



**POLITECNICO
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Strategic role of IT and Digital Strategy

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Harvard Business Review Debate

Does IT (ICT) matter?

Carr's article: IT doesn't matter

Harvard Business Review (May 2003)

- **IT (ICT) cannot be a source of sustainable, long term, competitive advantage, since it is becoming more and more**
 - standard
 - cheap
 - available to all
 - outsourceable
- ...in one word a commodity
- **IT (ICT) is more and more essential to operations but it is insignificant to strategy**

"What makes a resource truly strategic is not ubiquity but scarcity." (Carr, 2003)

Reply from other HBR authors

- **Technological perspective**

ICT Competence is seen as a bundle of software & hardware assets and technical skills that are fully available on the market

- **Infrastructural perspective**

The focus is mainly on Infrastructure (hardware and network) that is becoming more and more a commodity

VS

- **Single ICT Project perspective**

The focus is on the single ICT Project, that may or may not be the driver of competitive advantage

- **Organizational & Business Perspective**

ICT Competence is the ability of a company to exploit/leverage ICT to pursue business innovations, to change business practices, to improve business performance this is in short supply!

- **Application perspective**

Business Applications are extremely customized ... built on the specific business logic of the company ... embedded in the organizational routine of the company. They can create strategic differentiation

- **Learning Process perspective**

This capability is the result of a complex and long cumulative (path dependent) and collective (organizational) learning process. This can lead to durable and defendable competitive advantage

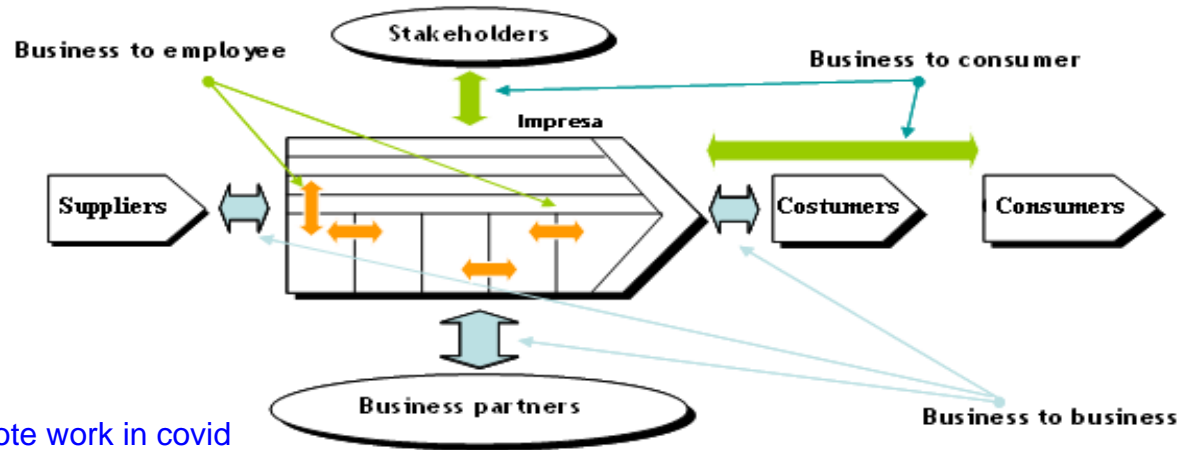
The “strategic” role of ICT according to the “strategic” models

where can it be a source of company advantage!?

- **Internal Perspective**

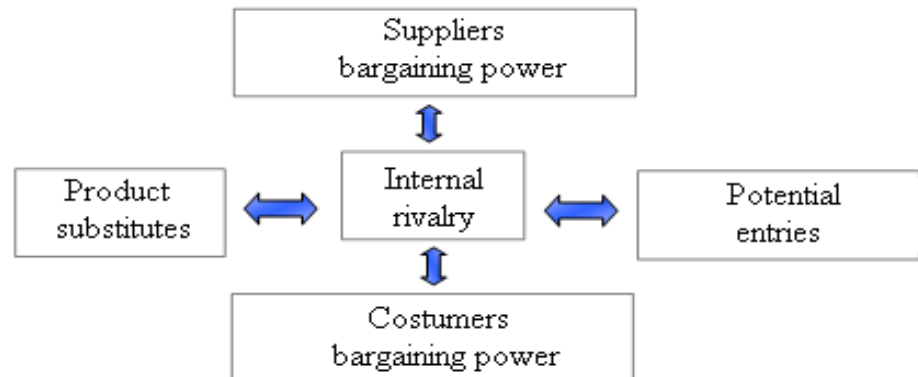
ICT can create new sources of competitive advantage both in terms of cost and differentiation by impacting on the company's **Value Chain**

like communication or remote work in covid



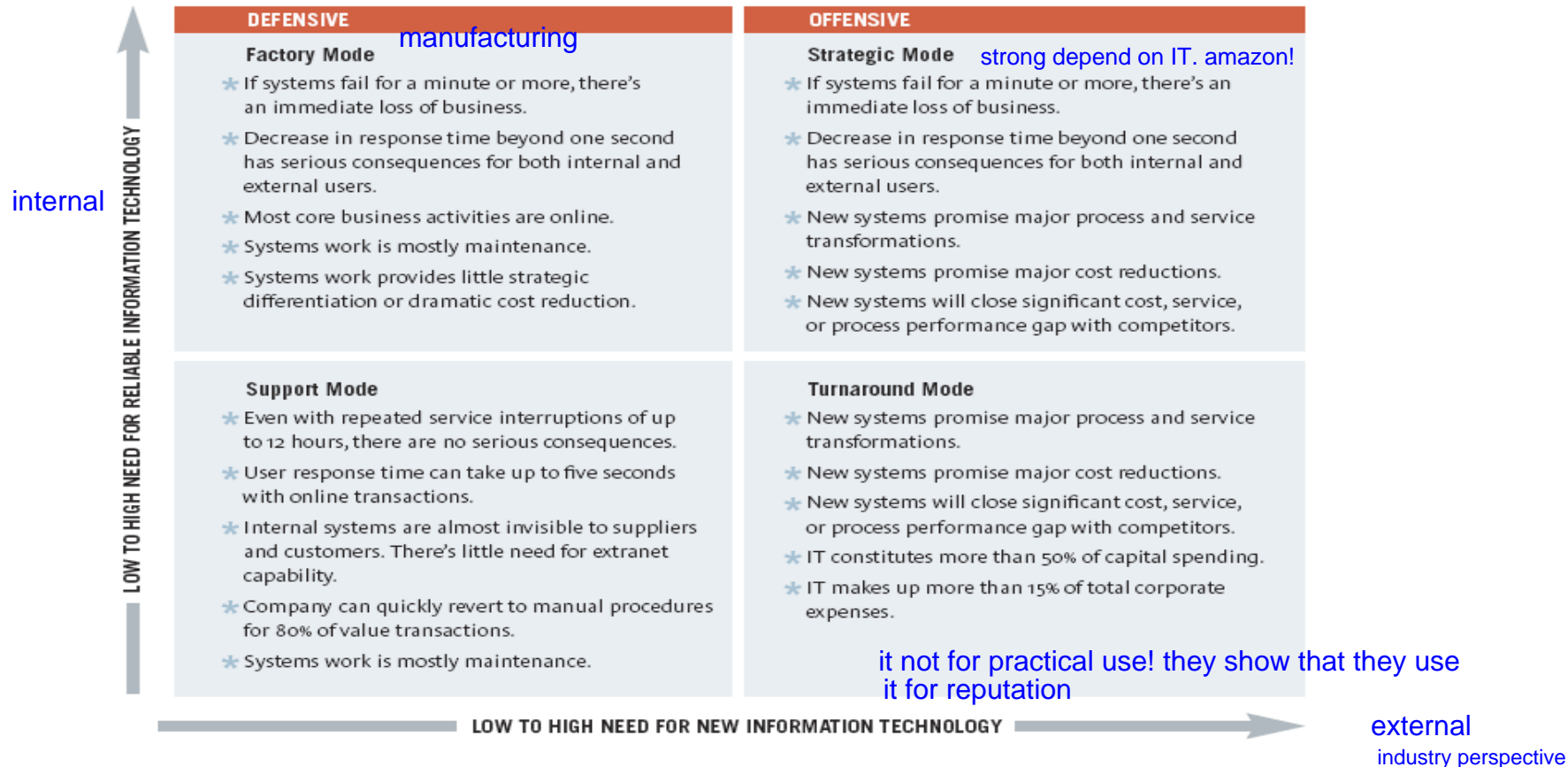
- **External Perspective**

ICT can drive transformations in the competitive landscape, changing the role and the intensity of each **competitive force** (internal rivalry, potential entries, substitute products, suppliers' and customers' bargaining power)



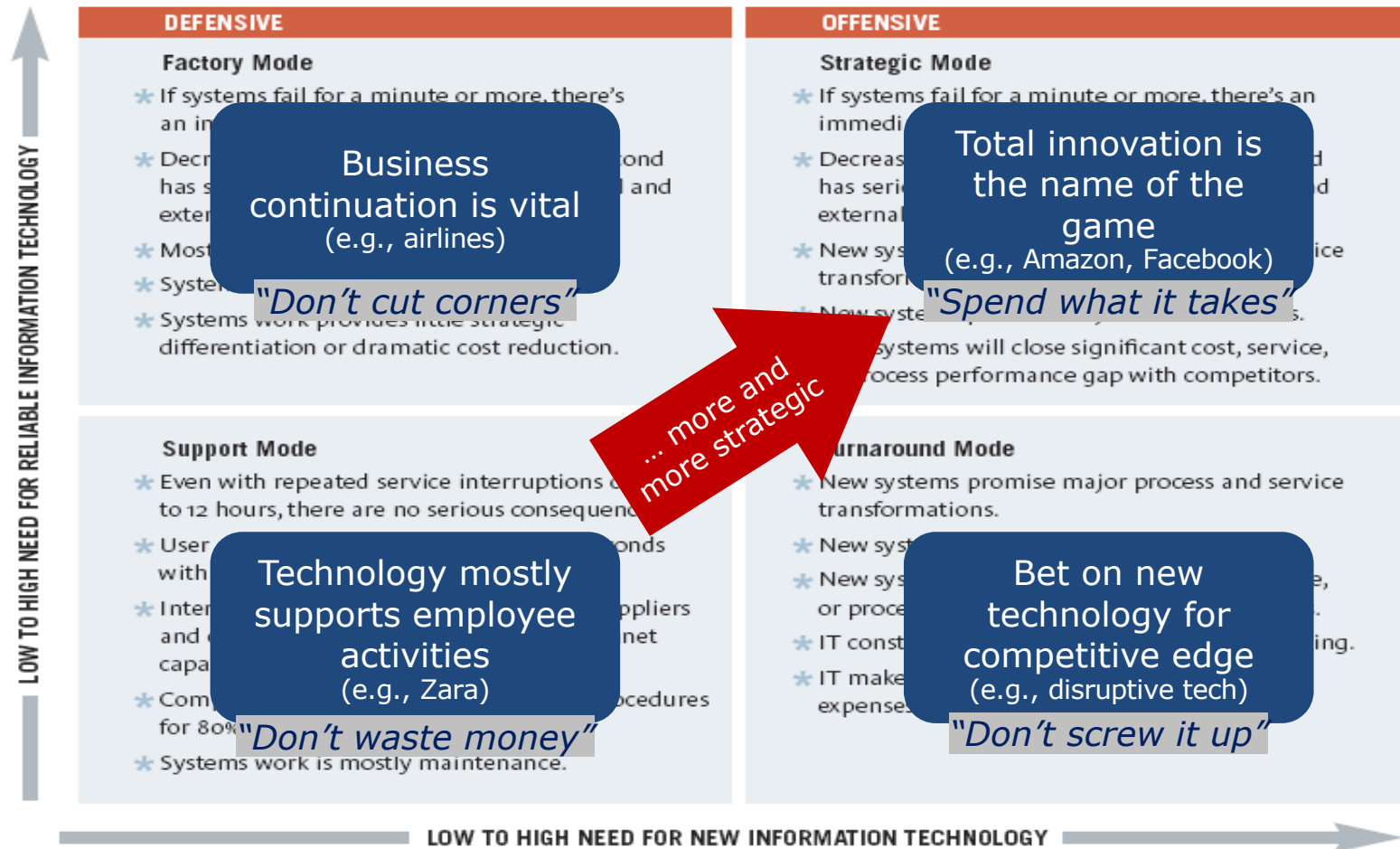
... but the real business role of ICT depends on the specific business context ...

The business role of ICT: depending on the specific business context (Nolan & McFarlan's Approach)



The position of a company on this grid depends on both exogenous (industry characteristics) and endogenous (company characteristics) variables

The business role of ICT is becoming...



The cultural barriers

1. Top Management's real commitment and sensitivity to ICT - the **CEO** above all
2. The characteristics of the **CIO** and his/her key people (in terms of leadership, business acumen, organizational competence, communicational skills, etc.)
3. **Business Managers'** open-mindedness and sensitivity to ICT

The cultural barriers

- Top Management's real commitment and sensitivity to ICT - the CEO above all

- ❑ *“Top management's ability to really worry about ICT? It is a cultural problem. ICT is like mathematics : either someone was able to teach it well, help you to understand and appreciate, or you are put off for life” (Massimo Capuano, CEO, Milan Stock Exchange)*
- ❑ *“You can learn finance and marketing, but not technology. ICT is not sexy enough for a top manager to take the time to understand and learn” (Luca Majocchi, CEO, Seat Pagine Gialle)*

- Business Managers' open-mindedness and sensitivity to ICT

The cultural barriers

- Top Management's real commitment and sensitivity to ICT - the CEO above all
- The characteristics of the CIO and his/her key people (in terms of leadership, business acumen, organizational competence, communicational skills)

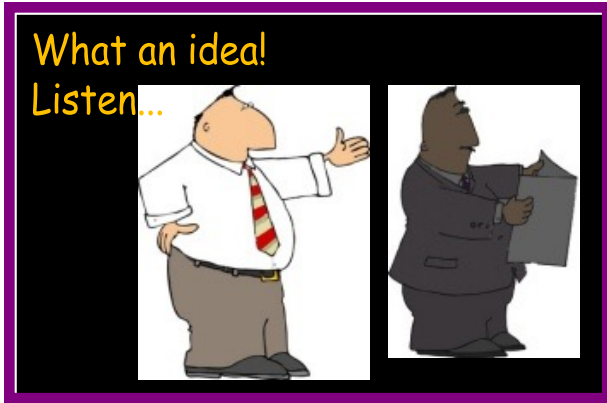
- ❑ *"... ICT people must be able to play their game: to speak the language of business, to demonstrate concrete results, earning credibility..."*
- ❑ *"ICT people speak a language different from ours: I don't want technical terms or acronyms, I want logical reasoning!"*
- ❑ *"The CIO must have a good mix of technical, organizational, communication and relationship skills"*
- ❑ *"Too often CIOs focus only on their projects, paying no attention to their actual impact on the business"*
- ❑ *"... It would be useful for the key people in the IT Department to have an MBA ..."*

The cultural barriers

- Top Management's real commitment and sensitivity to ICT - the **CEO** above all
- The characteristics of the **CIO** and his/her key people (in terms of leadership, business acumen, organizational competence, communicational skills, etc.)
- **Business Managers'** open-mindedness and sensitivity to ICT

Business Managers: the different approaches to ICT

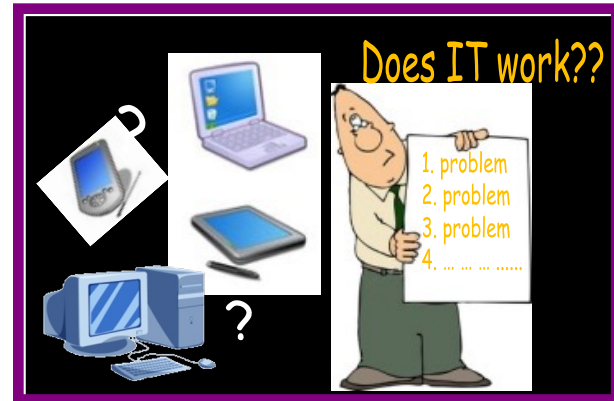
✓ Pro-active



✓ **Re-active**



✓ Eternal skeptic



✓ Unwitting



✓ Procrastinator



Business Strategy, IT Strategy and Digital Strategy

Business Strategy vs. IT Strategy vs. Digital Strategy

- **Business Strategy, IT Strategy and Digital Strategy**
 - shall be related and aim at common goals (i.e., higher performance in terms of value creation and value capture)
 - have different meanings.
- A **Business Strategy** is an integrated, comprehensive and long-term plan that includes a consistent set of strategic decisions and is aimed at creating and sustaining competitive advantage in a business area, compared to competitors

Business Strategy vs. IT Strategy vs. Digital Strategy

- Concerning **IT Strategy** and **Digital Strategy**, boundaries become fuzzy and blurred.
- Although often used as synonyms and overlapping terms, IT Strategy and Digital Strategy are growingly **diverging** in the **meaning** associated to them and the **approach** they evoke and advocate for.
- “Everyone thinks they have a digital strategy these days. But while your company may have a business or IT strategy that incorporates digital technology, an IT strategy does not equal a digital strategy.” (McDonald, 2012)

Business Strategy vs. IT Strategy vs. Digital Strategy

IT Strategy:

- **Functional-level strategy** aiming at The use of information technologies adopted by organizations as tools to **boost productivity** or **lower operational costs**.
- The broad strategic view was that **IT strategy had to be aligned with the firm's business strategy** (Henderson and Venkatraman, 1993).
- "IT Strategy is a **technical answer to a business question**: "How will IT help the business win?". It assumes the business strategy is set, then considers how to use IT to make that strategy successful. IT Strategy is **usually conducted downstream of/ after business strategy**" (Aron, 2013)
- "Most IT strategies treat technology in isolation. Your company may be working on a cloud strategy, social strategy, or mobile strategy." (McDonald, 2012)

Business Strategy vs. IT Strategy vs. Digital Strategy

From IT to “Digital Technology”: a pragmatic definition

- Digital technologies can be viewed as the combination of:
 - Information
 - Computing (Hardware and Software)
 - Communication
 - Connectivity (protocols such as Internet and Mobile web)

technologies which are fundamentally reshaping traditional business strategy as modular, distributed, cross functional, and global business processes that enable work to be carried out across boundaries of time, distance, and function (Bharadwaj et al., 2013)

Business Strategy vs. IT Strategy vs. Digital Strategy

From IT to “Digital Technology”: what’s new about digital?

- **Pervasive.** Digital technologies are so pervasive that they create a different everyday experience
- **Multi-purpose.** Digital technologies can be employed in a plethora of alternative environments with a vast range of applications
- **Customer-centric.** Digital technologies affect customers’ touchpoints and journey to such an extent that they enable and call for a true customer centricity in a company’s strategy
- **Value-relevant and transformational.** Digital technologies, if properly leveraged, can have a transformational and innovative impact on value propositions

Business Strategy vs. IT Strategy vs. Digital Strategy

- Due to Digital's characteristics, today it is easier for managers and strategists to grasp and be aware of the **strategic implications of such technologies at all level.**
- Digital Strategy cannot be confined to the IT Function anymore (as it happened to IT Strategy), but shall be **formulated alongside Business Strategy, as it impacts all of its key steps.**
- As a result, rather than calling it Digital Strategy, we should refer to it as "**Digital Business Strategy**" (i.e. **a Business Strategy which is inherently Digital in nature, aim and scope**)

Business Strategy vs. IT Strategy vs. Digital Strategy

Digital Business Strategy:

- “Digital Business Strategy is a business answer to a digital question: **“How should our business evolve to survive and thrive in an increasingly digital world?”** It is not a separate strategy, but instead **a lens on business strategy**. All aspects of the business strategy should be **informed by digital considerations.**” (Aron, 2013)
- “Digital Business Strategy is **more than IT strategy** since it is the extent to which a firm engages in **any category of IT activity to create value.**” (Mithas et al., 2013)

Business Strategy vs. IT Strategy vs. Digital Strategy

- “Digital Business Strategy is a **pattern of deliberate competitive actions** undertaken by a firm as it **competes by offering digitally enabled products or services.**” (Woodard et al., 2013)
- “Digital Business Strategy is an organizational **strategy formulated and executed by leveraging digital resources to create differential value.**” (Bharadwaj et al., 2013)
- “Digital is the application of information and technology to **raise human performance.** Human performance is the **essence of digital transformation.** Human performance **creates the type of value that leads to revenue.** Alternative goals for digital create efficiencies that largely drive down the cost of creating short-term benefits but drain the economy and growth.” (McDonlad, 2015)

Business Strategy vs. IT Strategy vs. Digital Strategy

The essence of a Digital Strategy

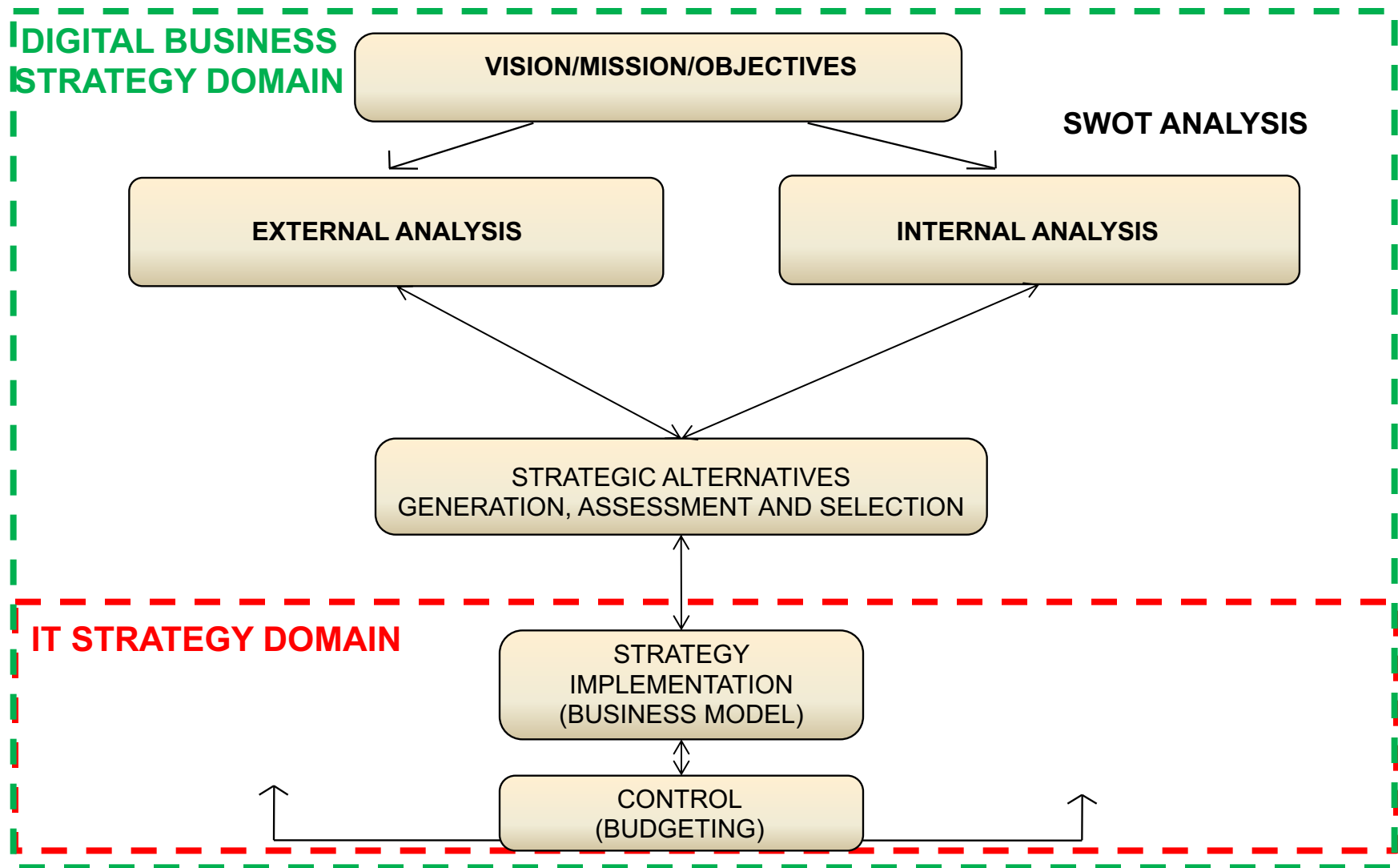
- “Today’s hottest customer-facing solutions rely on pervasive digital connections in which the individual technologies (cloud, near field communications, mobile, big data, etc.) **merge to deliver an experience that looks and feels an awful lot like our natural behavior.**
- In other words, the more connections between people, places, information, and things (aka **digital density**), the more **customers can interact with companies** and each other in a **seamless** and satisfying way.
- Digital strategies are not only about **digital substitution** (i.e. automating and substituting physical resources with digital transactions, thus only creating virtual copies of the real world which are commoditized and duplicable), but call for creating a **digital edge**, where digital information and physical resources combine in new ways to create value and revenue” (McDonald, 2012)

Business Strategy vs. IT Strategy vs. Digital Strategy

The essence of a Digital Strategy

- Enterprises seeking a digital edge **transform** processes, business models, and the customer experience by exploiting the pervasive digital connections between systems, people, places, and things.
- **A digital edge is a performance edge**, as it exploits a Digital Strategy merged with a Business Strategy **to create competitive advantage (Digital Business Strategy)**.
- The **essence of digital strategy** is to **deliver more because leaders think broadly about how digital technology creates value and revenue**; and to think about **how digital will combine to create new capability rather than replace old operations**.

Digital Business Strategy: a new domain



Business Strategy vs. IT Strategy vs. Digital Strategy

Conclusions

- To wrap it all up (with my take on the recent debate, keeping in mind the older “quarrel” about the strategic role of IT):
 - A Digital Strategy is a **revamping** of the IT Strategy in a world with **a new context, new tools, new management and consumer awareness and a greater digital density.**
 - Digital Business Strategy is what IT Strategy should have been if virtuously applied, but what it seldom delivered.
 - **Alignment** is not enough: Business Strategy and Digital Strategy **co-creation** and **co-formulation** and **digital strategic renewal** around the idea of the **original combination of digital assets and capabilities as the new sources of competitive advantage** are and will be key for companies’ innovation and transformation (Ghezzi, 2016)