Understanding the nature of Project Management capacity in Sri Lankan non-governmental organisations (NGOs): A Resource Based Perspective

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Abstract

Project Management (PM) capacity can be defined as PM resources and capabilities that are supporting for effective project operations. Using the Resource Based Perspective, the paper aims to explore the nature of PM capacity in NGOs and develops a framework for PM capacity in NGOs. A case study approach and qualitative methods have been applied for this study.

For this study, the literature on PM resources and Organisational capacity was reviewed and a theoretical framework was created. This theoretical framework was then explored using four case studies conducted at Local and International NGOs in Sri Lanka. The study identified three levels of PM Capacity: Team PM Capacity, Organisational PM Capacity and Collaborative Social PM Capacity, a Capacity that has not yet been identified in the literature which supports adaptation to the complex, uncertain environments in which some NGOs operate.
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Keywords: PM capacity; Team PM capacity; Organisational PM capacity; Collaborative social PM capacity; Resource Based Perspective; NGOs

1. Introduction

Non-governmental organisations (NGOs) are generally considered to be non-state, non-profit-oriented groups that function in the public interest (Schmidt and Take, 1997; World Bank, 2001). Since the 1980s, NGOs have become prominent players in community, national and international development (Malena, 1995; Bagci, 2003). NGOs are particularly active in developing countries where they play prominent roles in development activities and vulnerability reduction (United Nations Development Programme (UNDP), 2014). Historically, NGOs originated in the early 1800s (Nalinakumari and MacLean, 2005) and the British and Foreign Anti-slavery Society was known as the first structured NGO, being established for banning slavery in the British Empire (Nadelman, 1990; Nalinakumari and MacLean, 2005).

According to Korten (1990), the evolution of NGOs has occurred over four generations. The first generation was relief and welfare-oriented and aimed for direct delivery of services to meet immediate needs during an emergency due to natural disasters or war (Bagci, 2003). The second generation was oriented for community development and involved developing the capacities of community people to better meet their own needs through self-reliant local action. The third generation moved forward to sustainable systems development. This generation looked for changes in specific policies and institutions at local, national and global levels. The final, fourth generation focused on social movements and global change. These focused on people-centred development on a global scale. Within the past three decades people's movements have reshaped thought and action on the environment, human rights, women, peace and population. These third and fourth generations of NGOs are increasingly focusing on strategic management and collaborative networking

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management orientations in order to fulfil their national and global development objectives (Lewis and Kanji, 2009).

The present fourth generation of NGOs operates increasingly in a turbulent and competitive context and undertake a variety of humanitarian efforts for global social change and development (Korten, 1990; Lyons, 2001; Lewis and Kanji, 2009). They strive for stronger institutional capacities and stimulate collaborating networks in order to sustain or survive for a long period and deliver their complex of services to a vulnerable population (Lusthaus et al., 2002; Weerawardena et al., 2010).

1.1. Unique characteristics of projects delivered by NGOs

A substantial number of NGO activities are project-based (Strichman et al., 2008) since these are temporary interventions to fulfil community emergencies or needs. NGOs can work in country environments in which institutional capacity is limited due to emerging economy status (Dedu et al., 2011) or as a result of natural disasters (Crawford and Bryce, 2003). As a result, infrastructure may be lacking and the NGO may be required to duplicate functions provided by the state in a developed country such as access and security before project activity can take place (Hekala, 2012). NGOs deliver complex social, economic and physical interventions in which outcomes are difficult to measure. This creates challenges in monitoring and evaluating these projects using approaches developed within industries which deliver tangible outputs such as construction (Dedu et al., 2011). A related challenge that NGO projects are required to engage with a wide variety of stakeholders such as donors, host communities and beneficiaries (Easterly, 2009) who need to be formally consulted during the process. To meet the demands of these stakeholders while operating in difficult country environments may require adaptation to project systems, tools, processes and activities (Shleifer, 2009; Ika et al., 2012).

1.2. Project Management in NGO research

The first strand of research examines the factors that influence NGO project delivery and outcomes (Ika et al., 2012). NGOs are required to manage political, social, legal, technical and cultural issues in host environments (Struyk, 2007). Managing these factors may require stakeholder engagement in order to develop approaches that are sensitive to the host country (Yu and Leung, 2015). This can require the development of a management structure and project team (Khan et al., 2000) that can adapt project processes to the country context (Youker, 2003). Since NGO projects are aimed at providing long term benefits, a success factor is also the transfer of knowledge to host communities (Yalegama et al., 2016).

The second strand of research examines NGO project management tools and methodologies. Researchers have examined the extent to which traditional PM tools are used by NGOs (Golini et al., 2015) along with the need to adopt additional tools from program management (Korten, 1987). A significant amount of research has examined the adoption and limitations of the logical framework, a commonly used NGO PM tool (Khang and Moe, 2008). Newer, NGO specific methodologies have also been proposed such as the PMD Pro 1 Guide (Hermano et al., 2013). Research has also compared traditional and NGO specific PM tools (Golini and Landoni, 2014).

Finally, the evaluation of NGO project outcomes has attracted attention from researchers. Previous work has examined traditional "iron triangle" metrics such as cost and schedule (Ahsan and Gunawan, 2010). Other researchers have included additional project delivery measures such as quality, site disputes, safety and environmental impact (Ngacho and Das, 2014). Related work also examined the reasons for failure of development projects (Ika, 2012).

While previous work has generated valuable insights into the type and effectiveness of NGO project activities, there has been little attempt to examine the project capacity of NGOs. Existing capacity development activities mainly focus on development of internal capacity of NGOs to improve organisational performance and sustainability (Bryson et al., 2001; Lusthaus et al., 2002; Bryson, 2004). Research suggests that NGO resources are important for successful delivery of projects, however, existing work focuses on examining a narrow range of explicit or tacit resources. They have focused on human resources, financial resources (Chakravarthy, 1982; Packard, 2010), organisational culture (IDRC/Universalia Model, 2005), strategic leadership (Fowler, 2000; Hansberry, 2002; Okorley and Nkrumah, 2012) networking and linkages (Andrews, 2012), and an external environment (IDRC/Universalia Model, 2005).

The aim of this research is therefore to understand the nature of PM capacity in NGOs using a Resource Based Perspective. First a framework for NGO capacity was created using existing NGO and RBV research. Next, data from NGOs was collected and analysed using a multiple case study perspective. Finally, a model describing NGO PM capacity is presented and implications are discussed.

1.3. NGO resources, capabilities and capacity

In strategic management, a resource can be individual tangible or intangible component and capability is the combination and coordination of different resources (Amit and Schoemaker, 1993; Grant, 1996; Carnes et al., 2016). Therefore, an organisational capability can be defined as a firm's ability to deploy its resources to achieve an end result (Helfat and Lieberman, 2002; Paradkar et al., 2015). The non-profit context, literature uses the term 'organisational capacity' instead of 'organisational capability' and/or 'organisational resources'. Capacity is an abstract term that describes a wide range of capabilities, knowledge, and resources that non-profits need to be effective (Connolly and Lukas, 2002). Organisational capacity refers to the resources, knowledge and processes employed by the organisation and capacity factors include staffing, infrastructure, strategic leadership, program and process management and networks and linkages with other organisations (UNDP, 1998).

There is still some debate on the nature of NGO capacity by researchers (Bryan, 2011). Some non-profit researchers consider NGO capacity as resources (Christensen and Gazley, 2008), others as capabilities (Harvey et al., 2010) and some as resources and capabilities as part of organisational capacity (Bryson, 2004;

Sowa et al., 2004). This research adopts the latter view of NGO organisational capacity as organisational resources and capabilities that contribute to the effectiveness of the organisations. IDRC (2005) emphasises the importance of organisational capacity to increase performance in a sustainable way and to achieve the organisational objectives of NGOs.

1.4. NGO PM resources and PM capacity

This section defines PM resources and capacity using the perspective presented in the non-profit literature. Therefore, PM resources can be defined as PM tangible or/and, intangible elements that support effective project operations. The researcher applies two terms in this research 'PM resources' and 'PM capacity'. The capabilities are subset of resources and in the non-profit literature are mostly interpreted as a 'know-how' resource (Bryson, 2004; Sowa et al., 2004). Therefore, the term 'resources' is applied to mean resources and capabilities in this study.

2. Literature review

2.1. PM capacity

Previous research in private sector organisations has indicated that PM capacity is a useful approach for improving performance (Jugdev, 2011). Existing research in project capacity in private and public sector organisations can be classified into an examination of the structural elements of project capacity and the practice elements of project capacity.

2.1.1. Structural elements of project capacity

The organisational environment can influence the delivery of Projects. At the macro level, organisations may launch projects to deliver a planned or emergent strategy (Aubry and Hobbs, 2011). These projects therefore need to be aligned with strategy (Asrilhant et al., 2007; Turner, 2016), and this area looks at the how the degree of fit between PM and strategy is defined and measured (Martinsuo and Killen, 2014). Research has identified factors such as the top management support (Kwak et al., 2015). Research has also examined the effect of organisational culture on intra (Duffield and Whitty, 2015) and inter project knowledge flows and across organisations (Ghobadi, 2015). In addition to project actors, internal organisational configurations influence the execution of project activities (Thiry and Deguire, 2007). Projects may be required to interface with operations (Killen and Kjaer, 2012) resulting in challenges of communication and coordination (Budayan et al., 2015).

Research also examines the establishment of project specific delivery structures such as Project Management Offices or PMOs including rationale (Spelta and Albertin, 2012), characteristics (Thorn, 2003) and the adaptation of these structures over time (Aubry et al., 2008).

2.1.2. Project capacity as a collection of practices

Project capacity has also been viewed as a collection of company practices that are identified and assessed using tools such as maturity models (Andersen and Jessen, 2003; Gomes and Romão, 2015). These models generally examine for comparing project processes (Szulanski, 1996; Amendola et al., 2016) to an idealised "Best practice" (Leybourne and Kennedy, 2015) and makes recommendations for improvement. Research has examined the identification, formulation and standardisation of best practices (von Wangenheim et al., 2010) along with their contribution to project outcomes (Besner and Hobbs, 2008; Williams, 2016). Best practices can inform the development of metrics for project management (Papke-Shields et al., 2010). Since best practices imply the coordination of internal knowledge assets, this research also examines team interactions (Anantatmula, 2010) and the relationship between leadership and project outcomes (Aga et al., 2016). An emerging stream of this research examines the adoption and impact of maturity models on project practices (Bititci et al., 2015). PM capacity assessment models examine to what level PM is widely practised in organisations and its repetitive nature in bringing high probability of project success (Ibbs et al., 2004; Backlund et al., 2015).

2.2. Organisational capacity of NGOs

In NGOs, capacity can be analysed at three levels: individual level, the organisational level and the system level (Kotellos et al., 1997; UNDP, 1998; Hawkes et al., 2016). The individual level focuses on the knowledge, skills, attitudes, accountability, beliefs, values, and motivations of employees and volunteers in NGOs (UNDP, 1998; Vallejo and Wehn, 2016). Capacity at this level refers to the individual's capacity to function efficiently and effectively within an NGO. Capacity development in this area seeks to enhance human resources including technical, leadership and management using training and mentorship (Boffin, 2002; Vallejo and Wehn, 2016). The organisational level consists of all resources and capabilities within the control of the NGO, including the human resources at the individual level, financial resources, physical resources, information resources, technology resources and structure. Research in this domain examines challenges faced by NGOs in managing these resources and the interactions between them (Enemark and Molen, 2008; Nanthagopan, 2012).

Finally, the system level examines the interactions between NGOs and the environment in which it is embedded. At this broader level, research in this area examines the impact of the political setting, donors, funding agencies and the legal infrastructure that influence an NGO's ability to operate in a particular environment (Enemark and Molen, 2008). This approach may also be of value to NGOs (Mingus, 2002; Hawkes et al., 2016) as PM capacity can aid NGOs in adapting to complex environments, like Sri Lanka, while delivering projects supporting such activities as research, initiative formulation, resource and risk management (Clarke, 1999). Therefore, this study aims to understand the nature of PM capacity in NGOs.

2.3. Project Management and RBV

In the Resource-based View (RBV), firms are modelled as a collection of resources (Mahoney and Pandian, 1992; Goyal

and Rahman, 2015) that are coordinated to generate rents or income (Penrose, 1959; Feng et al., 2016). RBV is a strategic perspective that relates to the competitive advantage of a given firm to the tangible or intangible resources owned or controlled by the organisation (Rumelt, 1984; Wernerfelt, 1984; Amit and Schoemaker, 1993; Othman et al., 2015).

Competitive advantage exists while organisations outperform competitors and is gained through having superior organisational resources to provide products or services which yield greater benefits to customers (Porter, 1991; Besanko et al., 2000; Barney, 2002; Dirisu et al., 2013). Organisation-particular resource characteristics make certain resources more important to organisations. Peteraf (1993) indicated that resources should be heterogeneous and not perfectly mobile. Barney (1991) indicated that resources must be valuable, rare, inimitable, and non-substitutable (VRIN). Subsequently, it was reorganised so that resources must be valuable, rare, inimitable, and it requires organisational support for exploiting these resources (VRIO) in order to achieve sustained competitive advantage (Barney, 1997). Strategic resources contribute to the firm's competitive advantage and tend to be knowledge-based (Amit and Schoemaker, 1993; Grant, 2016), and are also known as organisational capabilities (Barney, 1991; Pisano, 2016).

2.3.1. PM resource types

PM processes are based on intangible knowledge assets; explicit (codified) and tacit knowledge assets (DeFillippi and Arthur, 1998; Fernie et al., 2003; Delak and Damij, 2015) also called 'know-what' (codified) and 'know-how' (tacit) (Nonaka, 1994). In practice, all knowledge is a mixture of tacit and explicit elements and these designations should be perceived as a range spectrum rather than as definitive positions (Nonaka and Takeuchi, 1995; Crossan et al., 1999; Virtanen, 2013). However, to understand knowledge and knowledge-based resources, it is important to understand the nature of each type (Botha et al., 2008).

Fig. 1 illustrates PM resource types. Explicit knowledge is codified (Hirai et al., 2007; Cohen and Olsen, 2015), and is fairly easy to identify (Brown and Duguid, 1998; Delahaye, 2015),

store, and retrieve (Wellman, 2009). This is the type of knowledge managed by formal organisational systems as it exists in the form of documents and texts stored in physical and virtual databases (Botha et al., 2008). In project management, explicit knowledge resources take the form of standards, methodologies and procedures (Jugdev et al., 2011).

Tacit knowledge is context specific and hard to formalise or record as documents and is generally in the heads of individuals and teams (Gutpa, 2011). Tacit knowledge is transferred only by direct human contact, typically through face-to-face discussions (Hirai et al., 2007) and is based on interaction and involvement (Nonaka, 1994). Tacit knowledge is viewed as valuable (Wellman, 2009) as it supports innovation in organisations (Gamble and Blackwell, 2001) and can be divided into technical and cognitive dimensions. The technical dimension covers informal personal skills and crafts and could be called 'know-how'. The cognitive dimension involves beliefs, ideals, values, and mental models (Botha et al., 2008). In project management, tacit knowledge resources take the form of team PM skills, knowledge-sharing activities and lesson-learning sessions (Jugdev et al., 2011). Drucker (1993) highlights that effective acquisition and applications of knowledge resources contribute highly to the high performance and competitive advantage of organisations.

To date, most PM literature has focused on codified knowledge assets (Pollack and Adler, 2015). Research has also focused on how these assets are developed and shared through communities of practice (Lee et al., 2015). However, an emerging stream of research examines tacit PM resources (Kim et al., 2015) such as project team trust, values and informal knowledge-sharing processes (Ibbs and Kwak, 2000; Jugdev and Thomas, 2002; Jugdev and Mathur, 2006a, 2006b). While some previous research refers implicitly to resources such as the critical success factor (intangible) and the project tools (tangible), there is little research that attempts a holistic examination of the project resources in NGOs. As project management involves the use of both explicit and tacit resources, it is important to examine both in order to understand the nature of PM capacity in NGOs. The adoption of the RBV enables the examination of NGO resource
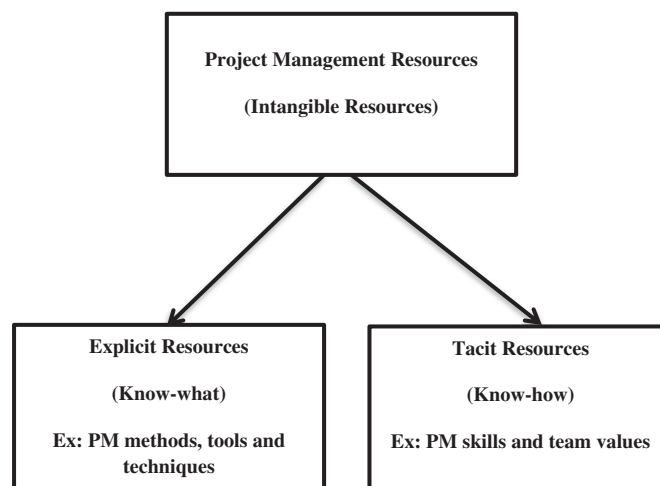

Fig. 1. Project management resources.

profiles (tacit and explicit) that support the delivery of projects in challenging environments.

2.3.2. Levels of PM resources

The previous section examined the types of PM resource. This section examines existing work on PM resources at two levels: Team Resources and Organisational Resources. PM team resources are defined as explicit (codified) or tacit elements within teams (Jugdev and Mathur, 2006a). Explicit PM team resources consist of codified knowledge assets for example professional certifications and written documents of PM practices (Mathur et al., 2007). Tacit PM team resources consist of items based on informal sharing of knowledge including casual conversations, mentoring, stories, brainstorming, and shadowing that address ways in which participants exchange tacit knowledge (Jugdev and Mathur, 2006a). In PM, team resources have been associated with the on-time completion of projects (Muriithi and Crawford, 2003; PMI, 2004).

Organisational PM resources have been defined as the extent to which the PM knowledge is distributed, as well as the composition of this knowledge (Mahroeian and Forozia, 2012). PM organisational resources include both explicit resources such as policies, rules and standards and tacit resources (CIC, 2003) such as norms, values, and routines (Ekinge and Lennartsson, 2000). In PM, tacit organisational resources can influence the success and failure of complex projects (Jaeger and Kanungo, 1990; Verma, 1995). Belassi et al. (2007) found a significant relationship between the presence of supportive policies for project management and new product development project success. Further, firms with project-oriented routines (Doolen et al., 2003) are associated with higher levels of technology transfer (Gopalakrishnan and Santoro, 2004). The previous research on PM resources has identified types (explicit and tacit) and levels (team and organisational) of resources. These paradigms are similar to the types and levels of capacity identified in previous research on NGOs.

3. Research methods

The PM research using an RBV perspective in the private sector organisations mainly carried out by using quantitative approaches (Jugdev and Mathur, 2006a, 2006b). While this method enables the statistical evaluation of relationships, it does not allow the researcher to understand the nature of tacit PM resources in depth. More recent work has suggested the importance of using inductive methodologies to develop theory on PM capacity from the RBV perspective (Jugdev et al., 2012). Further, the unique characteristics of NGO projects as identified in Section 1.1 indicates that these firms may have resource configurations and types that vary from private and public sector organisations examined in previous research. Since in the NGOs' sectors, the PM resources and capacity still have not been identified, this research adopts an inductive perspective with the aim of generating theory by looking at patterns in the data (Maylor and Blackmon, 2005). It uses an exploratory multiple case study approach; using multiple sources of evidence (Yin, 2009; Hancock and Algozzine, 2015) to investigate the

contemporary phenomenon of NGO PM capacity within its real-life context.

3.1. Research setting

The setting of research, Sri Lanka, is an appropriate environment to examine NGO activities. While Sri Lanka's voluntary sector has existed since ancient times (Wanigaratne, 1997; Orjuela, 2005), recent events have resulted in the country's need for NGO support. Sri Lanka was the setting for a violent civil war, and numerous local NGOs were created specifically as a response to the needs caused by the conflict (DeVotta, 2005; Nanthagopan et al., 2015). Further, the country suffered heavy damage as a result of the 2004 tsunami which killed around 40,000 Sri Lankans. International NGOs funding and operations are growing at present in the country (DeVotta, 2005; Orjuela, 2005). Combined, these two events lead to an immediate increase in NGOs operating out of Sri Lanka as most international donors select to direct aid through NGOs to avoid government mismanagement of funds (DeVotta, 2005).

3.2. Case selection

A theoretical selection approach was used in order to gather data that most likely to serve the theoretical purpose of research and its questions (Stake, 1995; Silverman, 2000; Bryman, 2015). Cases were selected using a matching strategy (Seawright and Gerring, 2008) in which the researcher selects similar cases fitting into the specified population. For this research, national and international NGOs (national NGOs operate in Sri Lanka only while international NGOs operate in multiple regions) were selected which had similar objectives and undertake similar projects but vary by geographic scope. This enabled comparison of PM capacity at multiple levels between organisations that operated in single vs multiple contexts, enabling the identification of a wider range of PM resources. The most similar setting employs a minimum of two cases (Skocpol and Somers, 1980). Eisenhardt (1989) suggested that there is no rule for the ideal number of cases; however, a number between four and ten usually works well. Therefore, the researcher selected four cases from the NGOs to do in-depth analysis on PM resources and find similar patterns to identify the PM capacity. The cases have reached theoretical saturation (Eisenhardt, 1989; Emmel, 2013). The NGOs are divided into two groups: governance and management. The study only considers the project management staff and each case represents seven project staff members. It includes project managers and officers. The case study does not include governance since the projects are mostly carried out by the management staff, so they are more experienced in project management. Therefore, the researcher should be able to gain much relevant information from the project staff. The case study approach is summarised in Table 1.

3.3. Implementation of exploratory case study

The in-depth interviews and semi-structured interviews were organised to explore the themes for the study. These techniques

Table 1
Case study protocol.

Step	Activity
Defining research question	How does project management capacity support the successful delivery of projects in NGOs?
Selecting cases	Four cases selected, based on the most similar setting theory.
Crafting instruments and protocols	In-depth interviews and semi-structured interviews are organised to identify the existing PM resources and confirm the PM capacities of NGOs. For the interview instruments, an open format questionnaire is used to collect data through face-to-face and Skype interviews.
	Archival data: The NGOs' PM documents and tools are reviewed to verify information provided from interviews.
Analyse the data	All interviews are recorded by using audio recording aids and fully transcribed, coded and analysed. Visual mapping diagram is used to show the pattern of PM capacity.
Reaching closure	All coding of interviews are grouped under the relevant levels and linking of PM resources and capacity is illustrated with the help of Visual Mapping strategy. The data collection is completed with data saturation.

helped the researcher to obtain qualitative data from the project managers where they discussed PM practices in NGOs. Additionally, archival data helped verify what tangible PM resources are applied in NGOs. The researcher used open questionnaires to provide opportunities for in-depth data collection. Initially, two pretesting interviews – one participant from local NGO, and one participant from an international NGO – were conducted to understand the nature of the diversity of PM resources in NGOs. The case study coding table was prepared with the help of pretesting interviews and further helped plan and design the first stage of the in-depth interviews to explore deeply PM resources in NGOs.

After the pretesting interviews, four case studies were conducted in two stages. The first stage of interviews was done to explore PM resources and capacities. Twenty project staff members, five from each selected NGO, were interviewed. The second phase was conducted to confirm the first-phase findings. Eight senior project staff members, two from each selected NGO, were interviewed. In the first stage, an open questionnaire was used by the researcher. Although this is an in-depth interview, the researcher did not impose the predetermined questions and the participants were given opportunities to discuss whole PM practices in the NGO in order to draw deep exploration of themes. The second stage of the open questionnaire used for semi-structured interviews. This was conducted after the themes explored in each division of the first-stage interviews and aimed to confirm or modify the themes explored.

4. Exploratory case study results

All interviews were recorded using audio recording aids and fully transcribed and coded with Excel spreadsheet. All coding of interviews has been grouped under the relevant three levels: team, organisational and collaborative social capacities. The explored elements of PM resources and key dimensions detected in four case studies in the first phase of in-depth interviews are described in the Table 2. The first column shows the explored elements and the second column explains the key dimensions based in the explored elements. The third column presents how many times specific elements were reported in the four case studies (C: Case). The reported times specified are useful to see the respondents' ease or familiarity in recalling their PM applications. However, these numerical codes are not used to analyse the elements of PM

resources. The PM resources have been classified based on the detected elements from the first and second stages of the case study results. The total number of counts of respondents is 978 times. Team PM capacity, organisational PM capacity and collaborative social PM capacity were counted 157, 578 and 243 times respectively. Five key dimensions were counted frequently (>50 codes) in the case study interviews. Those are: PM tools and techniques (146), Formal meetings for sharing knowledge (92), PM methodology, standards and process (71), PM office (59), and Project marketing (55).

4.1. Results: overview of PM capacities in NGOS

The case study interviews identified three types of PM capacity, namely, team, organisational and collaborative social capacities. The visual mapping diagram (Fig. 2) presents a framework for PM capacities in NGOs that consists of three types: Team, Organisational and Collaborative Social.

These results suggest that PM capacities have three levels: team, organisational and collaborative social levels, where the literature identified PM resources in two levels: team and organisational levels. PM knowledge, skills and processes are evaluated in the team levels known as team PM capacities, while those assessed in the organisational level are called organisational PM capacities. However, the organisation does not exist in isolation and NGOs interact with a number of stakeholders in order to deliver project activities. These were identified as collaborative social PM capacities, relational resources formed from interaction between the project organisation, teams and external environment stakeholders. As defined in the literature review chapter, explicit knowledge is codified and could be stored in physical or virtual databases and tacit knowledge is context specific, hard to formalise and can only be transferred through human interactions. However, in practice these explicit and tacit resources are mixed and interdependent (Nonaka and Takeuchi, 1995; Crossan et al., 1999; Evans and Easterby-Smith, 2001). This research confirms that NGOs have a combination of both of these resource types as part of each PM capacity (Inkpen and Dinur, 1998; Botha et al., 2008).

The study identified a new capacity called collaborative social PM capacity in the NGOs context. The NGOs operate in the turbulent environment and all work for providing better service to the vulnerable community to improve their living conditions. As therefore, the collaborative resources highly support to the NGOs

Table 2
Detecting elements of PM resources and dimensions.

| Detected elements across the data set	Key dimensions	No of counts				
		C1	C2	C3	C4	Total
Conducting informal meetings	Informal meetings	04	05	06	05	20
Informal discussions						
Skills and experience sharing meetings						
Experience sharing discussions						
Lesson-learning sessions						
Casual discussions with colleagues	Casual conversations	00	01	00	01	02
We do brainstorming sessions to discuss important issues	Brainstorming sessions	02	00	03	00	05
We organise sessions to generate new ideas						
We do brainstorming sessions to find out better solutions						
Field level discussions	Field level discussions & review visits	01	00	00	03	04
Field level meetings						
Review visits and discussions						
Review visits and observations						
We do personal coaching sessions	Personal coaching	00	05	02	03	10
We got personal coacher						
I did on job training in the field level	On-the job training	03	00	03	00	06
On job training we use to share our skills to junior staff						
Shadowing through observations	Job shadowing & mentoring	04	02	03	01	10
Shadowing through meetings						
Mentoring sessions and expert guidance						
Cases discussions	Case studies & success stories	01	06	04	00	11
Case study writings						
Success story-telling and presentations						
Bringing people under one program team	Team cohesion and trust	01	01	04	00	06
Changing their mindset under one common goal						
Some staffs are not willing to work together						
Some people are facing difficulties to adopt team culture						
Team transparency	Team values	05	02	04	03	14
Team accountability						
Following team norms						
Working for the team objectives						
Team work and team commitment are more important						
We have very committed team members						
Participatory decision-making						
Accepting members suggestions						
Using the resources at maximum level by doing proper planning and controlling.	Deeper understanding of project lifecycle and operations	07	06	05	07	25
Understanding of project life cycle and operations						
We got very experienced and competent staff	PM Expertise	05	06	08	07	26
Project management experience is good						
Strong PM skills						
Good PM practices	Best PM practices	01	01	08	04	14
We have improved in all stages of our process	Synthesise new knowledge in PM	01	02	01	00	04
We design new tools for PM practice						
Designing tailor-made software						
We got project office	PM office & structure	25	06	23	05	59
Project organisation, Matrix, Functional, effective structure						
Program Handbook, Strategic Program document, Administration Handbook, Humanitarian Assistance Plan, Operational Manual, Logistic Manual, Humanitarian Accessibility Framework, Organisational hand book, Finance Hand book, HR Hand book, individual project implementation agreement (IPIA), Project manual, Ethics Handbook, PMBOK, Prince II, Agile, Sphere Humanitarian Handbook, CBOs assessment standards, Policy, Guidelines, Procedures, Grant policy, Organisational policy, Project policy guide, Child right policy, women protection policy, HR Policy, Terms of Reference	PM methodology, standards & process	19	15	18	19	71
Action Plan, Work breakdown structure, Gantt Chart, budget, logic frame, checklist, LFM, Venn diagram, Resource Mapping, Problem tree analysis, objective tree analysis, Network Analysis, Seasonal Calendar, Risk Mapping, Service delivery analysis, Step by step guide, Social Mapping, Income circle, Structural/architectural design, implementation plan, PM Software, Stakeholder mapping, Analysis software, Indicators, BOQs, Village development plan, Needs prioritisation list, Operational Plan, Work plan, Monthly and weekly plans, Staff monthly targets, Risk planning Participatory needs identification, Vulnerable capacity assessment, Right based approach, Data collection, PRA (Participatory Rural Appraisal), Observations, Interviews, Questionnaires, Results based management, Results Based Reporting, Base Line survey, End Line Survey, Secondary	PM tools & techniques	41	34	38	33	146

Table 2 (*continued*)

Detected elements across the data set	Key dimensions	No of counts				
		C1	C2	C3	C4	Total
data, RRA (Rapid rural appraisal), PNA (Participatory Network Analysis), Bottom Up Approach, Tailor-Made Program,						
Project Management Information System (PMIS), Knowledge management system, Executive Decision tools, Data base management,	PM information system	00	03	01	00	04
Process and Impact Monitoring plan, Sustainability Plan, Evaluation plan, Field reports, Complaint mechanism, Standard manual for M & E, M&E framework, Internal and external audit, suggestion box from community, Review visits, indicators, Mid evaluation plan, End evaluation plan, Post evaluation plan, Field level assessment, Desk based assessments, Pocket based assessments	Project M & E mechanism	04	10	08	09	31
Training, Short courses, Online courses, PM certifications, Formal PM courses, capacity-building trainings, Foreign workshops	Staff capacity-building programs	08	07	09	07	31
Induction programs, Superior staff inform to the junior staff, Diary, Wall hanger, Meetings, Handbooks, staff meetings, workshops, Project orientation programs	Shared project vision, objectives and policy	08	07	07	06	28
Progress Meetings, Formal Meetings, Reporting, Annual program review, Displays in boards, Technical Meetings, Online documents, Open documents, project meetings, staff meetings, Review meetings, Planning meetings, Integration meetings, Regular meetings, Team planning. Field level discussions, Field level reports, M&E Co-group meetings, Milestone meetings, Project Team meetings, Annual Reports, Meeting minutes	Formal meetings for sharing knowledge	19	36	21	16	92
Appropriate channel, Telephone, Email, Skype, Online, TELE conference, Facebook, Network-sharing system	Effective project communication	17	13	03	04	37
Job design, Selection of team, Motivation system, Rewarding system, Career path	Right team selection, Team motivation & career path	14	03	05	05	27
Organisation culture promotes project works and its transparency Culture motivates the team works Non-project staff support to project staff	Supportive organisational culture to PM	07	02	04	00	13
Supervisor guidance, project manager guidance, conducting project review meetings, conducting financial review meetings, Monthly meetings (Bottle neck), Management level meetings, Technical Support, Planning support, Report writing, proposal development, Advisory in implementation, M &E support	Supportive organisational leadership to PM	02	13	01	23	39
Technical support, Project Approval, Policy & Guidance, Government advocacy, Meetings, GA review, Government policy	Project advisory from government bodies	06	03	02	05	16
Technical support, Guidance, Field level discussions, Project review discussions, Planning and implementing support	Project advisory from donors	01	02	03	05	11
Regular meetings, Intra forum, Cluster meetings, Peer review meetings, Partners meetings, Consortium meetings, Coordination meetings, Sectoral meetings	Intra and consortium meetings	07	01	01	07	16
Community advocacy Advocacy task force	Community advocacy	01	00	01	00	02
Magazines, Publications, Websites, Social media, Meetings, Leaflets, ministry level meetings, Broachers, final reports, Regional Manual, Reports, Government websites, Letters	Official information releases	08	05	04	13	30
Joint planning, Joint implementation, Participatory monitoring, Regular meetings, Group Discussions, informal meetings, Lesson-learning sessions, Outsourcing programs, Technical support, Inter-exposure visits, Joint field visits, Peer group discussions	Joint project Interactions	08	09	07	13	37
Face-to-face discussions, telephone, email, video conferences and meetings, Informal interactions, informal meetings, experience sharing meetings, Stakeholders informal meetings, CBOs Meetings, Focus group discussions	Networking with stakeholders	10	10	05	07	32
Planning, Technical, Decision-making, Implementing, Experience sharing, Meetings, Review meetings, CBOs meetings, Producer group discussions, community level meetings, Complaint Box	Beneficiary integration in projects	03	04	06	08	21
Inauguration programs, Propaganda programs, Meetings, Awareness programs, Home Visits, Exhibitions, Theater Program, Stakeholders meetings, community meetings, stakeholders meetings, Notice board, Direct interviews,	Project marketing	14	17	10	14	55
Facebook, Community discussions, Twitter, Google, Internal Websites, Project review with partners, Discussions with beneficiary, informal meetings, Delegates/Expatriates sharing their experiences, Delegates Visits and discussions, Exposure visits to other countries, International Forums, Regional conferences	Community of practice	02	08	06	07	23

for getting appropriate field level information, sharing knowledge and skills among the stakeholders, undertaking joint projects to address complex community issues emerging from turbulent natural, economic and social environment.

5. Analysis and discussion: three levels of PM capacity

This section analyses each three level of PM capacities in the RBV perspective, with regard to explicit and tacit insights. The
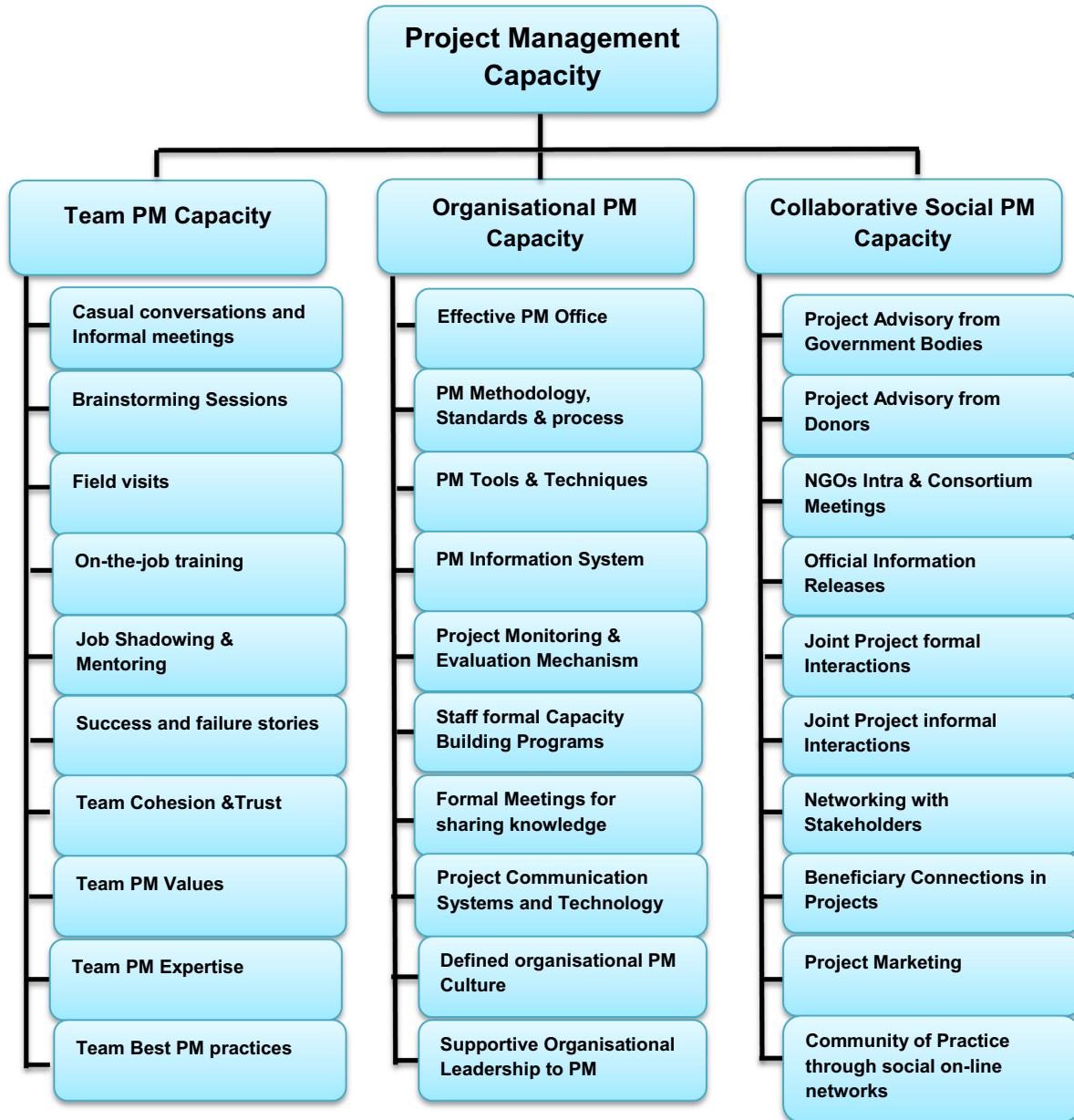
Fig. 2. Visual mapping of PM resources and PM capacity.
Source: case study data.

findings of the qualitative case study are discussed below in the context of literature review.

5.1. Team PM capacity

Team PM capacity consists of team PM knowledge-sharing and skills development process, team PM culture and team competencies which contribute to effective and efficient team performance in an organisation. Lusthaus et al. (1995) emphasises enhancing team individual abilities in pursuit of organisational objectives will improve organisational performance. Many researchers emphasised team works increase productivity and effective teams

are more profitable to organisations (Goodman, 1986; McGovern, 1991; Katzenbach, 1998). In NGO literature, team level generic capacities were identified as important assets for NGOs to sustain in the community (Tozier de la Poterie, 2011). However, the nature of these capacities was not examined in detail. The present study confirms that many of team PM resources identified in private sector organisations are also applicable to NGOs.

In the present case study, all identified elements of team PM capacity in NGOs are highly characteristic of tacit assets. Commonly, team knowledge-sharing activities take place informally where the team acquires knowledge and skills through team interactions. Moreover, team values and competencies are highly

in-built within the teams. Therefore, these are intuitive knowledge and rooted in team context, experience, practice and values (Cook and Brown, 1999; Ghosh and Scott, 2009). Therefore, these tacit PM resources are highly important to NGOs for successful delivery of projects. Hence, these tacit assets are crucial for NGO success.

The PM literature review revealed the following PM resources in the private sector organisations; Project management expertise, project management practices, informal meetings, project orientation programs, peer learning, on-the-job training, personal coaching and training and mentoring (Dainty et al., 2005; Jugdev and Mathur, 2006a; Rose et al., 2007; Mathur et al., 2013; Ofori-Dankwa and Julian, 2014). However, PM researches have not revealed the team PM resources in the public and non-governmental organisations in the past.

The case study identified ten elements of PM resources in NGO sectors. Out of these, the first six elements – casual conversations and informal meetings, brainstorming sessions, field visits, on-the-job training, job shadowing and mentoring, and success and failure stories – explain PM knowledge and skills development of team members through team knowledge-sharing and skills development activities. These activities commonly take place through team social interactions. The other four elements – team cohesion and trust, team values, team PM expertise and Team best PM practices – explain team PM culture and competencies. All these aspects overall develop team PM capacities.

The literature has discussed PM knowledge and skills development and PM competencies to the successive project operations of private sector organisations. Research in NGOs has identified the importance of management structures (Khan et al., 2000) and appropriate team skills (Youker, 2003). The findings of this case study extend previous work to identify the importance of PM team culture. Since NGOs operate in the complex uncertain environments, a PM team culture is required to ensure that member skills are coordinated to generate appropriate outcomes. The respondents' quotations on all the identified elements of PM capacity that take place in NGOs and their importance are explained in Table 3.

5.2. Organisational PM capacity

Organisational PM capacity can be referred as PM resources, knowledge and processes employed by the organisations. Previous studies on NGOs emphasised that organisational-level generic capacities influence organisational performance and organisational effectiveness (Lusthaus et al., 1995, 1999; De Vita and Fleming, 2001; Connolly and Lukas, 2002). However, PM capacities in the organisational level were less discussed in the NGO PM literature (Ika, 2012). However, organisational PM resources were substantially explored by previous researchers in private sector organisations (Mathur et al., 2007; Mahroeian and Forozia, 2012) and the following resources were identified; staff capacity-building programs, effective project coordination and leadership, shared project vision, objectives and policy, effective project communications, project organisational structure and process for sharing knowledge (White and Fortune, 2002; Jugdev

Table 3
Elements of team PM capacity.
Source: case study data.

Elements of team PM capacity	Some quotes of respondents
Casual conversations and informal meetings	"We have face-to-face informal discussions among staff members to share our project experiences."
	"We have informal table-to-table discussions in our office place to share PM knowledge among our staff members."
Brainstorming sessions	We regularly organise brainstorming sessions in our team level to find out solutions to project related issues."
	"Whenever we come across problems in projects, we organise brainstorming activities to identify appropriate PM solutions."
Field visits	"We have field visits and field-level discussions to discuss our experiences of project progress."
	"We used to have exposure visits; all other project staff members in similar projects from other areas will visit our project site and observe our project's progress. Mainly, we explain our project activities and technical works to them and get their suggestions on our execution of project activities."
On-the-job training	"Most times, I got the on-the-job training in the field level to improve my specific technical skills."
Job shadowing and mentoring	"When I joined as new staff in my organisation, I had a job shadowing activity to learn how to carry out participatory rural appraisal in a village."
	"Mentoring sessions helped me to expand my project planning skills."
Success and failure stories	"Mostly foreign delegates tell us success and failure stories of their work experiences in different countries. This is very helpful for us to know what best PM practices are."
	"Success stories of others motivated us to make our projects a success."
Team cohesion and trust	"Our team members are highly trusted by each other; this is a vital reason for our project success."
	"Team cohesion and trust lead to achieve our project objectives."
Team PM values	"Our team members have strong belief in PM applications which will improve their performance."
	"We have confidence that team work will bring synergistic effects more than working alone."
Team PM expertise	"Our project staff well understand the project life cycle and operations and they have very good expertise in planning and implementing the projects, which make us succeed our projects."
	"We have very experienced and competent staff for our projects. They effectively apply PM tools and techniques in project activities."
Team best PM practices	"Our team members do not strongly adhere by best practices; however, we generally follow our own NGO standards rather than global standards set by private accredited associations."
	"We understand the PM global standards less and practising those less in our project operations. However, we understand best PM practices make our team more effective in our project operations."

and Mathur, 2006a; Raymond and Bergeron, 2008; Hurt and Thomas, 2009; Caniëls and Bakens, 2012; Kaleshovska, 2014). In Public sector organisations, various PM tools and techniques were identified (Kliem and Ludin, 1999; Milosevic, 2003). Further, in non-profit sector organisations, more specific PM tools and techniques; logical framework matrix and cause-and-effect diagrams (Carroll and Kellow, 2011; Ika and Lytvynov, 2011), monitoring and evaluation systems (Mebrahtu, 2002; Bornstein, 2006), staff capacity building activities (Fowler, 2013) were identified.

The case studies revealed that explicit resources are widely held in the PM organisational capacity except organisational PM culture. This means organisational PM resources will be kept as written documents and/or transferable means in forms such as audio, video and software. Therefore, organisational capacities are commonly formal and easily transferable. These resources impart knowledge and skills more objectively while team PM resources are conveyed highly implicitly to staff. In addition, the case study discovered team PM capacities are inherent capacities to the organisation and not easily codified or transferable. However, organisational PM capacities are overt capacities which are easily codified and transferable. Subsequently, the case study findings ensure that team PM capacities (tacit resources) which generate organisational explicit PM resources and organisational PM capacities (explicit resources) facilitate generate team PM capacities. This reconfirms the findings of Cook and Brown (1999) which pointed out that each type of knowledge can be used to facilitate the acquisition of other knowledge.

Higher-level organisational PM capacities reflect that an organisation practices PM knowledge, skills, tools and techniques at a very superior level in their project operations, and organisational culture and leadership are highly supportive of greater PM practices in organisations. These capacities are highly important to execute projects well and achieve PM success. While most elements of organisational PM capacity are explicit, organisational PM culture combines explicit and tacit PM aspects (Cheyne and Loan-Clarke, 2009). This resource consists of organisational setting, well-articulated values and beliefs to the project teams by way of policies or written documents. Therefore, acquired culture belongs more to tacit resources and designed structure, and written policies of PM culture fits more with explicit resource. All these aspects overall develop organisational PM capacities.

The literature in NGOs, highly focused on more specific PM tools and techniques and staff capacity building programs as organisational capacities, however, the case study revealed more elements of organisational capacity such as PM information system, formal meetings for sharing knowledge, effective project communications system and technology and defined organisational PM culture as crucial elements for project success of NGOs. The resources identified in the case study are more similar to the resources identified in private sectors since the NGOs currently like private sectors operate high complexity of projects for rebuilding vulnerable communities. The respondents' quotations on all the identified elements of PM capacity that take place in NGOs and their importance are summarised in Table 4.

5.3. Collaborative social PM capacities

Team and organisational PM capacities were discussed in terms of explicit and tacit resources and exist within the organisational level. Team PM capacity consists of highly tacit resources and organisational PM capacity comprises of highly explicit resources. Collaborative social PM capacities combines both types of resources as it comprises of formal/ know-what (explicit) and informal/ know-how (tacit) elements. It differs from both team and organisational capacity as it is a systemic level capacity that can support both team and organisational resources with new knowledge from external sources. The collaborations are founded in trusted relationships and vital for project success (Tansley and Newell, 2007). Björk et al. (2011) emphasises the networking activities improves the project performance in organisations. Burns (2003) highlights receiving information from the external setting promotes organisations getting new knowledge and achieving competitive advantage. Collaborative social PM capacity has been revealed as a new capacity to the existing literature and these are most important to NGOs successful operations.

Since NGOs are non-profit mission-driven organisations, unlike private sector organisations, they face limits on how they can direct their resources and they are formally accountable to their stakeholders. These stakeholders are heterogeneous and have different needs and objectives (Reed et al., 2006). Also, in developing countries such as Sri Lanka, institutions (government/ regulations) may not be very strong (DeVotta, 2005). As a result, the environments in which these organisations operate are characterised by a high degree of uncertainty with little access to detailed reliable data to support project design and delivery. One respondent stated:

> "*The developing countries like Sri Lanka; collaborative social PM capacity is a very important asset for NGOs as knowledge gap is a big issue for us.*"
>
> (CPC 2).

Therefore, focusing only on the internal team and organisational capacities – such as informal (tacit) team values, mentoring and story-telling – or formal (explicit) processes – such as methodologies, processes and tools – may not be able to support the required adaption to host community requirements. These, collaborative social capacities can enable NGOs to configure team and organisational resources appropriately in the host environment. Further, the case study identified that collaborative social PM capacities could be seen in two types as formal collaborative social PM capacities and informal collaborative social PM capacities. Subsequently, both capacities were explored as crucial for NGOs to attain new ideas for successfully implementing projects for improving community benefits. Liu and Liu (2008) say organisations relying only on within-the-boundary are not adequate to meet competitive forces. Hence, absorbing external knowledge is indispensable for survival of organisations (Grant, 1996; Liu and Liu, 2008).

Formal collaborative social capacity refers to the capacity of the organisation to formally receive knowledge and advisory recommendations from external networking sources. The case

Table 4
Elements of organisational PM capacity.
Source: case study data.

Elements of organ PM capacity	Some quotes of respondents
Effective PM office	"The PMO provide technical support and other all support to field. Usually, PMO staff visit the fields and give necessary advice."
	"The PMO is a centre of coordination and support for us. The PMO gives all necessary support to the project staff for successful project delivery."
PM methodology, standards and processes	"We have a program guideline manual to implement our projects, which is specifically developed to effectively execute our projects."
	"We mostly use the PM methodologies designed by our organisation and those specially designed for NGOs for global practice, for example, the Sphere Handbook for Humanitarian Charter and Minimum Standards in Humanitarian Response."
PM tools and techniques	"In the needs identification stage, we use PM tools such as Venn diagram, resource mapping, problem tree analysis, needs prioritisation list, objective tree analysis, seasonal calendar, and stakeholder mapping and PM techniques as participatory rural appraisal (PRA), rapid rural appraisal (RRA), and participatory network analysis (PNA)."
	"In the planning stage, we use PM tools such as Logical Framework Matrix (LFM), action plan, Gantt chart, and monthly and weekly work plans and PM techniques such as results based management and rights based approach."
PM information system	"We don't have very extensive applications of PMIS in our projects since it is hard to practise."
	"We use PM software which is designed by our organisation to track our project progress in some cases."
Project monitoring and evaluation mechanism	"We use appropriate M & E mechanisms in our organisation to meet the requirements of stakeholders sufficiently."
	"We have mid-, end- and post-evaluation plans and also conduct field-level assessments, desk-based assessments, and pocket-based assessments to evaluate progress and outcomes of our projects."
Staff capacity-building programs	"We usually get training in project planning, proposal writing, monitoring and application of PM tools and techniques, which help us for performing our operations."
	"I had no experience in NGOs project work when I joined this NGO as monitoring and evaluation officer. After capacity building training was provided to me, I became confident holding meetings with communities, donors and project teams to monitor and evaluate project activities."
Formal meetings for sharing knowledge	"We conduct monthly meetings, milestone meetings and senior management meetings which help us to report our project progress and get suggestions from other team members."
	"Project review meetings where we discuss the ongoing issues of projects; usually we have weekly and monthly review meetings."
Effective project communications system and technology	"We do telephone, e-mail, and Skype communications among our staff members and those are effective for communicating our information."
	"We do have a network sharing system. This means we have shared folders within our organisation. Any staff can access all information within our organisation from anywhere and can share their experiences through emails."
Defined organisational PM culture	"Organisational culture should promote results-based management, transparency and accountability; which will induce effective team work in organisations."
	"Organisational culture will influence team members' performance, and give appropriate direction for everyone to lead the projects to a success."
Supportive organisational leadership to PM	"Project-centred visionary leadership and values are the most important factors to project success."
	"Actually, we are in the top management, we call it senior management. We provide technical support and M & E support to the project teams."

study identified knowledge transfer takes place in NGOs with external bodies through formal means such as project advisory from government bodies, project advisory from donors, NGOs intra and consortium meetings, official information releases and joint project formal interactions. Informal collaborative social capacity refers to the capacity of the organisation for getting knowledge from informal external interactions. The case study explored that informal knowledge transfer takes place with external bodies such as joint project informal interactions, networking relations with stakeholders, beneficiary integration in projects, project marketing, and community of practice through online social networks. One respondent commented on the importance of informal collaborative capacity as quoted below.

"*From my personal experience, I could say that informal knowledge sharing is the most important and gives more knowledge to us than formal collaborative capacity. Sometimes,*

formal sources don't give all knowledge and skills to us and people fail to impart their knowledge to others. But, informal interactions make our works more effective. For example, having informal discussions with stakeholders, community discussions and community of practice give more skills to me to develop my personal competency."

(CPC4)

Further, the case study reveals that both capacities are vital exclusively for local NGOs which function in developing countries like Sri Lanka because people who work in these NGOs comparably have fewer or lower PM competencies compared with people who work in international NGOs. Therefore, absorbing knowledge from experts promotes performance of team members. At the same time, the collaborative means promotes team members' successive project operations through knowledge transfer not only between the NGOs but also

among the stakeholders, such as community, donors and government agencies. The literature more focused on team and organisational resources. However, the case study newly identified the collaborative social PM capacity to the existing PM literature. NGOs are required to manage political, social, legal, technical and cultural issues in host environments (Struyk, 2007). Managing these factors may require stakeholder engagement in order to develop approaches that are sensitive to the host country (Yu and Leung, 2015). All the identified elements of collaborative social PM capacity are explained with the quotations of respondents in Table 5.

6. Conclusion and implications

The RBV has been increasingly applied to explain the activities of firms as it forms an adaptable framework for building theories (Kogut and Zander, 2003). This research has identified the resources that underpin PM capacity in NGOs and has highlighted the importance of intangible resources. This is important as in uncertain environments where NGOs operate, explicit resources such as maturity models have less value than resources that are built via actors (Grant, 1996) in interaction with the environment (Jones and Khanna, 2006).

A new PM capacity, Collaborative Social PM capacity has been identified in this study. This is can enable NGOs to adapt to external environment by acquiring external knowledge via a network of relationships to develop other internal PM capacities. For NGOs, these capacities will be a critical to get the knowledge, skills, tools and techniques from the other NGOs or stakeholders and collaborative works with other NGOs can improve the effective delivery of community projects. Future research can examine this capacity in additional detail, as it suggests that organisations, both public and private can engage stakeholders to manage external uncertainty. This extends research from examining approaches to proactively manage stakeholders to a wider range of network based engagement strategies that deliver mutual benefit. For managers, there is a need to examine how stakeholders can extend the organisations' sensing and scanning capabilities to support the adaptions necessary to operate in uncertain environments.

Table 5
Elements of collaborative social PM capacity.
Source: case study data.

Elements of Collaborative social PM capacity	Some quotes of respondents
Project advisory from government bodies	"In government agent review meetings of NGO projects, we get useful suggestions and ideas from government staff for our projects."
	"In some projects, we work with government authorities, especially in disaster management, education and health; we need to adhere to government advisory and policy."
Project advisory from donors	"Donors visit every three months and review the progress of projects and will give their expert advisory to the project staff."
	"Donors' advisory makes our projects more effective and sustainable."
NGOs' intra and consortium meetings	"At district level, we do have consortium meetings. A consortium, in a sense, is a group of NGOs registered under one umbrella. In this meeting, every NGO presents their challenges, opportunities and plans."
	"NGO sector-wise meetings inform each NGO's projects and progress to other NGOs."
Official information releases	"Government releases the NGOs' project information on their own websites, which help us to see the information of all NGOs and what they are involved in."
	"We distribute news letters to our stakeholders and receive news letters from other NGOs in which every NGO explains their projects."
Joint projects formal interactions	"We do have formal meetings with our partner organisations where we discuss our projects' progress, issues and solutions."
	"Joint formal meetings are very useful to share project views among staff."
Joint projects informal interactions	"Joint field visits where we both (our organisation and partner organisation) will visit the field and will have discussions."
	"In some cases, we visit other countries and observe their project mechanisms. I have visited Cambodia and learnt their system for livelihood projects. This gave me very good experience to work locally."
Networking relations with stakeholders	"We have informal meetings with grassroot level organisations and attend the events organised by them, where we share our project information between us."
	"Networking relationships with beneficiaries and other NGOs support us to implement our projects very successfully."
Beneficiary integration in projects	"Making beneficiaries implement the projects and we do only the observation and advice. For example, we established a livelihoods co-operative society and allowed the community to run it. In this project, the community will implement the project and we will give necessary advice, ideas and trainings to them."
	"This is the most important capacity for NGOs to take all the knowledge and skills from outside of the organisations. Mainly, community knowledge and skills are the most important capacity that we need to use."
Project marketing	"We conduct project inauguration meetings with the stakeholders. In this meeting, we disclose all information on the project and planned activities; and there, stakeholders share their views over projects."
	"We organise awareness programs and displays about projects to community people to get their views on our projects. These greatly help us to amend our projects to meet community requirements."
Community of practice through online social networks	"On-line social networking gives more new ideas on project practices. It gives more confidence to the project staff to get ideas from similar practices from the professionals of other organisations and from other countries."
	"On-line social networks sometimes help to solve our technical issues in projects."

The research has also identified the value of the RBV as an appropriate method to analyse PM capacity in NGOs. While in the PM literature, tangible assets are increasingly discussed and promoted as a source of competitive advantage and PM intangibles assets have not been focussed (Jugdev, 2011). The PM models do not emphasise organisational processes and practices and typically lack a connection between operations management and strategy. Few PM models have been empirically tested and many are based on codified best practices that may need to be adapted in the environments in which NGOs operate (Jugdev, 2011). This research has been able to identify the resources that enable NGOs to meet the complex challenges of stakeholders in difficult environments.

Past research has highlighted that even though organisations are deeply concerned about developing traditional organisational capacities, such as building organisational systems and structures, human resource development, financial resource development and leadership capacity development (Bryson, 2004; Wachira, 2008), NGOs' projects have a high failure rate in terms of meeting quality, timeliness and being on budget to eradicate poverty and vulnerability (Dedu et al., 2011; Ika, 2012). Therefore, this study finding help organisations to understand the nature of PM capacities in NGOs and how can these be developed for NGOs' project to succeed. The study reveals that three levels of PM capacity exist in NGOs. Those are team capacity, organisational capacity, and collaborative social capacity. This expands on the common conceptualization of two levels of resources (team and organisational) in existing work. PM practitioners and NGOs not only need to work to develop the first two levels, but also need to formally develop collaborative social capacity. Improvements in how projects are delivered by NGOs will enable them to meet their stakeholders' needs and their stated objectives effectively such as quality specifications, budget and time schedules and improving specific conditions in community. These concepts can be incorporated into the design of future tools including maturity models that can help NGOs improve project performance.

From an academic perspective, Collaborative Social capacity can be explored further to identify if it is present in differing industries and contexts. This capacity may be valuable in helping organisations other than NGOs adapt to complex, uncertain environments such as high technology which is characterised by rapid change. Further empirical study is needed to examine the relationship between these PM capacities and the project success of NGOs and need further more investigation on collaborative social PM capacities which are revealed as new capacity to the existing literature.

Conflict of interest

References

Aga, D.A., Noorderhaven, N., Vallejo, B., 2016. Transformational leadership and project success: the mediating role of team-building. Int. J. Proj. Manag. 34 (5), 806–818.

Ahsan, K., Gunawan, I., 2010. Analysis of cost and schedule performance of international development projects. Int. J. Proj. Manag. 28 (1), 68–78.

Amendola, L.J., Depool, T., Artacho, M.A., Martinez, L.B., Martín, M., 2016. Proposal for a maturity model based on expert judgment for Spanish project organisations. Proj. Manag. Eng. Res. 41–57.

Amit, R., Schoemaker, P., 1993. Strategic assets and organizational rent. Strateg. Manag. J. 14, 33–46.

Anantatmula, V.S., 2010. Project manager leadership role in improving project performance. Eng. Manag. J. 22 (1), 13–22.

Andersen, E.S., Jessen, S.A., 2003. Project maturity in organisations. Int. J. Proj. Manag. 21 (6), 457–461.

Andrews, R., 2012. Social capital and public service performance: a review of the evidence. Public Policy Admin. 27 (1), 49–67.

Asrilhant, B., Dyson, R.G., Meadows, M., 2007. On the strategic project management process in the UK upstream oil and gas sector. Omega 35 (1), 89–103.

Aubry, M., Hobbs, B., 2011. A fresh look at the contribution of project management to organizational performance. Proj. Manag. J. 42 (1), 3–16.

Aubry, M., Hobbs, B., Thuillier, D., 2008. Organisational project management: an historical approach to the study of PMOs. Int. J. Proj. Manag. 26 (1), 38–43.

Backlund, F., Chronéer, D., Sundqvist, E., 2015. Maturity assessment: towards continuous improvements for project-based organisations? Int. J. Manag. Proj. Bus. 8 (2), 256–278.

Bagci, C., 2003. Historical evolution of NGOs: NGO proliferation in the post-Cold War era. Avrupa Gunlugu 4, 299–326.

Barney, J.B., 1991. Firm resources and sustained competitive advantage. J. Manag. 17 (1), 99–120.

Barney, J.B., 1997. Gaining and Sustaining Competitive Advantage. 1st edition. Addison-Wesley, Reading, MA.

Barney, J.B., 2002. Gaining and Sustaining Competitive Advantage. 2nd edition. Prentice Hall, Upper Saddle River, NJ.

Belassi, W., Kondra, A., Tukel, O., 2007. New product development projects: the effects of organizational culture. Proj. Manag. J. 38 (4), 12–24.

Besanko, D., Dranove, D., Shanley, M., 2000. Economics of Strategy. 2nd edition. John Wiley & Sons, New York.

Besner, C., Hobbs, B., 2008. Project management practice, generic or contextual: a reality check. Proj. Manag. J. 39 (1), 16–33.

Bititci, U.S., Garengo, P., Ates, A., Nudurupati, S.S., 2015. Value of maturity models in performance measurement. Int. J. Prod. Res. 53 (10), 3062–3085.

Björk, J., Di Vincenzo, F., Magnusson, M., Mascia, D., 2011. The impact of social capital on ideation. Ind. Innov. 18 (6), 631–647.

Boffin, N., 2002. Health System Capacity Building: Review of the Literature. DGOS – AIDS Impulse Program. Institute of Tropical Medicine, Antwerp.

Bornstein, L., 2006. Systems of accountability, webs of deceit? Monitoring and evaluation in South African NGOs. Development 49 (2), 52–61.

Botha, A., Kourie, D., Snyman, R., 2008. Coping With Continuous Change in the Business Environment: Knowledge Management and Knowledge Management Technology. Chandos, Oxford.

Brown, J.S., Duguid, P., 1998. Organizing knowledge. Calif. Manag. Rev. 40 (3), 90–111.

Bryan, T.K., 2011. Exploring the Dimensions of Organisational Capacity for Local Social Service Delivery Organizations Using a Multi-method Approach (Thesis (PhD)) Virginia Polytechnic Institute and State University.

Bryman, A., 2015. Social Research Methods. Oxford University Press.

Bryson, J.M., 2004. Strategic planning for public and nonprofit organizations: a guide to strengthening and sustaining organisational achievement. Public Adm. Rev. 67 (4), 702–717.

Bryson, J.M., Gibbons, M.J., Shaye, G., 2001. Enterprise schemes for nonprofit survival, growth, and effectiveness. Nonprofit Manag. Leadersh. 11 (3), 271–288.

Budayan, C., Dikmen, I., Birgonul, M.T., 2015. Alignment of project management with business strategy in construction: evidence from the Turkish contractors. J. Civ. Eng. Manag. 21 (1), 94–106.

Burns, A., 2003. Business intelligence. Proceedings of the paper presentation to Australian Foresight Institute at Victoria, Australia.

Caniëls, M.C., Bakens, R.J., 2012. The effects of Project Management Information Systems on decision making in a multi project environment. Int. J. Proj. Manag. 30 (2), 162–175.

Carnes, C.M., Chirico, F., Hitt, M.A., Huh, D.W., Pisano, V., 2016. Resource orchestration for innovation: structuring and bundling resources in growth- and maturity-stage firms. Long Range Plan.

Carroll, P., Kellow, A., 2011. The OECD: A Study of Organisational Adaptation. Edward Elgar Publishing.

Chakravarthy, B.S., 1982. Adaptation: a promising metaphor for strategic management. Acad. Manag. Rev. 7 (1), 35–44.

Cheyne, A., Loan-Clarke, J., 2009. Organisational and corporate culture. Contemp. Hum. Resour. Manag. 243–275.

Christensen, R., Gazley, B., 2008. Capacity for public administration: analysis of meaning and measurement. Public Adm. Dev. 28, 265–279.

CIC, 2003. Modelo Intellectus: Medición y Gestión del Capital Intelectual. Centro de Investigación sobre la Sociedad del Conocimiento (CIC), Madrid.

Clarke, A., 1999. A practical use of key success factors to improve the effectiveness of project management. Int. J. Proj. Manag. 17 (3), 139–145.

Cohen, J.F., Olsen, K., 2015. Knowledge management capabilities and firm performance: a test of universalistic, contingency and complementarity perspectives. Expert Syst. Appl. 42 (3), 1178–1188.

Connolly, P., Lukas, C., 2002. Strengthening Nonprofit Performance: A Founder's Guide to Capacity Building. Fieldstone Alliance, Location.

Cook, S.D.N., Brown, J.S., 1999. Bridging epistemologies: between organizational knowledge and organizational knowing. Organ. Sci. 10 (4), 381–400.

Crawford, P., Bryce, P., 2003. Project monitoring and evaluation: a method for enhancing the efficiency and effectiveness of aid project implementation. Int. J. Proj. Manag. 21 (5), 363–373.

Crossan, M.M., Lane, H.W., White, R.E., 1999. An organizational learning framework: from intuition to institution. Acad. Manag. Rev. 24 (3), 522–537.

Dainty, A.R., Cheng, M.I., Moore, D.R., 2005. Competency-based model for predicting construction project managers' performance. J. Manag. Eng. 21 (1), 2–9.

De Vita, C.J., Fleming, C., 2001. Building Capacity in Nonprofit Organizations. Center on Nonprofits and Philanthropy (CNP), The Urban Institute, Washington, DC.

Dedu, V., Staicu, G., Nițescu, D.C., 2011. A critical examination of foreign aid policy. Why it fails to eradicate poverty? Theoret. Appl. Econ. 4 (4), 37–48.

DeFillippi, R.J., Arthur, M.B., 1998. Paradox in project-based enterprise: the case of film making. Calif. Manag. Rev. 40, 125–139.

Delahaye, B., 2015. Human Resource Development. Tilde Publishing.

Delak, B., Damij, N., 2015. Knowledge Risk Assessments. European Conference on Knowledge Management. Academic Conferences International Limited (September).

DeVotta, N., 2005. Civil society and non-governmental organizations in Sri Lanka: peacemakers or parasites? Civil Wars 7 (2), 171–182.

Dirisu, J.I., Iyiola, O., Ibidunni, O.S., 2013. Product differentiation: a tool of competitive advantage and optimal organizational performance (a study of Unilever Nigeria Plc). Eur. Sci. J. 9 (34).

Doolen, T.L., Hacker, M.E., Van Aken, E.M., 2003. The impact of organizational context on work team effectiveness: a study of production team. IEEE Trans. Eng. Manag. 50 (3), 285–296.

Drucker, P., 1993. Post-capitalist Society. Harper Business, New York.

Duffield, S., Whitty, S.J., 2015. Developing a systemic lessons learned knowledge model for organisational learning through projects. Int. J. Proj. Manag. 33 (2), 311–324.

Easterly, W., 2009. How the millennium development goals are unfair to Africa. World Dev. 37 (1), 26–35.

Eisenhardt, K.M., 1989. Building theories from case study research. Acad. Manag. Rev. 14 (4), 532–550.

Ekinge, R., Lennartsson, B., 2000. Organizational Knowledge as a Basis for the Management of Development Projects. Accepted to Discovering Connections: A Renaissance Through Systems Learning Conference, Dearborn, Michigan (September 24-27, 2000).

Emmel, N., 2013. Sampling and Choosing Cases in Qualitative Research: A Realist Approach. Sage.

Enemark, S., Molen, P.V., 2008. Capacity Assessment in Land Administration. The International Federation of Surveyors (FIG). Fig Publication, No 41, Denmark.

Evans, N., Easterby-Smith, M., 2001. Three Types of Organizational Knowledge: Implications for the Tacit-explicit and Knowledge Creation Debates. Lancaster University, London, Ontario, Canada.

Feng, H., Morgan, N.A., Rego, L.L., 2016. Firm capabilities and growth: the moderating role of market conditions. J. Acad. Mark. Sci. 1–17.

Fernie, S., Green, S.D., Weller, S.J., Newcombe, R., 2003. Knowledge sharing: context, confusion, and controversy. Int. J. Proj. Manag. 21, 177–187.

Fowler, A., 2000. The Virtuous Spiral. Earthscan, London.

Fowler, A., 2013. Striking a Balance: A Guide to Enhancing the Effectiveness of Non-governmental Organisations in International Development. Routledge.

Gamble, P.R., Blackwell, J., 2001. Knowledge Management: A State of the Art Guide. Kogan Page, London, UK.

Ghobadi, S., 2015. What drives knowledge sharing in software development teams: a literature review and classification framework. Inf. Manag. 52 (1), 82–97.

Ghosh, B., Scott, J.E., 2009. Relational alignment in offshore IS outsourcing. MIS Q. Exec. 8 (1), 19–29.

Golini, R., Landoni, P., 2014. International development projects by non-governmental organizations: an evaluation of the need for specific project management and appraisal tools. Impact Assess. Proj. Apprais. 32 (2), 121–135.

Golini, R., Kalchschmidt, M., Landoni, P., 2015. Adoption of project management practices: the impact on international development projects of non-governmental organizations. Int. J. Proj. Manag. 33 (3), 650–663.

Gomes, J., Romão, M., 2015. Maturity, Benefits and Project Management Shaping Project Success. New Contributions in Information Systems and Technologies. Springer International Publishing, pp. 435–448.

Goodman, P.S., 1986. Designing Effective Work Groups. Jossey-Bass, San Francisco.

Gopalakrishnan, S., Santoro, M.D., 2004. Distinguishing between knowledge transfer and technology transfer activities: the role of key organizational factors. IEEE Trans. Eng. Manag. 51 (1), 57–69.

Grant, R.M., 1996. Prospering in dynamically-competitive environments: organizational capability as knowledge integration. Organ. Sci. 7 (4), 375–389.

Grant, R.M., 2016. Contemporary Strategy Analysis: Text and Cases Edition. John Wiley & Sons.

Gutpa, H., 2011. Management Information System (An Insight). 1st edition. International Book House Publishers, New Delhi, India.

Hancock, D.R., Algozzine, B., 2015. Doing Case Study Research: A Practical Guide for Beginning Researchers. Teachers College Press.

Hansberry, J., 2002. Tropman Report vol. 1 no 1 (Available from: http://forbesfunds.org/files/1CapacityBuilding_TR02.pdf Accessed 15 April 2012).

Harvey, G., Skelcher, C., Spencer, E., Jas, P., Walshe, K., 2010. Absorptive capacity in a non-market environment: a knowledge-based approach to analysing the performance of sector organizations. Public Manag. Rev. 12 (1), 77–97.

Hawkes, S., Aulakh, B.K., Jadeja, N., Jimenez, M., Buse, K., Anwar, I., Barge, S., Odubanjo, M.O., Shukla, A., Ghaffar, A., Whitworth, J., 2016. Strengthening capacity to apply health research evidence in policy making: experience from four countries. Health Policy Plan. 31 (2), 161–170.

Hekala, W., 2012. Why donors should care more about project management. Available from: http://www.devex.com/en/news/why-donors-shouldcare-more-about-project/77595 (Accessed 5 August 2014).

Helfat, C.E., Lieberman, M.B., 2002. The birth of capabilities: market entry and the importance of pre-history. Ind. Corp. Chang. 11 (4), 725–760.

Hermano, V., López-Paredes, A., Martín-Cruz, N., Pajares, J., 2013. How to manage international development (ID) projects successfully. Is the PMD Pro1 guide going to the right direction? Int. J. Proj. Manag. 31 (1), 22–30.

Hirai, C., Uchida, Y., Fujinami, T., 2007. A knowledge management system for dynamic organizational knowledge circulation. Int. J. Inf. Technol. Decis. Mak. 6 (03), 509–522.

Hurt, M., Thomas, J.L., 2009. Building value through sustainable project management offices. Proj. Manag. J. 40 (1), 55–72.

Ibbs, C.W., Kwak, Y.H., 2000. Assessing project management maturity. Proj. Manag. J. 31, 32–43.

Ibbs, C.W., Reginato, J., Kwak, Y.H., 2004. Developing Project Management Capability – Benchmarking, Maturity, Modeling, Gap Analyses, ROI

Studies. Chapter 48. In: Morris, P.W.G., Pinto, J.K. (Eds.), The Wiley Guide to Managing Projects. John Wiley & Sons.

Ika, L.A., 2012. Project management for development in Africa: why projects are failing and what can be done about it. Proj. Manag. J. 43 (4), 27–41.

Ika, L.A., Lytvynov, V., 2011. The "management-per-result" approach to international development project design. Proj. Manag. J. 42 (4), 87–104.

Ika, L.A., Diallo, A., Thuillier, D., 2012. Critical success factors for World Bank projects: an empirical investigation. Int. J. Proj. Manag. 30 (1), 105–116.

Inkpen, A.C., Dinur, A., 1998. Knowledge management processes and international joint ventures. Organ. Sci. 9 (3), 356–367.

International Development Research Centre (IDRC), Canada; International Service for National Agricultural Research (ISNAR), the Netherlands, ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA), the Netherlands, 2005. Evaluating Capacity Development. IDRC (Available from: http://web.idrc.ca/openebooks/111-6/ Accessed 15 March 2012).

Jaeger, A.M., Kanungo, R.N., 1990. Management in Developing Countries. Routledge, New York.

Jones, G., Khanna, T., 2006. Bringing history (back) into international business. J. Int. Bus. Stud. 37 (4), 453–468.

Jugdev, K., 2011. Project Management: A Strategic Asset, the AMA Handbook of Project Management. 3rd ed. American Management Association.

Jugdev, K., Mathur, G., 2006a. A Factor Analysis of Tangible and Intangible Project Management Assets. 4th PMI Research Conference. PMI, Montreal, QC.

Jugdev, K., Mathur, G., 2006b. Project management elements as strategic assets: preliminary findings. Manag. Res. News 29, 604–617.

Jugdev, K., Thomas, J., 2002. Project management maturity models: the silver bullets of competitive advantage. Proj. Manag. J. 33, 4–14.

Jugdev, K., Mathur, G., Fung, T., 2011. Project Management Assets and Project Management Performance: Preliminary Findings. Proceedings of Technology Management in the Energy Smart World (PICMET), 2011. Portland, OR, July 31 2011–Aug. 4 2011, 1–7.

Jugdev, K., Killen, C., Drouin, N., Petit, Y., 2012. Advancing project and portfolio management research: applying strategic management theories. Int. J. Proj. Manag. 30 (5), 525–538.

Kaleshovska, N., 2014. Adopting project management offices to exploit the true benefits of project management. Економски Развој (1–2), 151–165.

Kamboj, S., Goyal, P., Rahman, Z., 2015. A resource-based view on marketing capability, operations capability and financial performance: an empirical examination of mediating role. Procedia Soc. Behav. Sci. 189, 406–415.

Katzenbach, J.R., 1998. Teams at the Top: Unleashing the Potential of Both Teams and Individual Leaders. Harvard Business Press, USA.

Khan, Z.A., Thornton, N., Frazer, M., 2000. Experience of a financial reforms project in Bangladesh. Public Adm. Dev. 20 (1), 33–42.

Khang, D.B., Moe, T.L., 2008. Success criteria and factors for international development projects: a life-cycle-based framework. Proj. Manag. J. 39 (1), 72–84.

Killen, C.P., Kjaer, C., 2012. Understanding project interdependencies: the role of visual representation, culture and process. Int. J. Proj. Manag. 30 (5), 554–566.

Kim, S.C., Lee, J.S., Shin, K.I., 2015. The impact of project management assets on the VRIO characteristics of PM process for competitive advantage. Int. J. Prod. Qual. Manag. 15 (2), 153–168.

Kliem, R., Ludin, I., 1999. Tools and Tips for Today's Project Manager. Project Management Institute.

Kogut, B., Zander, U., 2003. Knowledge of the firm and the evolutionary theory of the multinational corporation. J. Int. Bus. Stud. 34 (6), 516–529.

Korten, C.D., 1987. Third generation NGO strategies: a key to people-centered development. World Dev. 15, 145–159.

Korten, C.D., 1990. Getting to the 21st Century: Voluntary Action and the Global Agenda. Kumarian Press, Connecticut.

Kotellos, K.A., Amon, J.J., Benazerga, W.M., 1997. Field experiences: measuring capacity building efforts in HIV/AIDS prevention programmes. AIDS (London, England) 12, 109–117.

Kwak, Y.H., Sadatsafavi, H., Walewski, J., Williams, N.L., 2015. Evolution of project based organization: a case study. Int. J. Proj. Manag. 33 (8), 1652–1664.

Lee, L., Reinicke, B., Sarkar, R., Anderson, R., 2015. Learning through interactions: improving project management through communities of practice. Proj. Manag. J. 46 (1), 40–52.

Lewis, D., Kanji, N., 2009. Non-governmental Organizations. Routledge, New York.

Leybourne, S., Kennedy, M., 2015. Learning to improvise, or improvising to learn: knowledge generation and 'innovative practice' in project environments. Knowl. Process. Manag. 22 (1), 1–10.

Liu, M.S., Liu, N.C., 2008. Sources of knowledge acquisition and patterns of knowledge-sharing behaviors—an empirical study of Taiwanese high-tech firms. Int. J. Inf. Manag. 28 (5), 423–432.

Lusthaus, C., Anderson, G., Murphy, E., 1995. Institutional Assessment: A Framework for Strengthening Organizational Capacity for IDRC's Research Partners. International Development Research Centre, Ottawa, Canada.

Lusthaus, C., Adrien, M., Anderson, G., Carden, F., 1999. Enhancing Organizational Performance: A Toolbox for Self-assessment. International Development Research Centre, Ottawa, Canada.

Lusthaus, C., Adrien, M.H., Anderson, G., Carden, F., Montalvan, P., 2002. Organizational Assessment: A Framework for Improving Performance. International Development Research Centre/Inter-American Development Bank, Ottawa, Canada.

Lyons, M., 2001. Third Sector: The Contribution of Nonprofit and Cooperative Enterprises in Australia. Allen & Unwin.

Mahoney, J.T., Pandian, J.R., 1992. The resource-based view within the conversation of strategic management. Strateg. Manag. J. 13 (5), 363–380.

Mahroeian, H., Forozia, A., 2012. Challenges in managing tacit knowledge: a study on difficulties in diffusion of tacit knowledge in organizations. Int. J. Bus. Soc. Sci. 3 (19), 303–308.

Malena, C., 1995. A Practical Guide to Operational Collaboration Between the World Bank and Non-governmental Organization. World Bank, Washington, D.C.

Martinsuo, M., Killen, C.P., 2014. Value management in project portfolios: identifying and assessing strategic value. Proj. Manag. J. 45 (5), 56–70.

Mathur, G., Jugdev, K., Fung, T., 2007. Intangible project management assets as determinants of competitive advantage. Manag. Res. News 30 (7), 460–475.

Mathur, G., Jugdev, K., Shing Fung, T., 2013. Project management assets and project management performance outcomes: exploratory factor analysis. Manag. Res. Rev. 36 (2), 112–135.

Maylor, H., Blackmon, K., 2005. Researching Business and Management: A Roadmap for Success. Palgrave Macmillan, New York.

McGovern, F., 1991. Teaming up. USAir Mag. 13, 41–49.

Mebrahtu, E., 2002. Perceptions and practices of monitoring and evaluation: international NGO experiences in Ethiopia. Dev. Pract. 12 (3–4), 501–517.

Milosevic, D.Z., 2003. Project Management Toolbox: Tools and Techniques for the Practicing Project Manager. John Wiley & Sons.

Mingus, N., 2002. Alpha Teach Yourself Project Management in 24 hours. CWL, Madison, WI.

Muriithi, N., Crawford, L., 2003. Approaches to project management in Africa: implications for international development projects. Int. J. Proj. Manag. 21 (5), 309–319.

Nadelman, E.A., 1990. Global prohibition regimes: the evolution of norms in international society. Int. Organ. 44 (4), 479–526.

Nalinakumari, B., MacLean, R., 2005. NGOs: a primer on the evolution of the organizations that are setting the next generation of "regulations". Environ. Qual. Manag. 14 (4), 1–21.

Nanthagopan, Y., 2012. Impact of resources and management on organizational performance, a comparative study between the local and international non-governmental organizations in Vavuniya district, Sri Lanka. Excel Int. J. Multidiscip. Manag. Stud. 02 (08), 33–44.

Nanthagopan, Y., Williams, N., Page, S., 2015. Understand the Nature of Project Management Capacity With the Resource Based Perspective: Exploratory Case Study in Non-governmental Organizations (NGOs) in Sri Lanka. Annual Research Symposium Proceedings. NCAS, Sri Lanka, pp. 72–73.

Ngacho, C., Das, D., 2014. A performance evaluation framework of development projects: an empirical study of Constituency Development Fund (CDF) construction projects in Kenya. Int. J. Proj. Manag. 32 (3), 492–507.

Nonaka, I., 1994. A dynamic theory of organizational knowledge creation. Organ. Sci. 5, 14–37.

Nonaka, I., Takeuchi, H., 1995. The Knowledge Creating Company: How Japanese Companies Foster Creativity and Innovation for Competitive Advantage. Oxford University Press, New York.

Ofori-Dankwa, C.J., Julian, S., 2014. A heuristic model for explaining diversity's paradox. J. Organ. Chang. Manag. 27 (1), 147–161.

Okorley, E.L., Nkrumah, E.E., 2012. Organisational factors influencing sustainability of local non-governmental organisations: lessons from a Ghanaian context. Int. J. Soc. Econ. 39 (5), 330–341.

Orjuela, C., 2005. Civil society in civil war: the case of Sri Lanka. Civil Wars 7 (2), 120–137.

Othman, R., Arshad, R., Aris, N.A., Arif, S.M.M., 2015. Organizational resources and sustained competitive advantage of cooperative organizations in Malaysia. Procedia Soci. Behav. Sci. 170, 120–127.

Packard, T., 2010. Staff perceptions of variables affecting performance in human service organizations. Nonprofit Volunt. Sect. Q. 39 (6), 971–990.

Papke-Shields, K.E., Beise, C., Quan, J., 2010. Do project managers practice what they preach, and does it matter to project success? Int. J. Proj. Manag. 28 (7), 650–662.

Paradkar, A., Knight, J., Hansen, P., 2015. Innovation in start-ups: ideas filling the void or ideas devoid of resources and capabilities? Technovation 41, 1–10.

Penrose, E.T., 1959. The Theory of the Growth of the Firm. Wiley, New York.

Peteraf, M.A., 1993. The cornerstones of competitive advantage: a resource-based view. Strateg. Manag. J. 14 (3), 179–191.

Pisano, G.P., 2016. Towards a Prescriptive Theory of Dynamic Capabilities: Connecting Strategic Choice, Learning, and Competition. Harvard Business School Technology and Operations Management Unit Working Paper, pp. 16–146.

PMI, 2004. A Guide to the Project Management Body of Knowledge (PMBOK Guide). Project Management Institute, Newtown Square, PA.

Pollack, J., Adler, D., 2015. Emergent trends and passing fads in project management research: a scientometric analysis of changes in the field. Int. J. Proj. Manag. 33 (1), 236–248.

Porter, M.E., 1991. Towards a dynamic theory of strategy. Strateg. Manag. J. 12, 95–117.

Raymond, L., Bergeron, F., 2008. Project management information systems: an empirical study of their impact on project managers and project success. Int. J. Proj. Manag. 26 (2), 213–220.

Reed, M.S., Fraser, E.D., Dougill, A.J., 2006. An adaptive learning process for developing and applying sustainability indicators with local communities. Ecol. Econ. 59 (4), 406–418.

Rose, J., Pedersen, K., Hosbond, J.H., Kræmmergaard, P., 2007. Management competences, not tools and techniques: a grounded examination of software project management at WM-data. Inf. Softw. Technol. 49 (6), 605–624.

Rumelt, D.P., 1984. Towards a strategic theory of the firm; alternative theories of the firm. Elgar Ref. Collect. Int. Libr. Crit. Writ. Econ. 2002 (2), 286–300.

Schmidt, H., Take, I., 1997. More Democratic and Better? The Contribution of NGOs to the Democratization of International Politics and the Solution of Global Problems. Working Paper No. 7. World Society Research Group, Technical University Darmstadt Johann Wolfgang Goethe University, Frankfurt.

Seawright, J., Gerring, J., 2008. Case selection techniques in case study research: a menu of qualitative and quantitative options. Polit. Res. Q. 61 (2), 294–308.

Shleifer, A., 2009. Peter Bauer and the failure of foreign aid. Cato J. 29, 379.

Silverman, D., 2000. Doing Qualitative Research: A Practical Handbook. Sage Publications, London.

Skocpol, T., Somers, M., 1980. The uses of comparative history in macrosocial inquiry. Comp. Stud. Soc. Hist. 22 (02), 174–197.

Sowa, J.E., Selde, S.C., Sandfort, J.R., 2004. No longer unmeasurable? A multidimensional integrated model of nonprofit organisational effectiveness. Nonprofit Volunt. Sect. Q. 33 (4), 711–728.

Spelta, A.G., Albertin, A.L., 2012. Project Management offices in the IT area: a context-discriminant model for their establishment. Inf. Syst. Manag. 29 (1), 40–54.

Stake, R.E., 1995. The Art of Case Study Research. Sage, Thousand Oaks, CA.

Strichman, N., Bickel, W.E., Marshood, F., 2008. Adaptive capacity in Israeli social change nonprofits. Nonprofit Volunt. Sect. Q. 37 (2), 224–248.

Struyk, R.J., 2007. Factors in successful program implementation in Russia during the transition: pilot programs as a guide. Public Adm. Dev. 27 (1), 63–83.

Szulanski, G., 1996. Exploring internal stickiness: impediments to the transfer of best practice within the firm. Strateg. Manag. J. 17 (S2), 27–43.

Tansley, C., Newell, S., 2007. A knowledge-based view of agenda-formation in the development of human resource information systems. Manag. Learn. 38 (1), 95–119.

Thiry, M., Deguire, M., 2007. Recent developments in project-based organisations. Int. J. Proj. Manag. 25 (7), 649–658.

Thorn, M.E., 2003. Bridge over troubled water: implementation of a program management office. SAM Adv. Manag. J. 68 (4), 48–59.

Tozier de la Poterie, A.S., 2011. Empowering Development? Assessing the Impact of NGO–NGO–Community Partnerships on Capacity Development

Turner, R., 2016. Gower Handbook of Project Management. UNDP, Routledge.

UNDP, 1998. Capacity Assessment and Development. Technical Advisory Paper No. 3. Management Development and Governance Division, Bureau for Development Policy. United Nations Development Programme, New York (Available from: http://magnet.undp.org/Docs/cap/CAPTECH3.htm [Accessed 10 August 2012]).

UNDP, 2014. Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. United Nations Development Programme, New York (Available from: http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf Accessed 10 January 2015).

Vallejo, B., Wehn, U., 2016. Capacity development evaluation: the challenge of the results agenda and measuring return on investment in the global south. World Dev. 79, 1–13.

Verma, V.K., 1995. Organizing Projects for Success: The Human Aspects of Project Management. Project Management Institute, Upper Darby, PA.

Virtanen, I., 2013. In search for a theoretically firmer epistemological foundation for the relationship between tacit and explicit knowledge. Electron. J. Knowl. Manag. 11 (2), 118–126.

Von Wangenheim, C.G., da Silva, D.A., Buglione, L., Scheidt, R., Prikladnicki, R., 2010. Best practice fusion of CMMI-DEV v1. 2 (PP, PMC, SAM) and PMBOK 2008. Inf. Softw. Technol. 52 (7), 749–757.

Wachira, E.M., 2008. Organizational Capacity Audit Tool. Global eSchool and Community Initiative (Available from: http://www.gesci.org/assets/files/Knowledge%20Centre/capacity-audit-tool.pdf Accessed 10 September 2012).

Wanigaratne, R., 1997. The State–NGO Relationship in Sri Lanka: Rights, Interests, and Accountability. In: Hulme, D., Edwards, M. (Eds.), NGOs, States and Donors: Too Close for Comfort?Macmillan Press, London, pp. 79–92.

Weerawardena, J., McDonald, R.E., Mort, G.S., 2010. Sustainability of nonprofit organizations: an empirical investigation. J. World Bus. 45 (4), 346–356.

Wellman, J., 2009. Organizational Learning: How Companies and Institutions Manage and Apply Knowledge. Palgrave Macmillan, New York, NY.

Wernerfelt, B., 1984. The resource-based view of the firm. Strateg. Manag. J. 5 (2), 171–180.

White, D., Fortune, J., 2002. Current practice in project management—an empirical study. Int. J. Proj. Manag. 20 (1), 1–11.

Williams, T., 2016. Identifying success factors in construction projects: a case study. Proj. Manag. J. 47 (1), 97–112.

World Bank, 2001. Comprehensive Development Framework, Questions and Answers, Update. World Bank, Washington, DC.

Yalegama, S., Chileshe, N., Ma, T., 2016. Critical success factors for community-driven development projects: a Sri Lankan community perspective. Int. J. Proj. Manag. 34 (4), 643–659.

Yin, R.K., 2009. Case Study Research: Design and Methods. 4th edition. Sage, London.

Youker, R., 2003. The Nature of International Development Projects. Paper Presented at PMI Conference, Baltimore, MD.

Yu, J., Leung, M.Y., 2015. Exploring factors of preparing public engagement for large-scale development projects via a focus group study. Int. J. Proj. Manag. 33 (5), 1124–1135.