## A contemporary twist on capability enhancement: how strategic project management influences capabilities requirements relationship with strategic outcomes.

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Key words

Strategic Project Management, Capabilities, Integration, Sustainability, Capacity

#### Abstract

The enhancing of the firm's capabilities, difficult to imitate, is crucial but there are still sparse research interlinking capabilities requirements (CR), strategic project management (SPM) and strategic outcomes (SO). The aim of this paper is to examine SPM as a key capability enhancing strategic implementation (SI) and the CR-SO relationship, and the distinctive features advantageous for the firm. It builds on theories supporting strategic management (SM), as well as influencing project management (PM) capabilities within the firm. It examines related interactions of stakeholder needs, SPM and context as the firm generates expected value or outcomes. Review of literature, and qualitative research with thematic analysis is involved, as this research includes capabilities and capacity (CAP) issues. Research in SPM as a dynamic capability is still in infancy, needing greater investigation into such processes. Organisation learning theory (OLT) and dynamic capabilities theory (DCT) combined, is utilized to improve understanding of issues, alleviate research gaps and contribute further. Findings are that the sophistication of SPM, is a function of the firm's level of relevant resources, competencies and CAP. These influence the propensity for learning (LNG) and the characteristics and context that impact required SI and SO realized through SPM. This also depends on levels of responsiveness and flexibility helping the firm to advantageously transform. This paper contributes an integrative model of CR, resources and CAP supported by SPM, a novel way to alleviate the still scant research in these areas. Promotion of enhanced involvement of key capabilities in management and projects with dynamic interactions, facilitates further development of research and practice. SPM to enhance capabilities, still relatively underexplored, motivates the researcher, to seek to fill these gaps, and heeding requirements, benefit underexplored areas and inform future research.

## 1 Introduction

The enhancing of capabilities in an organization, is crucial to it advantageously competing. Capabilities or collective skills, abilities and expertise, can result from investing in areas such as management of projects and resources (Morris and Jamieson, 2004; Aydin and Ceylan, 2009; Sullivan and Beach, 2009). In this way the firm can garner unique strength (Hamel and Prahalad, 1994), to sustain performance of activities, utilizing key resources to attain strategic targets (Morris and Jamieson, 2004; Sullivan and Beach, 2009), and alleviate constraints. The firm is strategically differentiated through core capabilities (Leonard-Barton, 1992), increases integration by dynamic capabilities (Teece et al, 1997), and uses organizing processes and principles to deploy resources to achieve objectives by competitive capabilities (Grant, 2002). These capabilities including strategic project management (SPM), can enhance abilities to innovate and respond to needs of customers, stakeholders and markets (Teece et al, 1997; Grant, 2002), adding value. Yet there is sparse research interlinking capabilities requirements (CR), SPM and strategic outcomes (SO).

As capabilities in technical and social areas are difficult to measure and imitate, competitors can find it challenging to imitate them (Smallwood and Ulrich, 2004). As firms and industries seek to improve these linked to resources and CAP (Friedman et al, 2003; Teece, 2010), customer and market confidence is built, and the firm can benefit from the agility and flexible adaptation to requirements. As a dynamic capability, SPM (Pennypacker and Ritchie, 2005), includes processes (PMI, 2008a) that involve successful alignment of projects with business strategy (Shenhar et al, 2007). It expands traditional project

management (PM) mindset. SPM improves capabilities (Nonaka, 1994; Aydin and Ceylan, 2009), being used to implement initiatives (Patanakul and Shenhar, 2011), create value, support innovation (IVN) (Lenfle, 2008), proactive strategic change and competitiveness. SPM processes and practices (Shenhar et al, 2007; Grundy, 2000), generate effective interlinkages, excellent practices and SO (Heerkens, 2007). However, studies on SPM enhancing capabilities and outcomes for projects and firms in dynamic context are still few. This paper examines SPM processes, circumstances and actions that influence factors interconnected with enhancing the organisation's capability requirements (CR) relationship with outcomes (SO), as well contributing features and actions to sustain the related advantages. It incorporates analytical elements of strategy and business (Teece, 2010), required to shield the firm's competitiveness. Organisation learning theory (OLT) perspective is deemed appropriate to investigating phenomena surrounding strategy, requirements and related capabilities and outcomes. OLT (Nonaka, 1994; Aydin and Ceylan, 2009; Lenfle, 2008), supports firms effectively renewing strategy and retainining advantages (Eisenhardt and Martin, 2000). This paper combines OLT with dynamic capabilities theory (DCT) (Zollo and Winter, 2002), better explaining how requirements, capabilities, strategy and projects contribute to effective strategic management (SM) and SO in dynamic markets (Turner and Muller, 2003; Artto et al, 2004; Easterby-Smith and Prieto, 2008). DCT incorporates firms' abilities to adequately adjust for opportunities to be exploited and threats prevented so as to gain advantages while learning (LNG), flexibility beneficial to modification and sustainability (Teece et al, 1997; Zollo and Winter, 2002). Qualitative research and analysis support the exploration of elements related to CR relationship with SO mediated by SPM. This enables alleviation of the research gap whereby there is sparse research considering practical concerns surrounding CR, SPM, context and outcomes (Helfat and Peteraf, 2009).

Theories relating mainly to the areas of SM, capabilities, SPM, LNG and SO, are reviewed, incorporating business environment context (BEC) or situational elements moderating, and the literature allows the revealing of major research gaps. Firstly, there needs to be examined strategic CR of firms which can be reinforced by more flexibly enhancing SPM. Secondly, there is need for more research in areas aligning business strategy and PM, incorporating SPM beneficial to realization of advantages in dynamic contexts, and this gap needs to be alleviated. Thirdly, although firms can benefit significantly from effective application of SPM in their systems, research interlinking CR, SPM and SOs, is still sparse, and moreover practical concerns surrounding these elements interlinked with capacity (CAP) and context factors are underexplored. Fourthly, there are still few studies on SPM enhancing capabilities and SO for projects and firms, heeding moderating elements of CAP and BEC in underexplored contexts such as emerging economies (EEs) including developing countries. The literature and gaps revealed, allow the specification of the main research question to be answered: 'How can the relationship of capabilities requirements with strategic outcomes be effectively enhanced by strategic project management?'. Three subquestions are therefore focussed on in this paper to better interlink and enhance CR and context elements influencing outcomes:

- (1) What are capabilities fundamental to firms' SM and outcomes realization?
- (2) How and when are capabilities of firms effectively utilized to realize required SO?
- (3) Where and by who can capabilities be enhanced to develop firms in dynamic context?

To assist creation of the new model (Johnson et al, 2008), the researcher engaged review of literature and analysis of data, enabling refinement of Figure 1, new conceptual model of Enhanced Capabilities through SPM – Features and Developments. Figure 1 model and propositions incorporate strategic implementation (SI) and quality factors, and theoretical perspective of OLT (Friedman et al, 2003) is incorporated, found relevant from theory and practice to inform implications and solutions specific and novel. Findings are that firms can better consider both theoretical and practical concerns surrounding capabilities, SPM, BEC and SO (Helfat and Peteraf, 2009).

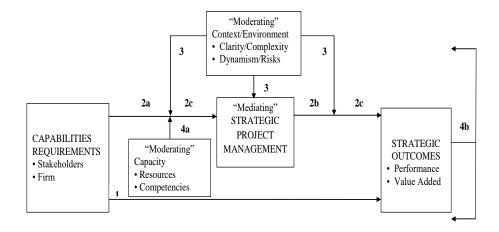


Figure 1: Model of Enhanced Capabilities through Strategic Project Management – Features and Developments

Improvement of strategic CR of firms, can be reinforced by more flexibly enhancing SPM, for sophisticated processes to support continuous adaptation and competitiveness (Killen and Hunt, 2010). This can be pursued by SI with projects using resources and superior approaches that support IVN, LNG, development, context adjustment and performance (Singh et al, 2013; Daniel et al, 2014). The benefits are expected to translate more effectively to contributions in SO (Shenhar, 2004; Tharp, 2007; DeReyes, 2008). This paper has four sections. After introduction, the next section involves Methodology, followed in Section 3 with Theoretical and Conceptual Framework, section 4 Analysis and Discussion, followed in Section 5 by Conclusion incorporating implications and directions for further research

## 2 Methodology

The established but weak link between CR and SO (Pfeffer and Sutton, 2006), present challenges in studying such phenomena, but research guidelines (Creswell, 2007), sustain qualitative research (Eisenhardt, 1989b; Lukka, 2003). Thematic analysis supports valid data and results contributing to the refinement of theory and practice. By systematically reviewing literature (Gaur and Kumar, 2018), theories, practices and experiences relating to the areas of CR, SPM, SO and LNG and heeding BEC elements moderating processes, better integration is pursued. Utilizing academic journals allows the researcher to be informed of advances in practice, while maintaining academic rigor (Hällgren 2012). Documents databases are used for analysis specific to firms selected purposefully (Babbie, 2010), qualitative data analysis (Miles et al, 2013) incorporating data from discussions with specialists. However unwieldy research is avoided, keeping findings pertinent (Boddy, 2016). Pilot study informed the questionnaire adapted from Achtenhagen et al (2013), developed to strengthen the link between critical capabilities, strategic activities creating value, and related changes/SO. This also provided input to qualitative design using open and closed-ended questions interviewing executives, middle and supervisory management from four well-established firms of different sectors and industries. Chosen as the study context, Barbados is among EEs (Peng, 2003), highly vulnerable (IADB, 2008) to complex, dynamic BEC and requirements of institutions and stakeholders, and can benefit from enhancing capabilities and SO for firms with varying level of SPM maturity. Results for different sectors are highlighted. Research propositions developed complement Figure 1 model, advance theory and inform practice. The contributions linked to the research aim, questions and outcomes, are focussed on assisting improvement of CR, SO, LNG and elements of BEC impacting these. The literature reviewed suggests combining DCT (Zollo and Winter, 2002) and OLT (Argote and Miron-Spektor, 2011), viewpoints engaged focusing on improving LNG/capabilities, and allow critical examination of CR, SI and SPM for flexible

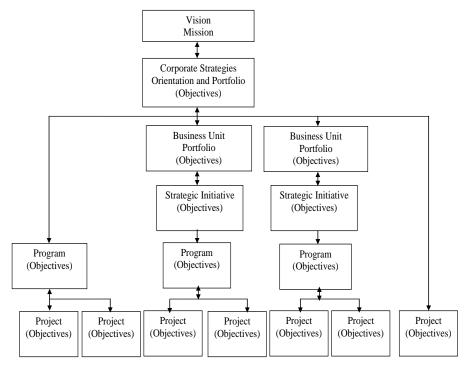
attainment of SO, and contribution to enhanced theory and practice. Constraints impacting this research are mainly of time and financial, efforts made for processes to be consistent and valid. Future investigations can use quantitative method or mixed method and can investigate and compare differing firms (Dimitratos and Jones, 2005; Saunders et al, 2009). The frameworks are further explicated in the next section.

#### 3 Theoretical and Conceptual Framework and Discussion of Results

This section incorporates the literature and findings on CR, SPM, SO interrelationships. Figure 1 Model, depicts the flow of connections and interconnections between elements comprising the features and developments requirements, determining SO. It also illustrates the influences of SPM capabilities, incorporating the foundational elements and propositions. The model includes SI and quality factors, as well as LNG effects - both single- and double-loop (Nonaka, 1994; Argyris and Schon, 1996; Friedman, Lipshitz and Overmeer, 2003), so firms can solve specific problems on basis of premises existing, and through establishing new premises, beliefs and mental models. As interaction supports feedback and corrective action for avoidance of great mismatch, there is further exploration of expected characteristics, stimuli, approaches, abilities, and effects linking CR to SO, heeding mediator and moderators impacts.

### 3.1 Capabilities Requirements (CR) and Strategic Outcomes (SO)

The firm's CR can be integrated with SM, considering process, creation, practices, products and SM involves strategic initiatives undertaken utilising resources and BEC (de Wit and Meyer, 2004). capabilities required to improve SO (Nag et al, 2007; El-Mehalawi, 2012). The direct relationship between CR and SO, is supported by strategy to assure consistentcy with mission and goal (Mintzberg, 2007). As changes constantly occur, the firm needs viable capabilities to sustain analysis, opportunities, performance and SO (Johnson et al, 2007; Langley, 2007). CR impacts key strategic decisions about the firm and its resources prioritisation (Pfeffer and Sutton, 2006), as strategy is planned or emerges over time (Mintzberg, 2007; de Wit and Meyer, 2005). The deliberate intentions and emergent LNG (Audretsch et al, 2005), are also key factors in requirements to detect patterns and assist their shaping (Mintzberg, 2007). Nevertheless, it can still be found that on average, 95% of employees are unaware of or fail to comprehend the strategy (Kaplan and Norton, 2005), despite it being crucial for them to understand what they are required to do (Pfeffer and Sutton, 2006). In Figure 1, Model of Enhanced Capabilities through SPM (Section 1). CR of both stakeholders and the firm are considered as these directly impact the expected SOs, affect the factors and system of SPM, and the associated activities in SI aimed at securing sustainable performance. CR of stakeholders can influence standards, processes, quality and other interconnection (Lovas and Ghoshal, 2000; Tidd and Bessant, 2009). Moreover, firms' CR impact goals at all levels, key performance indicators (KPIs), critical success factors (CSFs) (Muller and Jugdev, 2012), arrangements for SPM and SI means to attain SO. As it is difficult to study, the weak link established between CR and SO, indicates necessity to better explore relationships (Pfeffer and Sutton, 2006). Effective strategy entails organizational LNG processes (Argyris and Schon, 1996; Mintzberg et al, 2005), and incorporating such capabilities impacting planning and performance is highly relevant. Pennypacker and Ritchie (2005) suggest an approach where management of initiatives, portfolios, programmes or projects be integrated. Figure 2 highlights such hierarchy of interconnected objectives in SPM crucial for successful SOs.



Adapted from Pennypacker and Ritchie (2005)

Figure 2: Hierarchy of Objectives in Strategic Project Management

This paper examines SPM processes, circumstances and actions that influence factors interconnected with enhancing the organisation's CR relationship with SO. Firms that combine SM with SPM can better link project results to business goals (El-Mehalawi, 2012). As strategic activities can better help capabilities to emerge (Smallwood and Ulrich, 2004), it is necessary to blend what works with focus on the importance of interactions, and use of knowledge and LNG, for enhanced capabilities, performance and added value. Heeding dynamic context factors in their pursuit of strategies, firms can significantly influence capabilities required or strategic drivers, to attain excellence and added value while meeting industry standards (Porter, 1985; Miles and Snow, 2003; Thomas and Mullaly, 2008). However, Table 1 highlights that there is still a need to alleviate the gap whereby more research is needed in areas aligning SPM with SR beneficial to enhancing SR-SO relationships conducive to realising sustainable advantages. It is challenging for competitors to imitate a firm's capabilities (Smallwood and Ulrich, 2004), and where these are enhanced as required, signalling sustainable earnings, customer and market confidence built can reinforce the benefits. Such SPM for flexibility and agility can improve levels of capabilities heeding CAP (Prahalal and Hamel, 1990; Friedman et al, 2003; Teece, 2010). This supports the first proposition:

Proposition 1: The firm's CR, considering both stakeholders and the firm, positively impacts SO including performance and added value.

## 3.2 Capabilities Requirements (CR) and Strategic Project Management (SPM)

SPM affects and gets affected by SM, and studies reveal that CR and SPM are interlinked (Srivannaboon 2006; Srivannaboon and Milosevic, 2006), crucial for the selection and management of strategic projects and the firm's SI to attain objectives and competitive advantage (El-Mehalawi, 2012). This consideration in Figure 1, Model of Enhanced Capabilities through SPM (Section 1), suggesting that firms map their strategy and better balance related elements (Kaplan and Norton, 2000; 2004; 2005), linking these more closely to CR of stakeholders, in order to be more responsive to their positions, power and interests (Eden and Ackerman, 1998). Figure 1 is complemented by Figure 4, revealing how firms can and do match stakeholders' power and level of interests to existing and required capabilities, to keep them best monitored, informed, satisfied and managed. SPM as a means for implementing strategic initiatives, can enhance CR-SO relationships, improving maturity levels (Ibbs and Kwak, 2000; Cooke-

Davies, 2002), beneficial to SI and realisation of SO. Traditional PM mindset is expanded by SPM as it involves successfully aligning project efforts with business strategy (Shenhar et al, 2007; Patanakul and Shenhar, 2011). It's contribution to capabilities new and improved include LNG as the activities create value (Nonaka, 1994; Aydin and Ceylan, 2009), enabling more proactive management and competitiveness.

	Research	Factors Influencing	Need or Gap
Brix, 2017; Haeussker et al, 2012.	Benefits from firms developing innovative product or technology	Improving capabilities	To better integrate PM capabilities
Teece, 2010; 2009; 2007	Dynamic capabilities	Uniqueness of capabilities	SPM as required dynamic capability
Kiridena et al, 2009	SI and progression of phases	Context – internal and external	Elements of capabilities requirements (CR)
Blichfeldt and Eskerod, 2008	Competencies and capacity (CAP) through project portfolio management (PPM)	Constraints experienced regarding resources	How strategic and project management benefits coordination, and more effective configurations
Saunders et al, 2008	Strategic Implementation (SI) and Projects	Processes and practices connected to SI and PM	Improving integration of elements in CR, SPM and SO
Wooldridge et al, 2008	Management roles interface	Roles, interactions and impacts	PM capabilities and outcomes
Liebold et al, 2007	Strategic management (SM)	Human capital, knowledge, learning	SPM and related outcomes
Tharp, 2007	Strategic outcomes (SO)	How benefits are realized	SPM to further contribute to SO
Winters et al, 2006	Integrating PM theory, practice	Knowledge, competencies, learning	Orientation, S. Renewal
Minarro-Viseras et al, 2005	SI, PM and related practices	Competencies of Management	SPM focus
Chakravarthy et al, 2003	Learning through projects	Ideas, competencies, performance	Focus on SPM
Crossan and Berdrow, 2003	Capabilities, linkages	Levels in the firm	Levels of strategy and SPM linkages
Cooke-Davies, 2002	Maturity in systems of projects and firms	Interlinkages of strategic objectives and competencies	SPM facilitating improvement in capabilities and integration
Shenhar et al, 2001	Project elements affect success	People, knowledge, learning	Orientation – strategy, project
Volberder et al, 2001	Improving capabilities and strategy	Requirements of firms and market	Balance requirements and responsiveness
Floyd and Lane, 2000	Alleviating conflicts and hindrances	Improving effectiveness of competencies	to focus more on inter-linkages of objectives, processes and SPM
Zahra et al, 1999	Goals, SI and SO interrelationships	Strategic change, competencies	Improving PM and SPM capabilities
Burgelman, 1991	Managerial Roles and related SO	Roles and activities of management	Enhancing capabilities in SPM

Table1: Some Research on Strategic Management (SM) integrating Strategic Project Management (SPM) and Strategic Outcomes (SO)

While improving capabilities and exploiting value (Shenhar et al, 2007; Grundy, 2000; Pennypacker and Ritchie, 2005; Killen and Hunt, 2010), SPM processes generate actions, interactions and linkages to effectively sustain excellence (Heerkens, 2007). SPM supports the firm's use of capabilities that form its unique strength (Leonard-Barton, 1992; Hamel and Prahalad, 1994; Teece et al, 1997; Grant, 2002), so that it can manage activities and resources, to achieve targeted SO (Morris and Jamieson, 2004; Sullivan and Beach, 2009).

Projects support SI, and with effective PM, allow the firm to enhance innovativeness, responsiveness to change and competitiveness (Dietrich and Lehtonen, 2005). The firm can utilize new technology and recombine existing capabilities. The IVN (Lenfle, 2008) is supported by SPM capabilities that assist the combining of explicit and tacit knowledge (Jugdev et al, 2007). SPM applied as a core mechanism designed to inhibit imitation by competitors and 'disintermediation by other stakeholders' (Teece, 2010), can enhance LNG, decisions and adjustment mechanisms, including refinement of offerings. By seeking to better influence or adapt to CR and aspects of their context, enhancing capabilities, firms can improve elements of transparency and accountability (Friedman et al, 2003). They can advance CR boundaries as they interact with internal and external systems, reducing challenges or constraints while alleviating hindrances to SI, for successful SO. These elements help sustain SI with which success is strongly correlated (Bossidy et al, 2002; Hrebiniak, 2005). These factors support the below proposition:

Proposition 2a: The positive relationship between CR and SPM can beneficially influence SI, the levels of maturity and flexibility impacted by CAP and BEC.

## 3.3 Strategic Project Management and SO

SPM can enhance the decision-making of the firm (El-Mehalawi, 2012), and as a means for implementing strategic initiatives, can enable the realization of SO. It informs better management and control (Mintzberg, 2007), and facilitates improvement during SI. SPM can enhance flexibility and help avoid poor SI or rejection of strategy (Pfeffer and Sutton, 2006). It can help improve scrutiny using a wide range of relevant views (Argyris and Schon, 1996), increase commitment and agility and maintain tactical knowledge (Nonaka, 1994). These elements are to support current states and future vision, especially where in conjunction with the firm's structure they sustain mobilisation and conversion of knowledge to enhance LNG and other capabilities (Shenhar and Divir, 2007; Jenkin, 2013). SPM therefore positively influences SO (Economist Intelligence Unit, 2009), Figure 3 from this study data analysis reveals how firms can improve capabilities by matching requirements and targets so as to better attain SO. However, the SI processes can heed the need to better identify and rank key stakeholders, ascertaining power levels, interests, issues, requirements and what is to be done to satisfy them (Eden and Ackermann, 1998; Ackermann and Eden, 2011), as highlighted in Figure 4 with interdependencies, timely LNG, IVN and collaboration (Smallwood and Ulrich, 2004).

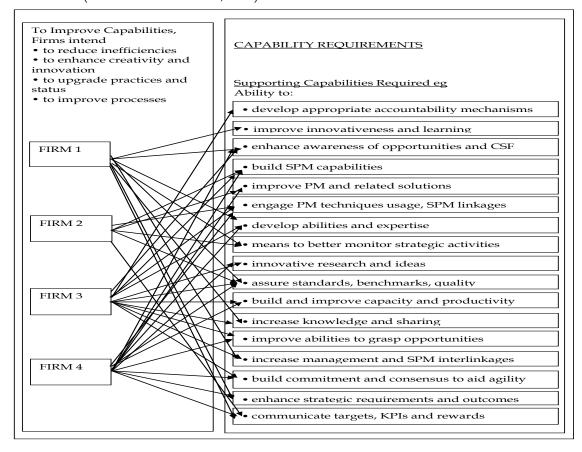
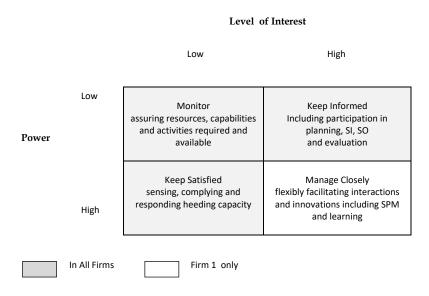


Figure 3: Improving Capabilities: Matching Targets and Requirements, to enhance SO



Sources: Adapted from Ackerman and Eden (2011); Data Analysis Current Study

Figure 4: Roles/Responses related to Stakeholders' Interests, Requirements or Power

Firms can engage insight and creativity within a complex and dynamic BEC (Csiszar, 2008), still meeting CR for customers and other stakeholders (Teece, 2010), increasing agility but heeding CAP in capturing and delivering value. The positive relationship between SPM and SO (Ibbs and Kwak, 2000; Cooke-Davies, 2002) also involves elements of benefits realization management (Tharp, 2007). SPM supports SI to result in the realisation of SO (Srivannaboon, 2006). From Figure 3 results, Firm 1, in Financial Services sector, strives to maintain its reputation as a leading innovator and seeks to increase the capabilities of all its stakeholders, heeding CSFs, quality assurance and the need to improve PM maturity and interlinkages. Firm 4, from Tourism sector can, in comparison, enhance CAP and productivity more. While both Firm 2 and Firm 3, focus on engaging PM techniques as they develop expertise, the third firm in contrast can concentrate even more on improving CAP and productivity. SPM helps integrate and enhance project and business practices, including related sophistication and maturity levels, it can enable all the firm to better focus on results, to effectively improve contributions to SO (Shenhar et al, 2001; Shenhar, 2004; Tharp, 2007; DeReyes, 2008). Thus, the below proposition:

Proposition 2b: The effect of SPM capabilities can positively impact SO, influencing practices, performance and competitiveness, especially in complex or dynamic context.

#### 3.3 Mediating Role of SPM in the relationship of CR with SO

This paper contributes to enhancing the relevance of the relationship between CR and SPM (Srivannaboon 2006; Srivannaboon and Milosevic, 2006), as well as that of SPM with SO (Shenhar and Divir, 2007; Economist Intelligence Unit, 2009), as it improves understanding of SPM influences in the CR-SO relationship. These considerations form the major focus for Figure 1 Model. Through their SPM dynamic capabilities, firms can effectively enhance SM (Teece et al, 1997; Prieto and Easterby-Smith, 2006), adjustments to allow better advantages as they flexibly learn and translate knowledge beneficial to processes and SO modification (Zollo and Winter, 2002; Friedman et al, 2003). Incorporating SPM in systems (Pennypacker and Ritchie, 2005), strategic activities can be successfully aligned with strategy (Shenhar et al, 2007). By so improving firms' capabilities (Nonaka, 1994; Grundy, 2000; Shenhar et al, 2007; Aydin and Ceylan, 2009), including practices implementing projects (Patanakul and Shenhar, 2011), there can be better support of IVN and value creation (Lenfle, 2008), effective interlinkages and excellent outcomes (Heerkens, 2007). Literature still indicates few studies and limited practices concerning SPM enhancing CR and SO for firms. This research study conducted and analysed (Tables 2 and 3), reveals exemplary practices supporting theory, and that firms can increase maturity levels for PM, better enabling SPM to sustain SO in dynamic BEC. When a firm not only has a formal and structured approach to its SM,

but reaches significant maturity embracing project governance and PM as strategic enablers, and pursues more structural advancement (Ibbs and Kwak, 2003; Teece, 2007; 2009; 2010; Mullaly and Thomas, 2010), it best benefits through SPM optimised.

Literature	Gaps	Findings of Current	Study	
Mir and	• Value of	ROLES in <u>SI</u>	Capabilities	SI_Capabilities and
Pinnington, 2014	project management		Conduct, Capacities	Practices to enhance
Zahra et al, 2006	capabilities  • Function of dynamic	■Vice President ■○◆CFO ●CEO ●Accountant●Sponsor □Project Officer	■Recognize requirements for change     ●Channel/Network     ◆○□PMOffice	●Producing new ideas and investments ▶ Improve dynamic capabilities
Zollo and Winter, 2002	capabilities in all context types •Impact of context change on	●Seek opportunities to satisfy stakeholders ■□ Create knowledge systems/mechanisms ■●□Develop KPIs to support high caliber	<ul> <li>Establish single or combined requirements</li> <li>Lead exchanges strategic and other</li> <li>Monitor internal and external factors</li> <li>Maintain market lead</li> </ul>	➤ Manage learning, ➤ SM proficiency • Resources planning and management • Improve Board oversight • Better linkage of
Montealegre, 2002 Rindova and Kotha, 2001	capabilities •Enhancing responses •How capabilities emerge and	targets  • Keep oversight of choices and rewards  • Ratify plans and authorize resources deployment  • Develop systems	<ul> <li>Strategic Planning</li> <li>Ensure commitment</li> <li>Mobilize assets</li> <li>Produce returns</li> <li>Safeguard and meet stringent requirements</li> </ul>	strategy to projects •Closer monitoring of SO •Enhanceand manage human and other resources
Í	develop	■Ast. Vice President	●Estimate and deploy	Learning and adaptive
Capron et al, 1998 Dougherty, 1992 Gulati, 1999 Mische, 2000	<ul> <li>What transforms capabilities</li> <li>Benefits from networking</li> <li>Designing for collaboration, adaptability</li> </ul>	□ Project Coordinator Engineer, Q.Surveyor ○□ Steering Committee • Champion strategic plan and initiatives • Manage projects • Define and modify configurations in SI	resources  • Team leading, building and outsourcing  • Plan and Implement projects  • Enable integration  • Synthesize Information  • Evaluate progress, dynamic context and evolving capabilities	stance  • Alternatives to complement prioritization and interactions, communication all levels  ▶ Blend proactive with adaptive  ▶ Sharing ▶ Dexterity
		<ul> <li>Risk Manager</li> <li>Project Manager</li> <li>Supervisors</li> <li>Uphold relationships</li> <li>Assure requirements Configuration and activities management</li> <li>Motivate</li> <li>Adjust plans</li> </ul>	<ul> <li>Redeploy assets</li> <li>Monitor SI and adjust</li> <li>Prepare reports on position</li> <li>Assure conformance</li> <li>Review firm's characteristics and resources coordination</li> <li>Re-engineering</li> <li>Scheduling/Budgeting</li> </ul>	Enhance capabilities, knowledge and linkages  ► Improve responsiveness  ► Hone skills, setting and maintaining KPIs and CSFs.  ► Assure operational excellence

Sources: Adapted from Floyd and Lane (2000); Analysis of Data from Firms 1,2,3,4.

Key:

Firm 1 only

Firm 2 only

Firm 3 only

Firm 4 only

All Firms

Table 2: Capabilities of Managers in SI to enhance SO

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Theme	Literature	Research Gaps	Results, Impact and Action Areas	Contribution
Strategic Implementation (SI)	Tidd & Bessant, 2009 Lovas & Ghoshal, 2000 Zahra et al, 1999 Lorenzoni & Baden- Fuller, 1995	More research needed guiding strategy and attainments through SPM	●The firm to select an appropriate strategic stance based on mission and vision with SI at requirement of stakeholders, and purpose, goal, SM better shared ●Strategy and challenges to be more effectively aligned and targeted through projects ●Strict guidelines maintained to avoid hindrances	• interactions are explored to to improve the viability of related coordination and configurations
Strategic Project Management (SPM), Capabilities and Added Value	Fielder, 2010 Heerkens, 2007 Morris and Jamieson, 2004, 2005 Teece et al, 1997	CR and SI enablers and hindrances	●Firms have similarities in value but differ in capabilities and experiences ●Requirements of stakeholders strongly influence ●All levels of strategy have inherent, associated risks, standards and finance ●Efficiency is impacted by factors social and economic affecting projects' targets and timeframes	• Interactions highlighted in Figure 1 and interconnections in SI to promote more interlinkages of CR, SPM and SO
Strategic Outcomes (SO)	Wooldridge et al, 2008 Volberda et al, 2001	Additional research needed on means, requirements and innovativeness enhancing SO	Performance/results/ROI can be enhanced by innovation capabilities and competitiveness     Added value is critical accountabilities	Processes/practices enhanced through integration balancing more proactive and adaptive ways to sustain SO
Capabilities Requirements (CR) for Development	Teece et al, 1990	Strategic goals required, SPM and SO to better interlink levels in strategy and projects	■Improving integration for better management of strategy and projects Capacity and capabilities to be proactively assessed and SPM to enhance analysis, plans, SI and evaluation incorporating resources  ■Capability to constantly monitor and manage risks and capacity of consultants/engineers as required	• Illustration of frontiers of integration of SI factors including SPM combining OLT and DCT for resulting added value
Perspectives Organisation Learning (OLT) and Dynamic Capabilities (DCT)	Crossan et al, 1999 Teece et al, 1997	•to improve capabilities, generation of new ideas/learning in rojects/management to enhance SO	●Innovation techniques/firms enhance interaction ●Resources constraints not to be at great sacrifice of learning/developing ●Sharing processes/services to benefit SI by projects. ●Better balance needed in developing capabilities	Greater balance of new and improved SPM with OLT and DCT integrated for enhanced outcomes

Sources: Data Analysis - Firms 1, 2, 3, 4

#### Table 3: Summary of Results

SPM value can be best appreciated when it facilitates integration of strategy, PM, and internal and external BEC (Thomas and Mullaly, 2008). The relationship between SPM and the firm's CR, is also expressed by researchers in terms such as benefits realization management and the aligning of PM with the firm's strategy (Srivannaboon, 2006; Tharp, 2007; Crawford, 2011), to significantly enhance attainment of SO. This research helps alleviate the gap whereby strategic capabilities required of firms needs to be reinforced, the firms to respond by more flexibly engaging SPM. Firms can employ this superior approach supporting IVN and SO as they continuously adapt and compete, pursuing development, context adjustment and performance (Singh et al, 2013; Daniel et al, 2014).

Proposition 2c: Firms in dynamic context, benefit from improving SPM, which allows refinement of levels of knowledge, sharing, maturity and flexibility that can enhance the relationship of capabilities requirements with strategic outcomes.

# 3.4 Elements Moderating Influence of SPM in Relationship between CR and SO

#### 3.4.1 Moderating Impact of Business Environment Context (BEC)

Researchers reveal a two-way relationship and other related findings interconnecting strategy and PM (Artto and Dietrich, 2004; Srivannaboon and Milosevic, 2006; Crawford, 2011). However, there is still sparse research considering critical practical elements of CR, SPM, BEC and SO relationships (Helfat and Peteraf, 2009), although factors of BEC impact goals, possibilities stakeholders, capabilities, and performance. SPM enables more effective SM in systems through multiple projects (Artto and Dietrich, 2004; Blitchfeldt and Eskerod, 2008), that maintain interactions and desirable SO. By incorporating LNG and analytical elements (Zollo and Winter, 2002; Teece, 2010), SPM dynamic capability can support means to shield the firm from extreme competitiveness, while it continuously improves (Nonaka, 1994; Aydin

and Ceylan, 2009). It can also enhance maturity levels of PM and the firm, sustaining best practices (Davies and Brady, 2000; Mullaly and Thomas, 2010; Crawford, 2011). Its effectiveness is impacted by context factors (Besner and Hobbs, 2008), although it encourages exploiting of opportunities (Teece et al, 1997), managing risks or reducing threats (El-Mehalawi, 2012, to better realize objectives and SO. With SPM dynamic capabilities supporting exploration (Lenfle, 2008), the firm can also engage in greater IVN and NWG, better pursuing and attaining advantages (Eisenhardt and Martin, 2000; Pritchard, 2010; Hulett, 2011; El-Mehalawi, 2012). These elements better contribute to SM and SO in dynamic markets (Eisenhardt, 1989a; Turner and Muller, 2003; Artto et al, 2004; Easterby-Smith and Prieto, 2008), and lead to the below proposition.

Proposition 3: The BEC and characteristics incorporating level of dynamism, complexity and risks, as well as clarity of information and interactions, impact the effectiveness of SPM in enhancing the CR-SO relationship.

	Capabilities					
TP: 1		INDIVIDUAL	STRATEGIC PROJECT MANAGEMENT (SPM)	ORGANISATIONAL		
Abilities and Capacity	Social and Networking	1 Functional competencies  • specialist areas expertise • acquiring, building, accessing • assessing/evaluating,	3 Managerial competencies  • create/improve/audit value • collaborate/sharing/consensus • responsiveness and flexibility	5 Core competencies  • culture and underlying milieu • degree of innovation and agility • grasping opportunities with		
		retaining commitment and continuous improvement for goal attainment	improving levels of maturity, related strategy and achievement	alertness and accountability to enhance connectivity and results		
Abil	Resource and Technical	2 Leadership abilities  • setting direction • communicate vision/mission • motivating to goal attainment and monitoring activities for ROI.	4 Project Management capabilities  • risk management  • standards and benchmarking  • supporting core processes and knowledge areas for planning, performance assessment and	Firm capabilities in industry/context  • managing risks • recognising opportunities • creativity and productivity to reduce inefficiencies, enhance		
Lower			review.	effectiveness.		

Sources: Adapted from Crossan et al (1999); Smallwood and Ulrich (2004); Jenkin (2013); Data Analysis Current Study.

Table 4: Analytical comparison of capabilities individual, SPM and organisational, with view to improvement and integration

## 3.4.2 Capacity (CAP) as a Moderating Element

There is need for more research in areas aligning strategy and PM (Srivannaboon, 2006), and more specifically, research interlinking CR, SPM and SO, is still sparse (El-Mehalawi, 2012). Enhancing capabilities (Jenkin, 2013), is engendered from resource, technical and social elements. Heeding CAP and the need to upgrade resources and competencies, firms can invest in SPM, enhance maturity levels (Easterby-Smith and Prieto, 2008; Aydin and Ceylan, 2009; Gardiner, 2014), improve abilities to innovate, and better respond to requirements of stakeholders and markets (Teece et al, 1997; Grant, 2002; Sullivan and Beach, 2009). Networking across groups (Mukherjee et al, 2012) can also boost maturity levels for SPM. Better linking SO to strategic goals also improves strategic competencies and competitiveness (El-Mehalawi, 2012). SPM capabilities can be better developed in certain sectors (Cooke-Davies and Arzymanow, 2003), depending on BEC elements such as management of contracts, efficiencies, and benefits realisation. Firms in dynamic markets where IVNs, penetration and growth are crucial (D'Aveni,

2002), can also benefit more from effective application of SPM (Daniel et al, 2014), to enable more successful IVN.

Table 4 reveals individual, SPM, and organisational factors also revealed from the data analysis to enhance capabilities in projects, firms and sectors in Financial Services, Construction and Tourism. The level of CAP incorporating critical abilities, can influence the level and degree of these capabilities. Such CAP to engage and share both resources and competencies, impact maturity levels (Ibbs and Kwak, 2000). Such maturity impacts the degree of interactions as SPM is effectively employed (El-Mehalawi, 2012), to enhance analysis in systems needing delivery on combined factors resources and capabilities. The associated NWG and IVN can translate to results and added value, as well as enhancing levels of LNG in firms and projects (Jenkin, 2013). With strategy and projects aligned (Jamieson and Morris, 2004; PMI, 2008a; 2008b), through SPM, there can be better integration with other capabilities (Eltigani et al, 2011), procedures, practices and SO. Analysing and reviewing CAP or boundaries (Turner and Simister, 2000), is crucial for improving levels of flexibility and competitive advantages (Singh et al, 2013). These elements support the below propositions:

Proposition 4a: External interactions and partnerships crucial to the enhancement of CAP, can positively impact the availability and effectiveness of resources and competencies, moderating CR-SPM-SO relationships, so greater consideration can be given to these.

Proposition 4b: The impact of CAP levels incorporating resources and competencies, can have a moderating effect on CR-SPM-SO relationships, so greater consideration can be given to these influencing analysis and responses.

Su	Summary of CR-SPM-SO Relationships, Resources and Results					
	(1) What capabilities are fundamental to firms' strategic management and performance outcomes?	(2) How and When are SPM capabilities of firms effectively utilized to realize required outcomes?	(3) Where, By Who can capabilities be enhanced to develop firms in dynamic context	Expected Outcome(s) involving stakeholders, projects, firms and performance		
1	Leadership, Innovativeness, Flexibility, Agility	When leadership training is engaged to enhance speed in processes	In standards, structures and reward systems by all levels of management	Improved management practices Increased awareness, responsiveness		
2	PM Standards, Quality and Development	Monitoring to foster improvements and excellence continuously Integrate competencies	In roles, standards, benchmarks and problem solving Audit capabilities	New/improved processes and changed structure or culture Enhanced maturity		
3	Processes including Productivity, Learning and Sharing	Improve strategy execution and Enhance interactions Review business model Streamline processes	Improve decision- making internally and externally for managers/workers and stakeholders	Renewal of strategy Improved efficiencies Improved products, processes or services Successful projects		
4	Accountability, Value Assessment and Maturity	Enhance inter- relationships and integration when partners network and collaborate	Qualitative resources Better SWOT analysis Foster improvement	Reduced wastages Lower costs Enhanced economies Greater state-of-the art Stakeholder recognition of value		

Table 5: CR-SPM-SO Relationships, Resources and Results

#### 5. Conclusion

This research aimed to explore how SPM as a key capability can enhance SI mediate the CR-SO relationships. It also examines when, where and by who such capabilities are utilized advantageously in dynamic, underexplored contexts. It incorporates processes and practices (Montealegre, 2002; Langley, 2007), supporting CR and SM, SPM and SO. Stakeholders have power to influence the CAP and

capabilities of firms (Eden and Ackermann, 1998; Ackermann and Eden, 2011), requiring that these be maintained and sustained. By further engaging SPM dynamic capability, the firm heeding CAP, can beneficially improve its capabilities and SO to meet stakeholders' requirements in both short and long-term, and for sustainability. The findings from explorations through this research, allows the presentation of implications and solutions specific and novel.

### 5.1 Implications

## **Theoretical Implications**

Firstly, this research contributes a new model in Figure 1, supporting OLT and DCT combined, which researchers can incorporate in theory, practice and experiences. As they reflect more on developments and utilise Figure 1, they can better improve SI factors and SPM to positively boost interactions, CR and SO. Improving SM (Mintzberg, 2007; Kaplan and Norton 2005; 2008; Brix, 2017), they can enhance reflection on how and what capabilities improve value added and can incorporate these in contexts such as EEs. Table 3 summary of results supports that the CR-SO relationship is positively influenced by SPM, emphasizing similarities in theory, study and interactions for the positive enabling influence of SPM (Ibbs and Kwak, 2000; Cooke-Davies, 2002) on relationship between CR and SO, and that factors of CAP and BEC also impact. This advances theory in SPM. The literature and analysis of data corroborate major aspects of the integrated approach in Figure 1 Model (Section 1), and in application, it allows further inter-linkages that can be combined and recombined to enhance effectiveness. By combining key elements of CR, SPM and SO, there can be greater realisation of levels of flexibility, sophistication and uniqueness beneficial to competitiveness and meeting of stakeholder and market needs. This adds to DCT and supporting integration of capabilities and LNG (Prieto and Easterby-Smith, 2006), also enhances OLT.

Secondly, results of the study reveal firms' dynamic capabilities that need to be better integrated (Tables 2, 3 and 4). This is supported by researchers (Ibbs and Kwak, 2003; Mullaly and Thomas, 2010; Teece, 2010), considering elements improving SI processes and practices. Better engaging dynamic capabilities (Zollo and Winter, 2002), allows requirements of key stakeholders to be fully incorporated and emphasized in strategic planning. Figure 3 corroborates this. Figures 4 supports that firms in the study largely recognise their capabilities and seek to improve LNG and meet CR of stakeholders with a view to enhancing SO and returns, contributing to OLT. Firms and sectors differ in competencies and agility and there are still gaps between CR and realities of practice (Table 2). This supports findings that it is necessary to recognise in SM, elements to improve the incorporation of KPIs and CSFs (Muller and Jugdev, 2012), supporting activities and SOs, and adds to SM theory. However, improving SPM in SI can significantly impact levels of quality, LNG and outcomes. This serves to contribute to enhancing OLT (Friedman et al, 2003), and to reducing the research gaps revealed in Table 1, whereby sparse literature exists interlinking CR, SPM and SO.

Thirdly, SPM and related systems are engendered from resources and competencies, such CAP supporting firms' capabilities to attain SO and meet requirements. Table 5 comparison of capabilities from results of the study, complements Table 4, summarising SPM capabilities and related ways, means and situations involved in positively influencing the CR and SO of firms in dynamic contexts. It is also relevant for firms in underexplored contexts including EEs or developing countries. Capabilities can be enhanced by improving SPM sophistication, maturity levels and interactions involving internal and external stakeholders. Firms can further develop these so as to add value increasing advantages and competitiveness. These add to theory on SI and PM.

#### **Managerial Implications**

Firstly, to secure greater value, widening the firm's scope of SI and SPM improving SO, owners, executives and management can enhance interactions so both internal and external stakeholders can better contribute to meeting and improving requirements, responsibilities and processes, improving SO heeding context factors. Secondly, executives and researchers can make timely use of Figure 1 Model. It is to support their reflection and action on critical issues (Kaplan and Norton, 2004), as they further develop new models, better improve NWG to enhance LNG supporting best practices, restructuring, SI

and efficiencies, for the savings and upgrade to sustain advantageous and competitive SO. As results reveal relationships between CR and SO and the enhancing effect that SPM can have, given the existence of viable CAP and context enabling factors, to improve the positive impacts, managers can utilize these capabilities fundamental to SM and SO realization as revealed in Tables 2 and 4. Additionally, where and by who capabilities can be enhanced to develop firms in dynamic context, is summarised in Figures 3 and 4. Furthermore, such capabilities of firms effectively utilized to realize required outcomes are revealed in Table 5.

Thirdly, practitioners can reflect on how and what capabilities to add or improve value, supporting suggestions by Killen and Hunt (2010), and can incorporate SPM capabilities to improve orientation, interlinkages and attainments in underexplored contexts. Capabilities and CAP need to be more fully considered and processes and practices of SPM incorporated more in SM, to better support any necessary restructuring, reduction in wastage or abortive costs, and the sustaining of advantageous outcomes.

Table 3, highlights the literature with resulting research gaps, and the contribution of this paper further specified below.

- it explores interconnections (Lovas and Ghoshal, 2000; Tidd and Bessant, 2009), relevant to CR-SPM-SO relationships to improve viability of enhancing configurations and coordination. Figure 1 Model of capabilities and SPM interconnections in SI to promote enhanced interlinkages of CR, SPM and SO, also highlights interactions in SI to promote and enhance interrelationships through management capabilities.
- it seeks to improve processes and practices integration through balancing more proactive and adaptive ways to be pursued to sustain SO including more successful projects and firms.
- Figure 2 and Tables 2, 4 and 5, highlight the illustration of frontiers of practice of integration of SI factors to be pursued incorporating PM capabilities, perceived through combining OLT and DCT to add value and enhance theoretical and managerial implications
- The integrative approach pursued supports greater balance of new and improved ideas and associated projects engaging SPM in SI to maintain CR and sustainable SO.

#### 5.2 Directions for Future Research and Practice

This research can be impacted by the constraints which are mainly time and financial based, but efforts are made to maintain consistent, valid processes, beneficial to investigation, findings, analysis and outcomes, and to positively impact generalisability. Future investigations can use quantitative method or a combination of quantitative and qualitative method (Creswell, 2003; Babbie, 2010), and can investigate differing firms or compare those new and established (Dimitratos and Jones, 2005; Saunders et al, 2009).

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