has the ability to integrate technical facts. A strategic planner allocates resources and considers contingencies, and the team builder generates team cohesiveness and spirit. Kim et al. (1999) also described the gatekeeper as having the capacity to manage information and the champion as having the ability to actively promote innovation and ensure its implementation with the strongly skilled capacity to inter-organisationally influence. In particular, the characterisation and understanding of champions in innovation are useful in the context of this research. Although the definition of a champion can be interpreted differently, there appears to be a consensus among social scientists that champions are committed individuals who are highly skilled with influencing and they emerge by promoting an idea actively and vigorously (Hinkin & Schriesheim, 1989; Howell & Higgins, 1990; Kim et al. 1999; Markham, 1998; Sergeeva, 2016). In addition, a champion is often a superior expositor for influencing and most frequently is found to be the chief executive officer (CEO) of the company (Sergeeva, 2016). However, our study focusses not only on individuals with the best quality of influence, but also on other professionals who can influence the decision-making process.

Interestingly, the styles of influence proposed by Kim et al. (1999) could be linked to social power consistently through their definitions. Notably, as Fig. 1 shows, several types of social powers could be associated with each style of influence instead of just one. Hence, the analysis by social power displays consistency and usefulness as a result of not being attached to a specific role.

Social power and influence not only have a mutually reinforcing relationship (as was mentioned in the previous sections) but also may be seen as one integrated concept (Lines, 2007; Lee & Bohlen, 1997; Lee & Sweeney, 2001). Likewise, Kim et al. (1999) and French and Raven (1959) have elucidated this dyadic relationship with the following analogy: 'Influence is kinetic power, just as power is potential influence'. This view implies two underlying assumptions: From one side, it supports the notion that power and

Technical Expert	<ul style="list-style-type: none"> • Knowledge → Expert Power
Strategic Planner	<ul style="list-style-type: none"> • Resource-based → Resource-based Power • Authority → Legitimate Power • Knowledge → Expert Power
Team Builder	<ul style="list-style-type: none"> • Team norms → Referent Power • Authority → Legitimate Power
Gatekeeper	<ul style="list-style-type: none"> • Centre of information flow → Position in Network Power
Champion	<ul style="list-style-type: none"> • Connect → Position in Network Power • Authority → Legitimate Power • Inspires → Referent Power • Knows what is saying → Expert Power

Fig. 1. Linking the styles of influence with the types of social power.

influence are two expressions of the same ability. In other words, just as kinetics and potential are two components of energy, power and influence are two sides of the same coin. In addition to this view, the analogy with energy supports the view of a dynamic relationship rather than a static or unalterable relationship.

2.4. Influencing in projects

Several authors have applied the typologies of social power to project contexts in an attempt to explain the influence of project managers. From these studies, three are particularly pertinent. First, [Gemmill and Wilemon \(1970\)](#) adopted French and Raven's model of power (1959) in their study of project managers and the spectrum of power in projects. They argued that a managerial style in a project context is a combination of several social powers acting together, confirming what has been discussed in previous sections about the combinatorial nature of social powers. [Gemmill and Wilemon \(1970\)](#) proposed two groups of power mixes: The first group originates from legitimacy, reward and coercive power, mainly acting with authority over the control of resources that can offer benefits or punishments. The second group comprises expert and referent power—hence this style is supported by knowledge and inspiration. [Gemmill and Wilemon \(1970\)](#), however, did not explicate the level of power examined in their research, in other words, whether the level was strategic or operational, nor the industry inspected, generating doubts about the applicability of their findings across projects.

Another interesting scholar who also adopted French and Raven's model (1959) is [Thamhain and Gemmill, \(1974\)](#). [Thamhain and Gemmill, \(1974\)](#) explored the relationship between the project manager's social power and project performance. Surprisingly, and contrary to what happens in other industries such as the construction industry ([Lindebaum & Cartwright, 2010](#)), the results revealed that the main social power used by project managers is expertise with a significant correlation between expertise power, the project manager's communication of work challenges and the project's superior performance. However, notable deficiencies in their empirical analysis may weaken Thamhain's study.

[Eweje et al. \(2012\)](#) have attempted to verify their hypothesis that the project manager's influence is a function of resources (including information) and not experience, administering a survey in the oil and gas industry in a non-specified country. Their findings suggested that a project manager's decisions are strongly guided by their perception of the desires of senior management. Given that project managers manage a plethora of information across multiple project functions, the power exercised by project managers was found to be the power of 'position in the network' as they enjoy a privileged position in the information exchange network.

In tandem with social powers, there is a set of scholars who have examined influence in projects from the perspectives of leadership and emotional intelligence. Project management researchers such as [Boyatzis, Goleman & Rhee, 2000](#), [Caruso and Salovey, \(2004\)](#), [Druskat and Druskat \(2006\)](#), [Goleman et al., 2002](#), [Sayegh et al. \(2004\)](#) and [Yip and Cote, 2013](#) have contended that emotions can be transmitted and used to influence others through a set of competencies. Indeed, [Druskat and Druskat \(2006\)](#) inferred that emotional intelligence is a collection of 18 competencies, including the ability to monitor one's own and others' emotions to discriminate among them and to use emotions to guide the thinking and actions of others. One could, therefore, suggest that emotional intelligence can influence project performance based on the understanding of emotions and contexts. [Sayegh et al. \(2004\)](#) found that self-management, social awareness and relationship management are simultaneously crucial ingredients for this process. Other authors such as [Hess and Bacigalupo, 2011](#) and [Krause \(2004\)](#)

established emotional intelligence from a power perspective. They accepted that emotional intelligence may work for influencing based on emotions, hence transforming it into an influence strategy. [Krause \(2004\)](#), for instance, studied the influence relationship over subordinates when innovation is required. [Krause \(2004\)](#) further asserted that a leader has to be charismatic and inspirational, in other words, a leader should adopt a strategy of referent power, and leaders should offer enough freedom to create a comfortable environment for the middle management to innovate. Emotional intelligence may offer a profound perspective of referent power but may not be the unique source of influence.

The last group of authors created a typology which maintains some of the original social powers but also incorporates other influence strategies to avoid fuzzy boundaries between social powers. Based on data appraised from the information technology domain, [Lee and Sweeney \(2001\)](#) and [Yukl and Tracey, \(1992\)](#) notably proposed 12 influence strategies for projects: assertiveness or pressure, bargaining or ingratiation, coalition, consultation, friendliness, inspirational appeal, personal appeal, rational reasoning, sanctions, higher-management support, expertise and legitimating. It is notable that almost all the influence strategies listed may be related to individual social power, except coalition, which is more pertinent to political arenas. Interestingly, [Lee and Sweeney \(2001\)](#) generated a set of 18 influence tactics through a survey of over 616 project managers, mainly from the USA and Canada. Their findings suggested that there is a group of influence tactics that are more frequently used than others. In particular, the tactics of rational reasoning, consultation and emotional appeal are more widely used than assertiveness and sanctions, although their survey includes predetermined influence tactics, making them liable to a similar critique as [Thamhain and Gemmill, \(1974\)](#) study.

As shown above, there is a plethora of research that has examined social power and influence, but the understanding of influence for a decision situation remains to be further progressed. Moreover, the quantitative part of the reviewed literature was based on a predetermined list of influence tactics. It could, therefore, be argued that the variables examined do not capture the rich, multifaceted and contextual elements of influence. [Fig. 2](#) below illustrates the conceptualised relationship between social powers, influence strategies and tactics. Consequently, there remain gaps in the project managers' understanding of their strengths and weaknesses in a particular situation. Moreover, research on influence strategies needs to be adequately contextualised. The next section examines aspects of the research method adopted in this study.

3. Method

The study adopted a qualitative research approach through an

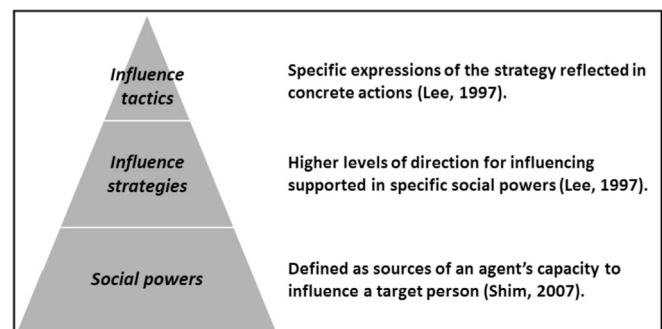


Fig. 2. The relationship between social powers, influence strategies and tactics.

exploratory case-study method. A case study was considered the most appropriate design due to its capacity to offer detailed and rich insight into a phenomenon in its real-life context (Miles & Huberman, 1994; Flyvbjerg, 2006). There are several categories of case studies. Yin (1984) has noted three categories, namely, descriptive, exploratory and explanatory case studies. For this study, the exploratory case study approach was adopted; this allowed the researchers to explore the phenomenon which served as a point of interest. To augment the validity of the case, the researchers began with a descriptive theory to support the description of the phenomenon. In this research, a case study was chosen to be done on a formally documented major capital investment programme (MCIP) in the UK in the construction sector. An MCIP was chosen because it offered a unique real-life setting of a successfully implemented innovation strategy, which comprised project innovation engineering and project innovation outcomes. The adopted case study offered an inimitable level of real-life megaproject complexity at a strategic level. As observed from the case study, the innovation strategy was driven by the top management but designed by a special team composed of programme managers and academic researchers. The innovation strategy outlined a systematic and structured process to mobilise and manage innovation through the creation of a structure that supported idea sharing, the creation of a base of knowledge, and the selection of the most promising proposals for implementation (Konstantinou and Fincham, 2010). In 2012, the developed innovation strategy was presented by the CEO to multiple organisations involved in the establishment of contractual agreements that formed the project supply chain. The participation and contribution of internal departments—but more importantly, the main contractors undertaking the construction of the programme as well as outsourced specialised technical areas—were required to successfully support the implementation of the innovation strategy. Ultimately, the key individuals promoting the strategy took approximately six months to convince organisational members at multiple levels to approve the new strategy and commit to implementing it. This six-month period is the focus of this study.

The approach taken by the organisation in the case study was considered as ‘breaking the mould’ in the UK construction sector because the organisation was the first organisation to develop a written formal strategy and process for managing innovation in a megaproject. Some of the UK’s previous projects (Heathrow Terminal 5 and the London Olympics 2012) were found to have taken vital steps to institutionalise innovation in megaprojects (Brady, Davies, Gann, & Rush, 2007; Davies & Mackenzie, 2014). However, these projects focussed on creating novel approaches to project delivery rather than establishing strategies to promote innovation within and beyond the life of the project. In contrast, the innovation strategy explored in this study viewed the megaproject as an ecosystem of a number of diverse and interconnected organisations. Moreover, the strategy focussed on building the organisational mechanisms and culture required to broker innovation between different parts of the ecosystem. Fig. 3 summarises the case project vision for an innovation strategy that included the following processes:

- Generating, developing, codifying and formalising innovation in the project design, construction and handover to operations;
- Benchmarking and measuring innovative improvements; and
- Capturing and transferring lessons learnt to future projects.

Fig. 4 further illustrates the case project innovation model and identifies the key determinants that were required to achieve the innovation strategy:

- Innovation policy: a statement of intent and strategic commitment;
- Three C’s of innovation: collaboration, culture and capability;
- Innovation readiness levels: guidance on how ideas are selected and developed based on their readiness levels;
- Methods: logical and systematic processes for facilitating innovation from idea generation through to development, implementation and legacy;
- Themes: all innovation activities fall under a theme correlated with the case project priorities and opportunities; and
- Roadmap: a visual tool that enables innovation to be managed as a portfolio.

It is worth noting that this study is exploratory in nature, not proposing predetermined influence strategies but intending to highlight those emerging from the data collection process. Moreover, this study’s contribution is given by inferring the influence strategies used by analysing the statements of the participants. The researchers anticipated that the flexibility of the qualitative research method would aid in finding contextualised results as well as a more accurate elicitation of the influence strategies at play.

3.1. Sampling and interview participants

Qualitative samples are often purposive, that is, selected by virtue of their capacity to provide richly textured information relevant to the phenomenon under investigation (Saunders, Lewis, & Thornhill, 2015). As a result, purposive sampling was employed in this study. The selection of the study’s participants was based on two criteria: The participant had to be directly involved in supporting the innovation strategy by delivering specific tasks in the participant’s own organisation during the initial six-month period following the introduction of the strategy, and the participant had to be, in retrospect, deemed by others as influential in convincing other organisational members at multiple levels to endorse the new strategy. Ultimately, eight key individuals were seen to meet these criteria from the following four organisations across the supply chain: the Programme Management Partner Company, Tier 1 Contractor (a), Tier 1 Contractor (b) and the System Integrator Company. The finalisation of the number of the study’s participants was based on complete agreement among the eight key individuals. Hence, all eight individuals had to have identified each other as influential during the early stages of the strategy’s introduction. The eight individuals were as follows: the Programme Manager, Construction Site Superintendent, Director of Innovation, Innovation Manager, Innovation and Report Consultant, Innovation Project Coordinator, Head of Technical Information and Head of Concrete Design.

As asserted by Bryman and Bell (2015) and Cresswell and Poth (2017), there is no straightforward answer to the question of how many people should be in the sample size and that the sample size is contingent on a number of factors relating to epistemological, methodological and practical issues. According to Bryman and Bell (2015), samples in qualitative research tend to be small to support the depth of case-oriented analysis that is fundamental to this mode of inquiry. Denzin and Lincoln (2011) have suggested that qualitative sample sizes should be large enough to allow the unfolding of a ‘new and richly textured understanding’ of the phenomenon under study but small enough so that the ‘deep, case-oriented analysis’ of qualitative data is not precluded. Saunders et al. (2015) have posited that the more useable data are collected from each person, the fewer participants are needed. Despite the small sample size of only eight participants, it is worth emphasising that the participants’ rich background, knowledge and technical skills on the case project provided an in-depth contribution to the

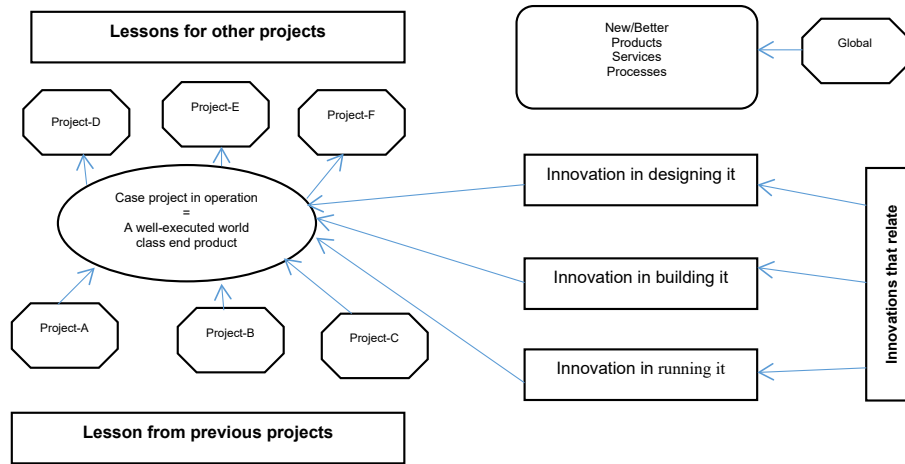


Fig. 3. Case project vision
Source: Anonymised innovation strategy document.

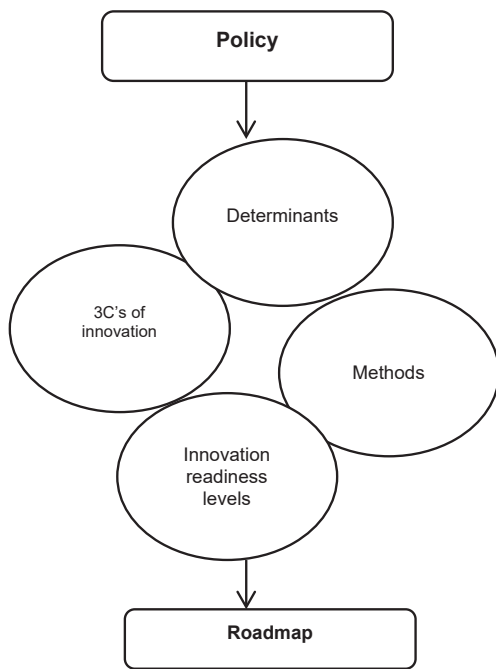


Fig. 4. Case innovation model
Source: Anonymised innovation strategy document.

research. The role title and organisation of each of the participants are summarised in Table 1.

3.2. Interview questions

Data collection took place through semi-structured interviews

Table 1
Summary of participant profiles.

	1	2	3	4	5	6	7	8
Project Role	Programme Manager	Construction Site Superintendent	Director of Innovation	Innovation Manager	Innovation and Report Consultant	Innovation Project Coordinator	Head of Technical Information	Head of Concrete Design
Participants role in the organisation	Programme Manager Partner	System Integrator	Tier 1 Contractor	Tier 1 Contractor	System Integrator	System Integrator	System Integrator	System Integrator
Years of Experience	20	30	22	9	15	9	35	17

due to their flexible format and, according to Walliman, (2006), their ability to allow the researchers to collect information using a guide with open-ended questions. Depending thus on the replies, not everything might be applied or said in the same order, but contextualised and delivered without predefined guidance. A set of semi-structured interview questions was developed based on individual influence strategies from Lee and Sweeney (2001) and the 'gatekeeping' concept from Kim et al. (1999). The interview protocol was divided into four sections. Sections A and B comprised gathering data about the interviewee and the firm. Section C was used to examine how the participants implemented the innovation strategy into the organisation. To infer which influence strategies they were applying, the questions were not driven by a specific strategy but rather a collection of them belonging to a particular social power, as illustrated in Tables 2 and 3. Finally, section D was used to appraise the participants' view on the importance of a number of influence strategies. This allowed the researchers to assess the coherence between the answers given in the previous section.

3.3. Data collection

A preliminary pilot study was conducted with academics and project practitioners prior to data collection. The purpose of the pilot study was to assess the clarity of the questions, the timing of the interviews and the suitability of the participants for the study, and to establish the reliability and validity of the method of data collection. Following this, participants were identified and an e-mail was sent out to each participant introducing the research and requesting an interview. Once the interview request was accepted, a date and time were agreed upon between each participant and the researchers. All the interviews were conducted face to face at the interviewee's offices. The interviews took between one to 2 h and were recorded and later transcribed. The transcription of data

Table 2
Units of assessment.

Typical groups of powers	Social Powers	Influence Strategies (Units of Assessment)	Explanation
Group 1	Resource-based Power (Reward)	Bargaining or Ingratiation	Exchange of benefits or favours
	Resource-based Power (Coercive)	Assertiveness or Pressure Sanctions	Continuous intimidation, threatening with consequences Threatening with a negative outcome
	Legitimate Power	Higher-management support Legitimizing	Hierarchical support over others Authority
Group 2	Position in network Power	Gatekeeping	Managing information that is received to get support
Group 3	Referent Power	Consultation	Participation in planning or decision-making
		Friendliness	Getting the members in a good mood or to think good of you
	Expert Power	Emotional/Inspirational appeal	Using your emotions to appeal to ideas and enthusiasm
		Personal appeal	Loyalty, Identification or other personal links
		Rational reasoning	Use of logical arguments
		Expertise	Specific knowledge of past experiences

was performed by the researchers.

Issues of confidentiality, anonymity and risk assessments were examined as part of the ethical considerations of the study. A consent form explaining what the study involved, reaffirming the individual's voluntary participation and describing the future use of the data was signed by the participants. Subsequently, for analysis purposes, any personal information was removed and data files were securely encrypted with a password.

3.4. Data analysis

The analysis was initiated by carefully reading through each transcript and simultaneously making notes and highlighting important statements. The analysis involved a deconstruction of each interview according to the units of assessment, and following this, possible trends and findings in relation to each influence strategy were analysed. The qualitative interview data was systematically organised according to the units of assessment for data reduction, data display and the conclusion. Ultimately, the findings were assessed to generate the discussion and implications for practice. Validity and reliability were achieved by first assessing the plausibility of objectives as it related to already existing knowledge on some of the soft and hard project issues raised by participants. The verification took place after the interpretation of data; this involved presenting the findings to the main participants of this study through workshops and group discussions. The validation took place after the verification process; this involved presenting the findings in a focus group to a set of senior managers who were not involved with the study.

4. Findings

This section presents the findings from the interviews, organised in themes according to the influence strategy employed. Where appropriate, descriptive quotes from the interview transcripts have been used to express the views of participants and allow their 'voice' to be heard.

4.1. Bargaining or ingratiation

The findings from this theme revealed that trying to convince with 'benefits' using this influence strategy can be a difficult task requiring strenuous effort. As established in this study, a benefit usually corresponds to promises about future events or profit. However, the participants were more specific about what kind of benefits must be offered in the introduction of a strategy. One of the participants suggested that it is sometimes necessary to use certain wording to describe the benefits and potential impacts. The participant went on to suggest that

there seems to be a need for financial benefit or time benefit. So, you know, in terms of convincing, project managers might be under so much pressure to think about something outside of this kind of road map that they're in order to see a project programme through (...). So, what if you were able to enhance the process, to save the time of the process or add value to elements that are in there [the project programme]. That opens them up to change. They get a sense of bringing something new in. (Construction Site Superintendent)

Some of the participants claimed that there were no tangible benefits to offer at the beginning. However, they indicated that it is often effective to frame benefits in terms of 'cost' or 'time' reductions, or both. They contended that other espoused advantages such as 'lessons learnt from the industry' or 'improvement of project outcomes' may not be particularly attractive. This is not due to these issues being of less importance, but due to the daily working pressures of managing projects inevitably shaping the priorities of the management team.

The researchers found that there was an intention to illustrate a balance between risks and benefits during the convincing process, similar to the findings in Flyvbjerg, Bruzelius and Rothengatter (2003) study. Thus, a corresponding reminder of the risks that innovation may entail counterbalanced these discussions of the potential benefits. Given the lack of concrete benefits at the beginning of the convincing process of accepting the innovation strategy, the participants' argument created the perception of low risk:

I would say that it was not particularly risky. So, I mean, obviously, any innovation idea that you have will have a risk profile. ... (but) by having a good system of governance around this selection and development implementation of the innovation, the risk was very well controlled. (Director of Innovation)

4.2. Assertiveness or pressure

Although pressure was not a strategy that was used by all participants, it was mentioned on several occasions. However, the focus was on exerting pressure over an idea or an activity instead of individuals. In addition, the pressure was not seen to involve an element of an individual's intimidation, as found by French and Raven's definition (1959). Moreover, as the literature suggested and is reflected in the case-study findings, influence is a dynamic process that entails some form of resistance. Influence requires more than one instance of conversation. As the next quotation illustrates, pressure manifests itself in a project context by an influencer maintaining the presence and intensity of an idea over a long period of time. Interestingly, that may explain why it took six months to introduce the said innovation strategy.

Table 3
Interview questions.

Introductory Question: Please could you explain your role at the time the innovation strategy was introduced and your involvement?					
Typical groups of powers	Social Powers	Influence Strategies (Units of Assessment)	Explanation	Some Examples of Influence Tactics	Questions
Group 1	Resource-based Power (Reward)	Bargaining or Ingratiation	Exchange of benefits or favours	<ol style="list-style-type: none"> Action to give special general benefits to those who cooperate Action to define payment level Action to define job assignments Action to define promotions Action to grant valuable recognition Do verbal recognition 	<p>A. How would you explain that a benefit (of any kind) can help you to convince someone, overpassing the associated risk that innovation has?</p> <p>B. Do you have an example from your experience in convincing to join the innovation strategy?</p>
		Assertiveness or Pressure	Continuous intimidation, threatening with consequences	<ol style="list-style-type: none"> Action of repeating the consequence of not cooperating Verbal reprimand 	<p>A. In which situations do you think that applying pressure and remind eventual negative consequences would help you to convince a person to take a decision?</p> <p>B. How could it be applied in the introduction of the innovation strategy?</p>
	Legitimate Power	Sanctions	Threatening with a negative. outcome	<ol style="list-style-type: none"> Action to give general penalty to those who do not cooperate Action to define personal dismissal Action to grant a written reprimand Action to define undesirable job assignments The action of suspending without payment 	
		Higher-management support Legitimizing	Hierarchical support over others Authority	<ol style="list-style-type: none"> Action to generate indirect instruction organisation to decide Action to receive the favour of the organisation to decide 	<p>A. How was the authority or hierarchy of the organisation involved in this decision?</p> <p>B. Do you believe that, to convince of implementing the innovation strategy, authority was required?</p> <p>C. How would the scenario have changed if the support from above had not been so present?</p>
Group 2	Position in network Power	Gatekeeping	Managing information that is received to get support	<ol style="list-style-type: none"> Present a wide range of perspectives, focussing on the known interests of the board Act according to potential benefits that are for the interests of the board, not necessarily known from others 	<p>A. when convincing others, is it useful for managers to be in a position where they can access a significant amount of information??</p> <p>B. How can it help you in convincing others to implement innovation?</p>
Group 3	Referent Power	Consultation	Participation in planning or decision-making	<ol style="list-style-type: none"> Action to generate a sense of belonging to the job, importance, support by consideration 	<p>A. Having talked about benefits, risks, authority, in the convincing process, what about values, philosophies and perspectives? Which role plays them in the convincing process?</p>
		Friendliness	Getting the members in a good mood, or to think good of you	<ol style="list-style-type: none"> Action to be considered a nice person 	<p>B. What do you think of the people with whom you interacted during the strategy introduction period?</p>
	Emotional/ Inspirational appeal	Using your emotions to appeal to ideals and enthusiasm	<ol style="list-style-type: none"> Action to stimulate the feeling of challenging assignments Action to generate a working environment with commitment and confidence for contribution 	<p>C. In your experience, is it more or less important in this dimension than the reward and authority as strategies for convincing?</p>	
	Expert Power	Personal appeal	Loyalty, Identification or other personal links	<ol style="list-style-type: none"> Action to get respect/admiration Action to generate connection through values sharing 	
	Expert Power	Rational reasoning Expertise	Use of logical arguments Specific knowledge of past experiences	<ol style="list-style-type: none"> Expose a good solution with the arguments of choosing it Action to obtain respect in the opinions for being more experienced Action to potentially share considerable expertise in the future 	<p>A. Although the discussed past experiences of some people can influence decisions as well. Would you consider this aspect crucial to deciding to join the initiative?</p> <p>B. Is it always required of the technical back-up to convince?</p>
Final Question: Please order these influence strategies according to how important you believe they were in convincing others to join the innovation strategy.					

We had quite a lot of meetings, you know, two or three meetings with the project managers to sort of say, 'Come on,' you know, 'I do not think this is going to be too disruptive'. (Head of Concrete Design)

counterproductive over time, that is, if sanctions are no longer in place, the cooperative behaviour may weaken in the future.

4.3. Sanctions

Sanctions were not mentioned in any instance during the discussions with the participants, neither explicitly nor implicitly. This is congruent with Hinkin and Schriesheim, (1989) and Lines' (2007) view that the application of sanctions as an influence strategy is

4.4. Higher-management support

The participants unanimously contended that higher-management support is one of the most influential strategies in the implementation of the innovation strategy. According to the participants, support by top management allows an innovation idea to be pitched to a wider audience. Indeed, the quotation below reveals that without higher-management support, the proposed

strategy would not have been implemented:

I think the one very key reason for the success of this programme was that it was led by our chief executive. ... If the chief executive had not been a big supporter of innovation, then this would not have happened. (Head of Technical Information)

As expounded by the participants and exemplified in the following quotation, top managers of an organisation often establish the organisation's strategic priorities, and this allows them to emphasise which themes are more relevant:

It is critical having strong leadership support, you know. Unrelenting support is key. If you don't have that, then people won't necessarily buy into it. They do not see it as important because the CEO doesn't think it's important. Then, why should anybody else? (Innovation and Report Consultant)

If there is limited support offered by top management and, in particular, if the initiative was not explicitly referred to by the CEO, then the innovation strategy would be faced with extensive questioning by organisational members. Hence, top management support helps to reduce resistance to new ideas. However, despite the importance of higher-management support, the research findings revealed that it was not enough, as it may also require offering a 'bottom-up' perspective of the new ideas to have an effectively implemented strategy.

4.5. Legitimizing

In contrast to top management support, legitimating is concerned with oneself being the centre of authority. A number of the participants highlighted that legitimating has relatively low importance compared to other influence strategies that better fit the interests of the receiver of the message. The following quotation shows that individuals may agree with the implementation of a new innovation not because the decision was transmitted by the legitimate authority, but because there is a genuine desire for driving innovation and doing things differently (as illustrated below).

Do you think if the board of directors were not so committed, would it have been different? No, I don't think so. I think people would want ... One of the things about the project is there is a reliable group of people being transparent about the opportunities to improve and what is not possible to do. (Head of Concrete Design)

4.6. Gatekeeping

Gatekeeping is about the volume of information that an individual handles or has access to due to their central position within the information exchange network, and how this positional advantage is then used to convince others. The participants highlighted this strategy as critical and of high importance. However, in contrast with the conclusions in the extant literature, the findings suggest that the benefits of gatekeeping do not necessarily result from the ability to manage information but rather from the ability to take a holistic view of the organisational issues concerned. The contribution of the gatekeeping strategy comes through the ability to understand capabilities and passions at the individual level.

Having all this information is critical because it acts as a benchmark ... This is where we are. If the project manager sees a

challenge or an opportunity, he says, 'Look, this is where we are now. I can project that we're going to be here in six months' time'. (Innovation and Report Consultant)

Indeed, as the quotation above reflects, it is possible for an individual to influence by understanding what is happening and what the key interests are. Nevertheless, understanding an organisation is not limited to knowing its concerns but also knowing the people of the organisation and their position in the network as well. The next quotation shows how knowledge of others helped in the specific purpose of influencing at the early stages of the strategy's introduction.

So there was a real resistance—and what we needed, what we did was we identified a few people across the sites and made examples of them. We say, 'Look, we really want you to be part of this great initiative'. (Innovation Project Coordinator)

4.7. Consultation

Even though this strategy was not mentioned by all, some of the participants applied the consultation strategy to make other members of the organisation feel engaged and part of the innovation programme. As the quotation below illustrates, the application of a consultation strategy builds a sense of importance among other organisational members and the feeling of being valued. Hence, they assume greater responsibility for the success of the programme. Moreover, this strategy also helps in creating a positive work environment for the execution of the future innovation strategy.

Make the person join as well, make the job that they are doing suddenly become important. No, it makes them feel valued as well ... That is really important. It is that personal engagement as well, to make it look like you're giving more than just lip service, making more than just management decisions, making you feel like, actually, it is a responsibility that I want to be part of. (Innovation and Report Consultant)

Likewise, other participants argued that it is not only the feeling of being valued that this strategy cultivates among organisational members, but also a sense of belonging to a specific group in which organisational members identify themselves with the group's objectives, which ultimately supports effective communication. The consultation strategy influences people by allowing them to become part of an informal network of people that has a common motivation or strategy. This is illustrated by the following quote:

What I believe by myself, unofficially, is that this was a community. In any discipline, I create a network where I know where to go to. If I have an idea, I know whom to ask ... to make them aware of a specific solution that can improve productivity in their own disciplines or just only because of the knowledge ... but also because in this network you can gain the support that is a real solution. (Construction Site Superintendent)

4.8. Friendliness

The friendliness strategy was rarely mentioned in the interviews. Consequently, it is plausible to argue that it is not a prevalent influence strategy. However, an interesting view about 'friendship at work' emerged from one interview, as the quotation below highlights about supporting friends:

More important, it overcomes the limitations that resource capacity, i.e. free time, brings to the argument not to participate. (Programme Manager)

The friendliness strategy thus may effectively help to convince others of an innovation strategy through the trust that characterises such relationships and the supportive working atmosphere (Song & Olshfski, 2008).

4.9. Emotional and inspirational appeal

Emotional and inspirational appeal were mentioned by all the interview participants. The term 'passion for innovation' was frequently used and was highlighted as a characteristic of the whole group that promoted and contributed to the introduction of the innovation strategy. The following quotation reveals that inspirational appeal is a common characteristic among those promoting the innovation strategy.

So they were good communicators. They were engaging with people, you know, they inspire people. ... They were good administrators of the system, you know. That is not that rare. But it is quite rare to have inspirational people. (Director of Innovation)

In addition, emotional appeal strengthens the message beyond its content by adding enthusiasm, which can be transmitted to other people. Indeed, emotional appeal was considered by some participants as fundamentally needed at the beginning of the strategy's introduction. This is illustrated below:

... and people would try new things, and that would promote more excitement and more enthusiasm, and it would ignite people's interest. And so people would enjoy and think of it as fun. (Head of Technical Information)

4.10. Personal appeal

Personal appeal was often considered when the motivation for the innovation programme was explained by the participants. They emphasised that the initiative was first supported by people with similar values and philosophies—passion for innovation, in this case. The next quotation illustrates this idea and further elucidates how a personal appeal may empower the sender of the message.

You should get someone to believe in what you are doing. He will just follow you. Some people have a vision about, you know, offering [innovative] ideas. ... If you are able to recognise that, ... it is more empowering for you. (Construction Site Superintendent)

The quotation above describes two facets of the personal appeal strategy. First, it emphasises that at the outset, the influence was directed towards those with congruent values. Second, starting from the basis of shared values allows convincing to become a much easier process. In addition, some participants underlined an important attribute of influence, which is having a good reputation. A good reputation supports the convincing process when the influencer is highly admired by the recipient of the message, as the following participant explained:

So this is how to introduce a new strategy ... one has the contacts, networks, previous working relationships, so your own, you know, ... reputation. ... there are some people out there running who are amazing innovators. (Head of Concrete Design)

4.11. Rational reasoning

This strategy was rarely referred to by the participants. One explanation could be due to the highly technical context of projects, which means that rational reasoning is ubiquitous in work conversations. Hence, the rational reasoning was not particularly considered an influence strategy by the participants. However, some quotations demonstrate that influencers tend to speak with a structure in how they present a topic, such as this participant:

So it was really about being very honest with people, in the beginning, explaining what our motivations were, which was about effectively trying innovation on a contract level. (Innovation Project Coordinator)

4.12. Expertise

Expertise was considered an important influence strategy by the participants. Nevertheless, as the quotation below explicates, valued experiences were found to be correlated with the amount of experience the individual has in the associated industry. Within this context, influencers are seen to be able to make insightful innovation propositions and have a better assessment of their impacts across the business. One of the participants stated the following:

Generally, I think you don't need a high level of expertise. You need good general expertise; you need good construction experience. That is what we found. We need good construction experience to make the decisions. We didn't need a very specific subject area knowledge. (Director of Innovation)

Moreover, as one consultant's remarks illustrate, some participants mentioned that expertise adds credibility to the initiative and improves the rigorous evaluation of available alternatives:

Expertise is important because it adds credibility. So if there are those with expertise, they can help to do some trials. They can help sift through the ideas and say, 'Well actually, that will work, that won't work', and give some rigour and give some structure to why you're not dismissing but parking an idea. (Innovation and Report Consultant)

4.13. Order of influence strategies based on their perceived importance

Fig. 5 presents the analysis of the final interview question that asked participants to order the influence strategies according to their importance. As can be observed in Fig. 5, the strategies that originate from the same power source are given similar colours, hence it is not possible to categorically group the social powers or define at the social power level the preference of use.

As explicated in Fig. 5, some strategies that were ranked as important in this exercise do not correspond with the discourse of the participants. Examples of these are consultation, rational reasoning and friendliness, which were rarely mentioned during the interviews but selected as highly important in this exercise—especially consultation. Yet, gatekeeping was ranked as less important but its use was underlined by the participants for the influencing process. This phenomenon might indicate that some behavioural strategies are consciously observable by practitioners, while others are practised at the subconscious level. This may also be related to the sense-making process and the ability to reflect on prior experiences to identify pertinent facets of behavioural approaches

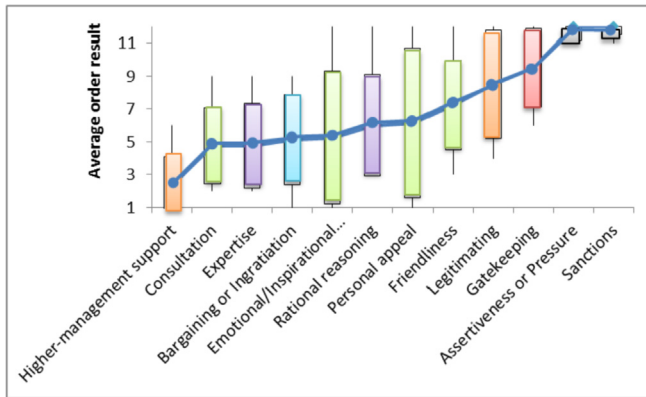


Fig. 5. Ordering of influence strategies.

(Ochieng, Price, & Moore, 2017; Ochieng, Price, Zuofa, Egbu, & Ruan, 2015). From the above figure, one could suggest that strategic project managers who show integrity, professionalism, knowledge and care in all their interactions with both primary and secondary stakeholders set themselves apart from other senior project practitioners and gain the power of influence among project teams. It is worth mentioning that senior project practitioners who are successful at strategically planning their influence are able to establish a deep, compelling and solid connection with their project teams. It is vital for senior strategic project practitioners to first build strategic influence and to know what type of presence and influence they want to have and then build and sustain the behavioural strategies applied at strategic, operational and project levels.

5. Discussion

Considering project management as a discipline that takes place in action (Dreyfus and Dreyfus, 2005; Ochieng et al., 2017), this research examined individual influence strategies in mega construction project contexts. Influencing is an active behaviour in megaprojects that warrants examination due to its ability to drive the successful implementation of initiatives. As shown in this study, the implementation of the innovation strategy was first driven by a top-down perspective, transmitting the message at the individual level by corporate representatives, principally the CEO. A bottom-up perspective was also identified as necessary for effectively implementing the strategy. It is plausible to propose that both formal and informal channels were working within the organisation for the strategy's implementation. Given Morris' (2013) definition of strategy as the direction of the organisation, such directive guidance often comes from the top management (the formal channel). The results of this study demonstrate that the need to cultivate an initiative by convincing individuals at the operational level requires not only hierarchical formal communication but also informal channels. This undoubtedly leads to the type of political games described by Mintzberg (1985) and Kolodinsky et al. (2007), which could be seen as required activities to influence others within the organisation. While Kolodinsky's et al. (2007) view is collective about how organisations can be managed, the view taken in the current study is at the individual level of influence within a project organisation, and therefore the complementary relationship between the individual and collective perspectives of influence is inferred in this study.

5.1. Structure in the use of social power

Undeniably, French and Raven (1959), Hinkin and Schriesheim,

(1989) and Schriesheim et al. (1991) have made profound contributions to the theoretical understanding of power sources and how the conceptual boundary between each of the social powers could be delineated. However, their conceptualisation is primarily focussed on how each power is defined and does not place adequate emphasis on the actions taken by individuals. This is a profound limitation of these conceptualisations because action is the driving force behind projects. Likewise, their formulation of power sources does not consider a key social power source proposed by Bakshy et al. (2011) and Bouquet and Birkinshaw, (2008), which is 'information' or 'position in the network' power.

The findings from this study suggest that multiple social powers are often acting together at the same time, similar to the arguments made by Gemmill and Wilemon (1970) in their study of the spectrum of power in project management. An emergent finding of this study that could contribute to this conceptualisation is what was identified by the participants as the dependence of social power on intentions and circumstances. Hence, we suggest that the bases of social power could be categorised according to their purpose or role in the action. Within the context of this study, three categories of roles for the use of social powers can be proposed:

- The first role is concerned with 'selective' social power, which is used to select the best people to approach from the entire population of the organisation who could be influenced. That is the case of the referent power because the participants have shown that the recognition of shared values—or, as Krause (2004) interpreted, as emotional intelligence and a passion for innovation—has played an important role at the initial stages of the strategy introduction. The use of referent power was not used as an arm to convince but as a criterion to decide to whom to speak first. In addition, influencing was facilitated at the beginning by being efficient in the convincing process and creating what has been described as a 'community' or 'network' of influencers. The particularity of this network is that it transcends formal roles, hierarchical positions and companies.
- The second identified role is 'supportive' social power. These related strategies, namely gatekeeping, pressure and expertise, were used in particular to lessen the perception of risk or resistance to the strategy introduction. By itself, supportive social power is not enough to convince but offers the opportunity to lower the resistance barrier. That is the case of expert power by the expertise strategy, which was deployed to give credibility to the proposals, given the background of the influencer, as the findings have shown. Concurrently, the coercive power supports the dynamic component of the resistance through the pressure strategy exerted, which helps by maintaining the intensity of an idea over a period, as highlighted in the findings section. Ultimately, the 'position in the network' power assists to put forward the proposal.
- The third role is the 'executory' social power. This encompasses the strategies that are vital for the convincing process since they explain the value of the innovation strategy and its importance to the organisation. These strategies include higher-management support and bargaining, as was explained in the previous sections.

The three roles identified in this study are presented in Fig. 6. The figure organises the typology according to its use and places the social powers in a utilitarian structure, different from how it is explained in the literature. It should be noted, however, that this new arrangement of social powers is subject to context and culture, which is inescapable (Müller, Spang & Ozcan, 2009). Therefore, it is proposed that the structure of social powers is fundamentally based on the purpose of their application, which differs from

Gemmill and Wilemon's perspective of grouping them according to theoretical affinity (1970) to rationalise the application in the megaproject management field. Indeed, it was evidenced that instead of strategic project managers deciding to influence by social powers coming from their role (legitimate, reward and coercive), the application of social powers comes from a wide range of sources. Ultimately, strategic project managers might be applying every social power in their influencing processes.

5.2. Critical influence strategies for convincing

Notably, this research underlined several influence strategies that were defined as key by all the participants and that could be categorised as critical for achieving influence in megaprojects. Fundamentally, these are higher-management support, inspirational appeal and bargaining. As for bargaining, its aim was to convince others of the low risks of introducing the strategy, given the robust governance mechanisms proposed to manage the innovation. Likewise, higher-management support was described as critical for convincing, disclosing that without it, the innovation strategy would not happen. It is important to note that this coincides with Eweje's research (2012) in the oil and gas sector, which emphasised that project managers' decisions are mostly guided by their perception of the desires of senior management.

In addition, the finding that higher-management support is key is in agreement with Dietrich's (2010) study which revealed that several factors influence decision-making. These factors include past experience, senior management support, negotiation and commitment. Understanding the determinants that influence the decision-making process on megaprojects is important to understanding the decisions made. That is, the determinants that influence the process may impact the implementation outcome.

6. Conclusion

The present study was designed to identify key influence strategies that a strategic project manager could utilise when implementing innovation on mega capital investment programmes. As summarised below, six essential influence strategies could be used by strategic project managers:

- Bargaining or ingratiation: rather than being centred on benefits, in other words, time and cost, the focus of the strategy should be on minimising the perception of risk through robust governance;
- Higher-management support: underlined as being critical and emphasising the role of the CEO in the steering of the innovation strategy implementation;

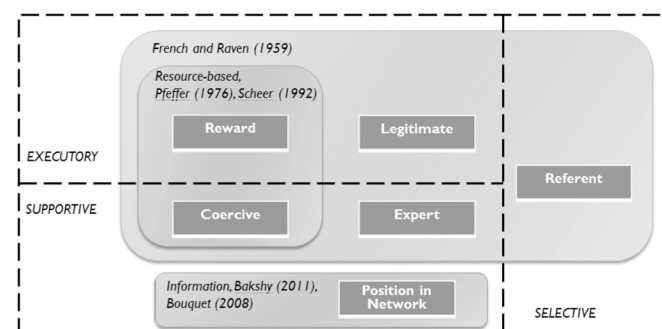


Fig. 6. Proposed utilitarian structure of social powers.

- Gatekeeping: important in identifying the multiple organisational interests at play and the most appropriate individuals to approach for influencing;
- Emotional/inspirational appeal: this is a characteristic of the whole group that promotes and contributes to the implementation of the innovation strategy and has been seen to add a positive element to its message;
- Personal appeal: this facilitates the interaction with other individuals, based on shared values; and
- Expertise: valuable and not particularly related to specialist technical skills but to experience in the industry which enhances an individual's credibility.

Particularly important, the listed strategies lead to four key conclusions:

- First, to implement a new innovation strategy, the top-down influencing perspective is required, but equally as important is the bottom-up influencing approach. This brings political games to the fore; hence the interaction between the individual and the collective view are both relevant and complementary;
- Second, this research has shown that multiple bases of social powers are often applied at the same time and there are different purposes in the use of the social powers reflected in practice. Indeed, focussing on the action, it was evidenced that the social powers were used expecting different types of results;
- Third, social powers can be structured by three categories: selective, supportive and executory; and
- Fourth, some influence strategies were defined as key by all the participants, namely, higher-management support, inspirational appeal and bargaining.

The current study has gone some way towards enhancing our knowledge of power and influence in megaprojects by proposing a utilitarian structure of social powers based on the use of the multiple bases of social power to influence at specific situations, notably: selective social power, which can be used to select the best project team members; supportive social power, which can be used to reduce the perception of risk or resistance to an innovation strategy; and executory social powers, which can be used to push forward the innovation strategy within an organisation. The influence strategies underlined by the study have emerged from the rich data collected through the qualitative interviews, as opposed to predefined tactics prevalent in other quantitative studies. The study consequently accords a new wave of literature adopting inductive thinking in the study of decision-making.

The utilitarian structure of social powers developed in this study could prove valuable to strategic project managers in their roles. Fundamentally, the multiple bases of social power are acting in a complex environment, due to the necessity of using all the available resources to achieve the project objectives. Consequently, the developed model supports the argument that influence strategies are a better approach for the study of innovation strategy implementation than power sources, and may prove more transferable between industries, as opposed to tactics.

The immediate recommendation for future research comes from the need to extend this study in other project cases and project contexts. In addition, it must be considered that the confusion between strategy and tactics is not only in the literature but also in practice. Within the context of major programme investments, it is thus vital for the research community to appraise the distinction between strategy and tactics. Moreover, the study revealed that the study participants were not fully aware of the influence strategies they use in delivering major programmes. It would, therefore, be useful to examine how strategic project practitioners can enhance

their influence at strategic, operations and project levels.

The study also focussed on participants who were involved in the early six-month period of the innovation strategy's introduction, and subsequently eight senior project practitioners were identified and took part in the study. A larger sample, with senior project practitioners from other sectors, may have enhanced the ability of the study to be generalised. The second limitation of the study is related to the single use of one case study. Although the uniqueness of the case has offered distinctive insights, multiple case studies would have allowed stronger representation. This, again, affected the ability of the research findings to be generalised. Further research on the influence strategies applied in different industries would support corroboration using the proposed categorisation in different contexts.

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