

**PROGRAMME MANAGEMENT:
A DYNAMIC CAPABILITIES PERSPECTIVE**

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ABSTRACT

How organizations strategically deal with change is a fundamental problem in management studies. An important way increasingly chosen to implement strategies is through programmes. Programme Management is an emerging discipline that researches how programmes could be more effective in delivering their expected strategic benefits. To obtain this, it is recognised that successful programmes require a continuous development of capabilities on a context-dependent basis. My research project aims to use the theoretical lens of the dynamic capabilities (DC) view of the firm to explore how these capabilities could be integrated, built, and reconfigured in a context of Programme Management.

KEYWORDS

Change; Dynamic Capabilities; Programme Management.

I - INTRODUCTION

My research's starting point is that a fundamental problem in management studies is represented by how organizations deal with the phenomenon of change or, better, how they manage it.

Within this broad theme, the topic of my PhD project is quite clear, as synthesised in the current title. I am interested in understanding how organizations manage change using programmes, defined as “sets of inter-related projects that have been brought together to achieve an objective that would not be possible through stand-alone projects” (Maylor *et al.*, 2008). In other oversimplified terms, since strategic management is about how organizations deal with change in order to create or sustain their competitive advantage over time, I am particularly interested in investigating how organizations channel their strategy into action using programmes. Furthermore, since my PhD is rightly requested to deliver practical implications, I am also interested in suggesting how the management of programmes could be improved.

Indeed, the role of Programme Management (PM) has been increasingly recognized in literature as a key approach to strategy implementation (Mc Elroy, 1996; Partington *et al.*, 2005) with particular regard to how organizations deal and manage change (Lycett *et al.*, 2004; Pellegrinelli *et al.*, 2007).

As Pellegrinelli *et al.* (2007) argued, programmes are emergent phenomena and have indeterminate time horizons so that they can be hardly studied using common project concepts. The same authors clearly recognize that successful programmes require a continuous development of capabilities at both the individual and organizational level as well as a deep understanding of the context, internal and external, of the organization.

How to create and evolve capabilities over time is the core theme of the dynamic capability (DC) view of the firm, that is also “connected to the knotty problem of change management, which is of great importance to managers and the bread and butter of countless consulting practices” (Easterby-Smith *et al.*, 2009).

Therefore, my PhD project aims to explore how these capabilities are developed in a context of PM building on the DC view of the firm (e.g.: Ambrosini & Bowman, 2009; Easterby-Smith *et al.*, 2009; Teece *et al.*, 1997).

II – A BUSINESS PROBLEM

“EDS, an HP company, is a leading global technology services provider delivering business solutions to its clients” (EDS website, 28/05/09). Its core business is to offer several services classified in three main categories: applications, business process outsourcing and infrastructure. Table 1 presents three examples of EDS’s delivered services from its website.

Table 1: Three examples of EDS's delivered services (Source: EDS website, 28/05/09)

<i>Client firm</i>	<i>Challenge</i>	<i>Answer</i>	<i>Results</i>	<i>Featured services</i>
MOLSON COORS	To synergize the company's IT operations, increase the brewer's agility and position for future expansion and reduce application management costs.	EDS took over the day-to-day management of the brewer's technical operations, helped convert legacy applications and systems to a globally integrated solution and optimized its supply chain.	By using EDS' Best Shore® service, Molson Coors has reduced its cost of applications management, consolidated infrastructure and implemented a managed storage solution for maximum cost-effectiveness of their storage environment.	<i>Applications Services; Development Applications Services; Data Center Modernization Services; Network Management Services; Workplace Server Management Services</i>
AMERICAN AIRLINES	To maximize the carrier's IT investments by reinvesting the savings to further reduce costs.	Applications services were migrated to EDS' Best Shore® capability centers in Brazil and Argentina that have transportation expertise and are in a time zone similar to American Airlines offices in Texas.	EDS helped American reduce its IT expenditures and introduced a model for future cost reductions as additional business applications are transitioned.	<i>Applications Services; Development Applications Services; Management Services; Data Center Modernization Services; Network Management Services; Service Desk and Site Support Services</i>
TRAVELOCITY	Travelocity and parent company Sabre Holdings wanted to improve the efficiency and reliability of their IT services while keeping a lid on operational costs.	EDS provides the support required to process more than 2 billion transactions each day and to transition to a standards-based IT infrastructure.	By implementing a new infrastructure road map, Travelocity and Sabre Holdings stand to improve time to market, reduce internal complexity, better control operational costs and ensure the stability of mission-critical systems.	<i>Applications Services; Development Applications Services; Enterprise Application Services; Transformation & Modernization Services; Data Center Services; Networking Services</i>

In business jargon, it is widely accepted a view of this type of organizations as bundles of capabilities/competences and other resources. Thus, expressions such as “IT capabilities” are not uncommon in the field where EDS makes its business. Consequently, each service EDS offers can be seen as a goal-oriented set of capabilities and complementary resources.

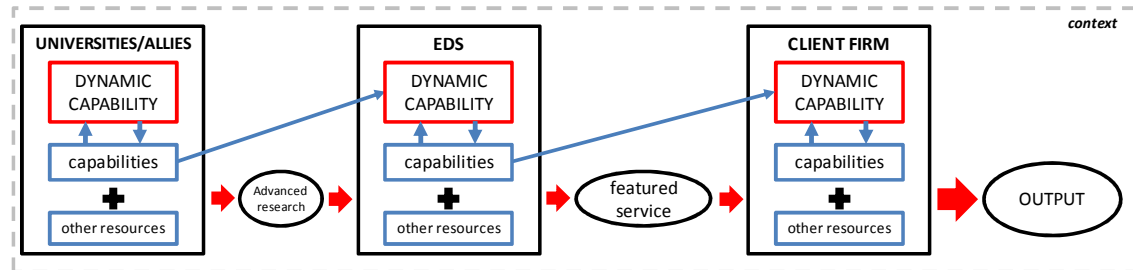
DCs were indeed defined in the field’s seminal paper as the “*the firm’s ability to integrate, build, and reconfigure internal and external competences¹ to address rapidly changing environments*” (Teece *et al.*, 1997: 516). From this perspective, a client firm needs to integrate internally built or externally supplied capabilities in order to address its changing environment. In this model, EDS can be seen as a supplier of external capabilities. Moreover, this conceptualization is powerful in highlighting how EDS presents a similar problem too: To maintain its performance, it has to evolve somehow its own capabilities as the environment changes. This is reflected, for example, in the fact that EDS is trying to develop

¹ It has to be noticed how terms such as competences and capabilities are often used as synonymous in the literature on dynamic capabilities. Danneels’ (2008) article offers a clear example of this.

external relationships with complementary allies (e.g.: the Agility Alliance) or university (e.g.: Cranfield SOM).

From a DC perspective, “what EDS does” can be represented as in Figure 1.

Figure 1: Capability development and external relationships



In sum, this model offers a clear conceptualization of the business problem companies such as EDS or its client firms face: If performances are a function of how an organization manages its own resources/capabilities better than rivals (Amit & Schomeaker, 1993), how can it develop them when the environment evolves? This problem is even more important in “rapidly changing environments” (Teece *et al.*, 1997) such as the IT outsourcing market.

Finally, the concept of dynamic capabilities helps to understand that this business problem is intrinsically a managerial problem: As explained by Teece *et al.* (1997: 515), “*the term ‘capabilities’ emphasizes the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competences to match the requirements of a changing environment*”.

Based on this discussion, I can now observe how EDS also offers a particular type of capabilities, namely in Programme Management (PgM). Therefore, PgM capabilities can be seen as a subset of those hold by EDS and offered to client firms. It follows, at the programme level, that successful PgM is possible only when, on one side, EDS’s specific PgM capabilities are appropriately integrated with client firms’ capabilities, and, on the other side, if EDS constantly develops its own PgM capabilities.

As observed by Winter (2003: 994), “*there is no general rule for riches*”. That is, given the constantly changing environment, organizations at any point of the relationship chain should never stop in trying to develop and adapt their capabilities and resources.

III – THE CURRENT DEBATE ON DYNAMIC CAPABILITIES

Strategic management is a broad research stream built on the premise that decision makers can somehow drive organizations' fate (Salvato, 2009). The dynamic capabilities framework is an emerging approach within this literature that sees organizations as bundles of capabilities and “difficult-to-replicate co-specialized assets” (Augier & Teece, 2009: 418). In addition, it focuses the attention on the role of strategic managers in orchestrating them.

Recent reviews of the field has shown how scholars consider dynamic capabilities as high-level managerial processes through which a) organizations develop and evolve their operational capabilities and b) manage the resource base in order to generate and sustain their performance (Ambrosini & Bowman, 2009; Easterby-Smith & Peteraf, 2009; Wang & Ahmed, 2007). These managerial processes are also path dependent, that is based on prior knowledge and choices (i.e.: Teece *et al.*, 1997). Moreover, there is general consensus that dynamic capabilities present commonalities across different organizations but are fundamentally idiosyncratic in their details (Eisenhardt & Martin, 2000). As discussed by Teece (2007) these commonalities represent the micro-foundations of dynamic capabilities or, in other words, their creation processes (Ambrosini & Bowman, 2009).

However, two major limitations affect the debate. On one side it is surprisingly still unclear what a dynamic capability precisely is and which concrete properties it has (Easterby-Smith & Peteraf, 2009)². On the other side, after more than a decade of research, the dynamic capability framework is on the edge of the academic agenda, but still resistant to any managerial relevance (Ambrosini & Bowman, 2009)³.

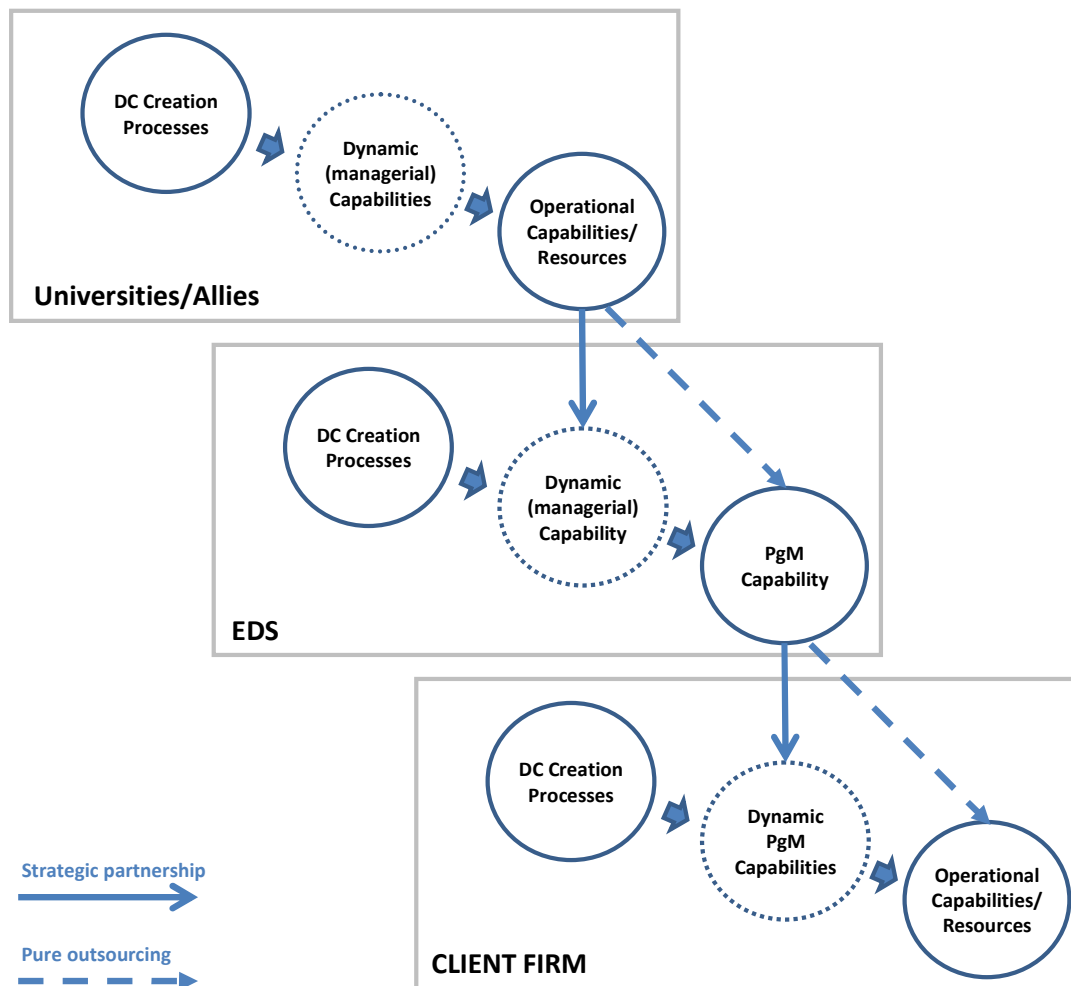
² “At some point, however, the lack of agreement will impede progress on both the conceptual and empirical fronts. Meaningful conversation and further conceptual development of the framework require some common understandings. Empirical work may be misdirected and may be of dubious worth without a well-developed construct and a clear set of testable predictions” (Easterby-Smith & Peteraf, 2009: S3).

³ “If we understand how, in practice, dynamic capabilities are created, this would allow us to start developing guidance for managers about how they can deliberately develop dynamic capabilities. (...) Answering these questions would also facilitate our understanding of how contingent on the perceived and actual environment the effective deployment of certain types of dynamic capabilities is and, similarly, it would allow the design of managerial relevant prescriptions.” (Ambrosini & Bowman, 2009: 45).

IV – DYNAMIC CAPABILITIES AND PROGRAMME MANAGEMENT

Given the previous discussion, for the purpose of my research project I suggest that programme management can be framed as in Figure 2.

Figure 2: PgM from a DC perspective



In this descriptive model, the dotted arrows represents the case where a client firm only outsources some non strategic capabilities, generally without involving a long term relationship and often as an ad hoc solution (Winter, 2003). Moreover, given Winter's (2003) observation that dynamic capabilities are only locally defined, the model considers EDS as a supplier of operational PgM capabilities. Therefore, dynamic PgM capabilities are created in client firms whilst EDS can develop its operational PgM capabilities through different dynamic managerial capabilities. This, unless it uses programmes to manage its own business.

In sum, the model points out at least two broad research areas: a) *how are dynamic capabilities in programme management created and how are they deployed in the relationship between EDS and its client firms?*; b) *how does EDS develop its PgM capabilities?*

The focus of my research is on the first of these areas. Specifically my research questions are so far:

- *How are internal and external capabilities purposefully integrated, built, and reconfigured in order to create firm-specific dynamic capabilities in a context of programme management?*
- *How are these dynamic PgM capabilities deployed in practice and what is their impact on programme performances?*

V – PHILOSOPHICAL STANCE

My view of social reality is fully consistent with the Veiled Reality conception developed by the French theoretical physicist and philosopher of science Bernard d’Espagnat (2006). This conception has been developed on the premises that traditional ontological positions, wherever they are on the conceptual continuum between Realism and Idealism, are rooted on classical physics ideas (e.g.: space, time, locality, etc.) and that these have been put apart by contemporary physics. This conception sees reality as twofold: (Mind/Observer-)Independent Reality and Empirical Reality. The first exists prior than concepts such as time and space and of the mind-matter division. The second results from the coemergence of consciousness and objects, that, from a quantum point of view, are not strictly separable. Although, in this conception, Independent reality resembles the Kantian/Idealist concept of *noumenon* and thus it can’t be fully known, it is different because we can gain some knowledge of it (“glimpses” in d’Espagnat’s terms). This possibility is given by the quantum concept of ‘extended causality’ for which Independent Reality reflects itself on Empirical Reality. However, this reflection is ‘veiled’ and therefore our knowledge of it is only partial and within the domain of empirical concepts. D’Espagnat also uses the Aristotelian distinction between potentiality and actuality in order to indicate how Empirical Reality is an actual expression of the potential Independent Reality.

An epistemological consequence of this conception is that knowledge can be gained only in the domain of Empirical Reality. However, it can also reflect some general structures mirrored from Independent Reality. This conception allows therefore for several methodologies depending on the particular sub-domain of research.

To a certain extent, the Veiled Reality conception is similar to Depth Realism as discussed by Blaikie (2007) but with the caveat that the latter is built on classical concepts. For example, in quantum terms, there are only two levels of reality since events can never be researched as mind-independent. D'Espagnat claims that his conception belongs to the realm of "Open Realism", based on concepts such as "weak objectivity" and "non locality" with the meaning given to them by contemporary quantum physics (d'Espagnat, 2006).

VI – METHODOLOGICAL IMPLICATIONS

In line with my philosophical stance, in the realm of Empirical Reality some concepts from Structuration Theory (Giddens, 1984) can be of help. In particular, the conceptualization of DCs as composed by an ostensive and a performative part is built on a so-called "dualist ontology" (Feldman & Pentland, 2003) that comes from Structuration Theory. Consistently with Ambrosini and Bowman (2009), I believe that DC creation processes can be theorized and researched as ostensive "glimpses" of some structures of Independent Reality. Indeed, since DCs can be seen as composed of a potential and an actual part, their potential can be approximately (that is, using proxies) measured while their actual deployment at the performative level has to be "described" qualitatively.

Therefore, although my theorization is still at an early stage, I believe that I could design a multi-step approach that resembles and adapts the one followed by Salvato (2009). Specifically:

- Once DC creation processes have been systematically (quantitatively or qualitatively, TBD) identified and assessed, they could be operationalized as a multidimensional map (Wang & Ahmed, 2007).
- Controlling for the external context by considering only one capability provider (i.e: EDS), different programmes in different client firms could be traced on the map and qualitatively analysed. A methodology based on multiple embedded case studies could be of help. The aim is to evaluate which programmes present potential DCs.

- The relationship between programme performances and DC creation processes could be tested to evaluate the role of DCs.

In addition, there could be eventually further steps (TBD). For example, but it is only a speculative idea, programmes identified as presenting a dynamic capability could be assessed in respect of their programme managers' different conceptions (Partington *et al*, 2005). On this basis a strategic tool could be also developed with the aim to improve how programme managers are selected for specific programmes.

REFERENCES

1. Ambrosini, V. & Bowman, C., 2009. What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, 11(1): 29-49.
2. Amit R, & Schoemaker, P.J.H., 1993. Strategic assets and organizational rent. *Strategic Management Journal*, 14(1): 33–46.
3. Augier, M. & Teece, D.J., 2009. Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science*, 20(2): 410-421.
4. Blaikie, N., 1993. *Approaches to Social Enquiry*. Cambridge: Polity Press.
5. Danneels, E., 2008. Organizational Antecedents of Second-Order Competences. *Strategic Management Journal*, 28(4): 519-543.
6. d’Espagnat, B., 2006. *On Physics and Philosophy*. Princeton: Princeton University Press.
7. Easterby-Smith, M., Lyles, M.A., & Peteraf, M.A., 2009. Dynamic capabilities: Current debates and future directions. *British Journal of Management*, 20: S1–S8.
8. Eisenhardt, K.M., & Martin, M., 2000. Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10/11): 1105-1121.
9. Feldman, M.S. & Pentland, B.T., 2003. Reconceptualizing organizational routines as a source of flexibility and change. *Administration Science Quarterly*, 48: 94–118.
10. Giddens, A., 1984. *The Constitution of Society*. Berkeley, CA: University of California Press.
11. Lycett, M., Rassau, A. & Danson, J., 2004. Programme management: a critical review. *International Journal of Project Management*, 22: 289-299.
12. Maylor, H., Partington, D., Lupson, J. & Franken, A., 2008. Developing a baseline for “World Class” Programme Management. IPCM 2008 Research Briefing Paper 1.
13. McElroy, W., 1996. Implementing strategic change through projects. *International Journal of Project Management.*, 14(6):325–9.
14. Partington, D., Pellegrinelli, S. & Young, M., 2005. Attributes and levels of programme management competence: an interpretive study. *International Journal of Project Management*. 23: 87-95.
15. Pellegrinelli, S., Partington, D., Hemingway, C., Mohdzain, Z. & Shab, M., 2007. The importance of context in programme management: An empirical review of programme practices. *International Journal of Project Management.*, 25: 41-55.

16. Salvato, C., 2009. Capabilities unveiled: The role of ordinary activities in the evolution of product development processes. *Organization Science*, 20(2): 384-409.
17. Teece, D.J., 2007. Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28: 1319-1350.
18. Teece, D.J., Pisano, G., & Shuen, A., 1997. Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7): 509-533.
19. Wang, C. L. & Ahmed, P. K., 2007. Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1): 31-51.
20. Winter, S.G., 2003. Understanding dynamic capabilities. *Strategic Management Journal*. 24(10): 991-995.