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IGOR LOBANOV

Business Design

STRATEGY PRACTICE IN INNOVATION CONSULTING

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ABSTRACT OF MASTER'S THESIS

AUTHOR Igor Lobanov		
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ABSTRACT

Escalating complexity of the business world establishes an organisation's ability to innovate as its greatest competitive advantage. And as linear, rational approaches have proven insufficient for the goal, executives seek novel, creative ways to develop and realise breakthrough strategies.

The concept of design thinking, centring around empathy, invention and learning, becomes instrumental in tackling business challenges and supporting innovation initiatives. By bringing about a hands-on toolkit, design professionals become well-equipped in developing offerings, improving operations and crafting strategies.

Over the past decade, the discipline blending strategy with de'sign began to emerge in specialised consultancy. The large design firm, such as IDEO, Fjord and Doblin, launch strategic offering to drive business growth and align organisations. In parallel, design-led approaches thrive in innovation practices at the consulting majors, including BCG, McKinsey and Deloitte.

The insider research aims to establish the relevance of business design by linking its practice to a holistic theoretical framework. Defining and describing the core approach of the discipline provides insights for both professionals and scholars at the intersection of design and strategic management.

KEYWORDS strategic thinking, design thinking, business design, design consulting, action research, insider research

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TERMS AND ABBREVIATIONS

- BUSINESS DESIGN a discipline applying principles and practices of design to developing offerings along with an associated business model, strategy, and organisation design.
- BUSINESS ECOSYSTEM a network of parties involved in delivery of the offering through both cooperation and competition: suppliers, distributors, competitors, government, and others.
- BUSINESS MODEL a plan for the successful operation of a business, identifying its offering, intended customer base, critical activities and profit model.
- BUSINESS STRATEGY see Strategy.
- CHANGE MANAGEMENT a discipline incorporating tools and techniques for managing the people side of organisational transition and achieving business goals.
- COMPETITIVE ADVANTAGE a condition or circumstance that puts a business in a favourable or superior position compare to its rivals.
- CUSTOMER a party that purchases or consumes firm's products or services and has an ability to choose between different offerings and suppliers.
- CUSTOMER INSIGHT a non-obvious understanding about the customers that is based on interpretation of trends in behaviours, people's needs, desires, and expectations.
- DESIGN conscious activities aimed to plan a change for achieving a goal or solving a problem, as well as a specific solution resulting from these activities.
- DESIGN MANAGEMENT a discipline applying principles of project management, design and strategy to overseeing creative process, building a structure and organisation for design.
- DESIGN THINKING a set of principles describing thinking modes, practices, and cognitive approaches aimed at problem solving.
- FUNCTIONAL STRATEGY an organisational plan for functional areas of a company that is used to back up business strategy.
- INSIGHT thoughts, facts or data that further understanding of a situation or issue, re-directs thinking and has a potential to benefit the business. See also *Customer insight*.

- MARKETING a discipline concerned with developing a product or service offering, its pricing, distribution channels, and promotional strategies.
- ORGANISATION DESIGN a discipline focusing on workflows, procedures, structures and systems to improve both the technical and people sides of an organisation.
- SERVICE DESIGN a discipline focusing on quality of customer experience by organising people, processes, environments and communications.
- STAKEHOLDER a party that has interest or concern in a business, can affect or be affected by its actions, objectives and policies: customers, shareholders, employees, partners, government, and others.
- STRATEGY a course of action chosen for achieving an organisation purpose and goals as well as for solving a problem. See also *Functional strategy*.
- STRATEGIC MANAGEMENT a discipline involving formulation and implementation of the major goals and initiatives taken by an organisation for achieving and maintaining competitive advantage.
- B2B business-to-business
- в2с business-to-consumer
- BCG Boston Consulting Group
- CEO chief executive officer
- DMI Design Management Institute
- DV digital ventures
- нвк Harvard Business Review
- нср human-centred design
- gva gross value added
- HR human resources (management)
- IT information technology
- крі key performance indicator
- M&A merger and acquisition
- мва master of business administration
- мvp minimum viable product
- R&D research and development
- ROI return on investment
- s&P Standard & Poor's
- swor strengths, weaknesses, opportunities, threats
- ик United Kingdom
- ux user experience (design)

INTRODUCTION

FOR ALREADY A HALF-CENTURY, design professionals religiously recall a memo issued in 1961 by Thomas J. Watson, Jr., a former CEO of IBM, stating that "Good design is good business." Whereas Watson's message may have been baffling to some in the industrial era post-World War II, it is evident and perhaps even conventional today (at least for everyone who has seen an iPhone): committing to design shapes better products and helps to realise their full potential in the market (Weiss, 2002).

Two decades later, in the mid-1980s, marketing guru Philip Kotler urged the readers of the *Journal of Business Strategy* to revise their understanding of design as a cosmetic tool applied in the late stages of product development and recognise its strategic role in enhancing environments, communications and corporate identities (Kotler & Rath, 1984). Kotler advised to train managers, marketers, sales people and engineers to better understand design, its function and growing potential for creating competitive edge.

Until now, executives seem to follow Kotler's advice as companies across industries seek to incorporate design into their core competence and build in-house design expertise (Buley, 2015, Maeda, 2016; see Figure 1C). In 2004, the electronic manufacturer Flextronic acquired the global design firm frog design. In 2011, the software developer GlobalLogic made a deal with the design consultancy Method. More recently, the financial firm Capital One purchased the design and development companies Adaptive Path and Moonsoon, while the banking group BBVA (2015) acquired the UX consulting Spring Studio to accelerate its efforts "to become the leading digital bank through great design and technology."

The effort clearly pays out: a recent study revealed that effective users of design, capable of integrating and embedding its principles up to the senior level of an organisation, outperform the s&P 500 by a stunning margin -219% over the previous decade (Rae, 2015; see Figure 1A). Another research estimated the design's contribution to the UK's economy at £71.7 billion (€100 billion) in gross value added (GVA), equivalent to 7.2% of the national GVA (Design Council, 2015).

Meanwhile, twenty years after Kotler, Roger Martin (2009), an eminent business thinker and a founding part-

ner of the strategic firm Monitor, reinforced the notion of design as the next source of competitive advantage. Martin reflected on the convergence of analysis and business rigour with creative skills and intuitive thinking. Here, 'thinking like a designer' serves a distinctive purpose — to help managers break free from the 'tyranny of given' and produce creative solution to complex problems. Martin's suggestion is more radical than ever: instead of understanding designers better, business people need to become designers.

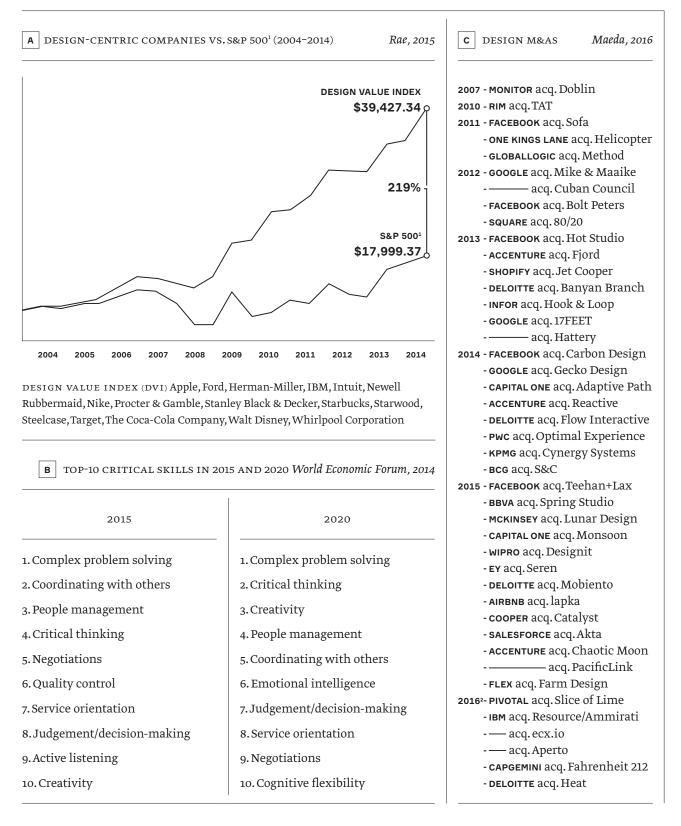
The idea seems to reflect a widespread belief of executives. A survey of 1500 CEOS around the globe conducted by IBM (2010) named creativity the most crucial leadership quality, placing it higher than rigour, management discipline, integrity and even vision. In coping with rapidly escalating complexity of the business world, creative leadership is intended to encourage experimentation, find innovative ideas and make deeper changes in business models for realising strategies.

Yet, the creativity imperative is hardly exclusive to top managers. A report by the World Economic Forum (2016) predicted that by 2020 the list of the most critical skills will be led by 'big three' of complex problem solving, critical thinking and creativity, with more than half of all jobs requiring them in the core skill-set (Figure 1B). Creativity made the biggest leap in the list, having climbed seven spots up.

The conversation emerging around Martin's views sheds light on the new dimension of design's strategic role, suggesting that its greatest payout is in designing business itself (Fraser, 2012). And this is beyond the vision of a consultant exploring variations of executive thinking. Only in the past five years, Microsoft examined design-led business transformation (Warren et al., 2012), the European Commission — value of design for advancing business models (Dervojeda et al., 2014), and Deloitte (2015) discussed design thinking in its annual selection of business trends. Harvard Business Review continues to investigate evolution of design thinking (Brown, 2015, Brown & Martin, 2015, Kolko, 2015) and features design-led success cases: Samsung became a 'design powerhouse' (Yoo & Kim, 2015), PepsiCo recognised design thinking at the strategic level (Ignatius, 2015) and hired a chief design of-

FIGURE 1

Creativity Imperative in Strategic Management



¹ S&P 500 INDEX contains 500 of the largest stocks in the US, allowing to gauge the overall health of large American companies.

² Only the deals announced in the 102016.

ficer (De Vries, 2015), the financial software firm Intuit became a design-driven company (Smith, 2015).

The new movement is perhaps most evident in the consulting industry (see Figure 1C). In 2014-2015, the tech and consulting giant Accenture invested \$200 million (€180 million) in building and growing its own 'design powerhouse', having acquired the global design firm Fjord, among other companies (Accenture, 2015, Montgomery, 2015). The innovation consultancy Doblin was purchased by the strategy firm Monitor in 2007 and became a part of Deloitte in 2013. McKinsey & Co. acquired Lunar Design in 2015 and Veryday in 2016. IBM (2014), apart from its M&A activities, committed over \$100 million (€72.8 million) to expanding its consulting services by fusing strategy, data and design. Deloitte Digital, a subsidiary of the accounting and consulting major, positions itself as "part technology, part strategy, part creative" (Deloitte Digital website). PwC Digital operates at the intersection of business, experience and technology, offering to co-create strategies (PwC Digital website).

The revised view of design opens up avenue for a longheld aspiration of design consulting — to approach strategic assignments and innovation initiatives from the beginning. The fusion of design and strategy arises distinctively in a form of BUSINESS DESIGN, the discipline seeking to apply the design principles and toolkit to complex business challenges and innovation ambitions. Business design has recently began to thrive in consultancy, from a business-focused offering at the most credited design company IDEO to an innovation practice at the global strategy firm Oliver Wyman.

Research gap

In the past decades, the traditional views of strategic planning have often been named the least effective function in organisations, criticised by both scholars and practitioners for bias towards analytical thinking and formal processes (Carlopio, 2010, Liedtka & Ogilvie, 2011, De Wit & Meyer, 2014). The opponents of the conventional approach consider strategy as art, rather than science, and see creativity as an aid for developing unorthodox insights and generating innovative solutions to uniquely challenging problems. The research agenda shifts further away from the century-old Taylorist focus on productivity, cost reduction and quality management to an organisation's ability to adapt to discontinuous change and deliver sustainable innovation.

In the meantime, the contemporary research approach in strategic management suggests to examine *strategy as practice* — that is, something that people do

rather than firms have (Whittington, 1996, 2006). The 'practice turn' encourages process-oriented studies focusing on the work of strategists and their everyday activities. In a bid to develop novel approaches, tools and techniques for strategising, the discourse investigates the role of various stakeholders, including executives, middle managers and external advisers (Balogun, Huff and Johnson, 2003, Johnson, Langley, Melin and Whittington, 2003).

Within a similar movement, scholars address design as an end-to-end system for problem solving, or "a bundle of attitudes, tools and approaches" (Liedtka, 2015, p. 5). By recognising work done by multiple stakeholders, the practice orientation in design enables to export its principles to other disciplines where they can produce superior outcomes (Kimbell, 2011, 2012). Action research, even in form of theses and dissertations, effectively becomes a channel to grow credibility of design, gain its external validation, project novel perspectives and ultimately enlarge its practice (Swann, 2002).

Admittedly, specialised firms (notably IDEO and its CEO Tim Brown) and prominent business thinkers like Martin have already mobilised interest in the principles collectively known as design thinking both among executives and in academia. However, in many cases, it was suggested to 'borrow' tools used by designers in their work and apply them to managerial tasks and practices (Liedtka & Ogilvie, 2011). At the same time, design professionals and consultants, who have long been seeking to engage in strategic decision-making, receive little attention from scholars in light of their role in clients' innovation efforts (Siedel, 2000, Calabretta *et al.*, 2014).

Study aims

In both the academic fields of strategy and design, there is an ongoing dispute between views considering each as ideological or locked in theory and those finding them not rigorous enough (McKenna, 2012, Johansson-Sköldberg, Woodilla, Çetinkaya, 2013). Moreover, the concept of design thinking, having surfaced in the management discourse at the beginning of the new century, is often claimed to have neither sustainable development nor a solid theoretical body. Operating at the intersection of the two fields, the study has a potential to make an academic contribution by examining the consulting practice of business design with a pluralistic perspective on its theoretical underpinnings. The question put forward by the research is, *How can business design be conceptualised in the context of external design and innovation consultancy*?

The study has three key aims. Firstly, to establish the relevance of business design as a distinctive approach in

strategy. Secondly, to connect the consulting practice of business design to a holistic theoretical framework covering strategic management and other relevant fields. And lastly, to conceptualise the business design practice in the context of design and innovation consulting by identifying its key attributes — be it cognitive approaches, techniques or competencies.

Structure of the report

The study is divided into five chapters, commencing with this introduction that explains its background, outlines the research gap, sets the aims and defines key terms.

The second chapter presents the theoretical framework that reviews and explains key concepts relevant for the study in their historical development. The first of the chapter's three sections focuses on the problematic nature of strategy. The second section explores the concept of design thinking within its highly fragmented development and investigates its opportunistic nature. The third section explores different perspectives on the roles of management consultants.

The methodology chapter presents rationale for using a specific research approach, addresses applicable quality criteria, and describes mechanisms for collecting, analysing and synthesising empirical data.

The fourth chapter delivers the study's empirical outcomes and is divided into two sections. The first one of them reviews the existing literature exploring the application of design thinking to strategy formation, and the second presents a suggestive model conceptualising the consulting practice of business design.

The fifth chapter discusses the outcomes, summarises and concludes the study, explains its limitations and suggests directions for further research.

Terminology conventions

In several cases, the study specifically focuses on the definition of its essential concepts, occasionally concluding the lack thereof. It is, however, important to outline some ground principles for using the key terms to guide further reading.

Strategic management recognises the lack of widespread agreement among researchers, practitioners and theorists on what strategy really is (see Section 2.1 for details). Moreover, the modern discourse emphases that intensity of the debate, fuelled by alternative, and often conflicting, perspectives, produces more complex understanding in the area. For the basic level of clarity, *strategy* is defined as a course of action for achieving an organisation purpose (after De Wit & Meyer, 1994/2010, 1999/2014). Across the study, the terms 'strategy' and 'business strategy' are used interchangeably.

Likewise, the existing literature on design often lacks its sharp definition, while various perspectives on the issue shape richness and sophistication of the discourse. As a starting point, the study uses a broad twofold definition of *design* (after Simon, 1969/1996, Liedtka & Mitzberg, 2006): as *design process* — conscious activities aimed to plan a change of an existing situation into a preferred one, and as *design outcome* — a specific solution resulting from these activities.

A more specific and relevant term, design thinking, is often perceived potentially confusing or even misleading (Hassi & Laakso, 2011). For the purpose of the study, *design thinking* is broadly defined as a collection of principles applied in multiple professional areas and traditionally associated with creativity. Importantly, it is not exclusive to the cognitive principles and also covers tools and activities, being equally about 'design doing' (see Section 2.2 for the discussion of the term).

Finally, an important distinction needs to be made between a number of admittedly ambiguous terms pointing at the interplay between design and strategy. Two of them are rooted in the design context. *Strategic design* is usually associated with acknowledgement and effective use of design resources, competencies and tacit knowledge for achieving organisational goals (Olson, Cooper, Slater, 1998). Somewhat simplified, it can be described as strategic application of design, or 'design as strategy'. *Design strategy* defines and guides the application of design, its attributes in various continuous processes, including product and service development, brand and programme management (Lockwood, 2009b).

A number of seemingly similar terms relate to the business realm. The design school of strategy is a predominant school of thought in strategic management that presents a traditionalist approach, where strategies are first 'designed', then agreed upon and finally implemented (Mintzberg et al., 2005; see Section 2.1 for the overview of strategy-related terms). The view of strategy as design points at the benefits of intuition and creative thinking to strategy formation (e.g. Liedtka, 2000; see Sections 2.1 and 2.2 for details). Strongly related and overlapping with the latter, the discourse of *strategy by design* is concerned with the use of the design thinking to strategy making (Carlopio, 2010; see Section 4.1 for details). Considered synonymous to the term 'strategy by design', business design is defined as a discipline that applies design thinking to shaping business models, strategies, and organisation design.

2

THEORETICAL FRAMEWORK

§ 2.1. Strategy as Problem Solving

strategy Generally ACKNOWLEDGEs its roots in warfare. The Greek *strategos* (στρατηγός), meaning art of generalship, provides one of the most straightforward definitions of the term: in contract with tactics, 'using the troops to win a battle', strategy is 'the art of using a battle to win a war' (Von Clausewitz, 1832/2001). Coming from the ancient world, the military origins still inform metaphors like 'winning the battle of competition' in such diverse activities as law, business, sports and games.

In the business context, strategy remains a relatively new academic and professional field. It was introduced in the course on business policy at Harvard Business School in 1912, but gained momentum only after World War II (Ghemawat, 2002, Kiechel, 2010, McKenna, 2012). During the 1950–1960s, academic thinking on the subject was driven by the Harvard professors George Albert Smith, Roland Christensen, Alfred Chandler and Kenneth Andrews, being concerned primarily with strategic fit between 'internal capabilities' of a firm and its 'external possibilities'. One of the most known concepts developed at the time is cetrainly the swort model (Exhibit 1) for assessing strengths and weaknesses of the organisation or project in light of opportunities and threats in its environment (Mintzberg *et al.*, 1998/2005, Ghemawat, 2002).

Up until the 1960s, only a handful of companies — most notably, General Motors and AT&T — had a practice similar to today's strategy (Ghemawat, 2002, Nadler & Slywotzky, 2005/2010). However, 'business policy' or 'planning' of the time was still guided mostly by instinct and tradition as long as firms' knowledge of their products and customers was not supported by proper insight on the competitive landscape (Nadler & Slywotzky, 2010, Kiechel, 2010).

The rise of strategy consulting practices in the 1960s and early 1970s and works of thought leaders such as Igor Ansoff and Bruce Henderson, the founder of the Boston Consulting Group (BCG), produced a new set of methodologies with a profound influence on the academic discipline of strategy (Nadler & Slywotzky, 2010, McKenna, 2012). Seeing business potential in the ambiguity of the strategy definition, Henderson put significant effort in establishing BCG as a strategy consulting firm (BCG website). His work, regarded as the first breakthrough in strategy, uncovered the concept of the price experience curve (Henderson, 1970, pp. 35-37) and the Growth Share Matrix (Henderson, 1979, pp. 163-166), having transformed the ad hoc and intuitive



EXHIBIT 1 Developed in the 1960s, the swot MATRIX is a visual model for structured planning that evaluates *strengths, weaknesses, opportunities,* and *threats* of a project or business venture. Expressing the concept of strategic fit, the model assesses how internal capabilities of the firm match with its external environment. practice into a discipline based on empirical evidence and methodology (Nadler & Slywotzky, 2010, pp. 105-106).

The second strategy breakthrough is associated with the Harvard professor Michael Porter, cofounder of the consulting firm Monitor (currently Monitor Deloitte; *ibid.*, pp. 106-107). In the late 1970s, Porter (1979, 2008c) explained that, beyond established competition, four more forces define profitability in the industry: savvy customers, powerful suppliers, potential substitute offerings, and new entrants hungry for market share (Exhibit 2). He also popularised the concept describing a business as a chain of value-creating activities (Porter, 1985, pp. 33-45, 59-60; Exhibit 3) and suggested that a strong strategic position must be developed within the three generic alternatives: cost leadership, differentiation, and focus⁺ (Porter, 1980, 1996).

By the late 1990s, Henry Mintzberg identified ten predominant schools of thought in strategy. Three of them (design school, planning school and positioning school) are *prescriptive*, or normative: more traditional in nature, they focus on the notion of 'ideal' strategy formulation. Here, strategies are first designed by senior managers, then agreed upon and finally implemented. In contrast, the *descriptive* schools (learning school, power school, cultural school, environmental school and entrepreneurial school) focus on the content of strategies, rather than process of their development. The last, configuration school, is a hybrid that seeks to integrate the content and process of strategies with organisational structure and context (Mintzberg *et al.*, 2005).

Hoskisson and colleagues (1999) observed that over the past decades, strategic management theory evolved as a pendulum swing. Starting in the 1960s with the forerunners' focus on internal aspects of a firm, including inner strengths and managerial competences (Chandler, 1962, Ansoff, 1965, Andrews, 1971/1987), it shifted towards the external forces and industries during the 1970–1980s (Porter, 1980/2008a, 1985/2008b) and returned back to its microlevel origins at the end of the twentieth century. The swing back to the outside-in views is associated with the modern theories in strategic management, including core competence of a firm (Prahalad & Hamel, 1990), knowledge creation (Nonaka & Takeuchi, 1995) and strategy as practice — a distinctive perspective conceptualising strategy as something that people do, rather that something firms have (Whittington, 1996, 2006; see the Methodology chapter for details).

Nature of strategic management

Despite the obvious importance for business and decades of academic research on the topic, there is no single clear definition of strategy and little agreement on how to develop a good one (Mintzberg, 1987c, Camillus, 1996, Markides, 1999b, 2001).

Shared views on the nature of strategic management are shaped around the works of its pioneers (see Sniukas, 2010 for a detailed overview). Firstly, the ultimate goal of strategy is to gain sustainable *competitive advantage* that allows a firm to outperform its rivals and gain persistently higher profitability (e.g. Markides, 2000, Hamel, 2001, Porter, 2008b). Strategy is widely concerned with *differentiation* — providing unique attributes valued by the customers in order to shield a firm from competition (e.g. Porter, 1996, 2008b, Markides, 1999a, 2001, Hamel & Välikangas, 2003). Whereas each successful company employs its own strategy, competitive edge is normally achieved through the ⁺ Cost leadership implies increasing profits by reducing costs. Differentiation is maximising relevant differences with rivals and making the offering more attractive. Focus means serving a niche market resistant to cost and competitive pressures.

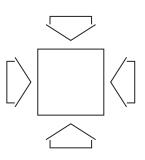


EXHIBIT 2 Porter (2008a) describes the FIVE FORCES shaping the competitive environment. Apart from the *established competition*, profitability within the industry is affected by the *degree of rivalry*, *buyer power*, *threats of substitutes*, *barriers to entry*, and *supplier power*.

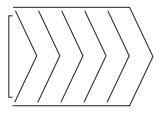


EXHIBIT 3 Popularised by Porter (2008b), the concept of VALUE CHAIN describes the process or activities that a firm performs in order to deliver value to the market. Starting from the *inbound logistics*, it goes along *operations* and *outbound logistics*, *sales and marketing*, followed by *after-sales service*. act of *innovation* (e.g. Porter, 1996, Markides, 2000, Hamel & Välikangas, 2003). Strategy needs to *fit*, or ensure the balance between the firms's own resources and its external environment (e.g. Porter, 1996, Mintzberg & Lampel, 1999, Markides, 2000). Finally, in order to succeed, organisations need to focus by making clear strategic *choices* between available alternatives (e.g. Mintzberg, 1987b, 1987c, Porter, 1996, Markides, 2000).

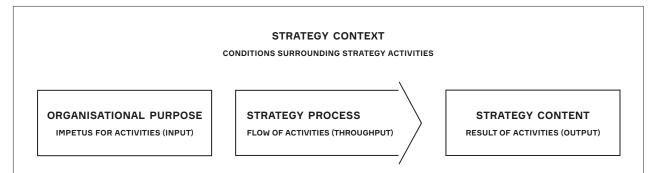
At the same time, Mintzberg (1987b) argued that no single definition would adequately describe the nature of strategy. Instead, he suggested five mutually reinforcing interpretations, or the Five PS, of strategy: a consciously and purposefully developed *plan*, a consistent *pattern* of actions, whether intended or not, a *position* in relation to the competitors or markets, a *ploy* to outmanoeuvre the rivals, and a *perspective* in perceiving the world.

Another potential P contributing to the definition is coming from the view of strategy as a *problem*. In his first book aimed at a general audience, professor Richard Rumelt (2011, pp. 129–130) considered strategy as solving a design problem, rather than plan or choice: various elements of the problem need to be arranged, adjusted and coordinated with one another.⁺ Bob de Wit and Ron Meyer (1994/2010, 1999/2014, pp. 15–18) addressed strategy as a *paradox*: instead of finding the single right answer or making a choice between alternatives, it requires to accommodate conflicting points by "getting the best of both worlds." This portrays strategy as the ultimate intellectual challenge that stimulates creativity to resolve, or synthesise, it.

Aiming to open up the 'black box' of strategist's mind, De Wit and Meyer (2014, pp. 5-13) developed a comprehensive framework that aims to approach the problem-driven, decision-oriented nature of strategy — instead of focusing on specific tools or certain perspectives (see also Davenport *et al.*, 2006). Three interrelated dimensions of strategic issues — context, process and content, — along with the organisational purpose, describe the "why, where, who and what" of strategy (Figure 2).

FIGURE 2 DIMENSIONS OF STRATEGY AND ORGANISATIONAL PURPOSE

De Wit & Meyer, 2014



* With a similar perspective, Martin (2007b) called upon business leaders to acknowledge the need of integrative thinking aimed to creatively resolve the tension between opposing models by embracing complexity, tolerating uncertainty, and learning. Each dimension of the De Wit-Meyer (2014, pp. 13-18) model contains a strategic tension shaped by opposing demands that may seem contradictory to a certain extent. Strategic thinking, for instance, can be seen as analytical or creative, while strategy formation — as deliberately planned or emerging over time. The pairs of perspectives at the extreme poles present thesis and antithesis, each with its strong proponents, and call for synthesis — understanding both perspectives, having a dialogue among them and combining the two in a unique and innovative way.*

[†] According to Rumelt (2011, pp. 77–94), good strategy has an underlying structure, or 'kernel', consisting of three parts: a *diagnosis* that defines or explains the nature of the challenge, a *guiding policy* for coping with it, and coherent *set of actions* intended to carry out the change.

Strategy formation and strategic thinking

FIGURE 3 DIMENSIONS OF STRATEGY

The process of strategy making is normally presented as a sequential progression through a number of distinctive steps — most commonly, analysis, formulation, implementation and change[†]. However, the idea of a linear, rational and comprehensive sequence is regularly challenged by the contemporary views on strategy development in both practice and academia (De Wit & Meyer, 2014, p. 7; see also Davenport *et al.*, 2006).

De Wit and Meyer's (2014, pp. 13-18) framework unravels strategy process into three partially overlapping issues (Figure 3). *Strategic thinking* investigates how strategists diagnose and define problems as well as how they solve them. *Strategy formation* explores how managers formulate and implement strategies. *Strategic change* describes which areas of the firm are being renewed and how fast the shift is taking place.

The tension within the topic of strategic thinking is shaped by the conflicting demands for *logic* and *creativity*. Here, the extreme poles are not only opposites, but also partly incompatible. Requiring different mindsets and cognitive skills, the two are difficult to reach at the same time — for an individual, team, department and overall enterprise alike (*ibid.*, pp. 39-49). ⁺ Here, *analysis* means defining opportunities and threats within a firm and in its environment, *formulation* includes identification of strategic options, assessing them and making a choice, *implementation* is translation of strategy into concrete steps, and *change* implies carrying out the identified activities.

De Wit & Meyer, 2014 (adapted)

STRATEGY PROCESS	STRATEGY CONTENT	STRATEGY CONTEXT
How, who and when of strategy	What of strategy	Where of strategy
Strategic thinking, implementa-	The product of the strategy process	The specific environment and cir-
tion and change, along with in-	explaining what the organisation	cumstances in which the strategy
volved stakeholders and activities	and its units are — and should be	process and content are being em-
required in the process.	— doing.	bedded.
	TOPICS & TENSIONS	
strategic тніпкіng	BUSINESS LEVEL STRATEGY	INDUSTRY CONTEXT
Logic — Creativity	Markets — Resources	Compliance — Choice
STRATEGY FORMATION	CORPORATE LEVEL STRATEGY	ORGANISATIONAL CONTEXT
Deliberateness — Emergence	Responsiveness — Synergy	Control — Chaos
STRATEGIC CHANGE	NETWORK LEVEL STRATEGY	INTERNATIONAL CONTEXT
Revolution — Evolution	Competition — Cooperation	Globalisation — Localisation

A more traditional approach, with Porter (1990/2011, 2008a, 2008b), Ansoff (1965) and Andrews (1987) as major proponents, views strategy as science — a rational, analytical and convergent thought process (O'Shannassy, 1999). In this view, strong analysis of the facts helps to avoid potential bias and emotional interpretations, make a clear distinction between feasibility and fantasy, and build a true model of reality (De Wit & Meyer, 2014, pp. 40-42). Logical thinking reaches out for more *rational reasoning* — rigorous, comprehensive, and consistent, instead of 'haphazard, fragmental and ad hoc'.

Defining Wicked Problems

Iready in the 1970s, Herbert Simon and Allen Newell, both regarded as the founders of artificial intelligence, emphasised the relation between problem structure and problem-solving methods (see Newell & Simon, 1972, Simon, 1973). Designing a house is an example of an ill-formulated problem: having a broad problem space, its definition requires considering all possible kinds of structures and materials as well as various design processes and ways of organising them.

A mathematician, designer and former teacher at the Hochschule für Gestaltung Ulm, Horst W.J. Rittel (1972) developed the idea further. He suggested that many of problems addressed by designers are ill-structured: influenced by many decision-makers with conflicting values, they contain confusing and contradictory information. Later, Rittel alongside Melvin M. Webber, both professors of design and urban planning, coined the term *wicked problems* and contrasted them to 'benign', or tame, problems in mathematics, natural sciences and chess (Churchman, 1967, Rittel & Webber, 1973).

Describing problems as vicious, aggressive or wicked, Rittel and Webber underlined their 'evil quality': proposed solutions often turn out to be worst than the symptoms. Many of public issues — from school curricula to tax rates, confronting crimes and global warming — belong to this class of a problem (see the text box on the right for details). Importantly, wickedness is not a degree of difficulty but a fundamentally different kind of a challenge, its second generation: having innumerable causes, they are unqiue, tough to describe and have neither precedent nor single right answer (Rittel, 1972, Rittel & Webber, 1973, Conklin, 2005, Camillus, 2008, 2016).

Wicked problems are created by social complexity and fragmentation: the greater the number of stakeholders, their diversity and disagreement among them, the more wicked the problem (Conklin, 2005, Camillus, 2008, 2016, Fabricant, 2013). In this light, lack of a specific problem definition can be explained by an array of stakeholders who are certain that their version of a problem is correct.

Recently, strategic problems were also described as wicked: conflicting priorities of stakeholders, constantly changing requirements, and inability to evaluate potential remedies beforehand make them exceptionally challenging (Camillus, 2008, 2016, De Wit & Meyer, 2010, 2014). It is therefore suggested that essentially unique, highly complex and linked to other problems, wicked problems in strategy cannot be resolved merely by gathering additional data, defining issues more clearly or breaking them down into smaller ones (see Insert 2 for details on solving wicked problems).

PROPERTIES OF WICKED PROBLEMS Conklin, 2005

- 1. NO CLEAR FORMULATION It is impossible to define a wicked problem before the solution is developed. Every offered solution exposes new aspects of the problem, interlocking issues and constrains. Stakeholders have different views on the nature of the problem and acceptable solutions.
- 2. NO STOPPING RULE It is impossible to define conclusively that the solution has been reached. The problem-solving process lasts until either the end of resources — time, money, or energy — or emergence of a 'good enough' solution.
- **3. SOLUTIONS ARE NOT RIGHT OR WRONG** Rather, they are better, worse, good enough or not good enough. Assessment occurs in a so-cial context, where many parties with independent values and goals can and willing to judge potential solutions.
- 4. EACH WICKED PROBLEM IS ESSENTIALLY UNIQUE Having no precedent, it requires a custom designed and fit solution. While it is possible to acquire experience and wisdom in solving wicked problems, approaching every new one of them makes one a beginner.
- 5. EVERY SOLUTION IS A 'ONE-SHOT OPERATION' Every attempt to solve a wicked problem is expensive and has lasting unintended consequences, which are likely to spawn new wicked problems. Solving wicked problems promotes experimentation.
- **6. THERE IS NO GIVEN ALTERNATIVE SOLUTIONS** It is a matter of creativity to devise potential solutions and a matter of judgement to determine which are valid, which should be pursued and implemented. There is another host of solutions never thought of.

Advocates of rational reasoning, starting from Simon (1987), emphasise that it resembles the problem-solving approach of chess grand masters — a step-by-step process that aims to be as logical as possible (Figure 4). Alternatives to it appear 'irrational and illogical' and are hardly desirable for a conventional strategist. Neither is fully intuitive and creative thinking particularly appealing: useful in some cases, it is often claimed to be an excuse for 'intellectual laziness' (De Wit & Meyer, 2014, p. 42).

Views on the opposite side see strategy as intuitive, creative and divergent thought process — as art or, more recently, design. Main proponents of the perspective — notably, Ohmae (1983), Mintzberg (1994), Prahalad and Hamel (1994), and Liedtka (1998a, 1998b, 2000) — suggest that, being formalised and analytical, planning cannot effectively develop strategies (O'Shannassy, 1999). Creative thinking aims to make strategic reasoning more *generative* — produce more unorthodox insights, imaginative ideas and innovative solutions, instead of having a bland, conformist and conservative output (De Wit & Meyer, 2014, pp. 42-47).

The views favouring generative reasoning are anchored in the notion of 'wicked problem' — a unique challenge that has a set of demands with no definitive formulation and hence no proven solutions (Rittel & Webber, 1973). Incomplete, contradictory, vague and changing requirements make these problems hard or impossible to solve (see Insert 1 for details). Unlike 'tame' problems in maths and chess, strategic problems are 'wicked': having numerous, highly subjective perspectives without a fixed set of alternative solutions, they cannot be solved by a conventional sequence of logical steps (Liedtka, 2000, 2015, De Wit & Meyer, 2014, Camillus, 2008, 2016).

Defining and solving strategic problems is therefore seen as fundamentally a creative process, which, however, should not be equated with brainstorming techniques or occasional use of 'wild ideas'. Rather, it requires that all strategic reasoning activities are oriented towards creating, or 'inventing', a solution, instead of calculating, or 'finding', it (*ibid.*).

FIGURE 4 PERSPECTIVES ON STRATEGIC THINKING

De Wit & Meyer, 2014 (adapted)

	RATIONAL REASONING PERSPECTIVE	GENERATIVE REASONING PERSPECTIVE
Emphasis on	logic over creativity	creativity over logic
Dominant cognitive style	analytical	intuitive
Decisions based on	calculation	judgement
Problem defining seen as	recognising and analysing	reflecting and sense-making
Problem solving seen as	formulation and implementation	imagining and doing
Value placed on	consistency and rigour	unorthodoxy and innovation
Strategy is seen	as science	as art

Within the topic of strategy formation, the main distinction is made between the views of strategy as *intended* course of actions (meaning a plan formulated prior to activities) and *realised* one (or a pattern of behaviour ex-

INSERT 2

Solving Wicked Problems

U nderstanding that wicked problems make a whole new kind of a challenge led Rittel (1972) to the conclusion that they require a fundamentally different approach to solving them. A traditional linear practice — understanding the problem, gathering and analysing data, generating and assessing solutions, implementing the chosen option, testing and modifying — is labelled as a primitive scientific process.

According to Rittel (1972), the first-generation approach to problem solving implies the motto 'think before you act' and entails the obligation to be rational, understand the entire problem, and look at the consequences. It addresses facts in order to describe the future, predict and control it. The first generation tools and methods, such as locking down the problem definition, seeking a similar problem or limiting the solution space, turns inefficient for solving wicked problems. Using them results in 'paralysis by analysis', a high failure rate, and undesirable consequences (Conklin, 2005).

On the contrary, the approach for solving wicked problems makes the solution secondary and recognising the nature of the problem central (Conklin, 2005, Camillus, 2008). The process is seen more emergent and interactive: critical problem understanding evolves in parallel with solution formulation in a continuous cycle of inventing and learning. The process requires an opportunity-driven approach — identifying uncertainties, making decisions and plans, doing experiments, launching pilot programmes, and testing prototypes. The focus in the process shifts to creation, making knowledge and skills insufficient. Decisions are based on stories create a more coherent sense of meaning (*ibid.*).

Inline with the original framework developed by Rittel (1972; see on the right), the approach for solving wicked problems is presented as fundamentally a social process (Conklin, 2005, Camillus, 2008, Nagji & Walters, 2012). Instead of finding the 'right' or 'best' answer, it is concerned with engaging stakeholders for creating both shared understanding of the problem and internal commitment to possible solutions. Importantly, this does not necessarily imply agreement; rather, it means that stakeholders understand each other's positions well enough to discuss different interpretations and solving the problem collectively (*ibid*.).

Viewing strategies as wicked problems emphasises an organisation's ability to learn and innovate as the greatest competitive advantage.At odds to linear approaches and analysis, solving wicked problems requires continuous search for understanding, interpreting and making sense of problems. An interactive process of action, reaction and reconsideration includes gathering insights, evaluating diverse options and risk-taking in implementing options with no precedent (Conklin, 2005, Christensen, 2009).

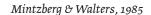
TAMING WICKED PROBLEMS Rittel, 1972

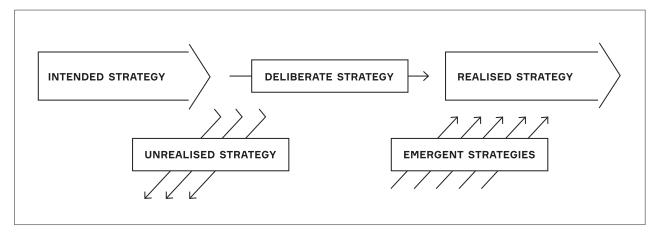
- **1. SYMMETRY OF IGNORANCE** There are no specialists. Expertise required for solving a wicked problem is distributed over many people.
- **2. MAXIMISING INVOLVEMENT** People who are likely to be affected by the solution need to participate in the problem-solving process.
- **3. DEONTIC PREMISE** Personal obligation justified not by the planner's professional expertise, but rather by political, moral and ethical attitudes.
- **4. OBJECTIFICATION** Making justification behind the arguments explicit and communicating it to others.
- **5. NO DETACHED, SCIENTIFIC, OBJECTIVE ATTITUDE** Planning is always political because of deontic premises.
- **6**. **PLANNER AS A MIDWIFE** The role of the planner is to help by bringing about problems, rather than to offer solutions or therapy.
- 7. SKEPTICISM The planner makes careful, seasoned 'respectlessness', casts doubt on something, a virtue.
- **8. MODERATE OPTIMISM** Recognising importance of rationality and planning as well as impossibility to be completely rational in the process.
- **9. CONSPIRACY MODEL OF PLANNING** Sharing the risk during the attempted solutions, where each of them is a venture or even adventure.
- **10. ARGUMENTATIVE PROCESS** Evidence is gathered and arguments are built both for and against different positions.

hibited in practice and analysed in a foresight). Having articulated the idea, Mintzberg and Walters (1985) noted that the two views are not contradictory, but complementary.

The strategy formation process describes how strategies were formulated beforehand, with the main tension laying between *deliberate* and *emergent* strategies (Figure 5). The former is demonstrated when realised strategy was fully intended: planned course of actions made explicit, documented and finally implemented. In contrast, emergent strategies come about "despite, or in the absence of, intensions": in this case, plans can be modified or lack at all, but behaviour remains strategic (De Wit & Meyer, 2014, pp. 56–73).







To a large extent, advantages of the two approaches seem to be the opposite counterparts (Figure 6). Deliberate strategising gives a sense of direction, enables coordination of activities and ensures early commitment to the chosen course of actions. At odds, emergent strategising enables flexibility, learning and opportunism in response to unfolding circumstances, taps on entrepreneurial spirit within the organisation, and allows to shape strategy based on what is feasible (*ibid.*).

Advocates of the *strategic planning* perspective, such as Andrews (1987) and Chakravathy and Lorange (1991), argue that a pattern of actions, even successful, cannot be called strategy. According to a motto "think before you act", they insist that strategies must be intentionally designed in order to predict, optimise and programme the organisation's future behaviour. The view shares many of the assumptions underlying the rational reasoning perspective, and 'to manage' here means 'to control' (De Wit & Meyer, 2014, pp. 63–67).

Proponents of the *strategic incrementalism* perspective, including Mintzberg (1993), Hamel (1996) and Liedtka (2000, 2015), see strategy formation as a messy, fragmented and iterative process of 'thinking and acting'. In this case, strategies emerge over time, adapt to unfolding circumstances, and gradually blend together into a coherent pattern of actions (De Wit & Meyer, 2014, pp. 67–78). Recognising that strategy making is essentially an innovation process, the authors argue against suitability of planning: novel insights and creative ideas tend to surface unexpectedly, rather than being generated on demand. Besides, the notion of the wicked character of strategic problems portrays the planning approach as inappropriate for solving them (*ibid.*; see Insert 2 for details).

	STRATEGIC PLANNING PERSPECTIVE	STRATEGIC INCREMENTALISM PERSPECTIVE
Emphasis on	deliberateness over emergence	emergence over deliberateness
Nature of strategy as	intentionally designed	gradually shaped
View of future developments	forecast and anticipate	partially unknown and unpredictable
Posture towards the future	make commitments, prepare	postpone commitments, remain flexible
Formation process is	formally structured and comprehensive	unstructured and fragmented
Decision-making is	hierarchical	dispersed
Decision-making focus on	resource allocation and coordination	experimentation and parallel initiatives
Implementation focus on	programming (organisational efficiency)	learning (organisational development)
Strategic change	is implemented top-down	requires cultural and cognitive shifts

I

Flaws, criticism and contemporary approach

Sniukas (2010) reviewed major grounds for criticism of strategy practice along the dimensions of the De Wit-Meyer model. In particular, the conventional notion of strategy process is widely criticised for bias towards analytical thinking (e.g. Mintzberg, 1987a, Hamel, 1996, Markides, 2001, Martin, 2014). The highly standardised, formal process of planning is claimed to leave little room for adaptation and fast-pace development (e.g. Mintzberg 1987a, Mankins, 2004, Lafley, Martin *et al.*, 2012) as well as for creativity (e.g. Mintzberg, 1987a, 1993, 1994, Liedtka, 2000, Markides, 2000, 2001, Lafley, Martin *et al.*, 2012) and for commitment from line managers (e.g. Liedtka, 2006, 2011). An annual cycle of strategic planning is concidered in misfit with the discontinuous change in the environment (e.g. Mankins, 2004, Lafley, Martin *et al.*, 2012). Reluctance to change demonstrated by the companies that found a solid and winning strategy leads to mere incremental adaptation of previous plans (e.g. Mintzberg, 1994, Camillus, 1996, Hamel, 1996, 2001, Martin, 2014).

To a large extent, resulting strategy content inherits flaws of its formation process. Over-reliance on best practices and imitation undermines differentiation: firms compete along the same dimensions, varying only in price, and erode profitability margins within the industry (e.g. Hamel & Välikangas, 2003, Martin, 2014). Companies aim to perform the same activity better than competitors instead of differentiating by "doing the same thing in a different way" or "doing a completely different thing", as suggested by Porter (1996; see also Hamel, 1998). In turn, too strong focus on operational effectiveness enables only incremental change in cost, quality or both, effectively undermining strategic innovation (e.g. Hamel, 2001, Hamel & Välikangas, 2003). Sticking to a single strategic position leads to a failure to find alternative solutions and scenarios (e.g. Martin, 2014).

A number of authors stressed that the conventional views lack a theory of creating strategies, as if they dropped out of analysis fully formulated — in

a Biblical, rather than Darwinian, fashion (e.g. Hamel, 1998, Mintzberg *et al.*, 2005). Traditional tools and models for strategy development are deemed out of date and obsolete (see Sniukas, 2010), focusing too narrowly on the existing competition and market leaders and bypassing new markets (Hamel & Prahalad, 1989, Christensen, 1997/2013). The toolkit is also perceived as unable to either grasp actionable customer insight or to generate strategic foresight and options (Mintzberg & Lampel, 1999).

A distinctive stream viewing *strategy as design* similarly presents strategic planning as the weakest function in most organisations in terms of culture, capability and efficiency (e.g. Liedtka, 2006, 2011, Golsby-Smith, 2007). The forerunner of the discourse, Jeanne Liedtka consistently criticises strategy for its formal nature, which "breeds bureaucracy and myopia, not curiosity and creativity" (Liedtka, 1997, p. 8) and favours incremental over substantive change (Liedtka, 2011). Highly abstract content of strategies is deemed to produce 'knowing-doing gap' — failure to turn strategic rhetoric into actions — and falls through creating commitment from managers (Liedtka, 2006, 2011). Seeking specific ways to explore opportunities and make strategies more meaningful, Liedtka found inspiration in design and creative engineering (Friedel & Liedtka, 2007). For her, using design methods helps to move beyond outcome metrics towards the 'desire-driven approach', invite stakeholders to participation, engage them in hands-on activities and experimentation, create tangible artefacts and develop them iteratively.

Somewhat ironically, the perspective knitting together strategy and design places itself at odds with design school of strategy. In contrast with the hierarchical, top-down approach of the past, the new view favours creative reasoning and emergent strategising, supported by a toolkit for modelling and experimentation (e.g. Liedtka, 2011, 2015).

§ 2.2. Design for Problem Solving

THE COMPLEX NATURE OF DESIGN is evidently easier to understand by making a distinction between two meanings of the term. Two prominent business theorists, Liedtka and Mintzberg (2006, p. 12), addressed the notion, explaining that design, as a noun, refers to an outcome, which can be superior whenever it embraces simplicity, emotional engagement and the right balance between the familiar and the new. As a verb, design uncovers its second dimension — the act of designing products, organisations and strategies, — which supposedly holds the key for "unlocking the real potential that design has for business" (*ibid.*, see also Kotler & Rath, 1984, Bucolo & Matthews, 2011).

The design process and its methods, along with the character of designers' sense-making, have been in the focus of academic thinking for several decades. Interestingly, the Nobel Prize winner in Economics Herbert Simon (1969/1996) is regarded as a foundational father of design research (Johansson-Sköldberg *et al.*, 2013, p. 124). In the late 1960s, Simon made a distinction between "deal-

ing with the existing reality" in sciences and "conscious creation of the new" in design and engineering. For Simon (1996, p. 111), "everyone designs who devises courses of action aimed at changing existing situations into preferred ones." Moreover, "schools of engineering, as well as schools of architecture, business, education, law, and medicine, are all centrally concerned with the process of design" (ibid.).

Thinking of the 1980s was almost uniformly concerned with the problemsolving aspect of design, specifically in application to ill-defined problems (see Insert 1 for details). Prior to works on organisational learning, Schön (1983) explored the learning-focused, hypothesis-driven approach of design. On the contrary with the linear, technical approach in Simon's views, Schön (*ibid.*, p. 49) focuses on the "artistic, intuitive process" applied to the "situations of uncertainty, instability, uniqueness, and value conflict." Lawson (1982/2006) and Cross (1982/2006) reflected upon designers' sense-making which is based on generating and testing potential solutions. Taking a more procedural focus, Rowe (1987) introduced the term design thinking and suggested that the nature of the problem-solving process shapes the solution.

In the early 1990s, Buchanan (1992) joined the discussion, building upon Rittel and Webber's ideas. He argued that design is potentially universal in scope as long as its methods and tools are useful for solving problems outside its traditional domain. Besides, dealing with the ill-defined problems makes creative problem reframing a part of design competence.

Johansson-Sköldberg and associates (2013) identified eight alternative schools of thought in design thinking (see also Hassi & Laakso, 2011, Badke-Schaub *et al.*, 2010). Five of them belong to an older discourse that is based on a half-century-long academic discussion originating in design, art, architecture and planning. Here, design is seen as a matter for initiating new forms (Simon, 1996), making sense of things and designerly way of knowing (Cross, 2006, 2011, Lawson, 2006), creation and innovation of meanings (Krippendorff, 2005, Verganti, 2009) and a problem-solving activity (Buchanan, 1992; see also Wylant, 2010). Due to publication norms of the time, the *design discourse* is considered more robust and scholarly: authors refer to and quote each other, either in following or in opposition.

The new wave, or the *management discourse* of design thinking, is significantly younger but has grown rapidly. Appearing at the change of the millennium, it approaches the concept as particular thinking styles and ways of using design methods by non-designers, claiming that its greatest payout is in designing business itself (e.g. Brown, 2009, Martin, 2009, Fraser, 2012, Sniukas *et al.*, 2016; see Section 4.1 for the review). Much of writing here addresses a business or managerial audience in an attempt to translate the academic discourse into a popularised version — but without clear referencing and, in the academic viewpoint, a solid theoretical or empirical basis (Johansson-Sköldberg *et al.*, 2013).

Notably, despite the exceeding interest and eagerness to apply design thinking in both the design context and the business realm, neither of the two discourses has produced its agreed definition, while some authors argue against any attempts to reach one (Hassi & Laakso, 2011, Johansson-Sköldberg *et al.*, 2013). Neither is it clear how design thinking is different from innovation, creativity, emotional intelligence and systems thinking. In an audit of the previous literature, Kimbell (2011) identified three alternative ways to describe the concept: as a *cognitive style* of individual designers engaged in solving problems, as a general *theory of design* — a discipline focused on taming wicked problems, and as a *resource* for organisations in need of innovation.

Management discourse of design thinking

It is commonly agreed that reestablished and mobilised interest in design thinking is driven by consultancy, primarily the design firm IDEO, its chief executive officer Tim Brown, founder David Kelley and general manager Tom Kelley. Brown (2009) presented a 'secret blend' of methodologies, work culture and infrastructure to help everyone use the firm's methods. Labelling the concept design thinking, Brown (2008, p. 86) defined it as "a discipline that uses the designer's sensibility and methods to match people's needs with what is technically feasible and what a viable business strategy can convert into customer value and market opportunity."⁺ In parallel, IDEO continues to market design thinking — and innovation as its main outcome — as a mixture of human, technical and business factors (Exhibit 4).

Another stream within the management discourse is shaped around Roger Martin, a founding partner at the strategic firm Monitor Group (currently Monitor Deloitte) and the former Dean of Rotman School of Management. Collaboration with IDEO led him to reconceptualising his early model of integrative thinking — creative resolution of tensions between opposing models (Martin, 2007b). In The Design of Business, published shortly after Brown's book, Martin (2009) came from a distinctively different perspective, placing his arguments within the management realm and using successful case examples. Widely cited in both the management and design circles, he argues that business people do not need to understand designers better, they need "to become designers" by integrating intuition and sensitivity into decisions. In an attempt to establish an idea of design thinking as a source of competitive advantage, Martin defined it as the productive mix of analytical thinking and intuitive thinking. His model describing the ongoing cycle of generating ideas (abduction[‡]), predicting consequences (deduction), testing, and generalising (induction) was welcomed in the management circles for its clarity (see Johansson-Sköldberg et al., 2013, p. 128).

Hassi and Laakso (2011) presented three elements portraying design thinking within the management discourse: a set of *practices, cognitive approaches* and *mindsets* (Figure 7; see also Dunne & Martin, 2006, Stevens & Moultrie, 2011). Among other similarities with the previous, academic stream, the management discourse consistently builds upon Rittel and Webber's notion of wicked problems, emphasising the value of design thinking for problem solving (e.g. Martin, 2009, Fraser, 2012).

At the same time, management discourse brings about a number of significant changes and additions (see Hassi and Laakso, 2011 for the overview). Much of this difference is associated with the *human-centred approach* with its focus on in-depth exploration of the people's needs through observational and ethnographic techniques (e.g. Brown, 2009, Sato *et al.*, 2010). The notion is underpinned by the idea of *empathy* — "seeing the problem through the user's eyes" or even being "in love" with customers (e.g. Beckman & Barry, 2007, Holloway, 2009). The human orientation also brings forward the need to engage the customers and other stakeholders in the design process (e.g. Drews, 2009, Siedel & Fixson, 2013) and to assemble multidisciplinary teams for gathering diverse viewpoints and merging them in novel ways (e.g. Holloway, 2009, Sato *et al.*, 2010). Unlike the previous focus on using visualisations and prototypes for communication and testing, the management discourse emphasises their value for real time experimentation and learning (e.g. Holloway, 2009, Sato *et al.*, 2010, Siedel & Fixson, 2013). [†] Hassi and Laakso (2011, p. 54) remarked that many design practitioners were unaware of the previous fifty years of the discourse linked to the concept of design thinking and consider it as a recent one, initiated by Brown.

* In contrast with *deductive* and *inductive* logic of analytical thinking (the logic of 'what should be' and 'what is operative'), intuitive thinking represents the use of *abductive* logic (the logic of 'what might be').

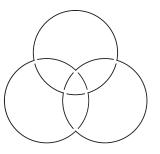


EXHIBIT 4 IDEO and Brown (2009) place DESIGN THINKING at the crossover of *desirability* (what makes sense to people and for people), *viability* (what is likely to become a part of a sustainable business model) and *feasibility* (what is technologically possible for the foreseeable future). FIGURE 7 ELEMENTS OF DESIGN THINKING IN THE MANAGEMENT DISCOURSE

PRACTICES

and toolkit

Approaches, ways of working, activities,

Hassi & Laakso, 2011

MINDSETS

organisational culture

Orientation towards the work and

HUMAN-CENTRED APPROACH Recognis- ing critical importance of empathy and deep customer understanding reached through the use of ethno- graphic techniques and by involv- ing users in co-creation.	ABDUCTIVE REASONING Exploring possibilities (what might be) to generate ideas and challenge the status-quo — in addition to deductive logic (what should be) and inductive logic (what is operative).	EXPLORATIVE AND EXPERIMENTAL Exploring possibilities and willing- ness to take risks related to per- sonal, organisational or technologi- cal capability. Embracing mistakes made in the process.
THINKING BY DOING Early and con- tinuous prototyping for facilitat- ing thinking processes, exploring possible solutions, demonstrating ideas, and rapid iteration cycles.	REFLECTIVE REFRAMING Continuously questioning a problem at hand to look beyond its immediate boundaries and to ensure that the right question is being addressed.	AMBIGUITY-TOLERANT Accepting and being in comfort with a problem- solving process that remains open until its later stages. Celebrating emerging alternatives.
VISUALISING A dominant mode for sense-making, communication, discussion and reaching shared understanding through modelling and mapping intangible concepts.	HOLISTIC VIEW, OT SYSTEMS THINKING Rich understanding of the prob- lem, ability to draw connections between elements and consider relationships between them.	OPTIMISTIC Appreciating constrains as challenging and focusing the work. Finding alternatives and op- portunities where the others have given up.
DIVERGENT AND CONVERGENT Creating multiple alternatives and moving towards a preferred solution by selection and synthesis. Recognis- ing patterns and relationships in conflicting, ambiguous and para- doxical data.	INTEGRATIVE THINKING Ability to constructively face tensions and generate creative resolutions that contain elements of opposing mod- els, but are superior to them.	FUTURE-ORIENTED Ability to anticipate and envision new scenarios. Long-term orientation driven by intuition and hypothesis about the future.
COLLABORATIVE WORK STYLE Gather- ing rich insights through interdis- ciplinary collaboration and con- tinuously involving a wide range of stakeholders into the design process.		

COGNITIVE APPROACHES

Cognitive processes and thinking styles

With a summary of the issues, Lockwood (2010b, p. xi) defined design thinking as "essentially a human-centred innovation process that emphasises observation, fast learning, visualisation of ideas, rapid prototyping, and concurrent business analysis, which ultimately influences innovation and business strategy." According to him, the ultimate objective of the design process is "to involve consumers, designers and business people in an integrative process, which can be applied to product, service, or even business design" (ibid.).

Flaws, criticism and contemporary approach

Discussion of the potential held in collaboration between design and business commonly points out at the significant difference in the dominant mindsets within the two professional fields. Liedtka (2010, p. 8) highlighted that business executives value stability and control above all else, while ambiguity and uncertainty are 'crack cocaine' for designers that drives them to challenge the status-quo. Martin (2005, 2007a) emphasised the fundamental tension between the ways executives and designers approach uncertainty. According to him, managers prefer *reliability* — a product of consistent, replicable and measurable outcomes, whereas designers deal with the notion of *validity* that aims to produce desired outcomes by considering a broader range of variables, including unquantifiable ones.

Johansson-Sköldberg and associates noted that, similarly to management, being criticised for being 'not academic enough' and 'too academic' at the same time, design is a subject of different opinions to a much higher degree (Johansson & Woodilla, 2008, p. 2, Johansson-Sköldberg *et al.*, 2013, p. 121). Moreover, in the business context, the concept of design thinking is so closely related to practice that some researchers argue that it has no theoretical body. Recognising that it is easy to dismiss a temporarily intensive discourse as a hype or a fad, the scholars respond to the criticism with a suggestion to revisit academic roots and development of design thinking (Kimbell, 2011, Johansson-Sköldberg *et al.*, 2013). Review of the previous, scholarly discourse, however, revealed a whole new set of flaws and loss of critical elements in translation into a popularised version.

First of all, design thinking is often equated to creativity, while being creative is only a part of the design competence and practice, and creativity is not just reserved for designers⁺ (*ibid.*). Likewise, it is often equated to a toolkit, or specific methods ready to use, while ignoring the designer's knowledge, skills and context — particularly the context of knowledge-intensive design consultancy (*ibid.*). A 'generalised' designer tends to be presented as the main agent of design, ignoring diversity of design specialisations as well as other actors involved in the process (Kimbell, 2011). An unfortunate distinction is often made between 'thinking' and 'doing' and between the designers and the world they do the work in (*ibid.*) Finally, in order to make the concept better appealing to the business audience, the management discourse eliminates some of its essential properties — "mess, conflict, failure, emotions, and iteration" (Collins, 2013).

Exploring the concept of design thinking in the business context, Liedtka (2015, pp. 4-5) recently highlighted that individual elements associated with the term offer management a new concept or theory. Emphasis on learning, for example, resembles the notion of learning organisations. The focus on possibilities and brainstorming techniques are discussed in the field of creativity. Need-finding phase, its qualitative nature, ethnographic techniques and toolkit all have strong connections with marketing. Hypothesis testing and prototyping echo ideas of lean startup and effectuation. At the same time, according to Liedtka, design thinking emerges as a distinctive practice when the individual elements are seen as a bundle of *attitudes, tools* and *approaches*, or an end-to-end system for problem-solving: *"Viewed as a practice, design thinking provides an integrating framework that brings together both creative and analytic modes of reasoning, accompanied by a process and set of tools and techniques" (ibid.*, p. 5).

⁺ Kimbell (2011) noted that, according to the recent studies, apart from opinion-makers and creative professionals, medics exhibit qualities associated with design thinking. ⁺ The practice orientation is therefore linked to the academic stream of *participatory design* (or *co-design*) — a distinctive approach that emphasises that "stakeholders are co-designers and designers are another kind of stakeholders" and suggests to engage customers, end users, employees and others early on in the design process (see Kimbell, 2011, 2012).

* Two decades earlier, Wasserman (1990, in Trueman & Jobber, 1998, p. 594) already made the similar notion with regard to design and product differentiation in industrial competition.

* Here, the growing strategic focus shows in repositioning of specialised firms as strategic, service design, or innovation consulting, as well as their acquisition by large management consultancy (Stevens *et al.*, 2008a, 2008b, Liedtka, 2010, Johansson & Woodilla, 2009; see Section 4.2 for details). With a similar perspective and inline with the contemporary movements in strategy, accounting and service innovation, Kimbell (2011, 2012) proposes a 'practice turn' in design, attempting to avoid problems emerging in the previous literature. The practice orientation aims to acknowledge work done by a variety of actors, including managers, employees, customers and end users. While de-centring the designer in the process, it naturally explains why stakeholders should be placed at its heart.[†] Finally, through the practice lens, design can be exported elsewhere and practiced by both professional designers as well as many others. Recently, Liedtka (2015) urged scholars to continue studying design as a practice — for example, by identifying contexts, conditions and settings enabling it to deliver superior outcomes (see the Methodology chapter for details).

Strategic role and application of design

Borja de Mozota (2011) noted that design has historically reacted to change in the environment by inventing new disciplines (see also Johansson & Woodilla, 2009 and Johansson-Sköldberg *et al.*, 2013 for the review). Already since the 1970s, the academic field of design management aimed to explain business scholars and practitioners the nature and relevance of design, referencing Porter, providing checklists and presenting success cases (Borja de Mozota, 1998, 2006, Bruce & Bessant, 2002). In the late 2000, authors in the discourse concluded that design is "the last remaining competitive differentiator" contributing to the balance among the five forces, strategic fit and value creation, as well as resources, capabilities, and strategic vision (Stevens, Moultrie, Crilly, 2008a, 2008b, Stevens & Moultrie, 2011).[‡]

In the mid-1980s, the renown expert on the strategic practice of marketing Philip Kotler prompted business leaders to revise their view of design as a cosmetic task and recognise how it can enhance products, environment and communication, optimise customer satisfaction, company profitability and value (Kotler & Rath, 1984). In the following decades, marketing research examined strategic role of design in application to new product development, branding and corporate identity (Cooper & Press, 1995, Olson, Cooper, Slater, 1998). In parallel, the discipline of service design, also originating in marketing, focused on experiences and operational processes, promoted the value of customer insight and co-operation with end users (e.g. Shostack, 1984). The most recent — and seemingly most viable — stream emerged in relation to innovation, where design was brought about as a "creative alternative or supplement" to the discourse, previously preoccupied with rational models and statistical relationships (Johansson & Woodilla, 2009, p. 18).*

Today, the design's potential to affect shareholder value is seen across three broad dimensions (Stevens *et al.*, 2008a, 2008b, Stevens & Moultrie, 2011). Firstly, competing by 'high design' — shaping products and services that delight customers — remains a viable strategy in itself. Secondly, integrating and embedding design principles across an enterprise yields strong bottom-line results. Finally, the design methods and principles are perceived valuable for informing business strategies. To justify the view of strategy by design, Liedtka (2000) outlined six shared premises (Figure 8), asserting that design is well suitable in the context of high ambiguity and uncertainty, and the process of strategising is in fact the one of design (see also Liedtka, 1998a, 1998b, Cross, 2011).

FIGURE 8 SHARED PROPERTIES OF STRATEGY AND DESIGN

Adapted from Liedtka, 2000

	STRATEGY	DESIGN
Synthetic	Seeks internal alignment of compo- nents, understanding interdependencies and creative rearrangements.	Made to emerge out of the often dispa- rate demands presented by various par- ties.
Adductive	Future-focused, inventive and driven by the identified gap between current reali-ty and imagined intent.	Concerned with visualising a desired fu ture state and creating a blueprint for realising the intention.
Hypothesis-driven	Being both creative and logical, hinges on the ability to develop good hypothe- ses and test them efficiently.	Based on the iterative cycles of hypothe- sis generation and testing — successive loops of asking 'what if?' and 'if then'.
Opportunistic	Leaves both the room for furthering the intended strategy and the possibility for new strategies to emerge.	Seeks unforeseen and emergent possibil ities in translation of the abstract to the particular.
Dialectical	Aims to mediate tensions between (of- ten unknown) opportunities and con- straints, while intending to reach for po- tentially unattainable goals.	Exists at the intersection of conflicting demands, recognises constraints, un- known uncertainties and tomorrow's possibilities.
Inquiring and value-driven	Being 'invented', rather than 'discovered' or chosen, reflects values of stakeholders engaged in the strategic conversation. Requires fit with the existing mindsets and value system of the organisation.	Being aware of world views of the audi- ence engaged in the conversation, aims to make its reasoning explicit, educate and persuade by connecting to the val- ues of the stakeholders.

§ 2.3. Knowledge and Knowing in Consulting

EMERGENCE OF BUSINESS CONSULTANCY is commonly linked to Frederic Taylor and his treatise on scientific management. At the beginning of the twentieth century, Tailor (1911/2004, p. 87) was seeking industrial efficiency and considered management as being based on clearly defined rules and principles "in which the workmen give their best initiative and in return receive some special incentive from their employers."

Inline with the principles of Taylorism, consulting firms appearing in the first third of the century focused on efficiency in manufacturing. The

9 MAJOR TRENDS AFFECTING CLIENT NEEDS IN CONSULTING Poufelt et al., 2010

- 1. KEEPING UP WITH THE PACE OF CHANGE Discontinuous change and escalating uncertainty encourage strategic repositioning.
- 2. CONTINUOUSLY REDUCING COSTS Reconfiguration of value chains and reevaluating operations to increase operational efficiency and suppress costs.
- 3. ACCELERATING PRODUCT AND MAR-KET DEVELOPMENT Intense competition and diversification require developing customer and market insights.
- 4. COPING WITH DISCONTINUOUS TECH-NOLOGY SHIFTS Recognising technology not only as an implementation tool but also as a strategic driver.
- 5. MEETING THE GLOBAL IMPERATIVE Internationalisation of companies requires assessment, developing strategy, restructuring, and support.

⁺ In this light, it is sometimes suggested that the core role of the consultants is to provide the clients with reassuring sense of control aiming to reduce this uncertainty (e.g. Sturdy, 1997, Clarke & Salaman, 1998, Lundberg & Young, 2001 in Kakabadse *et al.*, 2006).

* Two distinguishably different approaches are taken to reframing ideas by generalist and specialised consultancies. The former tend to perform it in-house, or *generalise*, and offer clients customised solutions. The latter normally act as facilitators by providing clients with a set of problems and solutions from various industries to match with own situations (Sarvary, 1999). 'first wave' of management consultancy was led by experienced professionals and 'wise men' who enhance intuitive decisions of senior managers by examining internal issues of an organisation. In parallel, university-trained professionals offered executive-level advice on administration and founded a number of 'management engineering' firms, including Booz Allen & Hamilton and James O. McKinsey & Company (Poufelt *et al.*, 2010, pp. 9–11, Nadler & Slywotzky, 2010, pp. 102–103).

In the 'second wave', starting from the 1930s, management engineers renamed themselves as management consultants and shifted their attention from the bottom of the organisational pyramid to its top (*ibid.*). The advisers studied, improved and systemised the internal functioning of client organisations, marketing and sales, performance, and incentives of the employees. The scope and complexity of the consulting projects is driven by rapid growth and diversification of companies, appearance of the first conglomerates spreading beyond the national borders, and international competition. Following World War II, the most prestigious assignments involve restructuring of corporations.

From the 1960s onwards, the industry witnessed a rapid growth of strategy consulting, when BCG, founded by Henderson, pioneered the marketable idea of strategy (Poufelt *et al.*, 2010, p. 11, Nadler & Slywotzky, 2010, pp. 104-105). In 1973, Henderson's partner Bill Bain broke away to found Bain & Company, which gained momentum during the 1980s and still remains one of the "Big Three" management consulting firms — along with McKinsey and BCG. The firms differentiated by promoting concepts and frameworks, such as BCG's experience curve and Growth Share Matrix, and McKinsey's 7S model.

Finally, the 'third wave' of management consulting started in the late 1970s (Poufelt *et al.*, 2010, pp. 12–19, Nadler & Slywotzky, 2010, pp. 104–105). The client demand became more complex and specific: instead of 'wise men', companies turned to an array of specialised consultants at different stages of a project to overcome uncertainty and cope with pace of change, focus on cost reduction and globalisation issues (Figure 9). The new kinds of consultancy surfaced in the industry, including large IT companies, such as IBM, Accenture and Capgemini, as well as accounting firms that form the current 'Big Four': PwC, Deloitte, EY and KPMG.

Roles of management consultants

Exploring the demand for consulting services, Blunsdon (2002) identified four main types of underlying organisational problems: scarcity, uncertainty, instability and conflict. Managers' uncertainty towards the fast changing business environment stands out among the more conventional needs of insight, tools and manpower. The notion appears a half-century back, when Wittreich (1966, p. 130, in Kakabadse *et al.*, 2006, p. 420) noted that a potential client of consultancy often "senses that he has a problem, but is uncertain as to what the specific nature of his problem really is."⁺

The essence of consultancy is generally seen in the leading-edge knowledge and ability to solve problems (Alvesson, 1995, Sarvary, 1999). Often labelled as a knowledge-intensive industry, consulting is regarded as the major driver behind developing and spreading management ideas — concepts, frameworks and techniques taught to MBAs and decision-makers (e.g. Gammelsæter, 2002, pp. 222–223, Legge, 2002, pp. 74–76). Gathering information about problems and solutions from an array of industries enables consultants to reframe, adjust and distribute them across the clientele. Repackaged cases appear better communicable and comprehensive, while productised solutions — better marketable and trustworthy (Huczynski, 1993, Sarvary, 1999).[‡]

Poufelt, Greiner and Bhambri (2010, pp. 27–31) observed that until recently, knowledge, techniques and best practices stayed virtually exclusive to business schools and consulting firms, as in BCG understood the experience curve better than others, and the same applied for value chain and Monitor, founded by Porter, as well as for core competencies and Strategos, founded by Hamel. However, today the intellectual capital is widely available outside the industry, primarily via former consultants and MBAs spread across client organisations. Dissemination of knowledge alters the balance of expertise and power between the parties: reluctant to pass the intellectual control, clients want to stay involved in analytical and implementation process. As a result, consultants are increasingly used to supplement client's own thinking, rather than substitute it, effectively reinforcing the shift from a former role of an expert diagnostician or problem solver to the new facilitative orientation.

In their critical review of consultants' roles, Kakabadse and colleagues (2006, pp. 419-424) defined several schools of thought: as some authors focus on a single role, others consider their range. A popular view suggests that advisers can fulfil a number of roles that they consider appropriate for the client, the situation and their own style (Lippitt & Lippitt, 1986, p. 57, Chapman, 1998, p. 212) and that the success of the assignment hinges on the consultant's ability to align with the circumstances (Massey & Walker, 1999, p. 38). A number of seminal business theorists, including Argyris (1970), Schein (1987/1999), Lippitt and Lippitt (1986), described pragmatic roles of business consultants that include obtaining information, assisting implementation, coaching and counselling. Turner's (1981) developed a hierarchy of purposes demonstrating the extent of consultants' involvement with a client (Figure 10). The model reflects the common view suggesting that the role of the consultants evolves as their relationship with the client matures. Starting as an expert for hire to solve a single off problem, a consultant turns into a steady supplier who clarifies problems, provides insights and drives organisational change. Eventually, the consultant becomes a trusted adviser who works collaboratively with the client on various issues (see Nadler, 2005/2010, Maister, 2005/2010).

Over the decades, the main distinction in the consultants' roles has been made between task and process orientation. Contrasted to the image of an external expert called in to offer concrete solutions and assist implementation, the contemporary views emphasise the role of facilitating client's analysis and the problem-solving process (e.g. Kubr, 1976/2002, Lippitt & Lippitt, 1986, Maister, 2010, Poufelt et al., 2010). Schein's (1999) seminal work also highlights the critical role of collaborative approach and facilitation (Figure 11). The first model in Schein's classification is simple purchase of expertise: the consultant brings along knowledge, skills and experience to solve a specific problem determined by the client. The second model is adapted from the *doctor-patient* relationship: the consultant is entitled to 'diagnose' the problem based on the experienced 'symptoms' and then to 'prescribe a remedy' for solving it. In contrast, the third, process consultation model is similar to counselling: the consultant helps the client to perceive, understand and act upon the problem. According to Schein, the latter model fits best in the situations when the client is uncertain about the nature of the experienced problem and the kind of required help for resolving it.

10 HIERARCHY OF PURPOSES IN MANAGEMENT CONSULTANCY *Turner*, 1981

- PROVIDING INFORMATION Using special expertise, market surveys, cost and feasibility studies to gather, develop and provide data.
- 2. SOLVING PROBLEMS Finding a practical solution for the current management problem by exploring its context, reframing and defining the real issue.
- **3. CONDUCTING DIAGNOSIS** Examining external and internal environments to diagnose the problem in relation with the underlying issues.
- 4. PROVIDING RECOMMENDATIONS Delivering an action plan to improve the diagnosed problem in a collaboration aiming to avoid strict division of roles.
- **5. ASSISTING IMPLEMENTATION** Finding the right balance of actions, both acceptable and feasible, and assisting the management in the process.
- 6. BUILDING CONSENSUS AND COMMIT-MENT Ensuring an agreement on the further steps and establishing the momentum to see them through.
- 7. FACILITATING CLIENT LEARNING Teaching complex skills and techniques to enhance the client's ability to cope with both immediate and future problems.
- 8. IMPROVING ORGANISATIONAL EFFEC-TIVENESS Maintaining the organisation's future viability by contributing to strategy and the clients's ability to adapt.

PURCHASE OF EXPERTISE

The client identifies the problem as well as the kind of needed help and required expertise. The consultant brings alongside skills and expertise lacking in the organisation, takes ownership of the problem and tells what needs to be done for solving it. The model works well for straightforward problems that require particular expertise, but puts a heavy demand of responsibility on the client.

DOCTOR-PATIENT MODEL

The client acknowledges existence of the problem — 'pain' or 'symptom', — but is unsure of its nature or potential remedies. The consultant is brought in to diagnose and make a prescription that may include recommendations on what kind of information or expertise would solve the problem. By handing the problem over to the consultant, the client takes on a dependency role until the prescription is made.

PROCESS CONSULTATION

The process can start with any client request. The consultant is not obliged to respond to it literally, but is rather expected to work with the organisation in a systematic way, by understanding the client's values and goals from their own perspective. Instead of taking ownership over the problem, the consultant facilitates the process of exploration and builds the client's problem-solving capacity.

UNDERLYING ASSUMPTIONS & SUCCESS FACTORS -

- 1. The client has correctly diagnosed the problem.
- 2. The client has correctly assessed the consultant's capability to solve the problem.
- 3. The client has accurately communicated the need to the consultant.
- 4. The client has foresighted and accepted the potential implications of the intervention.
- 5. There is an objective 'expert' body of knowledge, which is in possess of the consultant and useful for the client.

- 1. The client can trust the diagnosis, and the diagnostic intervention is deemed helpful.
- 2. The client has correctly interpreted the assumptions and identified the problem area.
- 3. The consultant receives the accurate diagnostic information without any hiding or exaggeration.
- 4. The client will understand and accept the diagnosis and implement the prescription.
- 5. The client will be able to remain healthy after the end of the assignment.

- The client has identified existence of the problem but is unsure of its specific nature or ways to solve it.
- 2. The client is unsure about available expertise or sources for receiving the service.
- 3. The very nature of the problem implies client's benefit from participating in a diagnostic process.
- 4. The client has a 'constructive intent' and capacity to enter into a helping relationship. The client is motivated by values and goals acceptably by the consultant.
- 5. The client is ultimately the only one who knows what form of intervention will work in the problem situation.
- 6. The client is capable of learning how to diagnose and solve their own problems.

The process consultation model is underpinned by the idea of *organisational learning* through creating, retaining, and transferring knowledge (Argyrus & Schön, 1978, Nonaka & Takeuchi, 1995). Client's active involvement and readiness to change are considered a key component ensuring this learning. It is commonly suggested — and confirmed by Schein — that the client, and only the client, owns both the problem and the solution. The consultant's ultimate goal is therefore to help the client become a 'sufficiently competent diagnostician' — see the problem, generate options, take ownership and responsibility (Williams & Rattray, 2004).

Flaws, criticism and contemporary approach

The gap between advice and implementation has long been recognised as a significant flaw of consultancy, affecting the perceived value of services, firms' reputation and perspective sales. In his *Fortune* piece, Kiechel (1982) revealed that in the 1980s, mere 10 percent of the clients succeeded in implementing strategies developed by their advisers. He described the approach dominated at the time as the 'seagull model of consulting': *"You flew out of Boston, made a couple of circles around the client's head, dropped a strategy on him, and flew back"* (Kiechel, 2010, pp. 172–173).

The issue remained persistent through decades, worsened by the spread of captive knowledge among the clients and commoditisation of the consulting services (e.g. Poufelt *et al.*, 2010, pp. 19–25). Once aware of difficulty, or even impossibility, to implement consultants' abstract conclusions, the clients have developed a demand for a service going beyond mere advice or execution to a combination of both into a comprehensive whole. To answer to the new demand, the strategy firms broaden the scope of work by introducing new offerings, both along the functional practices and outside the traditional consulting domain.[†] In parallel, specialised consultancy — particularly, IT, marketing and design firms — show clear intention to move towards strategic assignments which offer higher margins and opportunity to build stronger relationship at the higher levels of client organisations (Poufelt *et al.*, 2010, Spekman & Kotler, 2010).

In the meantime, despite consistently growing demand for consulting services, its efficiency has been regularly questioned in the business world and academia alike (Williams & Rattray, 2004, p. 180; see Kakabadse *et al.*, 2006 for the review). A range of critical voices raises concerns over ethics and integrity in colsultancy — from lacking client focus and objectivity to opportunism in securing deals and building client dependance (e.g. Gammeslæter, 2002). Advisers are considered biased towards portraying business environment as turbulent in order to make themselves indispensable (McKinley & Scherer, 2002, p. 739). Assumably, 'defining trends' allows consultants to continuously 'reinvent' tools and techniques for solving problems, effectively forming management fashions and fads (e.g. Huczinski, 1993, Kieser, 2002). This leads to the suggestion that the role of advisers boils down to 'repackaging' old solutions as fashionable, or selling "old wine in new bottles" to managers in difficulties (Collin, 2001, p. 30, Blunsdon, 2002, p. 6).

Bloch (1999) is a distinctive voice questioning the very existence of consultant profession, arguing that it requires no special qualification: with a few specialised university programmes, it is not uncommon to receive training on the job. Moreover, consultancy is portrayed as having no access to any ⁺ Poufelt and colleagues (2010, pp. 22, 24, 27) noted that restructuring of the focus and scope of work, in turn, leads to another wave of accusations in potential conflict of interest.

12 ROLES OF DESIGN-LED STRATEGY CONSULTING Siedel, 2000

- STRATEGY VISUALISER Creating visual projections and prototypes of potential product development and corporate strategies.
- CORE COMPETENCE PROSPECTOR Providing a perspective on organisational capabilities to develop new strategies.
- 3. MARKET EXPLOITER Developing customer market insights, along with appropriate design and innovation issues, to provide strategic direction.
- 4. DESIGN PROCESS PROVIDER Supplying and supporting a consistent process for managing design, product development and strategy formation.

exclusive knowledge and thus only remaining ambiguity-intensive industry which uses 'claimed professionalism' to strengthen credibility and authority (Fincham & Clark, 2002, p. 7). Consultants' toolkit and rhetoric — 'constobabble' — is arguably used to reinforce the feeling of uncertainty, mystify consultants' appearance and mask apparent shortcomings, including lacking expertise (Bloch, 1999, p. 116, McKinley & Scherer, 2000, p. 739). Bloch (1999, p. 115) concluded that both novice and 'redundant and superseded' consultants are potentially harmful for client organisations. Moreover, *"if management knows what it wants and is competent, consultants are often superfluous"* (*ibid.*, p. 117).

Review of the popular motives of criticism led Kakabadse and colleagues (2006, p. 432) to the conclusion that most of it lacks objectivity: often based on anecdotes about unsuccessful projects, it cannot be used for blaming consultants. In response to the criticism, scholars suggested that the 'esoteric language' is in fact used to alleviate uncertainty by helping managers to better understand the nature of the problems they are facing, facilitating the conversation between stakeholders and enabling everyone to contribute (Williams, 2001, 2003, 2004, Williams & Rattray, 2004). Fullerton and West (1996, p. 45) urged to collaborate with the clients on tailor-made and creative solutions. Reviewing specialisations in consultancy, Kubr (2002, p. 43) concluded that, despite clear demand for both generalists and specialists, the main issue remains in ways to combine both approaches for achieving best total effect.

The young segment of design consulting has left a significantly thin academic trace. The studies explore the role of design firms in innovation — from problem definition, concept design and testing to internal coordination of R&D initiatives, portfolio management and functional strategies (e.g. Jacoby & Rodriguez, 2007, Calabretta *et al.*, 2012, 2014). Siedel (2000) identified main roles of design-led strategy consulting, highlighting value for developing insights and assisting strategy formation (Figure 12).

Increasingly overlapping with the scope of strategy and general management consulting, design and innovation practices bring about a distinctive hands-on toolkit, novel insights and a different way of finding breakthroughs. Scholars focus on the design process model and hands-on skills — particularly visualisation and mapping. Applied to the business context, they become an asset for communicating and transferring complex knowledge, often being contrasted to bulky reports in traditional consulting — rich with data points, but deemed to be lacking actionable insight and means of persuasion (e.g. Kelley, 1999, Siedel, 2000, Calabretta *et al.*, 2012, 2014). The process orientation and toolset often trigger comparison between the mindset and approaches in design-led practices and traditional management consulting, including the 'Big Three' of McKinsey, BCG and Bain. At the same time, New and Kimbell (2013) asserted that the contrasting image of the 'one-dimensional, shiny-suited' consultant placed next to the 'unbounded and groovy' designer, albeit vivid and picturesque, remains stereotypical and exaggerated.

Advocating for design consultancy, IDEO'S Kelley (1999, pp. 32–33), set the conventional generalist principles against the 'inductive approach' to innovation in specialised practices — moving from the specific to the general. In his view, the value of design firms is shaped the experience of solving challenges in different industries and categories. Designers who know the 'content of innovation' can apply it to a range of new cases — once they learn business language. Back in 1999, he concluded: *"the planets align in a way that matches the interests and capabilities of designers with the business community's search for strategic innovation"* (*ibid.*, p. 34).

Methodology

Scholars suggest that the 'practice turn' in different academic fields calls for the 'action turn' in research. In effect, the novel approach requires revised research strategies, design, and quality criteria.

SOMETIMES REGARDED AS AN ALTERNATIVE to the mainstream discourse in strategic management, the novel approach of strategy as practice was articulated by Richard Whittington in the mid-1990s and brought back to prominence in the following decade. Seeking to balance out the previous discourse influenced by microeconomics, the new stream suggests that strategy is better conceptualised as *something people do*, rather that firms have (Whittington, 1996, 2006, Johnson et al., 2003, 2007, Jarzabkowski et al., 2007). Anchored in works of the seminal theorists associated with the 'practice turn' in social sciences - Pierre Bourdieu, Anthony Middens and Michel Foucault, — the distinctive perspective is intended to open the 'black box' of strategy making by investigating concrete activities carried out by practitioners, adapted tools and skills, performed routines and interactions (Golsorkhi et al., 2010, Rouleau, 2013). Apart from established business organisations, researchers examine strategising in hospitals, cinemas and orchestras and focus on a variety of practices: workshops, committees, teams and administrative routines (see Golsorkhi et al., 2010, p. 5 for the overview). The research agenda is not exclusive to senior executives and emphasises the role of middle managers and external advisers such as strategy consultants, corporate lawyers, investment bankers and business school gurus (see Whittington, 2006, p. 619, Golsorkhi et al., 2010, p. 6, Grand et al., 2010, p. 68 for the overview).

More recently, Lucy Kimbell (2012) proposed the similar movement in design. Drawing on scholars associated with the practice lens, including Wanda Orlikowski, Theodore Schatzki and Andreas Reckwitz, the perspective attempts to avoid issues emerging in the previous literature related to design thinking during translation to the new, popularised version. *Design as practice* aims to acknowledge work done by a variety of actors, including managers, employees, customers and end users, while enabling to export design practice across different disciplines.

The scholars within the contemporary discourse in call out for studies focused on the everyday practices and activities in order to develop novel approaches, tools and techniques for strategising: "If knowledge of practice is to a large extent embedded in practice, then some would argue that it is only through practice that knowledge of it may be acquired and transferred" (Langley, 2010, p. 100; see also Johnson et al., 2003, 2010). Similarly at the intersection of strategy and design theory, Liedtka (2015, p. 5) prompted researchers to study design thinking through a practice lens - for example, by identifying specific conditions that drive its superior outcomes. In this case, the focus on the practice can be framed either broadly, at a unified concept, including philosophy, the end-to-end process and a toolkit, or more specifically — at particular methods and elements of the process. Swann (2002, p. 60) also underlined benefits of action research which offers "a tried and tested model for immediate translation to design practice." In this light, action research reports, theses and dissertations are perceived as potent in projecting novel perspectives on design, validating its discipline field and enlarging its practice.

Action research is a generic term for methodologies that study "practitioners and their practices within the context of their work" (Balogun *et al.*, 2003, p. 200). Considering a traditional split between research and action as superficial, it aims to produce actionable knowledge valuable for both the investigated practice and the academic community (Coghlan, 2007). Being participatory in nature, action research challenges the status quo in a social practice and intends to change the patterns of thinking and activities. Developing theory and testing propositions is done through iterative cycles of *planning*, *acting*, *observing* and *reflecting* (Argyris *et al.*, 1985). Gummesson (2000, pp. 212–224) formulated ten major characteristics of action research (Figure 13), highlighting its live, dynamic and interactive nature, focus on holistic understanding and recognising complexity.

13 KEY CHARACTERISTICS OF ACTION RESEARCH Gummesson, 2000

- **1**. **TAKES ACTION** in contrast to merely observing something happening.
- **2. INVOLVES TWO GOALS** to solve a problem and contribute to science.
- **3**. **INTERACTIVE** requires cooperation with informants and continuous adjustment to unfolding circumstances.
- **4. AIMS TO DEVELOP HOLISTIC UNDERSTANDING** and recognises complexity in details, causes and effects.
- **5**. FOCUSES ON ORGANISATIONAL CHANGE and is applicable to its understanding, planning and implementation alike.
- **6. REQUIRES UNDERSTANDING OF ETHICAL PRINCIPLES:** frameworks, values and norms.
- **7. INCLUDES ALL TYPES OF DATA GATHERING METHODS**, as well as all qualitative and quantitative tools.
- **8. REQUIRES PRE-UNDERSTANDING** brought to a research project by an investigator.
- **9. NORMALLY CONDUCTED IN REAL TIME** although retrospective research is also acceptable.
- **10**. **REQUIRES OWN QUALITY CRITERIA AND TERMS**, as opposed to using the ones of positivist science.

The concept of action research is commonly linked to a social psychologist Kurt Lewin (1946, p. 35), who asserted that research producing "nothing but books... will not suffice." In the 1960-1980s, an array of authors, including L. Bruce Archer, John Christopher Jones, Bryan Lawson (1982/2006) and Nigel Cross (1982/2006), profoundly influenced design theory by enquiring designerly ways of knowing (see Section 2.2 for details). Central to the stream is Schön's (1983) view of design as a reflective practice along with the notions of 'reflection on action' and 'reflection in action'. Likewise, the discourse of strategy as practice is anchored in the earlier research of strategy process by Andrew Pettigrew, Robert Burgelman and Henry Mintzberg (1973) seeking to better describe "what managers do" by observing their daily routines.

Addressing philosophical grounds of action research, Brannick and Coghlan (2007, p. 63) made a comparison between three main approaches (Figure 14). While positivism, a long-dominant paradigm in management and organisational studies, is concerned with generalisation and universal knowledge, action research is more interested in particular, contextually embedded knowledgein-action. At the same time, a researcher's role shifts from a detached observer to an immersed actor or agent of change (see also Johnson & Duberley, 2000, Coghlan & Brannick, 2001/2014).

A distinctive stream in action research is shaped by works of professionals in and on their own practice. Unlike cases where an investigator joins an organisation for the purposes and duration of the study — not always aiming at any change, — practitioner research is conducted by 'complete members' within their desired career path (Balogun *et al.*, 2003, Coghlan & Brannick, 2014, Coghlan, 2007; see also Alvesson, 2009).

Insider research studies receive a significant amount of criticism and often have difficulties in being accepted, let alone getting published in refereed journals (Brannick & Coghlan, 2007). Frequently labelled as company projects, they are perceived 'unscientific' from the positivist viewpoint and disqualified as not conforming to standards of intellectual rigour. A personal stake of investigators and their emotional investment raise concerns over objectivity deemed to be crucial for validity, while the contextbound nature questions the relevance of research beyond its immediate settings (Brannick & Coghlan, 2007, Alvesson, 2009). Addressing the issues, Morse (1994, in Brannick & Coghlan, 2007, p. 59) argued that roles of investigator and employee are incompatible.

Another popular criticism labels insider enquires as 'consulting masquerading as research'. In response, Gummesson (2000, p. 172) presented four main differences between consultancy and practitioner research, underlining that the latter needs to conform to higher standards of rigour and documentation, requires theoretical justification, operates in looser time and budget constraints, and takes cyclical, iterative action (see also Baskerville, 1997). Nevertheless, having common intellectual heritage, action research certainly shares many

FIGURE 14 MAJOR RESEARCH PARADIGMS

Brannick & Coghlan, 2007

	POSITIVISM	HERMENEUTICS & POSTMODERNISM	CRITICAL REALISM & ACTION RESEARCH
Ontology	Objectivist	Subjectivist	Objectivist
Epistemology	Objectivist	Subjectivist	Subjectivist
Theory	Generalisable	Particular	Particular
Reflexivity	Methodological	Hyper	Epistemic
Role of researcher	Distanced from data	Close to data	Close to data

attributes with consulting — particularly with Schein's (1999) process consultation model, where the adviser acts as a facilitator helping clients diagnose and resolve problems (Baskerville, 1997, Coughlan & Coghlan, 2002; see Section 2.3 for details).

Despite the criticism, insider research becomes increasingly appealing to individuals who combine academic studies in management with full-time employment and who consider their organisation as an adequate field setting (Zuber-Skerritt & Perry, 2002, Brannick & Coghlan, 2007). Offering good research economy, it provides grounds for a degree and enables to improve both investigated situation and professional practice at the same time (Dick, 2002, Alvesson, 2009). The advocates of insider research also highlight that it creates a virtually unique situation where topics and context of the study are well-known and understood from the lived experience by both the researcher and informants (Alvesson, 2009, Brannick & Coghlan, 2007, Trowler, 2012). If 'onlookers' can experience issues with access and depth of gathered data, 'at-home ethnographers' are native to the setting and clearly better positioned to reveal meaningful insights, rather than generic characteristics (*ibid.*).

Research strategy

Edmondson and McManus (2007) explored internal consistency among elements of a study — research question, prior work, research design, and theoretical contribution, — emphasising that they should be affected by maturity of the previous literature. In particular, nascent theories — the ones proposing tentative answers to novel questions of *how* and *why* and merely suggesting new connections among phenomena — are corresponded with open-ended enquires. The studies associated with such emerging theories are consistent with qualitative data collected and interpreted for meaning and pattern identification. Gathering rich, detailed, evocative data aims to shed light on the phenomenon, and iterative, exploratory content analysis results in a new construct — usually a suggestive model inviting further work on the issue.

With a more procedural focus, Zuber-Skerritt (1992) developed a model of four major moments in action research: *planning* includes problem analysis and strategic plan, *acting* refers to implementation, *observing* means evaluation of the action, *reflecting* represents the results of both evaluation and the action and entire research process (see also Argyris *et al.*, 1985, Coghlan & Brannick, 2014). Notably, reflection may lead to identification of new problems which require a new cycle of planning, acting, observing and reflecting. In this matter, Swann (2002, pp. 52–54) pointed out that this cyclical approach strongly resembles the iterative design process centred around the synthesis stage.

More recently, Zuber-Skerritt and Perry (2002) distinguished between two action research cycles operating in parallel: the *core cycle* focuses on solving the practical problem, and the *thesis cycle* reflects the moments related to the academic part of the project and its learnings. Reflection and processing are considered to be a critical link between a concrete experience, its interpretation and taking new action (Coghlan, 2007). This *reflection on reflection* drives action research beyond everyday problem solving and makes knowledge emerging from it actionable (Argyris, 2003, Coghlan, 2007, Coghlan & Brannick, 2014).

Balogun, Huff and Johnson (2003) urged practitioners to engage in research from a process perspective in order to expand understanding *how and why practitioners do things* as they do them and what tacit, embedded and contextual phenomena evolve from this practice (see also Langley, 2007, Langley & Tsoukas, 2010, Langley *et al.*, 2013). However, as the standards of ethnographies and case studies have proved useful for the task, the 'big three' research methods — interviews, observations and archival data — are often found superficial and insufficient for grasping insights into strategising "as a fluid, ongoing, micro level activity" (Balogun *et al.*, 2003, p. 220).

Notably, action research is generally deemed methodologically universal: both quantitative and qualitative data can be collected through a wide range of tools (Gummesson, 2000, Balogun *et al.*, 2003). At the same time, despite lessening confidence in traditional data capturing mechanisms, only a few creative and innovative alternatives are proposed (Balogun *et al.*, 2003, Jarzabkowski *et al.*, 2007, Johnson *et al.*, 2007), with much discussion emerging around revised ethnographic methods (e.g. Vesa & Vaara, 2014). Scholars study the tools and technologies used by practitioners (from post-it notes to five forces analysis and specialised software), specific activities (particularly workshops) and produced artefacts (such as diagrams and flowcharts) in light of their impact on strategic outcomes (Whittington, 2006, Johnson *et al.*, 2010).

Exploring issues of theorising in action research, Eden and Huxham (1996, p. 84) formulated some important guides. The process of theorising is presented as incremental — shaping from characterisation and conceptualisation of the particular experience in small steps. Emergent theories are developed from the synthesised data about the use of practice — which is, in turn, based on the body of theory. There is a need for an explicit concern with meaning of the conceptualised experience to others. The basis for design of tools, techniques and models has to be clearly related to the theory.

Focusing on theorising from process data, Langley (1999, 2009) described seven alternative strategies that help to shape understanding who did what, when and why - that is, events, activities and choices emerging over time. The process requires a means for conceptualisation - moving from "shapeless data spaghetti" towards theoretical understanding which embraces richness and complexity of the data in a comprehensive and valuable format. While some approaches involve narration, quantification and visualisation, temporal bracketing implies transforming longitudinal data into a series of homogeneous and connected blocks. Considering processes within each phase as relatively stable allows to examine how actions are affected by the context and what effects they have on action in subsequent periods (see also Langley & Tsoukas, 2010).

Quality of research

The proponents of action research consistently underline that it requires its own quality criteria, differing from the ones of positivist science (Gummesson, 2000, Reason & Bradberry, 2008, Coughlan & Goghalan, 2002). However, specific frameworks for assessing quality of the practitioner research in management and organisational studies remain scarce (see, for example, Reason & Bradbury, 2008, Reason, 2006).

On the general level, the very inquiry into the steps of the *planning-acting-observing-reflecting* cycles is seen valuable for both the academic and practitioner communities. Considered central to developing actionable knowledge, it enables 'meta-learning' and thus ensures quality of the research (Argyris, 2003, Coghlan, 2007). In addition, Edmondson and McManus (2007, p. 1177), after Bouchard (1976), suggested that quality of individual elements, such as review of the related literature and effective use of techniques for data collection and analysis, have a strong influence on the overall quality of the study.

Balogun and colleagues (2003, pp. 202-204) laid out five criteria guiding research valuable for the strategy as practice discourse (Figure 15), highlighting its participative nature of studies, the double focus on breadth and depth in data collection, and the need to contribute to both further research and organisational needs.

15 CRITERIA GUIDING ACTION RESEARCH Balogun et al., 2003

- **1.** AIMS AT BOTH BREADTH AND DEPTH through gathering contextual, longitudinal, comparable data across multiple levels of an organisation.
- **2. CREATES AND MAINTAINS COMMITMENT** from informants, being interesting and pleasant to participate in.
- **3.** DRIVES EFFICIENCY OF THE RESEARCHER'S TIME by collecting, organising and analysing large and varied bodies of data.
- 4. APPROACHES THE MAJORITY OF RELEVANT QUESTIONS by addressing various issues and definitions.
- GOES BEYOND FEEDBACK LIMITED BY RESEARCH, providing collaborators with useful insights, informing the content of further collaboration and contributing to organisational needs.

In addition, scholars stress the need to raise and agree on ethical concerns of practitioner research (Gummesson, 2000, Balogun et al., 2003, Coghlan, 2007, Alvesson, 2009, Coghlan & Brannick, 2014). A central challenge lies in ambiguity, tension and potential conflict between the roles of researcher and practitioner. Another issue is close knowledge, insights, and understanding of everyday practices that impact the study in different ways: from staying unnoticed during observations to not probing deeply enough in interviews and not challenging own thinking with alternative reframing. Moreover, insider research requires continuous awareness and management of organisational dynamics and politics (*ibid.*). Finally, access to sensitive data raises concerns over personal and institutional anonymity that can supposedly be overcame by obscuring some details and laying false trails in descriptions and small but unique details (see Ezzy, 2002/2013, Trowler, 2012).

Study design

The core research cycle of the study centred around the twenty-four month-long experience in business design at a global technology and consulting firm headquartered in Helsinki. Including both internal and client projects, the experience spanned three broad areas. Firstly, establishing business design as a practice area included articulating and elaborating the service offering and developing internal documentation to guide its application. Secondly, creating sales materials and pitching supported sales and marketing of the offering. Lastly, project work was focused mainly on formulating strategies for digital transformation and innovation initiatives, ranging from insight studies through concept design, validation and implementation. Review of ongoing projects and ad hoc competitive analysis supported the all three areas throughout the timeline.

Recognising collaboration as integral part of the research project, practical arrangements included establishment of roles, relationships and organisations across the core team, extended global team, other business units and management up to the executive level. A special range of activities was dedicated to monitoring and discussing results (see Gill & Johnson, 2010).

In parallel, an array of methods was used for collecting empirical data: logs and diaries became a major means for self-reflecting and examining various aspects of the practice, while observations of the design-led consulting practices and group discussions — for exploring individual insights and perspectives of the participants (see Gummesson, 2000, Balogun *et al.*, 2003, Edmondson & McManus, 2007). In addition, analysis and synthesis covered tangible outputs produced over the course of the ongoing projects, including sales materials, meeting artefacts and client-facing design deliverables (see Whittington, 2006, Johnson *et al.*, 2010). A variety of the captured data provided a ground for reflection, where the outputs were collaboratively analysed, synthesised, interpreted and explained to draw conclusions, iteratively develop the practice, and feed the following stages of the process (Balogun *et al.*, 2003).

The plan for the study and its goals were established during the first three months of the core research cycle, having effectively started the academic part of the project. Here, outlining a joined theoretical framework aimed to link the empirical findings from the core cycle with the literature across three main topics: the contemporary discourse of strategic management, the concept of design thinking outside the design realm, and modern views on the roles of management consultants.

The reflection stage of the thesis research cycle was conducted in the four months following the core cycle activities, having resulted in a twofold hypothesis. Firstly, the consulting practice of business design can be conceptualised through an integrated framework of a process model, toolkit and collection of mindsets reflecting a combination of analysis and creativity (see Sections 2.1 and 2.2). Secondly, domain expertise of consultants is complemented by distinctive tools and techniques for facilitating clients' own analyses and problem-solving activities (see Section 2.3).

During the reflection stage, an additional audit of the literature addressing the use of design thinking to strategy making aimed to align various views and explore pragmatic aspects of the discipline. Review of secondary data, including industry research reports, provided a broader outlook of business design as a consulting practice.

Processing the variety of data aimed to develop theory establishing the relevance of the business design practice in consultancy and formulate its cornerstone approach. Based on the theoretical findings and hypothesis, the main focus in data synthesis was placed, after Liedtka (2015), on three key elements: process model, toolkit and set of principles. In search of means applicable for recognising mutual relationships among phenomena and elements in the framework, several models were assessed for fit, with a notable example of the Snyder evaluation model (see Dick, 1992). A tool known as logic model, or logical framework, and commonly used in management studies for review and evaluation of projects was chosen for exploring relationships between stages, resources, activities, outputs and outcomes in the complex process (see Baccarini, 1999, Gasper, 2000).

An extended framework of seven elements provided the blueprint for analysis and synthesis intended to explain why and how events and activities along the process contribute to strategy making in the context of external consultancy (Figure 15). Starting from a rationale behind each phase of the process, the model extends across activities, throughput, client-facing deliverables and impact on the context of the assignment. Langley's (2007) guides for process thinking — recognising outputs of one phase as inputs of the subsequent one and turning nouns to verbs — supported reflection and writing.

16 MODEL FOR ANALYSING EMPIRICAL DATA

GOALS Broad primary outcomes and desired results.

OBJECTIVES Measurable steps for achieving goals.

INPUTS Utilised resources, including insights.

ACTIVITIES Performed tasks and engaged participants.

OUTPUTS Produced materials, artefacts and products.

OUTCOMES Key deliverables according to the goals.

IMPACTS Core effects in context of the assignment.

An additional set of exploratory interviews with external participants was conducted to enhance the empirical findings by eliciting views on essential aspects of the practice and identifying routines and phenomena overlooked in self-ethnography (Eisenhardt, 1989, Huberman & Miles, 2002, Yin, 2013). Importantly, the goal of interviews was to find valuable perspectives on the research topic, set basic grounds for comparison, and validate interest in research from industry professionals — rather than to seek a comprehensive or representative sample, typical for larger, quantitative studies.

Accordingly, instead of limiting the sample by practitioners with either educational or professional background in business strategy, recruitment concentrated on senior-level professionals at design and innovation consulting firms experienced in strategic projects. A script for semi-structured and non-structured interviews was pre-adjusted to participant's core competence and background, enabling to focus the discussion on the key concerns and aspects of mutual interest in a free-flowing and natural dialogue (Balogun *et al.*, 2003). A conversational style invited the interviewees to speak widely about the practice, providing richness of views and breadth of insights, and fulfilled the gaps identified in the planning phase, including ambiguous terminology and varied use of the design methods in strategic assignments.

The set of principles for conducting the interviews enabled them to approach culturally and commercially sensitive phenomena, including organisational knowhows (Balogun *et al.*,2003,Trowler,2012,Ezzy,2013).The results of the interviews were handled confidentially and published anonymously, reassuring that neither interviewees' identity, nor their employers could be identified from the report conclusively. All case study details were excluded from the results to comply with non-disclosure undertaking and other client-facing liabilities of the participants.

Altogether, six one-hour interviews were conducted in person and online during the thesis cycle (Figure 16). The participants were contacted through the author's existing professional network and via interviewees' references, by using the snowball sampling approach (see Robson, 2002).

With the permission of the participants, the discussions were recorded and transcribed. The notes were subsequently coded and considered in conjunction with the existing outcomes to support sense-making and pattern recognition as well as to use them in the empirical findings of the report (Eden & Huxham, 1996, Langley, 1999, Edmondson & McManus, 2007).

17 ADDITIONAL EXPLORATORY INTERVIEWS

- A. FOUNDER, PARTNER, DIRECTOR OR PRINCIPAL Design and innovation consulting: 10–99 employees
- **B. FOUNDER, PARTNER, DIRECTOR OR PRINCIPAL** Design and innovation consulting: 10-99 employees
- **c.** FOUNDER, PARTNER, DIRECTOR OR PRINCIPAL Design and innovation consulting: 100+ employees
- **D. SENIOR OR LEAD DESIGNER** Design and innovation consulting: 10–99 employees
- **E. SENIOR OR LEAD DESIGNER** Design and innovation consulting: 10–99 employees
- F. SENIOR OR LEAD DESIGNER Design and innovation consulting: 100+ employees

4

EMPIRICAL FINDINGS

§ 4.1. Strategic Discipline of Business Design

OVER THE PAST DECADES, an array of consultants and researchers has enquired strategic value of design. Formed in 1975, the Boston-based Design Management Institute (DMI) aims to "heighten awareness of design as an essential part of business strategy" (Best, 2015, p.207). Two institute's publications, *Review* and *Journal*, continuously investigate design's contribution to firm's performance, and the former DMI president Thomas Lockwood (2009a, 2009b, 2010b) remains a distinctive voice promoting design as a business asset in order to make its practice meaningful to managers.

In the UK, the Design Council was founded in 1944 to promote design in the national industry. Until today, the government-funded organisation investigates business value that design creates when being "employed, skilfully managed and soundly implemented" throughout company's strategy and on the national level (Cox, 2005, p. 3, see also McNabola, 2013, Micheli, 2014). Similarly attempting to quantify bottomline value of design (e.g. Rae, 2015), the organisation also studies the application of design methodology for tackling business challenges (Design Council, 2005, 2014). The Double Diamond diagram developed by the Design Council (2005), divides design process into four distinct phases discover, define, develop, deliver, — pointing at a combination of the divergent and convergent modes of thinking. The user-centred approach, promoted by organisation, emphasises the critical need to take the customer's perspective, create visualisations and prototypes (ibid.).

At the beginning of the new century, the idea of the creativity's potential to deliver strong business results gained strong press recognition. A former BusinessWeek editor (now a professor of Parsons The New School of Design) Bruce Nussbaum observed the shift from Knowledge Economy to Creative Economy: "It isn't just about math and science anymore. It's about creativity, imagination, and, above all, innovation" (Nussbaum et al., 2005). Creativity — "the right-brain stuff that smart companies are now harnessing to generate top-line growth" — was presented as a new core competence of organisations (ibid.). The New York Times communicated a similar sentiment, featuring a series of columns by Janet Rae-Dupree (2008a, 2008b) about expanded scope of design and business renewal through right-brain thinking.

Filtering down to the popular press and blogs, the style of publications turns clearly inflated. Here, design thinking was defined as a "proven and repeatable problem-solving protocol that any business or profession can employ to achieve extraordinary results" (Dziersk, 2006). Moreover, "employing unique and creative techniques" through a number of simple steps was portrayed as yielding "guaranteed results... which exceed initial expectations" (*ibid.*).

Earlier publications related to the growing role of design consistently focused on IDEO the largest and most influential design firm of the time. Founded in 1991 by a merger of four design and consulting companies, the Palo Alto-based consultancy markets the humancentred design (HCD) approach under its own brand. The design issue of *BusinessWeek* (Nussbaum, 2004) featured an interview with Brown and Kelley telling about IDEO's shift from designing products to designing experiences. The firm's approach was explained through a fivestep process: observation, brainstorming, rapid prototyping, refining and implementation.

Having built reputation through experience of working with major clients, IDEO also gained academic credentials. In 2005, Stanford University committed the \$35 million (\in 29 million) donation to starting up the Hasso Plattner Institute of Design, or d.school, appointing Kelley a dean. Attracting students with diverse backgrounds, the school promotes using design thinking for solving problems across various professional fields. Its approach is summarised with a similar to IDEO's process model and complemented by a set of guiding principles, such as "Show, don't tell", "Fail fast and cheap" and "Question everything" (d.school, 2010).

By the end of the 2000s, the exceeding interest in design thinking spilled over academic journals and the general management press, appearing in the *Journal of Business Strategy* (in 2007 and 2009) and *Harvard Business Review* (*HBR*, in 2008, 2014 and 2015). Introducing design thinking in his *HBR* piece, Brown (2008, p. 85) suggested that "thinking like a designer can transform the way you develop products, services, processes — and even strategy." According to him, generating ideas that meet customer's needs and desires — instead of simply giving shape — shifts the design's role towards creating new forms of value and strategic benefits.

Earlier in his blog, Brown (2005) also gave an advice on using the firm's methods for shaping business strategies. The teams are depicted here as full with 'T-shaped people' with principle skills in design or engineering and complementary — in another discipline. Strategies are grounded in first-hand customer insights, and emerging ideas are made tangible for communication and testing. Design of strategies is neverending: once developed, they need to constantly evolve, adapting to new circumstances.

The pendulum of interest in design thinking seemingly swinged back in the early 2010s, when the concept was first labelled as a fad and renounced even by the former proponents (see Johansson-Sköldberg *et al.*, 2013). Nussbaum (2011) declared design thinking a failed experiment and turned away from it in favour of creative intelligence. Professor James Woudhuysen (2011a, 2011b) argued that design thinking has failed to live up to its expectations, and professor Fred Collopy (2009) discussed weakness of the term. Don Norman (2010), regarded for coining the term user-centred design, asserted that design thinking is nothing but a public relation term for creative thinking.

Yet, design thinking retains some of its major advocates. Continuing to explore different varieties of executive thinking, Martin has become widely recognised in both the management and design circles. Named one of seven global Innovation Gurus by BusinessWeek, he holds a place in the top ten of the *Thinkers50* list, a biannual ranking of the most influential global business thinkers. In The Design of Business, Martin (2009) suggested that executives rely too heavily on analytical thinking, which is only capable to offer an incremental change to the status quo. Once being able to lead companies to success, a combination of the rational approach with the Taylorist principles of management fails to develop consistent innovation today. On the contrary, design thinking enables to balance analysis and intuition and combine the two in a productive mix. For Martin, a path to successful innovation lays through a three-phase process of the 'knowledge funnel': mysteries need to be developed into heuristics and then derived into predictable algorithms.

Martin encouraged business leaders to import principles of design shops to management practices: work on projects with defined terms, apply iterative and collaborative approach in solving wicked problems (Dunne & Martin, 2006). For an individual, using design thinking requires specific mindset that builds enhanced sensitivities and skills: *stance* (definition of one's self and the worldview), *tools* (concepts, theories, and analytical frameworks used for sense-making) and *experiences* (practical knowledge).

Emphasising that "for all its emphasis on data and number crunching, strategic planning is not actually scientific," Martin and AG Lafley, a former CEO of Procter & Gamble, presented a seven-step process model enabling to create novel hypotheses, make a choice and conduct custom-tailored tests (Lafley, Martin *et al.*, 2012; see also Lafley & Martin, 2013). Continuously ad-

FIGURE 18

Adrian Slywotzky

1997/2007 — The Profit Zone: How Strategic Business Design Will Lead You to Tomorrow's Profits (with David Morrison) 2005/2010 — Strategy and Organisation Consulting (with David Nadler)

A PROCESS MODEL: VALUE-DRIVEN BUSINESS DESIGN ¹	C ELEMENTS ²
1. VALUE MIGRATION INSIGHTS Engaging them in exercises to help them break through the barrier of incremental thinking, redefine competition and anticipate where fu- ture shareholder value will emerge. Considering which business designs might best exploit this opportunity.	CUSTOMER SELECTION Which customers to serve? Specific understanding of the chosen customer set (for which the organisation is best suited for or which it is best able to serve) as
2. FUTURE VALUE SPACE MAPPING Using sophisticated methodologies for interviews and analysis to de- termine likely customers' and competitors' reaction to innovative value growth initiatives. Determining potential future revenue and profit op- portunities.	well as of the one selected for mov- ing away from. UNIQUE VALUE PROPOSITION What value to create?
3. STRATEGIC BUSINESS DESIGN CHOICES Identifying multiple opportunities and selecting the best options. Defin- ing one or several business designs that will create high utility for cus- tomers and high value for shareholders.	The reasoning behind a purchase decision — what specific value the customers buy and how they make a choice among competing offer- ings.
4. KEY CAPABILITY NEEDS AND DEVELOPMENT Identifying and filling gaps between the organisation's existing capabil- ities and the ones required by the new business design. Creating value driven by the emerging opportunities, rather than current competences.	VALUE CAPTURE <i>How to make profits?</i> Particular ways the organisation gets rewarded for the value it deliv- ers to the customers — both within
5. CONSISTENT ORGANISATIONAL SYSTEMS Developing a plan for redesigning the aspects of an organisation incon- sistent with the new direction. Eliminating internal barriers for value capturing to increase the odds for success.	and beyond product sales and service fees. STRATEGIC CONTROL
6. ACCELERATED IMPLEMENTATION Rapid implementation of a new business design aimed to create high val- ue growth in the current environment of hyper-competition and techno- logical change.	How to protect the profit stream? Concrete ways to protect created profitability from competitor imi- tation, customer power in the B2B industries, and customer choice in the B2C world.
B PRINCIPLES	SCOPE What activities to perform?
CUSTOMER-CENTRIC THINKING Creating a dynamic strategic perspective on cus- tomers to ensure relevance to them. PROFIT-CENTRIC THINKING Designing and articulating a model for generating and protecting profit streams.	Activities in the product and service offerings the organisa- tion should engage in to remain customer-relevant, generate high profits, and create strategic control.

¹ In strategy and organisation consulting (see Nadler & Slywotzky, 2010).

² Refined model (Nadler & Slywotzky, 2010, cf. Slywotzky & Morrison, 1997/2007, Moser, Wenstrup and Slywotzky, 2007).

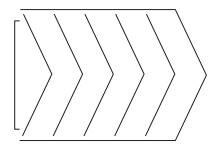


EXHIBIT 5 Slywotzky suggests reconceptualising the traditional value chain to better meet the principles of CUSTOMER-CENTRED THINKING (Slywotzky & Morrison, 2007). The novel model starts with the customers and their *priorities*, including functional needs, preferences, decision-making process, purchase criteria and occasion, buyer behaviour, power, and systems economics. The model spans the *channels* to satisfy the customers' needs, the products and services in the *offering*, the *inputs and raw materials* required for creating creating the value, and the essential *assets and core competences*.

dressing design thinking as the new source of competitive advantage, Martin publishes extensively. With twenty articles and dozens of blog entries in HBR alone, he urges managers to enhance strategic planning with the design thinking principles and tools, such as a combination of qualitative and quantitative data (Martin, 2010a, 2014b), storytelling (Martin, 2010b), iterative prototyping (Martin, 2014b), and producing design artefacts (Brown & Martin, 2015). Wide reach enabled him to promote teaching design thinking to business students (Dunne & Martin, 2006) and using it in various industries, including HR and legal practice management (see Johansson-Sköldberg et al., 2013). In just a few years, Martin influenced both Fraser's work in strategy and Liedtka's pragmatic design thinking toolkit for managers.

Adrian Slywotzky

One of the most renowned consultants in the United States, a partner with the strategy consulting firm Oliver Wyman (and another entry on the *Thinkers50* list), Adrian Slywotzky is the earliest relevant account introducing the term business design. Since the 1990s, Slywotzky published a series of management bestsellers focusing on profitability, growth and 'value migration' (e.g. Slywotzky & Morrison, 1997/2007). He also collaborated with David Nadler, known for his works in organisation design, to explore the discipline of business design in strategy consulting, having presented a refined framework along with a process model (Nadler & Slywotzky, 2005/2010; see Figure 18A).

In *The Profit Zone*, Slywotzky portrayed traditional strategic approaches, such as "Grow first and profit later," flawed and outdated: using them often leads companies to 'market share myopia' and brings to 'no-profit zones' (Slywotzky & Morrison, 2007, pp. vii-viii). In contrast, the process of *business design reinvention* has to begin with examining how profitability in the industry happens today and is likely to change in the future, what are the organisation's most valuable customers and their critical priorities, and how to take advantage of new growth opportunities (*ibid.*, pp. 6–7). Accordingly, the five mutually reinforcing dimensions in the model (Figure 18B) describe chosen *customer set*, unique *value proposition*, specific ways to *create* and *protect profitability*, and critical *activities* for a company to engage in (Nadler & Slywotzky, 2010, pp. 107–108).

Slywotzky's concept of business design rests on two pillars, being both customer-centric and profit-centric (Slywotzky & Morrison, 2007; see Figure 18c). The business side is addressed with a set of profitability models backed up with examples from different industries, and the customer focus is enabled by the 'messy, nonlinear and confusing, but essential' process of developing insights (ibid., p. 17-19). In this case, Slywotzky argued against the conventional, inside-out looking, approach to strategic insights as it fails to capture critical information held within the customer base, in the competitive environment and success cases outside the industry. To remain relevant, organisations need to use various methodologies for looking at the customer's problem through their eyes and assembling a holistic picture: needs, behaviours, decision-making, price sensitivities and preferences, - all of which can be poorly defined and articulated by the customers themselves (ibid.). Slywotzky (ibid., pp. 20-21) offers to reconstruct Porter's value chain, putting the customers' priorities first, followed by channels for satisfying people's needs, organisation's offering, inputs for creating products and services, and finally, assets and core competences (Exhibit 5). Qualitative, first-hand customer insights are seen more valuable than conventional market research ("mountains of data, hundreds of

FIGURE 19

Jeanne Liedtka

2011 — Designing for Growth: A Design Thinking Tool Kit for Managers (with Tim Ogilvie) 2013/2014 — The Designing for Growth Field Book: A Step-by-step Project Guide (with Tim Ogilvie and Rachel Brozenske)

A PROCESS MODEL: DESIGNING FOR GROWTH	C TOOLKIT
1. WHAT IS?	visualisation Using imagery to en-
Exploring the current reality	vision possible future conditions.
Developing deep insight into the problem or opportunity within its con-	-
text to establish the reference point for change, define success criteria	JOURNEY MAPPING Taking the cus-
and constraints.	tomer' perspective to assess the
TOOLS (see on the right) Visualisation, Journey mapping, Value chain analysis, Mind mapping.	current experience.
OUTPUT Design brief to provide guidance throughout the project.	VALUE CHAIN ANALYSIS Exploring the existing chain of value-creating
2. WHAT IF?	activities supporting the customer
Envisioning a new future	journey.
Using the synthesised data along with emerging patterns to develop hy-	
pothesis, consider possibilities and uncertainties, and generate ideas.	MIND MAPPING Developing insights
TOOLS Visualisation, Brainstorming, Concept development.	from the exploration activities to
OUTPUT Design criteria describing the attributes of an ideal solution.	articulate design criteria.
3. WHAT WOWS?	BRAINSTORMING Creating novel alter-
Making clear choices	natives to the business model.
Assessing long-term potential of the new concepts, testing assumptions	
underlying hypothesis, and conducting 'thought experiments'.	CONCEPT DEVELOPMENT Assembling
TOOLS Visualisation, Assumption testing, Rapid prototyping.	various elements of a solution into
OUTPUT Napkin pitch with a simple summary of new concepts.	a coherent model to explore and
	evaluate its potential.
4. WHAT WORKS?	-
Delivering to the market	ASSUMPTION TESTING Isolating and
Low-cost experimenting, assessing trade-offs, inviting customers in co-	challenging the core beliefs critical
creation and working in fast feedback loops in order to ensure learning.	for the concept's success.
TOOLS Visualisation, Customer co-creation, Learning launch.	
OUTPUT Learning guide with strategic intent and parameters for testing.	RAPID PROTOTYPING Expressing a
	new concept in a tangible form
	to explore, test and refine it with
B MINDSETS	stakeholders.
	CUSTOMER CO-CREATION Enrolling
мратну Establishing deep understanding of customers, their emotional	customers in creating the solution
nd rational needs and wants.	that best meets their needs.
IVENTION Recognising the creative part of management aimed to invent to-	
10110W.	LEARNING LAUNCH Engaging custom-
ERATION Acknowledging the value of experimentation and learning in	ers in low-cost experiments to test
	r

tables, and no actionable insight") and probes of customer satisfaction ("an important, but backward-looking measurement").

Slywotzky's works, albeit clearly resembling the arguments in the new wave of design thinking, never draw any explicit references with design theory and practice. Recently, however, he admitted that his concept of business design shares certain premises with design and the customer-oriented aspects of marketing (Slywotzky & Euchner, 2015, pp. 12-13).

Jeanne Liedtka

A former strategy consultant for BCG, Liedtka is now a professor at the Darden Graduate School of Business who explores innovation and design thinking, organic growth and strategic thinking (see Sections 2.1 and 2.2 of the theoretical framework for the review of Liedtka's academic works). Similarly to Martin, Liedtka focuses on the benefits of analysis and creativity, suggesting the action-oriented approach of design enables more relevant strategies, experience of dealing with uncertainty makes up for flaws of analysis, and human-oriented approach is beneficial for dealing with the real people's needs (Liedtka & Ogilvie, 2011, Liedtka, Ogilvie and Brozenske, 2013/2014). However, business acumen remains critical, as long as mere novelty, value creation and designer touch are insufficient for the ultimate success and profitability.

Three main principles for using design thinking in business formulated by Liedtka reflect the difference in cognitive styles common for managers and designers (*ibid.*; see Figure 19C). Firstly, *empathy* drives a shift from perception of customers merely as a target for sales and statistical metrics towards a more personal attitude and knowledge of the real people with their real problems. Secondly, design aims to '*invent* tomorrow' — at odds to the principles of scientific management concerned with 'investigating today'. Lastly, unlike the linear problem-solving methodologies in management, design's iterative approach concentrates on *learning*.

Taking more processual focus, Liedtka partners with an innovation strategy consultant Tim Ogilvie to develop a framework for applying design thinking to the management context (*ibid.*; see Figure 19A). The target of the process is to answer to four questions. *What is*? includes exploration of the reality to identify the current problem and opportunity. *What if*? is about generating ideas and developing concepts to envision new future. *What wows*? involves prioritising and selecting concepts by using the creative and analytical tools. *What works*? approaches customer testing, co-creation and learning launch. A complementing toolset is intended to manage the "tension between creating the new and preserving the best of the present" (Figure 19B): the design tools are accompanied here with value chain analysis and ROI models for evaluating design concepts.

More recently, Liedtka supported the framework with a selection of ten case studies demonstrating the application of design thinking in problem solving at major companies and public organisations — from "engaging the citizens of Dublin" to "reimagining the trade show experience at IBM" and "rethinking strategic planning at SAP" (Liedtka, King and Bennett, 2013).

Heather Fraser

Professor of Business Design at Rotman School of Management, cofounder and director of Design-Works, the school's business design initiative, Heather Fraser is another business scholar taking a strong design perspective. The first special issue of the Journal of Business Strategy featured Fraser's (2007) approach to shaping 'breakthrough strategies'. Continuing to develop the concept under the title business design, Fraser (2012, p. 57) argued that the methods and mindsets used for designing objects are instrumental in enhancing services and customer experiences. The greatest payout of design thinking is therefore in designing business itself: opening up new opportunities, developing strategies and evolving business models. Similarly to Martin and Liedtka, Fraser considers application of design-inspired principles, practices and a toolkit as capable of balancing out conventional business planning by driving creative capability without compromising business rigour.

Central to Fraser's (2009, p. 81) approach is the key strategic decision — whom to serve and which needs to fulfil. Finding the answer requires a shift from measuring human factors to holistic understanding of the specific people's

FIGURE 20

Heather Fraser

2011 — Business Design: Becoming a bilateral thinker

2012 — Design works: How to tackle your toughest innovation challenges through business design

A B PROCESS MODEL AND METHODOLOGY: C PRINCIPLES² THREE GEARS OF BUSINESS DESIGN¹ 1. BEING — DESIGN AS A MINDSET 1. EMPATHY & DEEP HUMAN UNDERSTANDING ADJUSTMENT Comfort with ambiguity, general tendency to be emotionally stable, calm, even-What's the opportunity? Considering the context around the offering and relationtempered and functional in the face of ups and ships among stakeholders to develop holistic understanding downs. of people and what matters to them. ACTIVITIES Observation, Empathy exercise, Stakeholder map-**OPENNESS** to new ideas, new people and new ping, Need-finding research, User journals, Photo elicitation, ways of doing things. Active imagination, sen-Listening and recording, Mind mapping, Motivation mapsitivity, attractiveness to inner feelings, preferping, Subject profiles, Discovery exchange, Need mining and ence for variety, intellectual curiosity, ability to analysis. suspend judgement. OUTPUTS Articulated needs, personas, current journey. OUTCOME Expanded perspective and reframed opportunity EMPATHY Genuine sense of caring about peofor creating customer value in a new and innovative way. ple and ability to understand their feelings, thoughts and needs. 2. CONCEPT VISUALISATION What's the breakthrough idea? INTRINSIC MOTIVATION by purpose, passion, genu-Using the design-inspired principles and methodologies to ine interest and engagement in work. gain insight on what creates meaningful value, refine ideas and develop a distinctive vision. MINDFULNESS of both the self and the world ACTIVITIES Ideation, Metaphors, Experience mapping, Iteraaround as a repertoire of reference points and tive prototyping, Role-playing, Storyboarding, Co-creation. stimulation in solving complex problems. OUTPUTS Seamlessly integrated experience. OUTCOME Identified possibilities to fulfil needs. A new, con-**OPTIMISM** A hopeful view of the future driving cretely defined experience aimed at creating a human-centoward creative and productive resolutions. tred value. 3. STRATEGIC BUSINESS DESIGN 2. DOING — RIGOROUS METHODOLOGY What's the strategy to deliver the vision? Translating the new vision into novel business strategy, defining the focus and building capabilities required to make MULTI-DISCIPLINARY COLLABORATION for finding the big idea viable and valuable. value and inspiration in diverse perspectives ACTIVITIES Capability requirements, Activity systems design, and skills. Activity system assessment, Activation planning, Value exchange, Assessing reciprocity, Financial sensitivity analysis, UNDERSTANDING AND NEED-FINDING Leveraging in-Designing management systems. sights overlooked by competition, both inside OUTPUTS Proposition, future activity systems, experiments, and outside the enterprise. quick wins. OUTCOME Strategy to clarify focus in enterprise efforts, guide **ITERATIVE PROTOTYPING & EXPERIMENTATION** for investments and implement the solution. thinking, communicating, developing, and

¹ See Fraser, 2012.

² See Fraser, 2011.

exploring multiple strategies and business models.

MAPPING systems of stakeholders, solutions, business strategies and activities, as well as connections between them.

STORYTELLING around strategy and business evolution for expressing ideas, inspiration and motivation.

CO-CREATION with decision-makers and outside partners as a feedback loop during prototyping and experimentation.

3. THINKING — WELL-ROUNDED MENTAL CAPACITY

EMOTIONAL INTELLIGENCE Identifying, assessing, controlling and leveraging emotions of one's self, of others, and of groups.

SYSTEMS THINKING Ability to think holistically and integratively and to recognise different elements and models as a part of a broader ecosystem.

VISUALISATION Ability to envision the complete solution and end result. Communicating across the entire design process.

ABDUCTIVE REASONING Ability to process many reference points and make an intelligent 'leap of logic'.

SYNTHESIS Ability to create new solutions based on existing elements or inspired by many different models.

INTUITION Gathering, articulating and evaluating intuition — both one's own and of others.

needs, both deeply (including practical and emotional ones) and broadly (within the context of product or service use). Applied to a broader ecosystem — 'important enablers and key influencers in the equation' — emphathy helps to identify needs of the stakeholders, understand their roles and relationships among them (*ibid.*).

Building heavily on Martin's arguments, Fraser (2009, 2012) developed the *Three Gears of Business Design* (Figure 20A), the model uniting *empathy and deep human understanding, concept visualisation and prototyping*, and *strategic business design*. The goal of the framework is to identify new opportunities to better meet customer needs, rapidly generate new ideas and translate them into focused and implementable strategies. According to Fraser, beyond explaining principles and practices of business design, the framework also describes its iterative process.

Fraser (2007, 2009, 2011, 2012) joined Liedtka in outlining the ways the design methods can benefit strategy making (Figure 20B). 'Informed intuition' draws on qualitative data about the customers in order to enable better, faster decision-making. Engaging customers and other critical stakeholders in strategising guides the process since its early stages. Generating multiple strategic choices helps to realise richer solutions and reduce risk of failure. Visualising and mapping improve decision making by translating words into product prototypes and customer experience maps. Experimenting supports testing ideas with the real users and enables quick wins.

Fraser (2012, pp. 1-3) defined business design as a 'learnable innovation discipline' that can be implemented by applying the 'easy to follow' process and embedding its methodology across the organisation's strategic planning (Figure 20C). Admitting that designing a business is different from shaping any other product or experience, she pointed out that the latter requires a balance of creativity, analysis, critical thinking, systems thinking, and synthesis: "There is a lot of logic and a lot of creativity... which is activated with a sense of purpose and conviction" (ibid., pp. 73-74). Accordingly, a business designer is depicted as a 'bilateral thinker' who unites a particular combination of the "right mindset... and a rigorous methodology... that unlocks a person's thinking" (Fraser, 2011, p. 71; see also Fraser, 2009, 2012).

FIGURE 21

James Carlopio

2009 – Creating strategy by design 2010 – Strategy by design: A process of strategy innovation

A PROCESS MODEL: STRATEGY BY DESIGN

1. BRIEF

Problem and goal

Establishing a clear shared understanding of the problem, typically ill-defined, along with project goals and objectives. Defining six critical elements of the brief to guide the following process: purpose (a binding intent worthy of pursuit), principles (behaviour brought about to bear on the problem), people (participating stakeholders), concept (relationships between critical stakeholders), structure (responsibility and authority in the process), and practices (deliberations, acts and decisions).

2. RESEARCH

Discovery, exploration, investigation

Using various forms of iterative research to question "the most basic, obvious, and unquestionable assumptions and beliefs" about the problem. Identify latent needs and underlying values of the stakeholders to understand them and refine the brief.

3. CONCEPT GENERATION

Ideation

Using an array of the qualitative and quantitative insights from the research (see on the right for details) to generate multiple alternative approaches, many ideas and concepts related to potential solutions for evaluation and further development.

4. EVALUATION AND REFINEMENT

Evolution, development and rapid prototyping

Shifting focus from divergence and creativity to convergence through prototyping, modelling and pilot testing. Developing potential solutions further, exploring concepts and generating novel options.

5. OUTPUT & PRESENTATION

Decision and delivery

Presenting a small number of potential solutions in visual and tangible ways. Involving stakeholders in making a decision on the most promising concepts.

B METHODS, TOOLS AND TECHNIQUES

QUALITATIVE RESEARCH Data collection methods aimed to holistically explore and better understand the problem at hand. Identifying both actual and latent needs and desires of the customers.

PATTERN RECOGNITION Affinity diagrams, Activity analysis/task analysis, Character profiles. OBSERVATIONAL TECHNIQUES A day in life, behavioural archeology, Mapping. INTERVIEWS Behaviour sampling, Extreme user interviews, Experience drawings, Ask 'Why?' or 'So what?' five times. PROTOTYPING AND SIMULATIONS BE your customer, Informance.

IDEATION Engaging stakeholders in the design process to better understand the problem and potential solutions. Collaborating with the stakeholders to ensure creativity and generate a diverse range of ideas and concepts. ACTIVITIES AND TECHNIQUES Creative combination and alteration, Physical work environment, Random stimulation, Expression and emotional release, Incubation.

RAPID PROTOTYPING Repeated experimentation and iterative adjustments aimed to generate, explore and progressively refine various emerging possibilities.

EVALUATION Either developmental evaluation of the ideas (focused on iterative refinement) or their terminal evaluation (leading to a final choice or decision).

VISUALISATION AND REALISATION Creating visual and tangible expressions to make the final output memorable and persuasive, understood and appreciated. Presenting options and involving stakeholders in decision making.

James Carlopio

The most scolarly approach to the discipline is taken by James Carlopio, another management consultant and business academic with a background in design. Drawing from the extensive body of literature, Carlopio (2010) investigated how applying creativity and design principles to strategising can help "make a profit and a positive difference in our world by integrating your thinking hearts and feelings minds." One of his central arguments suggests that in the modern world, everything is already 'good enough,' which leaves the 'billion-dollar strategic question' — "How do we be remarkable?" (Carlopio, 2009, p. 155). The answer assumably calls for strategy innovation - enhancing business models, making profit, and reinventing "our organisation, our industry and our world" (Carlopio, 2010, p. 1).

Inline with the modern views, Carlopio (*ibid.*, pp. 1-4) stressed that organisational strategy is "typically conceived and developed as an extension of the past and present," assuming that the future will be linear. However, analytical approaches and rational analyses — albeit favourable in some cases — fail to create bold, new value-creating strategies. Likewise, Slywotzky's profitability patterns are considered merely incremental changes: studying them can be beneficial for learning generic principles, but hardly enables radical innovation (*ibid.*, p. 67).

After the 'father of strategy' Hamel, Carlopio (*ibid.*, pp. 1-2, 9-10) pointed out at the lack of clearly articulated theory, tools or processes for strategy creation, suggesting that the gap can be filled by the dynamic design process. An iterative progression through multiple feedback and feedforward loops provides milestones for assessing decisions, allows to plan for potential problems, and consequently reduces the risk of the innovation effort. By combining linear thinking, numerical analysis and rational problem solving, design process aims to balance anticipated problems with opportunities, restrictions with creativity, and perception with conception (*ibid.*).

Carlopio (*ibid.*, pp. 13-14) offered a five-phase process of creating *strategy by design* (Figure 21A), noting that it only attempts to reflect an intensely iterative approach, where outputs can be reused and activities overlap and repeat with different emphasis at different times (Figure 21B). Prototyping, for instance, is beneficial for exploring and generating ideas in the middle of the process as well as for communicating and selling concepts in the end. Similarly to Liedtka, Carlopio specifically focuses on interactions with decision-makers: the process kicks-off with establishing a shared view of the problem and ends with assessment of potential solutions presented in a visual and tangible form.

Marc Sniukas

Over the past decade, a strategy consultant Marc Sniukas has been exploring ways to achieve ongoing strategic innovation capable of shaping competitive edge and leading to financial success. Sniukas (2010) linked the De Wit-Meyer framework to a vast body of research, revealing numerous flaws in strategy process and content (see Section 2.1 for details). An alternative fourstage model developed by Sniukas spans describing and visualising the current strategy, generating new ideas, evaluating and testing concepts, and followed by implementation of the chosen options. The model is accompanied by the highlights about the critical role of creativity, benefits of stakeholder engagement, description of ideation techniques and occasional quotes by IDEO'S Kelley.

More recent and popular model presented in *The Art of Opportunity* (Sniukas, Lee and Morasky, 2016) recognises its origins in the works related to design thinking, including Rittel and Webber's notion of wicked problems, theories by Rowe, Cross and Lawson, and novel design-inspired tools. An important distinction is made between *strategic innovation*, concerned primarily with the content of growth strategy, and *business design thinking* — a collection of principles, practices and mindsets for effective strategising.

The authors pointed out that the traditional approach in strategic management typically aims to answer to two major questions. *Where to play* guides the choice of an industry and a product-market combination, and *How to win* addresses issues related to achieving competitive advantage. This perspective — although still present in the recent works by Markides, Martin and Fraser — is labelled as conventional, while a 'fresher perspective' offers supplementing it with the third question — *How to play*.

FIGURE 22

Marc Sniukas

2016 — The Art of Opportunity: How to build growth and ventures through strategic innovation and visual thinking (with Parker Lee and Matt Morasky)

A B PROCESS MODEL AND ACTIVITIES: THE ART OF OPPORTUNITY I. WHERE TO PLAY: FIND THE OPPORTUNITY C PRINCIPLES I. WHERE TO PLAY: FIND THE OPPORTUNITY HUMAN-CENTRED FOCUS An empathical approach intended to create value not only for customers, but for all stakeholders, including employees, shareholders, suppliers, and vendors. I. UNDERSTANDING THE FIRM Reflecting on the offerings, resources and capabilities, as well as opportunities in the ecosystem. ACTIVITIES Resource mapping, Ecosystem mapping. HUMAN-CENTRED FOCUS An empathical approach intended to create value not only for customers, but for all stakeholders, including employees, shareholders, suppliers, and vendors. INDERSTANDING THE FIRM Reflecting on the offerings, resources and capabilities, as well as opportunities in the ecosystem. ACTIVITIES Growth initiative brief, Visualising patterns, themes and clusters, Decision making, Visualising the opportunity. VISUAL THINKING & STORYTELLING Visualising ideas to make them better communicable, create shared understanding and interna alignment among the stakeholders, develop them collaboratively and accelerate the decision-making	-
 UNDERSTANDING CUSTOMERS AND NON-CUSTOMERS Exploring people's needs and expectations, along with customer experience factors. ACTIVITIES Observations, Interviews, Creating themes, Persona map- ping, Customer journey mapping. UNDERSTANDING THE FIRM Reflecting on the offerings, resources and capa- bilities, as well as opportunities in the ecosystem. ACTIVITIES Resource mapping, Ecosystem mapping. FRAMING GROWTH INITIATIVE Defining and aligning objectives. ACTIVITIES Growth initiative brief, Visualising patterns, themes and clusters, Decision making, Visualising the opportunity. VISUALISING THE OPPORTUNITY Communicating to the team and leadership. ACTIVITIES Opportunity report. 	
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- VISUALISING THE OPPORTUNITY Communicating to the team and leadership. ACTIVITIES Opportunity report. alignment among the stakehold- ers, develop them collaboratively	
ACTIVITIES Opportunity report. ers, develop them collaboratively	
2. HOW TO PLAY: CRAFT STRATEGY process.	
- DESIGNING OFFERING Defining a blend of products, services and experience.	
ACTIVITIES Offering brainstorming, Offering design. COLLABORATIVE WORK & CO-CREATION	
- SHAPING BUSINESS MODEL Defining and aligning elements critical for de- Bringing together diverse perspec-	
livering the offering. tives in multidisciplinary groups	
ACTIVITIES Current business model visualisation, New business model to generate breakthrough ideas,	
design. create solutions, and build international design.	
- STRUCTURING REVENUE MODEL Determining cash flows, pricing models and support.	
payment mechanisms.	
ACTIVITIES Revenue model card sort. ACTIVITIES Revenue model card sort. ACTIVE ITERATION Ensuring learning	
during the design process enabling the term to explore the shellonge	
3. HOW TO WIN: CREATE VALUE Shifting focus from cost, pricing and differentia- tion to creating value for customers, the firm and its ecosystem. the team to explore the challenge, overcome ambiguity, and adapt to	
ACTIVITIES Setting strategy, Strategy visualisation.	
ing ideas, solutions and strategies	
4. LAUNCH NEW GROWTH BUSINESS from the initial seeds through man	
- INCEPTION Validating opportunity and piloting strategy with the internal ket delivery and business growth.	
stakeholders, potential customers and partners.	
ACTIVITIES In-House and field observations, Simulation, Interviews, Pro-	
totypes, Research. organisation as a dynamic, open	
- EVOLUTION Adapting strategy through a series of cycles of engaging in ac-	
tion, reflecting and designing.	
ACTIVITIES Start, stop, change, continue, Next step design, Growth plan down silos, improving efficiency	
visualisation. and enabling internal understand-	
- DIFFUSION Scaling up the business by fully deploying strategy, acquiring ing among the stakeholders and	
clients, expanding staff, dedicating assets and resources. decision-makers.	

The three overlapping dimensions unravel the content of the growth strategy: *Where to play* focuses on the chosen customer segment, *How to play* defines an offering and its business model, *How to win* articulates specific ways to create value for the customers, the firm and its ecosystem. The model also sets the basis for the process of strategic innovation — an eleven-stage consequence intended to identify an opportunity, generate ideas and test resulting concepts both internally and in the market (Figure 22A). Taking perhaps the most pragmatic approach, the book supplies detailed process guidelines, visual templates, and activity cards for tools and activities (Figure 22B).

The ground principles put forward in the framework resemble those of internal consulting (Figure 22c). It is suggested, for instance, that the greater chances of success are created by acknowledged sponsorship and commitment from the leadership, dedicated budget and physical space, clear goals, expectations and timing. The most critical success factor, however, is in a diverse team of interdisciplinary thinkers who maintain open communication with the stakeholders across the organisation.

* * *

Authors continue to explore the notion of melding strategy with design thinking for achieving sustainable innovation (Figure 23). Van Der Pijl, Kay Solomon and Lokitz (2016), for example, offered a joined framework uniting a process model, toolset, skills, and mindsets for designing business and complemented it with case studies and insights from thought leaders. Mootee (2013) considered applied design thinking as the 'most complementary practice' to Porter's theory, suggesting that it can be utilised for addressing issues in strategy and organisation, new product development, experience design and social responsibility. Mootee's framework, adapted for an executive education programme at Harvard Graduate School of Design, aligns potential applications of design thinking with various business challenges. Storytelling, for instance, helps people better understand and connect with organisation's values and purpose, business model design — to make radical changes in strategy and organisation, and strategic foresight - to manage the uncertainties more effectively.

23 BUSINESS DESIGN LITERATURE

SLIWOIZKI & MORRISON
The Profit Zone: How Strategic
Business Design Will Lead You to
Tomorrow's Profits
SLYWOTZKY & MORRISON
Strategy and Organisation Consulting
MARTIN

CLVMOTTKY & MODDICON

- The Design of Business: Why Design Thinking is the Next Competitive Advantage
- 2010 CARLOPIO Strategy by design: A process of strategy innovation
- 2011 LIEDTKA & OGILVIE Designing for Growth: A Design Thinking Tool Kit for Managers
- 2012 FRASER

Design works: How to tackle your toughest innovation challenges through business design

2013 MOOTEE

2016

Design Thinking for Strategic Innovation: What They Can't Teach You at Business or Design School

LIEDTKA, OGILVIE & BROZENSKE The Designing for Growth Field Book: A Step-by-step Project Guide

SNIUKAS, LEE & MORASKY The Art of Opportunity: How to build growth and ventures through strategic innovation and visual thinking

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Design a Better Business: New Tools, Skills, and Mindset for Strategy and Innovation

VAN WULFEN

The Innovation Expedition: A Visual Toolkit to Start Innovation

§ 4.2. Consulting Practice of Business Design

GROWTH OF DESIGN AND INNOVATION CONsultancy is often associated with development and maturity of service design. Emerging in marketing during the 1980s, it was first introduced as design discipline in 1991 by Michael Erlhoff at Köln International School of Design and started to gain momentum in the next decade (Moritz, 2005, Kimbell, 2009). In 2013, Forrester named service design 'the most important design subspecialty in the business world,' suggesting that focus on the customers becomes the most significant strategic imperative (Bodine, 2013a, 2013b). Two years later, the Forrester analysts reestablished the notion, having found its reflection in the acquisitions of design firms by large IT and consulting companies: Fjord by Accenture in 2013, Great Fridays by EPAM in 2014, Designit by Wipro in 2015, Lunar Design by Mc-Kinsey & Co. in 2016 (Buley, 2015).

Service design is one of the youngest segments in consultancy, with over a third of the specialised firms founded after 2000 (Buley, 2015, Sangiorgi *et al.*, 2015). Almost a half of them still employs less than ten service design staff, and only a handful exceeds 500 in the total headcount — compared to 12,000 employed by BCG, including 6,200 consultants, and over 394,000 employees with Accenture worldwide (Buley, 2015, Accenture website, BCG website). The recent M&A deals drive growth of the segment: Accenture's investment in Fjord, for example, enabled the design firm to double the size of its team and increase studios from nine to 17 in just two years after the deal (Accenture, 2015). Apart from specialised firms, practices associated with design thinking are visible today in digital subsidiaries of the consulting majors, such as BCG DV, Deloitte Digital and Digital McKinsey.

While business advisers build their design capabilities, design firms extend scope of their work towards strategic assignments. Demand for service design expertise is largely driven by the innovation focus of businesses around the globe (Interviews A, C and F, see also Kelley, 1999, Jacoby & Rodriguez, 2007, Seidel & Fixon, 2013). Frog's Gianfranco Zaccai pointed out that the design process and techniques appeal to executives seeking alternatives to pragmatic, linear, analytical and quantitative approaches to business thinking: "They've seen that the thought process good designers have been using for a long time, the methodologies and tools they use, seem to complement and inform traditional business thinking" (Lockwood, 2010a, p. 17). Michael Bierut (2007/2012, p. 218), a partner with the design firm Pentagram, noted that innovation forms a new identity for the industry, having become its 'favourite euphemism': "Design sounds cosmetic and ephemeral; innovation sounds energetic and essential."

Another driver for growth of design consulting is rising recognition of customer experience for business success, especially in digital services (Interviews A, C and F, Buley, 2015, frog, 2016, Schybergson & Evenson, 2016). Commenting on the acquisition of Fjord, Baiju Shah, Accenture's Director of Strategy and Innovation, highlighted: "The battle ground for most of our clients is now shifting towards... engagement of the user, and that puts experience at the center. [...] This is about helping our clients to be digital businesses. Our clients are finding that sustainable performance can't really be achieved using a lot of traditional levers" (Hurst, 2013).

Based on core capabilities and focus on specific channels, the Forrester analysts identified five main types of service design firms (Figure 24). Some companies specialise in customer-centred innovation ranging from insight through detail design, others combine business strategy with design for web and mobile, and yet another group focuses on organisation design, training and change management (Buley, 2015).

24 TYPES OF SERVICE DESIGN FIRMS Buley, 2015

- **1.** FUZZY FRONT-END INNOVATORS Firms focused on customer research, brand strategy, experience strategy, conceptual design, detailed design, and employee experience design.
- 2. PHYSICAL AND FACE-TO-FACE EXPERIENCE DE-SIGNERS Agencies designing for face-to-face interactions, the physical environment, printed materials, and the contact centre.
- **3. DIGITAL EXPERIENCE DESIGNERS** Experts at the crossover of service design, digital customer experience strategy, and digital technology.
- 4. ORGANISATIONAL CHANGE PARTNERS Firms specialised on change management, training, and organisation design.
- **5. BUSINESS SYSTEMS CONSULTANTS** Companies combining capabilities in quantitative customer research, business analytics, and technology development.

Business design remains extremely novel practice in consultancy — however spreading rapidly. With many offerings launched in design shops only in the past decade, already four of ten firms have business design in their portfolio (Launder, 2016, Sangiorgi *et al.*, 2015). The discipline is often seen as a means for furthering agenda of service design and promoting its relevance beyond the canonical scope of face-to-face

customer interactions in physical environments (Interviews C and F; see also Aricò, 2015). Describing business design, IDEO suggests that "Whenever a company designs a new product, service, or experience, it is essentially designing its business" (IDEO website).

Today, business design finds its application in a variety of strategic challenges within the broad scope of service design — from foreseeing upcoming trends to monetising existing technologies and experimenting with new categories (Figure 25). John Oswald (2016), Business Design Director at Fjord, underlined that design projects exist within a business case, making vital understanding of their anticipated results, value created for stakeholders, and impact on the client organisation.

25 STRATEGIC FOCUS OF BUSINESS DESIGN

STRATEGIC FORESIGHT Anticipating trends and for gaining competitive advantage.

NEW OFFERINGS & DIFFERENTIATION Creating novel solutions to overcome commoditisation.

BUSINESS VALIDATION Testing market potential of concepts, offerings or technologies.

MONETISATION & BUSINESS GROWTH Designing business models to ensure profitability.

DIVERSIFICATION Experimenting with new categories and setting up new ventures.

Another range of tasks is related to orchestrating organisational change, refining internal innovation processes and establishing stronger customer focus (Figure 26). Fjord's Abbie Walsh pointed out that the complementary, businessfocused and design-structured perspectives, help to both follow increasing demands of the customers and bring together disparate groups of stakeholders. Applied to corporate challenges, this mixture enables to create a future-proof, human-centred businesses: "Business design is a really useful set of tools and skills that can help you frame what you need to do, have a vision, and then be able to understand how to achieve that, and how to

PHASE ONE

Align and Mobilise

Engaging decision-makers to explore and harmonise viewpoints, confirm executive commitment and kickstart the assignment.

A SAMPLE ACTIVITIES, TOOLS AND TECHNIQUES

INDUSTRY RESEARCH AND BENCHMARKING Assessing both existing and potential competitors to set a reference point and define best practices relevant for the assignment.

LIGHT FIELD RESEARCH Using interviews and ethnographic techniques in small-scale enquiries to investigate customers' needs, experience flaws, stakeholders' demands and expectations.

ALIGNMENT WORKSHOP Enrolling decision-makers in group exercises to explore viewpoints, create common understanding and introduce the design approach.

B PRINCIPLES AND MINDSETS

HUMAN-CENTRED APPROACH Empathising with stakeholders to discover and align different perspectives and to crystallise a shared view.

COLLABORATION Involving participants to leverage diverse backgrounds, prioritise issues and scope the right business challenge.

CREATIVITY Engaging in an open-minded exploration of possibilities around multiple aspects of the problem.

HOLISTIC PERSPECTIVE Using a range of inputs, from both inside and outside an enterprise, to shape complex understanding of the corporate challenge.

INTERPRETATION & SYNTHESIS Aligning data with priorities and expectations to focus and drive action in the complex situation.

EVIDENCING & EXPERIMENTATION Mapping systems and visualising knowledge to demonstrate trends, envision strategies, and align with the internal understanding of the problem.

C INPUTS AND OUTPUTS

TREND OVERVIEW Selection of major changes in consumer behaviours and competitive landscape, novel technologies and business models affecting the problem at stake.

STAKEHOLDER MAP Diagram of roles and relationships between the key parties: customers, personnel, partners, and others.

CUSTOMER ARCHETYPES Broadly defined common characteristics of customer groups, including goals, needs and motivations.

TOUCHPOINT MAP High-level diagram of customer interactions with an organisation during the service experience or throughout the lifecycle.



PROBLEM STATEMENT Nascent understanding of the business challenge and focus, scoped by customers' needs, stakeholders' expectations and motivations, along with relevant trends.

PROJECT AGREEMENT Formal document defining project fundamentals: approach and timeline, teams and contributions, approval and accountability, communications and logistics, budgets, deliverables and change management issues.

make sure your team, employees and culture are fit for that" (Launder, 2016).

26 ORGANISATIONAL FOCUS OF BUSINESS DESIGN

ORGANISATION DESIGN Integrating gaps and silos between units, functions and processes.

ORGANISATIONAL CULTURE Establishing collaborative and innovative setting among teams.

CUSTOMER ORIENTATION Training employees in customer-centred approaches and tools.

INNOVATION CAPABILITIES Establishing design competence and processes for innovation.

OPEN INNOVATION Engaging external collaborators in innovation initiatives.

Similarly, frog's Ravi Chhatpar (2007) emphasised that a blend with design complements conventional approaches to strategic management with process-aware approach and creative techniques, ultimately enabling to innovate faster. Moreover, it is believed that the novel approach to innovation — by thinking like designers — can be taken to both creating products and leading change across an organisation: "Designers gain inspiration by immersing themselves in users' experiences. They progress iteratively, learning, designing, prototyping, testing and refining, until they get the new customer experience right. This is a process that can be applied more broadly to an organisation tion going through change" (Frog, 2016).

Alignment

It is evident that since the late 1990s, the scope of projects in design consultancy has extended towards the beginning of innovation initiatives, while initial requirements of assignments have broadened out (Interviews A, C and F). *"Clients used to come to design agencies with a specific business idea described in a brief,"* tells the founder of the design firm. *"Today, we often see that clients do not know exactly what they want or who it is for. In* some cases, they may have an initial idea, but it eventually turns into something different" [Interview A].

The changing role and content of design briefs calls for clearer articulation of the problem at stake and choosing appropriate directions for the innovation effort (see Weiss, 2002, Chhatpar, 2007, Lockwood, 2010a, Brown & Martin, 2015). An intensive workshop, typically day-long, aims to bring decision-makers together and engage them in exploration of the business challenge (Figure 27A). Involving the participants ensures diversity of viewpoints, prompts clarifications and sheds light on different dimensions of the problem (Figure 27B). "[As a designer,] you are responsible for defining the problem, and you are as good as your ability to do it," emphasises the senior design consultant. "Connecting dots, bringing clarifications and translating problems [are all] important elements of design thinking" [Interview E].

Prewired inputs for the workshop usually include a selection of mega-trends — major changes in consumer behaviour, technology advancements and emerging business models affecting the problem space (Figure 27C). While the sets of trends are normally assembled ad hoc for the specific project, based on the industry expertise and desk research, some established firms dedicate special efforts on trend-watching and issuing annual forecasts. In addition to general overview of the changes, light field studies of customers and stakeholder interviews are conducted to tailor discussion to the specific business circumstances.

A central issue for consultants, however, remains in finding the right balance between speaking, listening and engaging. While delivering insights and perspectives help to establish credibility with the client, the need to understand stakeholders, their viewpoints and expectations is crucial for the ultimate success of the project. "The main benefit of the workshop is getting face time with the client," says the experienced facilitator. "It is very important to understand how much they know about the world around them and about directions they should be taking. [...] Presenting your vision gives the client a chance to challenge you, but it also explains what they value, what resonates with them, and what success criteria they use" [Interview D].

Involvement in the discussion is achieved by enrolling the participants in group exercises and creating first tangible artefacts. A simple, PHASE TWO

Immerse, Discover, Define: Customer Insight

Fundamentally understanding the customer to identify business potential where needs, desires and aspirations are not yet answered.

A SAMPLE ACTIVITIES, TOOLS AND TECHNIQUES

IN-DEPTH INTERVIEWS Reaching out to the existing and potential customers to define and explain needs, motivations, opinions and desires.

ETHNOGRAPHIC RESEARCH (SHADOWING, PARTICIPATORY OBSERVATIONS) Observing people's behaviour to understand the context and identify problem areas.

CULTURAL PROBES (USER DIARIES) Self-documenting people's experiences to investigate the context, provoke novel perspectives and encourage discussion.

LEAD USER RESEARCH Approaching active or extreme users of a product, service or process to explore ideas that can be useful for others.

SERVICE SAFARIS (SITE VISITS) Using existing offerings to understand the context, build empathy with the customers and spot opportunities.



HUMAN-CENTRED APPROACH Using proven techniques for engaging directly with people to explore their context and ensure customer relevance.

HOLISTIC PERSPECTIVE Supplying external perspectives and rich insights to build complex understanding of the context surrounding the business challenge.

INTERPRETATION & SYNTHESIS Harmonising conflicting viewpoints and contradictory data to interpret real people's needs.

EVIDENCING & EXPERIMENTATION Assembling hybrid insights and creating design expressions to cross-validate data, communicate insights and persuade.

ITERATION Challenging the assumptions outlined in the problem statement to unravel hidden dimensions with knowledge of people.

C INPUTS AND OUTPUTS

TREND REPORT Review of changes in people's behaviours, perception of value, use of technologies, and consumer preferences.

PERSONAS (CHARACTER PROFILES) Composite, fictional, detailed descriptions of the relevant customer groups according to their context, problems, attitudes and painpoints.

CUSTOMER JOURNEY AND EXPERIENCE MAPS Detailed graphs representing customer interactions with a product, service or brand from an initial contact through a continuous relationship.

STRATEGIC THEMES Essential topics in the findings with a potential impact on the solution, grouped based on their mutual relationships.

DESIGN DRIVERS Critical information and descriptive rationale setting a direction for differentiation and business growth.

D OUTCOMES

DESIGN BRIEF Document providing a clear definition of a fundamental challenge along with the abstract but actionable guidelines for creating solutions. Outlining goals and constraints, serves as a reference for assessing competing ideas.¹

See d.school, 2010.

high-level *touchpoint map*, for example, is assembled to define main stages of the customer experience and its major voids. A *stakeholder map* is set to explore relationships between the parties affecting or affected by the future offering, identify potential synergies or conflicting priorities. Among the means for conducting workshops is *scribing* — capturing abstract ideas and masses of data in metaphorical and cartographic notes. The design director tells that the tool for graphic facilitation can serve in a variety of contexts: *"In the extended strategic sessions, which can last for days, we recap all topics under discussion, so that by the end of the event, the puzzle comes together with the summary of the entire conversation"* [Interview B].

The problem formulation activities in the initial phase are complemented by the focus on the future solution. Here, small brainstorming sessions are helpful for discovering goals and expectations of the leadership. One of creative techniques offers participants to fill out a template of a newspaper or magazine with a head-line about the future offering. While different publications can serve the purpose — *Business-Week, Vogue* or local papers, — the main objective is always to imagine the ideal future, where the solution is developed, launched and became successful enough to be on the cover.

Notably, creative exercises at the earlier stage are not always aiming to produce viable ideas, let alone solid business concepts. Moreover, the purpose of brainstorming can intentionally shift to generating *sacrificial concepts* — solutions created to explore abstract or complex issues, further a conversation, challenge assumptions and spark imagination — which do not need to be feasible or probable (IDEO, 2009, p. 60).

Overall, members of larger projects can be typically divided into three groups. A *core team* is made up of design leads and project managers together with co-leads and change agents from the client organisation. They own the project vision throughout the process, provide the context and participate in majority of the activities. Specialised designers, technical specialists and managers at the consultancy along with client's directors, business owners and line staff comprise an extended *work group*. They support the project through ongoing communication and feedback, contributions and assistance with practical issues. A *steering committee*, consisting of project sponsors, directors and executives, is concerned with high-level guidance, approval and strategic inputs. Engaging participants from different units and levels of the organisation is beneficial for ensuring richness of the discussion and agility of the process by faster decision making (Interview C).

The outcomes of the engagement result in an initial formulation of the problem, general approach and intentions in a *project agreement* (Figure 27D). While the document may still be modified later, due to changes in scope and focus, the original version helps to avoid unaligned expectations, communication voids and lack of plans for change management.

Discovery

Whereas aligning positions of the stakeholders aims to scope out the problem, the following discovery phase seeks to open it up, investigate the surrounding context and supply external perspectives. The initial problem statement, aspirations and hypotheses set the focus of the discovery mission on cases where similar issues have already been addressed before. In addition, building complex knowledge of what matters to people, what happens in markets and what is important to the organisation helps to indicate the areas to invest.

Business design clearly seeks to integrate two fundamental perspectives on strategy. The inside-out approach, traditionally dominant in strategy consulting, starts with organisational capabilities and resources in order to determine relative advantage in the industry. Specialist consultancies — particularly marketing firms — typically follow the opposite, outside-in, path, commencing with in-depth understanding of customers, their needs, attributes of value, drivers of behaviour, and perception of competitive offerings (see Spekman & Kotler, 2005/2010).

The integrated perspective is supported by a distinctive approach to developing insights. In this matter, strategists continuously stress that advanced analytics and data — even when it is 'big' — do not automatically translate into intimate understanding of the customers. Market research remains efficient for shaping unbiased representations, reporting explicit opinions and describing behaviours, but often fails to uncover extreme cases, tap on tacit knowledge, and, most

PHASE TWO (CONT'D)

Immerse, Discover, Define: Business Insight

Examining the organisation, emerging trends and viable patterns of innovation to overcome ambiguity and outline the opportunity space.

A SAMPLE ACTIVITIES, TOOLS AND TECHNIQUES

COMPETITIVE ANALYSIS Assessing competitive landscape and exploring innovation across industries to synthesise patterns and forecast trends.

DISCOVERY INTERVIEWS AND WORKSHOPS Enrolling decision-makers, business owners and various staff to explore goals, offerings and circumstances.

ETHNOGRAPHIC RESEARCH (PROBES AND OBSERVATIONS) Immersing in routines of personnel, documenting activities, tasks and workflows to identify voids.

ANALYTICS AND BENCHMARKING Gathering measurements to set a baseline and evaluate current performance in various aspects.

EXPERT INTERVIEWS Approaching practitioners and researchers to gather how-knows and insights or to evaluate the existing offerings.

B PRINCIPLES AND MINDSETS

HUMAN-CENTRED APPROACH Emphasising with stakeholders to understand the business and organisational context.

COLLABORATION Engaging an array of participants — from grassroots to executives — to ensure process agility with faster decision making.

HOLISTIC PERSPECTIVE Looking beyond established business boundaries and mental models to identify flaws and inconsistencies, consider a total value ecosystem, and find inspiration in unconventional sources.

INTERPRETATION & SYNTHESIS Anticipating trends, generating patterns and drawing scenario plans to reframe the question and determine possibilities.

EVIDENCING & EXPERIMENTATION Creating tangible design expressions to ensure a productive discussion within an extended set of stakeholders.

C INPUTS AND OUTPUTS

TRENDS AND BENCHMARK Success cases across industries providing a point of reference and presenting patterns of thinking and operating.

VALUE CHAIN Diagram of the valueadding processes and activities, including production, marketing and after-sales services, to identify areas for improvement.

CUSTOMER LIFE-CYCLE MAP Visualisation of the overall relationship with the customers, from consideration through termination, to define gaps and opportunities.

PORTFOLIO MAP Graph of the existing products, services and patents to identify mutual relationships and a potential for further development.

BUSINESS DRIVERS Factors crucial for gaining sustainable competitive advantage and business success, including resources, conditions, and values.

D OUTCOMES

STRATEGIC FORESIGHT Alternative scenarios and potential changes in customer behaviour, competitive landscape, technologies and business environment which have implications on the solution and future strategy.

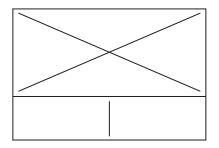


EXHIBIT 6 Originally created by Dave Gray, an EMPATHY MAP is a collaborative tool for gathering in-depth knowledge about the customers, synthesising observations and drawing out insights. Depending on the nature of the project, the four quadrants on top of the layout may represent what people *say* and *do* (observed actions and behaviours along with defining quotes), *think* and *feel* (assumptions about the subject's thoughts, beliefs and emotions), *see* and *hear* (objects and people in the environment). The two additional segments on the bottom define customer *pains* (fears, frustrations and obstacles) and *gains* (needs, goals and measures of success).

importantly, reveal critical action points (Kolko, 2011). In contrast, design research aims for indepth, qualitative insights, addressing people's thoughts, emotions and motivations, along with daily interactions with the world. Ethnographic techniques, central to the service design methodology, shapes a holistic picture of the customers, recognising that not all their needs can be clearly articulated by people, while some remain hidden even from them (Figure 28A). An *empathy map* (Exhibit 6), supplementary tool used in customer research, illustrates the point by distinguishing between what people think, feel, say and do — and pointing at possible mismatches among the segments.

Another set of activities in discovery is related to competitive analysis. Immersing in 'service safaris' by using existing product and visiting sites helps to explore experiences, identify success factors and test hypotheses. However, as benchmark against best practices remains relevant (so does swor analysis), the studies seldom focus solely on the client's market. On top of it, significant effort is spent to explore innovation across industries, synthesise patterns, define trends, and identify relevant alternatives — implementable, scalable and cost-effective.

Finally, acknowledging that innovation builds on the strengths of the organisation draws attention to its goals, settings and potential internal barriers for innovation (Interviews C, E and F). Ethnographic methods become useful for reaching out to business leaders, product owners and staff, including front-line personnel (Figure 29A). The studies concentrate on objectives, priorities and expectations, examine existing ideas for tackling the challenge, build on know-hows and identify flaws in routines — even if they are not recognised by the participants. On the organisational level, the focus is placed on the core competence and technology, existing portfolio and ways of operating, partners and customer base, institutional settings and 'corporate DNA' — visions, values, and sense of purpose defining the company's culture.

Due to the composite focus on customers, organisation and markets, discovery is usually seen as the most divergent phase of the design process. However, as an array of studies seek to uncover unanticipated insights, deep-held desires, flaws and inconsistencies, only a small portion of them comes directly from the field. To gain strong business value, a selection of incidents, photographs and quotes needs to be developed further by defining reasons behind the observed behaviour (Figures 28B and 29B). "Insight needs to uncover a dilemma — the difference between the current way of things and the ideal situation," explains the consultant experienced in design research. "Highlighting this tension is the first step in defining business opportunities and potential ways to act on insights" [Interview F].

In parallel, human stories from customer research are complemented with quantitative data points to demonstrate their potential impact. In order to become actionable, each topic is supported with raw idea seeds or specific potential applications. While none of them guarantee ultimate success, they set grounds for translating insights into business opportunities and defining which resonate with markets the strongest (Seemann, 2012).

A body of knowledge about the customers' context, needs and desires forms *personas* (Figure 28C). Unlike archetypes, broadly describing customer groups based on their initial understanding, personas build on the research outcomes. Using personal details and photographs allows to put a human face on the qualitative data and share insights in an easily identifiable and understandable format. In addition, maps of physical and emotional 'journeys' are used for synthesising and visualising the customer's progress through the experience around the product,

PHASE THREE

Ideate and Concept

Producing ideas and developing concepts to create meaningful value for stakeholders and seize business opportunities.

A SAMPLE ACTIVITIES, TOOLS AND TECHNIQUES

IDEATION (BRAINSTORMING) Generating and capturing raw idea seeds and opportunities for solving the reframed problem.

BACKCASTING Defining a desirable future state and identifying key intermediate steps required for attaining the goal.

CO-CREATION Enrolling stakeholders, including customers, personnel and partners, in facilitated workshops to identify possibilities and discover alternative solutions.

B PRINCIPLES AND MINDSETS

CREATIVITY Exploring possibilities, envisioning the desired future, and creating novel concepts.

HUMAN-CENTRED APPROACH Seeking to delight consumers and connect to stakeholders for ensuring customer relevance and building commitment across the ecosystem.

COLLABORATION Embracing diversity to leverage various approaches and toolsets, examine a broad range of possibilities, and create ownership over the designed concepts.

HOLISTIC PERSPECTIVE Discovering hidden dimensions of the problem and steps required for realisation of the potential solutions.

INTERPRETATION & SYNTHESIS Connecting disparate elements and models to spark imagination and assemble novel solutions.

EVIDENCING & EXPERIMENTATION Creating design expressions and compelling narratives to inspire the teams, match with expectations, gain clarity and buy-in around the solution.



C INPUTS AND OUTPUTS

DECISION MATRIX (VALUE MATRIX) Visual diagram of the clustered opportunities, aligned with the business objectives, to support the following stages of the design process.

D OUTCOMES

VALUE PROPOSITION Statement or visual model clearly defining benefits created by the solution — product, service or brand — and offered to the customers in response to their needs, tasks, desires, expectations, and negative aspects of the current experience.¹

CUSTOMER STORY Use case scenario describing a future situation in the context of designed offering. Videos and other rich media help to make the stories more compelling and persuasive, evolve thinking, create internal buy-in and enable discussion with the stakeholders about potential of the concepts.

¹ See Osterwalder *et al.*, 2014.

service or brand. Starting from an initial awareness, *customer journey maps* spread across main interaction points, helping to identify potential breakdowns, or 'pain-points', and well-performing areas, or 'magic moments'.

Analysis of the current performance also draw from quantitative metrics sourcing from client's own analyses, market intelligence and ad hoc assessments. Measures provide a basis for evaluating customer experience, operational efficiency, and organisation's readiness for innovation — cultural, structural and procedural alike. Useful for recognising opportunities and making practical decisions on project scope and timeline, they can also be used for benchmarking (Figure 29C). Recently released by Fjord, *Love Index* is an example of a system for informing design decisions based on measured customer attitudes along five dimensions: fun, relevant, engaging, social, helpful (Nayak, 2016).

Making sense of and synthesising insights results in new ways to frame a meaningful challenge and the opportunity space (Figures 28D and 28D). *Strategic foresight*, delivered at the end of the phase, combines insights with hard facts to describe and explain trends, define alternative scenarios and identify drivers for growth and differentiation. In addition, a *design brief* is concerned with a clear definition of the problem, broad potential direction and actionable guidelines.

Conception

Innovation initiatives encourage creating options with a potential to make a significant impact and provide better ROI, rather than delivering mere incremental improvements. Whereas opportunities surface throughout the entire design process, the dedicated generative sessions aim to produce as many ideas as possible, in a bid to translate the quantity into the quality with further assessment and development (Figure 30A). The mass of data points and synthesised insights from discovery sets the foundation for quick and effective generation of solutions. "Design process in general is... a very good and working formula," tells the senior service designer. "Background research is there to inspire your thinking and look at the problem from different perspectives" [Interview D]. "Without proper background

knowledge, you may have obvious ideas, and workshops become more of doctor-patient sessions," adds another service design consultant [Interview E].

Similarly to the rest of the process, collaboration with the stakeholders in conception drives diversity of perspectives and yields richness of ideas. It also builds up ownership within the core team and across the organisation (Figure 30В). "There is a better chance that ideas will fit best if you ideate with the client," explains the service designer experienced in co-creation. "People may not have a mental buy-in for ideas coming from outside an organisation. Whenever ideas have to be spread within the company or need funding for realisation, it's always good that people feel like it's something they created, not something consultants told them to do. It is essential for from the agency point of view to involve the client as much as possible, so that they thrive the project internally when you are not there to do it" [Interview D].

However, difference in backgrounds and personal attitudes among the participants can elevate the challenge in co-creation. In this light, skilful facilitation stimulates transparency of the discussion, upholds a balance of viewpoints and upholds the constant flow of ideas. *"For me, facilitator is, above all else, a psychologist,"* says the director at the design firm. *"The very definition of facilitation is supporting processes and making them to run smoother. [...] When it comes to activating the potential of a group or an individual, you need to be able to understand person's position and accept it" [Interview B].*

Seeking to break out of the existing patterns of thinking and promote creativity, design professionals have developed countless techniques, methodologies, and guidelines. Some of them suggest bringing together no more than twelve participants for no longer than an hour - with an option to involve more participants in further sessions (Design Council, 2014). The set of principles, such as "Remain focused" and "Defer judgement", seeks to make ideation more productive (d.school, 2010). Sketching, visualising ideas and creating simple mockups enables everyone to follow the progress and keep the conversation on topic. Verbal cues are important for setting the right posture towards the work: using the conjunction 'yes-and', instead of 'yes-but', allows to build on ideas of the others. Provoking questions starting with How might we, alongside synthesised insights, are used to avoid prescriptive

PHASE FOUR

Prototype and Validate

Producing models of complex issues and building prototypes to ensure resonance with the stakeholders and support the investment decision.

A SAMPLE ACTIVITIES, TOOLS AND TECHNIQUES

VALIDATION WORKSHOPS Enrolling stakeholders into participative sessions to explore and advance concepts, test their viability and develop associated business models.

SERVICE WALKTHROUGHS Creating simple physical models of an environment, process or system to understand main flows and interactions.

PRODUCT AND EXPERIENCE PROTOTYPING Building a model of the selected ideas or simulating service scenarios with physical props. Inviting customers and personnel in small-scale tests by manipulating building blocks of the model to revise underlying principles, identify potential issues, refine details of form and function.

B PRINCIPLES AND MINDSETS

HUMAN-CENTRED APPROACH Focusing on value exchange across the ecosystem to align activities, processes and relationships.

COLLABORATION Involving stakeholders to assess trade-offs, identify significant opportunities, and ensure resonance with needs and expectations.

INTERPRETATION & SYNTHESIS Orchestrating touchpoints, synchronising systems, integrating gaps and silos to smoothen the customer experience and refine business processes.

EVIDENCING & EXPERIMENTATION Modelling and prototyping various aspects of the business to explore opportunities, communicate, evaluate and shape a shared strategic vision.

ITERATION Short and rapid feedback cycles to learn and improve the solution before the roll-out, mitigate the risk of failure and build competence for resolving potential issues.

C INPUTS AND OUTPUTS

BUSINESS CASE Justification for the proposed project, including measures of financial performance to gain funding.

RETURN ON INVESTMENT (ROI) MODEL Estimating the sizeable outlay of funds in lights of the revenues and profits expected to be generated in the future.

ECOSYSTEM MAP A diagram of potential and existing relationships between the business and involved parties, including partners and suppliers, and regulators.

PROOF OF CONCEPT Prototype demonstrating feasibility of the concept and its business potential along with initial customer feedback.

D OUTCOMES

BUSINESS MODEL Concise visual model arranging and describing the core elements of business, including value offering, customer segments, operations and financials.¹

SERVICE BLUEPRINT Detailed representation of the service, including its behind the scenes parts, to demonstrate operational complexity, define and communicate everyone's role in delivering coherent customer experience.²

¹ See Osterwalder & Pigneur, 2010.

² See Adaptive Path, 2016.

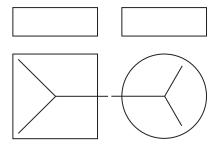


EXHIBIT 7 The VALUE PROPOSITION CANVAS is used for documenting, testing and developing customer offerings (Osterwalder *et al.*, 2014). The visual layout zooms in on two blocks of a business model: customer segment and value proposition. The former is described through three segments on the right: *customer jobs* (needs, tasks and problems to solve), *customer pains* (fears, costs and negative emotions), and *customer gains* (desires and benefits). The group on the right defines *products and services* core to the value proposition, *pain relievers* eliminating negative aspects of the customer experience, and *gain creators* providing added value.

approach: "How might we help John Persona to solve the problem zero?"

Similarly to insight synthesis, a large volume of ideas produced around the particular topic is grouped into themes and prioritised (Figure 30C). If in some cases, participants can select ideas by voting, assessment is more typically conducted against pre-defined criteria. Apart from the specific goals from the design brief, general factors for evaluation include business benefits, cost, feasibility, scalability and experience factors. The selected ideas are further developed into composite, sophisticated design concepts describing their multiple aspects, mutual relationships, potential and value. In addition, a catalogue of all ideas generated in the creative sessions is compiled for further revision and roadmapping.

Conception aims to articulate *value proposition* — a clear message explaining how solution solves customers' problems and satisfy their needs (Figure 30D). The *value proposition canvas* (Exhibit 7), recent design-inspired tool, helps to map out the fit between customers' needs and pain-points with different aspects of the offering (Osterwalder *et al.*, 2014).

The set of concepts is normally wrapped in a *customer story* illustrating the solution in the context of real-life use. Building on personas with related insights and using customer experience as a storyline, scenarios communicate the vision, consistent direction and specific use cases. Creating shared view around critical aspects of the solution, stories enable meaningful conversation and help to evaluate the concepts.

Validation

The creative engine of the design process is often presented as a series of continuous cycles spanning ideation, prototyping and testing. By making a shift from linear practices, the iterative design approach aims to perfect the solution from initial concept through final delivery. Multiple variations of the model differ in selection and order of stages, set and pace of activity. Often associated with Google Ventures, the *design sprint* is an example of a lean, cyclical five-day model for addressing business challenges through design, prototyping and testing with users (Knapp *et al.*, 2016, see also Banfield *et al.*, 2016).

Across the design specialisms, prototyping takes several forms, normally concerned with building low-fidelity models of products, services and environments. The business design methodology takes the logic further, suggesting that every aspect of the business can be prototyped and tested (Figure 31B). A toolset labelled business prototyping covers approaches to parallel modelling and validation of the offering, associated business model and customer experience around it. If creating the 'minimum viable products' (MVPs) with just enough features helps to revise underlying assumptions and ensure resonance with the stakeholders, modelling the intangible aspects of the business pursue 'minimum viable clarity' - a coherent vision of messy problems, complex processes and solutions (Interviews E and F).

Unlike piloting and beta-versions in the later stages, the main purpose of prototypes is to reduce risk of a strategic initiative by learning quickly and refining solutions. As the cost of an extra iteration is marginal compared to changes during production, deployment or organisational change — not to mention a failure after the launch, — prototyping 'often, cheap and ugly' becomes the thrust that drives the design process from the day one (Design Council, 2014).

Service design methodology provides a set of techniques for evaluating feasibility and potential of business concepts, processes and experiences. Small-scale models with simple props PHASE FIVE

Roadmap and Implement

Gathering a corporate sign-off, drawing pragmatic action plans and aligning the organisation to bring the solution to the market with maximum impact.

A SAMPLE ACTIVITIES, TOOLS AND TECHNIQUES

PILOT TESTS (BETA-VERSIONS) Small-scale experiments to assess the solution, its feasibility, cost and core business processes.

STRATEGY WORKSHOPS Involving leadership to define and articulate elements of strategy and organisation design, including management systems, and to develop plans for execution.

IMPLEMENTATION, LAUNCH AND SUPPORT Planning, performing and assisting the activities required for market delivery of the solution and its postlaunch support.

FEEDBACK LOOPS Facilitating effective communication with the customers to gather first-hand reactions and identify areas for improvement.

B PRINCIPLES AND MINDSETS

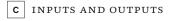
HUMAN-CENTRED APPROACH Cutting across different levels in the organisation to ensure mutual alignment of strategic initiatives and organisational commitment.

EVIDENCING & EXPERIMENTATION Creating models and maps to shape holistic view of complex systems and make informed decisions about ways to pursue. Organising demo projects to test and stretch required capabilities.

HOLISTIC PERSPECTIVE Seeing companies as interconnected systems to identify gaps, flaws and conflicts and to assess organisational readiness to change.

INTERPRETATION & SYNTHESIS Eliminating gaps and aligning elements of strategy, developing lacking competences and leveraging partnerships.

ITERATION Drawing roadmaps for delivery and adaptable plans for growth to adjust to market reactions and take advantage of emerging possibilities.



FUNCTIONAL STRATEGIES Goals and directions set for various functional areas, including new product development, brand management, and marketing.

KEY PERFORMANCE INDICATORS (KPIS) Actionable targets, along with related metrics and measurement systems, for assessing performance and evaluating business success of the solution.

D OUTCOMES

BUSINESS STRATEGY Goals and actionable plans for delivering the offering to the market and ensuring its future growth.¹

ORGANISATION DESIGN Configuration coordinating work required for delivering the value, along with people, formal arrangements, informal values, and behavioural norms.¹

ROADMAP High-level timeline with the plan for implementing a strategic initiative, internal roadblocks, required resources and capabilities.

CHANGE MANAGEMENT PLAN Directives coordinating transition of both the people and business side of the change — individuals, teams, resources, processes, budgets and operational models — for achieving strategic and operational goals.

¹ See Oliver Wyman, 1998a, 1998b, Lafley & Martin, 2013.

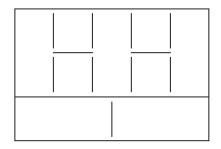


EXHIBIT 8 Originally proposed by Alexander Osterwalder in his PhD thesis, the BUSI-NESS MODEL CANVAS is a template for documenting existing business models or developing new ones (Osterwalder & Pigneur, 2010). *Value proposition*, in the middle, describes the offering aiming to meet customers' needs. Infrastructure, on the left, is defined by *key activities* and *key resources* crucial for creating value, along with a *partner network* of the business. The section on the right describes *customer segments*, *channels* for reaching out to the customers, and *customer relationships*. The two lower segments are related to financials, determined by *cost structure* and *revenue streams*.

— often paper or Lego Figures — prove helpful for *walking through* common service scenarios and relationships between the involved parties (Figure 31A). More advanced *experience prototypes* usually combine physical mockups with elements of role-play for recreating, or staging, both frontline experiences and back-stage operations with a small number of customers and staff.

In the business aspects, the focus on value chains is increasingly getting supplemented by the perspective on *business ecosystems* — networks of parties interacting with one another in order to deliver value to the customers. The new approach is looking to stretch beyond traditional supplier-customer relationships, emphasising that offerings are now based on combinations of products and services provided by a number of parties: profit and non-profit organisations, public and private entities, regulatory institutions, and even individuals. Mapping ecosystems helps to explore partnership opportunities and ensure that the offering is capable to deliver sustainable value for all members of the network.

The validation process also includes developing business models - high-level blueprints describing core logic behind creating and capturing value (Figure 31D). Created by Alexander Osterwalder, the *business model canvas* (Exhibit 8) is a template of nine building blocks describing essential elements of the business, including its unique value proposition, key customers, undertaken activities, and a profit model (Osterwalder & Pigneur, 2009/2010). Designed to be filled out in a facilitated workshop, the framework builds on the case studies and patterns synthesised in discovery, some of which may require further development. The visual form allows to document options, validate their internal coordination and ensure mutual alignment. Zooming in on different elements helps to refine various aspects of the business, including cash flow, supply chain, product-market fit, and communications.

The mapping activities extend to the validation phase with creating service blueprints. A tool with a long history in marketing resembles journey maps and is typically based on one. Blueprints visualise the solutions by connecting customer goals and actions at each touchpoint with their physical evidence, such as email, paper receipt or navigation signage. Each point is also linked to activities at the service backstage, invisible for the customers, and events across supporting functions (Adaptive Path, 2016). Similarly to journey maps, blueprints provide a framework for iterative development of the offering and are ideally created in collaboration with the client. If at earlier moments, the visual tool is helpful for identifying areas to prototype and improve, it becomes instrumental later in coordinating work of different functions and avoiding siloed units. The structure of the layout reflects the underlying approach to organisation design: customer experience is given a higher priority over internal processes, production cycles and KPIS (Livework Studio website).

Roadmap and implementation

A range of outcomes produced over the design process has a significant strategic value: aligned executive perspectives articulate corporate ambitions and goals, design brief outlines product or service strategy, customer insights and experience maps support branding and communications. Whereas the offering is being shaped through continuous iterations and assessment, the final phase seeks to gain a final approval, articulate business strategy, ensure its operationality and draw actionable execution plans.

As pilot campaigns are organised to acidtest the solution in close to real setting and gather customer feedback, a series of workshops with the steering committee are set up to shape high-

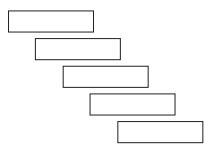


EXHIBIT 9 Developed over 20 years ago by Monitor and recently published by Lafley and Martin (2013), the STRATEGIC CHOICE CASCADE is a framework approaching strategy as a set of five interrelated questions. A higher-order set is related to longer-term *goals and aspirations* (including mission, purpose, vision), clear definitions of *Where to play* (such as markets, geographies, customer segments) and *How to win* (a coherent proposition guiding creation of customer value and economic success). The two final choices — *required capabilities* and *management systems* — are important for implementation, ensuring that strategies can be operationalised.

level plans for roll-out and growth (Figure 32A). "Usually, the more complex and general planning, the later in the process it happens," tells the consultant experienced in strategic engagements. "Ideally, we only build business models for the concepts tested with the customers, and work on strategies for the solutions validated from the business angle [...] Running strategy workshops in the later stages allows to postpone commitment and save time of the upper management" [Interview F].

Aiming to prioritise opportunities and provide guidance for implementation, activities in the final phase draw from the earlier outputs: catalogue of ideas supports roadmaps, business models set basis for coherent business strategy, service blueprints yield seamless organisation design. While some firms develop own toolkits for strategy sessions, the majority of frameworks include similar core elements: goals, value offering, management systems, and measurements (Figure 32D). The *strategy choice cascade* (Exhibit 9) approaches the task with a set of five integrated and coordinated choices to outline both the chosen strategic direction and associated organisation design (Lafley & Martin, 2013).

Involving leadership aims to bring coordination among functions, processes and management systems by identifying resources that are currently in place with the ones required for delivering the value (Figure 32B). Reconciliation of flaws and conflicts is looking to align the organisation and leverage new strategy (Oliver Wyman, 1998a, 1998b, Lafley & Martin, 2013). In addition, previously defined measures and targets are finalised, approved by senior management and translated into special sets for different units for assessing progress of the solution and its business success (Figure 32C). While establishing new operational practices and partnerships is common for innovation projects, some of them may even require setting up a new venture. "What clients often don't realise [when they

approach us], is that designing and building solutions isn't enough," tells the principal at the design and development firm. "We need to reorganise the client business, so that the product or service they deliver to the market is aligned with the vision, teams and capabilities they have internally. This is where business design comes in very strongly now" [Interview C].

Implementation often becomes the most extensive phase of the process, involving an array of specialists for long periods of time. Depending on the project scope and specialisation of the consulting firm, implementation can cover multiple aspects of the new offering, including detailed design, product development, and functional strategies. The firms seek to maintain continuous engagements with the clients — by evaluating the results reached either with an MVP or full-scale launch, adjustments and implementing the plans reflected in the roadmap (Interviews C and F). Besides, as many projects require reshaping the organisation, design firms continue to develop processes and tools for assisting clients in transition and realisation of the change.

Another growing focus of the design firms is training and driving cultural change in organisations. As design thinking becomes better acknowledged in various industries, businesses seek to incorporate its methods and principles into the core competence. "If you're mature enough, you realise that you need these capabilities in-house. So agency has a slightly different role," explains the design director with the international consultancy. "We get to ask less to build and we get to ask more to help them [clients] to do it themselves" [Interview C]. Another consultant adds: "Design thinking goes beyond the natural habitat of the designers. We see how common it's getting today for design agencies to educate managers about the user-centred approach and design tools. And it's completely different job. It's about changing people's mindset and behaviour" [Interview F].

Principles and mindsets

While executives strive new ways to embody creative leadership, creativity is sometimes overlooked in the design-led practices - perhaps, being taken as granted. However, the creative capacity of the design professionals and their hands-on toolset remain highly valuable in assisting clients to cope with uncertainty, solve complex problem, and search for innovative solutions. By breaking out the established mental patterns, design thinking aims to find inspiration in unorthodox insights and envision the future. Linking creativity to innovation presents design as an interface to generative thinking: "Design... shapes ideas to become practical and attractive propositions for users or customers. Design may be described as creativity deployed to a specific end" (Cox, 2005, p. 2). Applied to strategic challenges, the design approach enables a shift from occasional brainstorming sessions to a streamlined creative process powered by the proven and tested methodology.

In parallel, the tools and techniques of design thinking, centring around empathy, build grounds for the *human-centred approach* in strategy. Providing pragmatic ways to engage with people, design toolkit empowers strategists to hear the voice of consumer and maintain customer relevance. On a bigger scale, reaching out to the stakeholders both across and outside the enterprise yields clear definition of everyone's ambitions, goals, and expectations, integrating them as inputs in the process and aligning in the resulting strategies. Intending to create meaningful value for the entire business ecosystem, the approach ultimately makes business scalable and future-proof.

The human-centred approach hinges on close *collaboration* with extended, multidisciplinary groups. Cooperation with the stakeholders in the design process serves a great array of purposes: helps to leverage diverse perspectives and skill-sets, increases variety of ideas, promotes faster learning and decision-making, stimulates ownership and commitment to the results. In turn, critical role of seamless collaboration — both within the teams and with the clients — increases demand for complex competence of the consultants, spanning both business and design aspects. It also emphasises the role of facilitation in design practice for engaging participants, forming common understanding and ensuring alignment of views.

The need for complex understanding of the problems puts a premium on fresh views and external knowledge. *Holistic perspective* on the customers, organisation and markets is critical for seeing the bigger picture through granularity and fleshing out emerging opportunities — by identifying gaps in systems and processes, silos between functions, and white space in ecosystems. Maintaining complex perspective ensures that neither customer value, nor business model is sacrificed during the process.

While rich knowledge is valuable for framing the challenge, an ability to interpret various, and often conflicting, viewpoints and integrate contradictory data points are critical for redefining problems and finding solutions. *Interpreting* data and *synthesising* insights helps to connect the unconnected by defining real needs, looking beyond the existing business boundaries and generating patterns. Recognising that many novel solutions are grounded in known elements makes integrative thinking another critical component in the business design mix providing highest leverage in problem solving.

Creating visual and tangible expressions is helpful across the widest range of tasks: explaining insights, transferring knowledge, testing assumptions and envisioning strategies. *Evidencing* with design artefacts enables real world feedback, ensures more relevant outcomes and creates ownership. *Experimenting* with prototypes and models of intangible aspects of business helps to overcome ambiguity and de-risk the effort. On top of it, storytelling becomes into an essential design skill: assembling personas and creating compelling narratives provide a digestible format for understanding the customers, their context, multiple aspects of the solution and everyone's role in creating value.

In parallel, the tangible design expressions help to continuously challenge assumptions, adapt to emerging issues, and perfect the solutions before the launch on the industrial scale. By facilitating the continuous dialogue across the end-to-end process, the artefacts help to avoid early commitment to unviable concepts and upholds confidence in the tested concepts. Stimulating interactive approach and *iterations* empowers strategists to identify, incorporate and seize opportunities as they unfold.

DISCUSSION AND CONCLUSIONS

FORMULATED IN THE 1980-1990, Porter's views on strategy remain largely relevant today: sustainable competitive advantage as a major concern of senior management highlights the importance of ongoing innovation for differentiation and survival of a company. There is, however, an ongoing dispute among theorists and practitioners alike on how to shape solid, winning strategies (Markides, 1999b, O'Shannasy, 1999). More conventional views consider the process scientific; they argue that logic, analysis and rigour are best suited for the task, and only deliberate planning, followed by implementation, can be considered strategic behaviour. On the contrary, a more recent stream emphasises the value of creativity for generating innovative solutions along a messy, fragmented and iterative process of strategy making.

Equating strategy with solving wicked problems explains uniqueness and complexity of the challenge. Grounded in countless causes, strategic problems are difficult or impossible to describe and have neither precedent nor single right answer (Rittel & Webber, 1973). Solving them requires a fundamentally different methodology, where problem understanding becomes central and solutions evolve in continuous cycles of invention, experimentation and learning (Conklin, 2005). Nonlinear and creative approaches aim to avoid 'analysis paralysis', establishing an organisation's ability to learn and innovate as its greatest competitive advantage.

The same agenda emerges strongly in the practice of management, as businesses all over the globe put accent on innovation. Apart from making clear strategic choices, business leaders are now concerned with generating ideas and experimenting — the job for which scientific management and rational analysis have proven insufficient. Looking for ways to confront escalating complexity, executives turn to creativity for developing breakthrough strategies and transforming business models (IBM, 2010).

Yet, as opponents of conventional strategic planning widely criticise it for bias towards analytical thinking and formal practices, the creativity imperative does not dismiss the traditional views on strategy, let along substitute analysis and business rigour. Having strong advocates with undoubtable arguments, the perspectives favouring logical thinking and strategic planning promote timeless values: consistency, coordination, direction and commitment (De Wit & Meyer, 2014). While the conflicting views on the opposite poles add to the richness of the discourse, they also uncover another dimension of strategic 'paradoxes'. This turns the academic discussion into something bigger — a reflection of the demands for partly incompatible practices, mindsets and skills. Articulating the need to constructively face the tension between opposing models and generate creative resolutions upon them, Martin (2007b, 2009) finds the remedy in design thinking, defining it as a productive mix of analysis and intuition.

Arising from the half-century-old enquires into designerly ways of knowing, the concept of design thinking surfaced in the business realm in the mid-2000s, building on the idea of wicked problems and presenting novel problem-solving frameworks (Hassi & Laakso, 2011, Liedtka, 2015). The value of the design thinking becomes more apparent when problem 'wickedness' is considered a function of social complexity: the more diverse a group of involved stakeholders and the greater disagreement among them, the more wicked the problem (Conklin, 2005). Similarly in strategy: vague, incomplete and changing requirements, conflicting priorities and subjective perspectives increase the challenge to the level, where it cannot be resolved by a linear sequence of steps (Camillus, 2008, 2016). Search for the answer becomes a fundamentally social process intended to engage the participants and reach shared understanding. In this context, design thinking appears as an opportunity-driven approach to problem solving outlined back in the 1970s (Rittel, 1972).

On a bigger scale, the perception of design is changing dramatically across industries — from a local, tactic and cosmetic function to a strategic asset affecting shareholder value. Emerging in the 1960-1970s, three separate streams of design, innovation and strategy tie together at the beginning of the new century, emphasising that design can — and does — operate within the increasingly versatile and complex field: from constructing forms and creating experiences to improving operations and crafting strategies (Johansson & Woodilla, 2009). Applied at the leadership level, design focuses on decision making by stimulating creativity and providing fresh perspectives (Stevens *et al.*, 2008a, 2008b, Stevens & Moultrie, 2011). The essential design tools, including visualisation and prototyping, help to assess trade-offs and explore uncertainty, shape a holistic view of complex systems, and create a shared strategic vision. While often considered by scholars not rigorous enough, the new discourse nevertheless attracts great attention of managers in search for innovation.

In the meantime, the new setting, favouring creativity over business rigour and vision, drives a tectonic change in consultancy. The industry that has once profoundly influenced the practice of strategy and mobilised the interest in design thinking, is undergoing a major shift determined by coping with fuzzy front-end innovation and growing recognition of experience factors, especially in digital channels (Buley, 2015). While business consultancies acquire and build their own design expertise, innovation firms and design shops pursue strategic engagements, applying a distinctive toolset for enhancing strategic decision making (e.g. Siedel, 2000, Weiss, 2002, Calabretta et al., 2012, 2014). The focus on collaboration and facilitation, in turn, amplifies the discussion on the significance of organisational learning and role of creativity in consulting. Contrasted with the role of expert problem-solvers, the new client demand highlights value of insights and participative approach (Maister, 2010, Nadler & Slywotzky, 2010).

Discussion

While the existing literature exploring the blend of strategy and design remains thin, it provides ground for inspecting the variety of views and evolution of ideas. In the late 1990s, Slywotzky's strategy-led arguments highlighted the growing focus on the customers, appealing to creativity rather tangentially (Slywotzky & Morrison, 1997/2007). Acknowledging the need to develop customer insights, generate options and select the most promising ones, the model focuses on the content of resulting strategies, rather than the process of their formation. In just a few years, an array of scholars, executives and con-

sultants inspired by design addressed the agenda formulated in strategy with a more pragmatic approach (Carlopio, 2010, Liedtka & Ogilvie, 2011, Fraser, 2012). Design thinking is portrayed as an aid for making a substantial shift from the view of the customers as statistical data points to more holistic and intimate understanding of people within the surrounding context. Besides, involving other 'enablers and influencers' in strategy making is seen valuable for embracing diversity of views and generating richer solutions. More recently, Sniukas and colleagues (2016) made a distinction between three major groups — customers, internal stakeholders and parties across the business ecosystem. Here, strategy formation is looking for an equilibrium between the people's needs and organisational strengths, reconcile potential conflicts and create benefits for the collaborators within the company's value network.

Dismissing Slywotzky's preassembled profitability patterns as undermining innovation (Carlopio, 2010, p. 67), the design-led frameworks present the processdriven approach. Here, the design process is considered beneficial for developing strategies through continuous feedback loops and dynamic iteration cycles. Whereas Fraser (2012) suggested to integrate the three core elements of business design for enhancing strategic practices in the organisation, the consequential models (Carlopio, 2010, Liedtka & Ogilvie, 2011, Sniukas et al., 2016) attempted to describe a neater progression of distinct steps. The scope of the process is continuously extending: if Carlopio's (2011) framework links an initial challenge at the beginning with evaluation and selection of the concepts in the end, Lidtka and Ogilvie (2012) added demo launch, and Sniukas and associates (2016) made another step ahead, into scaling solutions in the market. For all their clarity, the linear models acknowledge their main flaw — inability to fully grasp the fragmented and messy design process with its emphasis on repeating activities and reutilising outputs along the way (ibid.; see also Collins, 2013).

The suggestion to export designers' toolbox to management practice is at the cornerstone of the design-led models. Complementing swot analysis, ROI models, and value chain, design brings about ethnographic methods,

FIGURE 33

Business Design

INTEGRATED FRAMEWORK FOR STRATEGY PRACTICE IN INNOVATION CONSULTING

A B PROCESS MODEL AND METHODS

1. ALIGNMENT

Engaging stakeholders to confirm commitment, crystallise vision, and mobilise efforts.

CORE ACTIVITIES Bringing decision-makers together to explore and align perspectives, shape common view and scope out the challenge. OUTCOMES Initial problem statement and project agreement formalising practical issues.

2. DISCOVERY

Building complex understanding of the context to reframe the problem and outline the opportunity space.

CORE ACTIVITIES Reaching out to the customers to define and explain needs and desires. Documenting activities, tasks and workflows to identify voids. Exploring innovation across industries to identify viable patterns and set a benchmark.

OUTCOMES Clear definition of a fundamental challenge along with actionable guidelines for creating solutions.

3. IDEATION

Generating multiple strategic options and developing concepts for creating value and sustainable business growth.

CORE ACTIVITIES Engaging various stakeholders to identify possibilities for solving the problem.

OUTCOMES Customer value proposition and use case scenario communicating multiple aspects of the potential solution.

4. VALIDATION

Creating models and building prototypes to ensure resonance with needs, goals and expectations.

CORE ACTIVITIES Involving stakeholders to explore and advance concepts, test their viability and develop associated business models. OUTCOMES Refined business model around the future offering and service blueprint communicating operational complexity.

5. ROADMAP AND IMPLEMENTATION

Final tests and sign-off, planning for market delivery and future growth, execution and ongoing support.

CORE ACTIVITIES Engaging leadership to articulate core elements of strategy, including capabilities, resources and management systems. OUTCOMES Strategy with associated organisation design, definition of internal roadblocks, targets and metrics for progressive measurements.

C PRINCIPLES AND MINDSETS

CREATIVITY Visionary thinking and capacity to generate novel concepts, design compelling value propositions and associated business models.

HUMAN-CENTRED APPROACH Connecting with various stakeholders, including customers, staff, and partners, to explore and align with needs, goals, and aspirations.

COLLABORATION Embracing diversity and cooperating within multidisciplinary teams to enable quick learning and faster decision-making, create shared strategic vision and ownership.

HOLISTIC PERSPECTIVE Maintaining complex view of systems to overcome uncertainty, identify unseen connections, spot gaps, and see entire solutions through granularity.

INTERPRETATION & SYNTHESIS Integrating diverse inputs and balancing conflicting demands to look beyond obvious and refram the context.

EVIDENCING & EXPERIMENTATION Using visuals, models and stories to evolve thinking, prompt discussion, and inform decisions.

ITERATION Challenging assumptions, continuous testing, learning and perfecting solutions to seize unfolding opportunities. Tolerating failure as a the cost of innovation.

techniques for visualisation and prototyping (Liedtka & Ogilvie, 2011, Sniukas *et al.*, 2016). Notably, design artefacts are seen through the lens of their pragmatic benefits for the innovation process: on top of building and transferring knowledge, generating, exploring and evaluating resulting solutions, design expressions stimulate experimentation, learning and mitigating risks of strategic initiatives (Hassi & Laakso, 2011, Liedtka, 2015).

The third integral aspect of the discipline is a set of principles and cognitive styles. If in Slywotzky's model, creativity plays a rather peripheral role, the design-led approaches grant it central stage. Across the notions of invention, informed intuition and abductive reasoning, the authors emphasise importance of making a 'leap of logic' upon various points of reference. At the same time, neither creativity, nor analytical thinking alone is considered sufficient for delivering sustainable innovation. The main goal of the discipline is seen in finding the valuable balance between analysis and intuition, echoing Martin's (2009) definition of design thinking placing it right at this intersection.

Previously suggested by Liedtka (2015), the triple process-tools-mindsets framework can be traced in the management literature exploring strategy by design. While the elements of the model are framed and described differently, the emphasis on the three essential elements arises strongly across the major accounts — especially the ones led by design thinking (Carlopio, 2010, Liedtka & Ogilvie, 2011, Fraser, 2012, Sniukas *et al.*, 2016).

In the context of consultancy, business design is seen as an integrated practice on the both sides of the crossover between strategy and design. In business consulting, Nadler and Slywotzky (2010) witnessed reintegration of strategy, organisation, and change management — the three disciplines which had established as virtually indistinguishable, separated in the 1960s and afterwards grew sophisticated methodologies, knowledge bases and delivery models of their own. A multidisciplinary mix of tools, processes and competences is considered vital for increasing the relevance of business design for the today's demand in consultancy driven by accelerated product lifecycles, increasingly global nature of business and growing frequency of discontinuances in the marketplace.

In design consultancy, business design gravitates towards the older - and clearly more established - discipline of service design, sharing with it a common process model, a set of tools, and principles. Besides, the two practices set complementing agendas: as strategists seek actionable ways to become more customer-oriented (e.g. Moser, Wenstrup and Slywotzky, 2007, Slywotzky & Morrison, 2007), principals at design agencies promote the business aspects and strategic value of service design (e.g. Esslinger, 2009, Polaine, Løvlie, Reason, 2013, Reason, Løvlie, Brand Flu, 2016). Although separation of the two disciplines can be expected with their maturity, any attempts to make a clear distinction between service design and business design today calls for simplification — suggesting, in particular, a stronger focus on people in the former and a complementary business or commercial focus in the latter (e.g. Launder, 2016). In effect, some consultancies position business design as a part of the composite service design practice, while others pair them as a combo, and the third group places business design at the centre (see Aricò, 2015).

Regardless of the chosen setting, seamless integration of design methods with conventional tools in strategy is at heart of business design practice (Figure 33B). Drawing from an array of proven tools across disciplines and inventing new ones enables the discipline to leverage both creativity and business rigour. Design brings about ethnographic techniques for building fundamental understanding of the customers early on in the process - at odds to establishing briefs in the beginning and conducting quantitative research, common in strategy and marketing consulting. Applied to a broader set of stakeholders, the approach brings together disparate groups of people, uncovers and aligns their positions. The distinctive nature of the facilitative approach manifests even stronger in light of the distinction between the task and process orientations in consultancy. Participation and collaboration between consultants and clients, previously stressed by the authors examining the specialised practices in both strategy and design (see accordingly Nadler & Slywotzky, 2010 and Kelley, 1999), echo the principles outlined by the business theorists in the 1980s (Lippitt & Lippitt, 1986, Schein, 1999), effectively linking the approach

to the original framework for tackling wicked problems that favours involvement and facilitation over unconditional expertise (Rittel, 1972).

As design firms established themselves as a vital source of domain knowledge in product and service development, communications, and marketing, a great share of value created by the specialised firms remains in process knowledge - strategies, rules and skills for acquiring, storing and using relevant information (Kelley, 1999, Seidel, 2000, Brown, 2005, Jacoby & Rodriguez, 2007, Calabretta et al., 2012, 2014, New & Kimbell, 2013, Brown & Martin, 2015). Inline with the views in both academia and strategy practice, it is evident that the role of an expert and knowledge broker in design consulting is enhanced by the focus on developing tailored insights, collaborative problem solving and organisational learning. Tangible design expressions become instrumental in facilitating the strategy process: by forming common understanding, communicating and transferring complex knowledge, the artefacts enable better alignment, more relevant outcomes, and faster decision making (Brown & Martin, 2015, see also Seidel, 2000, Weiss, 2002).

The productive use of the combo toolkit calls for particular mindsets balancing analysis and creativity (Figure 33C). In this matter, business design demonstrates the particular ways of applying creative methods to solving strategic problems. Maintaining a holistic view of complex systems and interpreting various inputs provide highest leverage in problem solving, emphasising that the key to innovation is not in finding solutions immediately, but in framing the right challenge first. Integrating rich banks of knowledge, mapping systems and creating narratives shape basis for informed decisions around strategic issues. Modelling and protoyping provide realworld feedback, serving as a vehicle for learning and dialogue. Iterative approach and experimentation help to develop strategies incrementally, incorporating unfolding knowledge and possibilities.

The seven elements in the selection reflect the difference between analytical, linear strategic planning and the iterative, integrative business design approach. The human-centred orientation enables a transition from making assumptions and predictions to verification with stakeholders — as well as from top-down formulating and implementing strategies to an inclusive and participative approach. Integrative thinking introduces a shift from collecting and analysing data to synthesising insights and recognising patterns, from narrow focus on organisational capabilities to holistic view of the context around the business challenge, and from linear problem solving to creative problem redefinition. While the outlined set of principles can be addressed in multiple ways — as thinking styles, attitudes or philosophies, — in consultancy, it is best considered as meta-competences which supplement knowledge and hard skills, enabling professionals to develop solutions resting on sound business models and strategies.

The process model is the third integral component of business design. Linking a vaguely defined and contradictory business challenge at the beginning of an assignment with implementation and change management at its crux, the five-phase model describes the holistic approach to strategy formation (Figure 33A). A blend of strategy and design makes up a coherent framework cutting across developing novel insights, generating alternatives, co-creating strategies, and delivering solutions to the market. Whereas the central section of the model is well described in the existing literature, the study draws attention to the two phases at both ends of the process as essential for external consultancy. Aligning executive positions in the initial phase of the engagement enables to initially frame the problem, introduce the client to the methodology and confirm commitment. Assisting implementation, enabling organisational change, ongoing support and training in the final phase aim to align organisations, deliver the solution to the market and ensure its growth. Within the consulting discourse, the holistic process model supports older arguments on the advancing roles of the consultants (Turner, 1981). In the industry, the end-to-end process spreading post-launch points at a recognised demand for consulting services - the seamless combination of advice and and implementation (e.g. Argyris, 2000, Hari, 2011, Aricò, 2015).

An integrative approach, where various design and business issues addressed in parallel, enables critical agility of the practice (Carlopio, 2010, Nadler & Slywotzky, 2010). Similar approaches are currently surfacing in the views suggesting rich synergies in combination of strategic management with the lean and agile methodologies (see Fixson & Rao, 2014, Collis, 2016).

However, the contradiction between the clearly defined, linear order of phases and integrated, iterative approach also possesses a challenge for consultancy. If the former are valuable for sales and marketing of consulting services as well as project management of the ongoing assignments, the latter is required for the effective use of the underlying design methodologies. Conducting design sprints remains a potential way to resolve the tension: a series of cycles uniting design, prototyping and testing helps to evolve the offering and implement strategies gradually (see Knapp et al., 2016). Another possibility emerges around parallel streamlining of the core process and developing modular, adjusted methodologies for the discontinuous change (see Nadler and Slywotzky, 2005). At odds to the 'one size fits all' approach, this would enable aligning various consulting services with particular client needs. With expected maturity of the demand for business design, customer and business insight, for example, can be tailored to the need to develop strategic foresight, and validation techniques and methods to testing market potential of the concepts developed by the client's internal R&D function.

In sum, the empirical findings of the study confirm the hypothesis formulated based on the theoretical framework. Firstly, business design can be conceptualised through a three essential elements - process model, toolset and principles — as suggested earlier by Liedtka (2015). The combination of the disciplines and multidisciplinary collaboration aim to seamlessly integrate the design capabilities in the strategy process, promoting a more holistic and agile approach to innovation. The similar view is also reflected in the discussion on the nature and value of design thinking in specialised consultancy (e.g. Chhatpar, 2007, Schybergson & Evenson, 2016). Secondly, the current domain expertise in design consulting is complemented by the process knowledge and skills supporting facilitation of the problem-solving approach — exploring possibilities, generating options and validating their potential, followed by pragmatic implementation.

Implications

Aiming to conceptualise the consulting practice of business design, the study aligned the views in the business literature and linked the empirical outcomes to the composite theoretical framework. Operating at the crossroad of business strategy and design, the study has approached issues formulated in the academic discourse, while the insider research methodology has enabled contribution to the practice.

Firstly, addressing business design as a novel approach to strategic management contributes to development of a new toolkit for strategising grounded in the proven design methodology. Remaining an important goal of the contemporary discourse in strategy, this outcome is also relevant for the executives' innovation agenda. At the same time, the notion of using design thinking for solving strategic problems fosters validating, expanding and exporting the practice field of design to strategic management. In this light, the study contributes to more holistic understanding of design's value beyond core domain and its growing strategic role.

Secondly, aligning different viewpoints on business design discussed in the managerial literature and examining its discipline in light of the previous discourse connects the novel consulting practice to a holistic theoretical framework. Besides its clear relevance for the strategy discourse, this investigation is considered valuable for design theory, particularly in relation to the concept of design thinking.

Apart from it, conceptualising the consulting practice of business design through an end-to-end process model, selection of tools and mindsets has strong implications for strategists, external advisers and their clients. Building theory based on the lived experience contributes to growth and maturity of the discipline on the individual, firm and industry level. In parallel, it also provides insights into pragmatic aspects of the design approach to strategic assignments, exploring its essential principles, processes, methods and outcomes. In the academic discourse, the study contributes to exploring roles of management consultants, focused on the equilibrium between the expert and facilitatory orientations.

Limitations

Drawing on the nascent theory, requiring further development, the study faced a considerable number of limitations. Scarcity of the academic works exploring the application of design thinking to developing business strategies limited available methodology choices by qualitative enquires aiming to collect data for meaning and pattern identification. While the issue was addressed by linking the empirical outcomes with the holistic theoretical basis, it is important to acknowledge that both the scope and focus of the study were determined by the goal to develop theory gradually, in small steps (Eden & Huxham, 1996, Edmondson & McManus, 2007).

Selecting the matching research strategy and design, in turn, raised concerns over the relevance of the outcomes beyond the immediate research settings (Brannick & Coghlan, 2007). As the longevity of the study, supporting audit of the managerial literature, and exploratory interviews aim to conform to academic standards of rigour, research strategy possesses a challenge of its own. The combination of data capturing mechanisms fleshes out the potential flaws related to the conflicting roles, preexisting knowledge and personal stake of both the researcher and informants impacting both breadth, depth and objectivity of collected insights (Brannick & Coghlan, 2007, Coghlan, 2007, Coghlan & Brannick, 2014). The issue is complicated by extreme novelty of the business design practice: albeit reasonably claimed to be grounded in the proven methodology, it may still lack best practices covering the entire bundle of process, tools and principles.

In this matter, the study recognises that its empirical findings, building on the use of practice, have a limited potential for generalisation across design and innovation consultancy. Likewise, the accuracy of the developed process model is limited by the selected strategy for processing empirical data (Langley, 1999). In light of this, the described process model and tools are best considered as a high-level, modular framework supporting conceptualisation of the practice, rather than providing an exhaustive description. Similarly, the terminology used for describing the approach, drawing from a variety of disciplines, remains ambiguous and in different firms.

Further research

The limitations faced by the study open the wide horizons for further enquires spanning multiple academic fields and aspects of practice. Liedtka's (2015) guides for studying design practice remain relevant, suggesting that business design can be examined in various organisational settings and team compositions. Aside from exploring the design-led consulting practice with universal focus and end-to-end scope, the discipline can be investigated in the context of strategy firms, internal consultancy and narrowly specialised service providers, such as digital shops. Inline with the agenda established by the practice turn in both strategy and design (Whittington, 2006, Johnson *et al.*, 2010, Liedtka, 2015), the narrower focus can be placed on specific stages and phases of the process model (such as insight studies or change management), particular activities (including alignment workshops and business prototyping), utilised tools (for example, customer journey maps or service blueprints) and produced artefacts (up to outcomes of ideation sessions). Another host of opportunities lies with studying the practice from the client perspective.

Options for studies are also shaped by expanding theoretical basis. On the strategic end, the scope can be extended to additional elements of the De Wit-Meyer (2014) three-dimensional model of strategy — particularly, opposing demands for radical and incremental change. Within the diverse discourse of design thinking, attention can be given to the recent streams, including creation of meanings and design-driven innovation (Krippendorff, 2005, Verganti, 2009). Finally, the stronger emphasis can be placed on the discourse of innovation, covering the notions of fuzzy front-end innovation and issues of collaboration.

At odds to establishing the relevance of business design for strategic management, the practice would also benefit from more critical perspectives, exploring limitations of the approach or investigating unsuccessful cases. Finally, with the maturity of the discipline, future studies may turn to a combination of the qualitative and quantitative means as a core methodology (Edmonson & Mc-Manus, 2007).

REFERENCES

Accenture, 2015. Accenture Interactive Expands its Design and Innovation Capabilities through New Fjord Studios, Bigger Global Footprint, Growing Design Team. 28 July. Available at: https://newsroom.accenture.com/news/accenture-interactive-expands-its-design-and-innovation-capabilities-through-new-fjord-studios-bigger-global-footprintgrowing-design-team.htm

Adaptive Path, 2016. A Guide to Service Blueprinting.

Alvesson, M., 2009. At-home ethnography: Struggling with closeness and closure. *Organizational ethnography: Studying the complexities of everyday life*, pp. 156–174.

Andrews, K. R., 1971/1987. The Concept of Corporate Strategy. Dow Jones-Irwin, Homewood, Ill.

Ansoff, H. I., 1965. Corporate strategy: An analytic approach to business policy for growth and expansion. McGraw-Hill Companies.

Argyris, C., 1970. Intervention theory and method. Reading, Mass.

Argyris, C., Putnam, R. & Smith, D. M., 1985. Action science (Vol. 13). Jossey-Bass Inc Pub.

Argyris, C., 2000. Flawed advice and the management trap: How managers can know when they're getting good advice and when they're not. Oxford University Press.

Argyris, C., 2003. A life full of learning. Organization Studies, 24(7), pp. 1178-1193.

Argyris, C. & Schön, D., 1978. *Organizational learning: A theory of action approach.* Reading, MA: Addision Wesley. Aricò, M, 2015. Service Design in Business. *DESMA Avenues*.

Baccarini, D., 1999. The logical framework method for defining project success. *Project management journal*, 30(4), pp. 25-32.

Badke-Schaub, P., Roozenburg, N. & Cardoso, C., 2010. Design thinking: a paradigm on its way from dilution to meaninglessness. *Proceedings of the 8th design thinking research symposium*, pp. 19–20.

Balogun, J., Huff, A. S. & Johnson, P., 2003. Three responses to the methodological challenges of studying strategizing. *Journal of Management Studies*, 40(1), pp. 197–224.

Banfield, R., Lombardo, C.T. & Wax, T, 2016. Design Sprint. A Practical Guidebook for Building Great Digital Products. O'Reilly Media.

Baskerville, R. L., 1997. Distinguishing action research from participative case studies. *Journal of systems and information technology*, 1(1), pp. 24–43.

BBVA, 2015. BBVA has acquired Spring Studio, a San Francisco-based user experience (UX) and design firm, to accelerate the Group's efforts to become the leading digital bank through great design and technology. 15 April. Available at: https://www.bbva.com/en/us/news/disciplines/technologies/bbva-acquires-leading-user-experience-firm-spring-studio/

Beckman, S. L. & Barry, M., 2007. Innovation as a learning process: Embedding design thinking. *California Management Review*, 50(1), pp. 25–56.

- Best, K, 2006. Design management: managing design strategy, process and implementation. AvA publishing.
- Bierut, M., 2007/2012. Seventy-nine short essays on design. Chronicle Books.

Bloch, B., 1999. How they put the "con" in consulting. *Managerial Auditing Journal*, 14(3), pp. 115-118.

Blunsdon, B. J., 2002 "Beneath fashion: why is there a market for management consulting services?". *Professional service firms workshop, University of Alberta, Edmonton*. Available at: http://canback.com/blunsdon.pdf

Bodine, K., 2013a. Service Design: The Most Important Design Discipline You've Never Heard Of. *Forrester Blog.* 1 October. Available at: http://blogs.forrester.com/kerry_bodine/13-10-01-service_design_the_most_important_design_ discipline_youve_never_heard_of

Bodine, K., 2013b. Service Design Agency Overview, 2013. Forrester.

Borja de Mozota, B. B., 1998. Structuring Strategic Design Management: Michael Porter's Value Chain. Design Management Journal (Former Series), 9(2), pp. 26-31.

- Borja de Mozota, B. B., 2006. The four powers of design: A value model in design management. *Design Management Review*, 17(2), pp. 44–53.
- Borja de Mozota, B., 2011. Strategic view of Design in Business. IDBM Papers, 1, pp. 40-49.
- Brannick, T. & Coghlan, D., 2007. In defense of being "native": The case for insider academic research. *Organizational research methods*, 10(1), pp. 59–74.
- Brown, T., 2005. Strategy by design. *Fast Company.* 1 June. Available at: https://www.fastcompany.com/52795/strategy-design
- Brown, T., 2008. Design thinking. Harvard Business Review, 86(6), pp. 84-92.
- Brown, T., 2009. *Change by design*. HarperCollins.
- Brown, T., 2015. When Everyone Is Doing Design Thinking, Is It Still a Competitive Advantage?. *Harvard Business Review Digital Articles*. 27 August.
- Brown, T. & Martin, R, 2015. Design for Action. Harvard Business Review, 93(9), pp. 55-64.
- Bruce, M. & Bessant, J. R., 2002. Design in business: Strategic innovation through design. Pearson education.
- Buchanan, R., 1992. Wicked problems in design thinking. Design issues, 8(2), pp. 5-21.
- Bucolo, S. & Matthews, J. H., 2011. Design led innovation: Exploring the synthesis of needs, technologies and business models. *Proceedings of Participatory Interaction Conference 2011.*
- Buley, L., 2015. Vendor Landscape: Service Design Agency Overview, 2015. Forrester.
- Calabretta, G., Gemser, G., Wijnberg, N. & Hekkert, p. P. M., 2012. Improving innovation strategic decision-making through the collaboration with design consultancies. In *Leading innovation through design: Proceedings of the 2012* DMI international research conference, Boston (USA), 8–9 August. 2012. DMI.
- Calabretta, G., Gemser, G., Wijnberg, N.M. & Hekkert, P.P.M., 2014. Collaborating with design consultancy firms for effective strategic decision-making in new product development. In: Muratovski, G., ed., *Deisgn for business*, pp. 126-138. Chicago: The University of Chicago.
- Camillus, J. C., 1996. Reinventing strategic planning. Strategy & Leadership, 24(3), pp. 6-12.
- Camillus, J. C., 2008. Strategy as a wicked problem. Harvard Business Review, 86(5), pp. 98-106.
- Camillus, J. C., 2016. Wicked Strategies: How Companies Conquer Complexity and Confound Competitors. University of Toronto Press.
- Carlopio, J, 2009. Creating strategy by design. *Design principles and practices: An international journal*, 3(5), 155–166. Carlopio, J, 2010. *Strategy by design: A process of strategy innovation*. Springer.
- Chakravarthy, B. S. & Lorange, P., 1991. Adapting strategic planning to the changing needs of a business. *Journal of Or*ganizational Change Management, 4(2), pp. 6-18.
- Chandler, A. D., 1985. *Strategy and structure: Chapters in the history of the American enterprise.* Massachusetts Institute of Technology Cambridge.
- Chapman, J., 1998. Do process consultants need different skills when working with nonprofits?. *Leadership & Organization Development Journal*, 19(4), pp. 211-215.
- Chhatpar, R, 2007. Innovate faster by melding design and strategy. Harvard Business Review, 85(9), pp. 30-32.
- Christensen, C. M., 1997/2013. The innovator's dilemma: when new technologies cause great firms to fail. Harvard Business Press.
- Christensen, K., 2009. Building Shared Understanding of Wicked Problems. *Rotman Magazine*, Winter, pp. 16–20. Churchman, C.W., 1967. Guest editorial: Wicked problems. *Management Science*, 14(4), pp. B141-B142.
- Clark, K. & Smith, R., 2008. Unleashing the power of design thinking. *Design Management Review*, 19(3), pp. 8-15.
- Clark, T. & Fincham, R., 2002. Critical consulting: New perspectives on the management advice industry. Wiley-Blackwell.
- Coghlan, D., 2007. Insider action research doctorates: Generating actionable knowledge. *Higher Education*, 54(2), pp. 293–306.
- Coghlan, D. & Brannick, T., 2001/2014. Doing action research in your own organization. Sage.
- Collins, D., 2001. The fad motif in management scholarship. *Employee Relations*, 23(1), pp. 26-37.
- Collins, H., 2013. Can Design thinking still Add value?. Design Management Review, 24(2), pp. 35-39.
- Collis, D., 2016. Lean strategy. Harvard Business Review, 94(3), pp. 62-68.
- Collopy, F, 2009. Thinking about design thinking. *Fast Company*. 9 July. Available at: https://www.fastcompany. com/1306636/thinking-about-design-thinking
- Conklin, J., 2005. *Dialogue mapping: Building shared understanding of wicked problems.* John Wiley & Sons. Cooper, R. & Press, M., 1995. *The design agenda: a guide to successful design management.* John Wiley & Sons.

Coughlan, p. & Coghlan, D., 2002. Action research for operations management. *International journal of operations & production management*, 22(2), pp. 220–240.

Cox, G., 2005. Cox review of creativity in business: building on the UK's strengths. TSO.

Cross, N., 1982/2006. Designerly ways of knowing. Springer London.

Cross, N., 2011. Design thinking: Understanding how designers think and work. Berg.

Davenport, T.H., Leibold, M. & Voelpel, S., eds, 2006. *Strategic Management in the Innovation Economy. Strategy Approaches and Tools for Dynamic Innovation Capabilities*. Erlangen: Publics Publishing and Wiley-VCH.

Deloitte, 2015. Business ecosystems come of age.

Dervojeda, K., Verzijl, D., Nagtegaal, F., Lengton, M., Rouwmaat, E., Monfardini, E., Frideres, L., 2014. *Design for Innovation. Service design as a means to advance business models.* Business Innovation Observatory.

Design Council, 2005. The 'double diamond' design process model.

Design Council, 2014. Introducing design methods.

Design Council, 2015. The Design Economy.

d.school,2010. *d.school Bootcamp Bootleg*. Available at: http://dschool.typepad.com/news/2010/12/2010-bootcamp-bootleg-is-here.html.

De Vries, J., 2015. PepsiCo's Chief Design Officer on Creating an Organization Where Design Can Thrive. *Harvard Business Review*, 93(9), pp. 2–7.

De Wit, B. & Meyer, R., 1994/2010. Strategy: process, content, context; an international perspective. Cengage Learning EMEA.

De Wit, B. & Meyer, R., 1999/2014. Strategy Synthesis: Managing Strategy Paradoxes to Create Competitive Advantage. Cengage Learning.

Dick, B., 1992. The Snyder evaluation process. Evaluation as Action Research. Interchange, Chapel Hill, Queensland.

Dick, B., 2002. Postgraduate programs using action research. The Learning Organization, 9(4), pp. 159-170.

- Drews, C., 2009. Unleashing the full potential of design thinking as a business method. *Design Management Review*, 20(3), pp. 38-44.
- Dunne, D. & Martin, R, 2006. Design thinking and how it will change management education: An interview and discussion. *Academy of Management Learning & Education*, 5(4), pp. 512–523.
- Dziersk, M, 2008. Design Thinking. What is that. *FastCompany*. 8 July. Available at: http://www.fastcompany.com/re-sources/design/dziersk/designthinking-083107.html.

Eden, C. & Huxham, C., 1996. Action research for management research. British Journal of Management, 7(1), pp. 75-86.

- Edmondson, A. C. & McManus, S. E., 2007. Methodological fit in management field research. Academy of management review, 32(4), pp. 1246–1264.
- Eisenhardt, K. M., 1989. Building theories from case study research. *Academy of management review*, 14(4), pp. 532–550. Esslinger, H., 2009. *A fine line: How design strategies are shaping the future of business*. John Wiley & Sons. Ezzy, D., 2002/2013. *Qualitative analysis*. Routledge.
- Fabricant, R., 2013. Mind the gaps. In: Martin, R. & Christensen, K., eds. *Rotman on design: The best on design thinking from Rotman magazine.* University of Toronto Press.
- Fixson, S. K., & Rao, J., 2014. Learning emergent strategies through design thinking. *Design Management Review*, 25(1), pp. 46-53.
- Fraser, H.M.A., 2007. The practice of breakthrough strategies by design. Journal of business strategy, 28(4), pp. 66-74.

Fraser, H.M.A., 2009. Designing business: New models for success. *Design Management Review*, 20(2), pp. 56–65.

Fraser, H.M.A., 2011. Business Design: Becoming a Bilateral Thinker. Rotman Magazine, Winter, pp. 71-76.

Fraser, H. M., 2012. Design works: How to tackle your toughest innovation challenges through business design. University of Toronto Press.

- Friedel, R. & Liedtka, J, 2007. Possibility thinking: lessons from breakthrough engineering. *Journal of Business Strategy*, 28(4), pp. 30–37.
- Frog, 2016. *Chief Executives Learn To Innovate By Thinking Like Designers.* Available at: https://designmind.frogdesign. com/2016/12/chief-executives-learn-to-innovate-by-thinking-like-designers/
- Fullerton, J. & West, M.A., 1996. Consultant and client-working together?. *Journal of Managerial Psychology*, 11(6), pp. 40-49.

Gammelsæter, H., 2002. Managers and consultants as embedded actors: Evidence from Norway. Management Consulting-Emergence and Dynamics of a Knowledge Industry, pp. 222-237.

Gasper, D., 2000. Evaluating the 'logical framework approach' towards learning-oriented development evaluation.

Public Administration & Development, 20(1), p. 17.

- Ghemawat, P., 2002. Competition and business strategy in historical perspective. *Business History Review*, 76(01), pp. 37-74.
- Gill, J. & Johnson, P., 2010. Research methods for managers. Sage.
- Golsorkhi, D., Rouleau, L., Seidl, D. & Vaara, E., 2010. Introduction: what is strategy as practice. In: Golsorkhi, D. Rouleau, L., Seidl, D., Vaara, E. eds. *Cambridge handbook of strategy as practice*, pp. 1–20.
- Golsby-Smith, T., 2007. The second road of thought: how design offers strategy a new toolkit. *Journal of Business Strate*gy, 28(4), pp. 22–29.
- Grand, S., Rüegg-Stürm, J. & Arx, W.V., 2010. Constructivist epistemologies in strategy as practice research. In: Golsorkhi, D. Rouleau, L., Seidl, D., Vaara, E. eds. *Cambridge handbook of strategy as practice*, pp. 63-78.
- Gummesson, E., 2000. Qualitative methods in management research. Sage.
- Hamel, G., 1996. Strategy as revolution. *Harvard Business Review*, 74(4), pp. 69-71.
- Hamel, G., 1998. The challenge today: Changing the rules of the game. Business Strategy Review, 9(2), pp. 19-26.
- Hamel, G., 2001. Leading the revolution: An interview with Gary Hamel. Strategy & Leadership, 29(1), pp. 4-10.
- Hamel, G. & C. K. Prahalad, 1989. Strategic Intent. Harvard Business Review, 67(3), pp. 63-76.
- Hamel, G. & Välikangas, L., 2003. The quest for resilience. *Harvard Business Review*, 81(9), pp. 52–65.
- Hari, J., 2011. Johann Hari: The management consultancy scam. *The Independent*. 19 August.
- Hassi, L. & Laakso, M., 2011. Making sense of design thinking. IDBM papers, 1, pp. 51-62.
- Henderson, B., 1970. The product portfolio. Boston Consulting Group.
- Henderson, B. D., 1979. On corporate strategy. Abt books.
- Holloway, M., 2009. How tangible is your strategy? How design thinking can turn your strategy into reality. *Journal of Business Strategy*, 30(2/3), pp. 50–56.
- Hoskisson, R. E., Hitt, M. A., Wan, W. P. & Yiu, D., 1999. Theory and research in strategic management: Swings of a pendulum. *Journal of management*, 25(3), pp. 417-456.
- Huberman, M. & Miles, M. B., 2002. The qualitative researcher's companion. Sage.
- Huczynski, A.A., 1993. Explaining the succession of management fads. *International Journal of Human Resource Management*, 4(2), pp. 443-463.
- Hurst, N., 2013. Big Corporations Are Buying Design Firms in Droves. *Wired.* 15 May. Available at: https://www.wired. com/2013/05/accenture-fjord/
- IBM, 2010. Capitalizing on Complexity: Insights from the Global Chief Executive Officer Study.
- IBM, 2014. *IBM Commits \$100 Million to Globally Expand Unique Consulting Model That Fuses Strategy, Data and Design.* 27 March. Available at: https://www.ibm.com/press/us/en/pressrelease/43523.wss
- IDEO, 2009. Human-Centred Design Toolkit. 2nd ed.
- Ignatius, A., 2015. How Indra Nooyi Turned Design Thinking Into Strategy. Harvard Business Review, 93(9), pp. 81-85.
- Jacoby, R. & Rodriguez, D, 2007. Innovation, growth, and getting to where you want to go. *Design Management Review*, 18(1), pp. 10-15.
- Jarzabkowski, P., Balogun, J. & Seidl, D., 2007. Strategizing: The challenges of a practice perspective. *Human relations*, 60(1), pp. 5–27.
- Johansson, U., & Woodilla, J., 2008. Towards a better paradigmatic partnership between design and management. *International DMI Education Conference.*
- Johansson, U. & Woodilla, J., 2009. Towards an epistemological merger of design thinking, strategy and innovation. 8th European Academy of Design Conference, pp. 1–5.
- Johansson-Sköldberg, U., Woodilla, J. & Çetinkaya, M., 2013. Design thinking: past, present and possible futures. *Creativity and Innovation Management*, 22(2), pp. 121–146.
- Johnson, G., Langley, A., Melin, L. and Whittington, R., 2007. *Strategy as Practice: Research Directions and Resources.* Cambridge, UK: Cambridge University Press.
- Johnson, G., Melin, L. & Whittington, R., 2003. Micro strategy and strategizing: towards an activity-based view. *Journal of management studies*, 40(1), 3–22.
- Johnson, P., Balogun, J. & Beech, N., 2010. Researching strategists and their identity in practice: building 'closewith' relationships. In: Golsorkhi, D. Rouleau, L., Seidl, D., Vaara, E. eds. *Cambridge handbook of strategy as practice*, pp. 243–257.
- Johnson, p. & Duberley, J., 2000. Understanding management research: An introduction to epistemology. Sage.

- Kakabadse, N. K., Louchart, E. & Kakabadse, A., 2006. Consultant's role: a qualitative inquiry from the consultant's perspective. *Journal of Management Development*, 25(5), pp. 416–500.
- Kelley, T., 1999. Designing for Business, Consulting for Innovation. *Design Management Journal (Former Series)*, 10(3), pp. 30-34.
- Kiechel, W., 1982. Corporate strategists under fire. *Fortune*, 106(13), pp. 34-39.

Kiechel, W., 2010. The lords of strategy: The secret intellectual history of the new corporate world. Harvard Business Press.

- Kieser, A., 2002. On communication barriers between management science, consultancies and business organizations. In: Clark, T. and Fincham, R., eds. *Critical Consulting*, pp. 206-227. Oxford: Blackwell.
- Kimbell, L., 2009. The turn to service design. In: Julier, G. and Moor, L., eds. *Design and Creativity: Policy, Management and Practice*, pp.157-173. Oxford: Berg.
- Kimbell, L., 2011. Rethinking design thinking: Part I. Design and Culture, 3(3), pp. 285-306.
- Kimbell, L., 2012. Rethinking design thinking: Part II. Design and Culture, 4(2), pp. 129-148.
- Knapp, J., Zeratsky, J. & Kowitz, B, 2016. Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days. Simon and Schuster.
- Kolko, J, 2011. Exposing the magic of design: A practitioner's guide to the methods and theory of synthesis. Oxford University Press.
- Kolko, J., 2015. Design thinking comes of age. Harvard Business Review, 93(9), pp. 66-71.
- Kotler, p. & Rath, A. G. (1984). Design: A powerful but neglected strategic tool. *Journal of business strategy*, 5(2), pp. 16–21. Krippendorff, K., 2005. *The semantic turn: A new foundation for design.* crc Press.
- Kubr, M., 1976/2002. Management consulting: A guide to the Profession. International Labour Organization.
- Lafley, A. G. & Martin, R. L, 2013. Playing to win: How strategy really works. Harvard Business Press.
- Lafley, A. G., Martin, R. L., Rivkin, J. W., & Siggelkow, N., 2012. Bringing science to the art of strategy. *Harvard Business Review*, 90(9), pp. 3-12.
- Langley, A., 1999. Strategies for theorizing from process data. Academy of Management review, 24(4), pp. 691-710.

Langley, A., 2007. Process thinking in strategic organization. Strategic Organization, 5(3), pp. 271.

- Langley, A., 2009. Temporal bracketing. Sage Encyclopaedia of Case Study Research, 2, pp. 919-21.
- Langley, A., 2010. The challenge of developing cumulative knowledge about strategy as practice. In: Golsorkhi, D. Rouleau, L., Seidl, D., Vaara, E. eds. *Cambridge handbook of strategy as practice*, pp. 91-108.
- Langley, A. & Tsoukas, H., 2010. Introducing perspectives on process organization studies. *Process, sensemaking, and or*ganizing, 1(9), pp. 1–27.
- Langley, A., Smallman, C., Tsoukas, H. & Van de Ven, A. H., 2013. Process studies of change in organization and management: unveiling temporality, activity, and flow. *Academy of Management Journal*, 56(1), pp. 1-13.
- Launder, M., 2016. Business design: how thinking like a designer can help any business. *DigitalArts Online*. 9 June. Available at: http://www.digitalartsonline.co.uk/features/creative-business/business-design-how-thinking-like-designer-can-help-business/
- Lawson, B., 1982/2006. How designers think: The design process demystified. Routledge.
- Legge, K., 2002. On knowledge, business consultants and the selling of total quality management. In: Clark, T. & Fincham, R. *Critical Consulting: New Perspectives on the Management Advice Industry*, pp. 74–90. Blackwell, Oxford.
- Lewin, K., 1946. Action research and minority problems. Journal of social issues, 2(4), pp. 34-46.
- Liedtka, J. M., 1997. Strategic Thinking: Everything I Need to Know About Strategy I Learned At the National Zoo. *Journal of Business Strategy*, 18(1), pp. 8-11.
- Liedtka, J. M., 1998a. Linking strategic thinking with strategic planning. Strategy & Leadership, 26(4), p. 30.
- Liedtka, J. M., 1998b. Strategic thinking: can it be taught?. Long range planning, 31(1), pp. 120-129.
- Liedtka, J.M., 2000. In defense of strategy as design. California Management Review, 42(3), pp. 8-30.
- Liedtka, J. M., 2006. Is your strategy a duck?. Journal of Business Strategy, 27(5), pp. 32-37.
- Liedtka, J.M., 2010. Business Strategy and Design: Can this Marriage Be Saved?. *Design Management Review*, 21(2), pp. 6–11.
- Liedtka, J. M., 2011. Learning to use design thinking tools for successful innovation. *Strategy & Leadership*, 39(5), pp. 13–19.
- Liedtka, J.M., 2015. Perspective: linking design thinking with innovation outcomes through cognitive bias reduction. *Journal of Product Innovation Management*, 32(6), pp. 925–938.
- Liedtka, J.M., King, A. & Bennett, K, 2013. Solving problems with design thinking: Ten stories of what works. Columbia Uni-

versity Press.

Liedtka, J. & Mintzberg, H., 2006. Time for design. Design Management Review, 17(2), pp. 10-18.

Liedtka, J.M. & Ogilvie, T, 2011. Designing for growth: A design thinking toolkit for managers. Columbia University Press.

- Liedtka, J.M., Ogilvie, T. & Brozenske, R., 2013/2014. The Designing for Growth Field Book: A Step-by-step Project Guide. Columbia University Press.
- Lippitt, G. & Lippitt, L., 1986. The consulting process in action. Pfeiffer.

Lockwood, T., 2009a. Frameworks of Design Thinking (Editor Introduction). Design Management Journal, 4(1), p. 3.

- Lockwood, T., 2009b. Transition: How to become a more design-minded organization. *Design Management Review*, 20(3), pp. 28-37.
- Lockwood, T., 2010a. Design thinking in business: An interview with Gianfranco Zaccai. *Design Management Review*, 21(3), pp. 16-24.
- Lockwood, T., ed., 2010b. *Design thinking: Integrating innovation, customer experience, and brand value.* Skyhorse Publishing. Maeda, J., 2016. *Design in Tech Report 2016*. Available at: http://www.kpcb.com/blog/design-in-tech-report-2016
- Maister, D., 2005/2010. Professionalism in consulting. In: Greiner, L.E. & Poulfelt, F., eds. Management Consulting Today and Tomorrow: Perspectives and Advice from 27 Leading World Experts, pp. 33-48. Routledge.
- Mankins, M. C., 2004. Stop wasting valuable time. *Harvard Business Review*, 82(9), pp. 58-67.
- Markides, C. C., 1999a. A dynamic view of strategy. *MIT Sloan Management Review*, 40(3), pp. 55–63.
- Markides, C. C., 1999b. In search of strategy. MIT Sloan Management Review, 40(3), pp. 6-7.

Markides, C. C., 2000. All the right moves: a guide to crafting breakthrough strategy. Harvard Business Press.

Markides, C. C., 2001. Strategy as Balance: From "Either-Or" to "And". Business Strategy Review, 12(3), pp. 1-10.

Martin, R., 2005. Embedding design into business. Rotman Management, Fall, pp. 5-7.

Martin, R., 2007a. Design and business: why can't we be friends?. Journal of Business Strategy, 28(4), pp. 6-12.

Martin, R. L., 2007b. The opposable mind. Harvard Business School Press.

Martin, R. L, 2009. The design of business: why design thinking is the next competitive advantage. Harvard Business Press.

- Martin, R. L, 2010a. Why Good Spreadsheets Make Bad Strategies. *Harvard Business Review*. 11 January. Available at: htt-ps://hbr.org/2010/01/why-good-spreadsheets-make-bad-2
- Martin, R. L, 2010b. Moving from Strategic Planning to Storytelling. *Harvard Business Review*. 1 June. Available at: htt-ps://hbr.org/2010/06/strategies-as-happy-stories.html
- Martin, R. L, 2014a. Strategize First, Analyze Later. *Harvard Business Review.* 29 May. Available at: https://hbr. org/2014/05/strategize-first-analyze-later
- Martin, R. L, 2014b. Strategy Is Iterative Prototyping. *Harvard Business Review*. 6 June. Available at: https://hbr. org/2014/06/strategy-is-iterative-prototyping
- Massey, C. and Walker, R., 1999. Aiming for organisational learning: consultants as agents of change. *The Learning Organization*, 6(1), pp. 38-44.
- McKenna, C., 2012. Strategy Followed Structure: Management Consulting and the Creation of a Market for "Strategy," 1950–2000. Advances in strategic management, 29, pp. 153–186.

McKinley, W. & Scherer, A. G., 2000. Some unanticipated consequences of organizational restructuring. *Academy of Management Review*, 25(4), pp. 735–752.

McNabola, A, 2013. The UK Design Council: Putting a Value on Design. Design Management Review, 24(4), pp. 22-23.

Micheli, P, 2014. *Leading Business by Design. Why and How Business Leaders Invest in Design.* London: Design Council and Warwick Business School.

Mintzberg, H., 1973. The nature of managerial work.

Mintzberg, H., 1987a. Crafting strategy. Harvard Business School Press.

Mintzberg, H., 1987b. The strategy concept I: Five Ps for strategy. California Management Review, 30(1), pp. 11-24.

- Mintzberg, H., 1987c. The strategy concept II: another look at why organizations need strategies. *California Management Review*, 30(1), pp. 25–32.
- Mintzberg, H., 1993. The pitfalls of strategic planning. California Management Review, 36(1), pp. 32-47.
- Mintzberg, H., 1994. The fall and rise of strategic planning. Harvard Business Review, 72(1), pp. 107-114.
- Mintzberg, H., Ahlstrand, B. & Lampel, J., 1998/2005. Strategy Safari: A Guided Tour Through The Wilds of Strategic Mangament. Simon and Schuster.

Mintzberg, H. & Lampel, J., 1999. Reflecting on the strategy process. *MIT Sloan Management Review*, 40(3), pp. 21-30. Mintzberg, H. & Waters, J. A., 1985. Of strategies, deliberate and emergent. *Strategic management journal*, 6(3), pp. 257-

272.

- Montgomery, A., 2015. Accenture plans huge design recruitment drive says it is building "design powerhouse". *DesignWeek.* 20 July. Available at: https://www.designweek.co.uk/issues/27-july-2-august-2015/accenture-planshuge-design-recruitment-drive-says-it-is-building-design-powerhouse/
- Mootee, I, 2013. *Design thinking for strategic innovation: What they can't teach you at business or design school.* John Wiley & Sons.
- Moritz, S, 2005. Service design: Practical access to an evolving field. London.
- Moser, T., Wenstrup, J., & Slywotzky, A., 2007. The Discipline of Business Model Innovation–An Introduction to Business Design. Oliver Wyman.
- Nadler, D.A., 2005/2010. Consulting to CEOS and boards. In: Greiner, L.E. & Poulfelt, F., eds. Management Consulting Today and Tomorrow: Perspectives and Advice from 27 Leading World Experts, pp. 199–226. Routledge.
- Nadler, D. A. & Slywotzky, A. J., 2005/2010. Strategy and organization consulting. In: Greiner, L.E. & Poulfelt, F., eds. Management Consulting Today and Tomorrow: Perspectives and Advice from 27 Leading World Experts, pp. 101–126. Routledge.
- Nagji, B. & Walters, H., 2012. Help wanted 2.0: Engaging others to tackle wicked problem. *Rotman Management*, Spring, pp. 74–78.
- Nayak, N., 2016. The Love Index: A Radically New Driver for Design. *Fjord: Design and Innovation from Accenture Interactive.* 2 November. Available at: https://www.fjordnet.com/conversations/the-love-index-a-radically-new-driverfor-design/
- Newell, A. & Simon, H. A., 1972. Human problem solving, 104(9). Englewood Cliffs, NJ: Prentice-Hall.
- New, S., & Kimbell, L., 2013. Chimps, Designers, Consultants and Empathy: A "Theory of Mind" for Service Design. Proc. Cambridge Academic Design Management Conference, pp. 139-152.
- Nonaka, I. & Takeuchi, H., 1995. The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford university press.
- Norman, D, 2010. Design thinking: A useful myth. *Core 77.* 25 June. Available at: http://www.core77.com/blog/columns/ design_thinking_a_useful_myth_16790.asp
- Nussbaum, B, 2004. The power of design. *BusinessWeek*, 17(5), pp. 2-9.

Nussbaum, B, 2011. Design thinking is a failed experiment. So what's next. *Co.Design.* 5 April. Available at: https://www.fastcodesign.com/1663558/design-thinking-is-a-failed-experiment-so-whats-next

- Nussbaum, B., Berner, R. & Brady, D, 2005. Get creative! *BusinessWeek*. 31 July. Available at: https://www.bloomberg. com/news/articles/2005-07-31/get-creative
- Ohmae, K., 1983. *The mind of the strategist*. Harmondsworth: Penguin.
- Oliver Wyman, 1998a. Strategic Organization Design. An Integrated Approach.
- Oliver Wyman, 1998b. The Congruence Model: A Roadmap for Understanding Organizational Performance.
- Olson, E. M., Cooper, R. & Slater, S. F., 1998. Design strategy and competitive advantage. *Business Horizons*, 41(2), pp. 55–61.
- O'Shannassy, T., 1999. Strategic Thinking: A Continuum of Views and Conceptualisation. RMIT Business.
- Osterwalder, A. & Pigneur, Y. (2009/2010). Business model generation: a handbook for visionaries, game changers, and challengers. John Wiley & Sons.
- Osterwalder, A., Pigneur, Y., Bernarda, G. & Smith, A, 2014. Value proposition design: how to create products and services customers want. John Wiley & Sons.
- Oswald, J, 2016. What is Business Design and why is it the most important design job of the future? *DigitalArts Online*. 22 February. Available at: http://www.digitalartsonline.co.uk/features/creative-business/what-is-business-design/
- Løvlie, L., Polaine, A., & Reason, B., 2013. Service design: From insight to implementation. Rosenfield Media.
- Porter, M. E., 1979. How competitive forces shape strategy. Harvard Business Review, 57(2), pp. 137-145.
- Porter, M. E., 1980/2008a. Competitive strategy: Techniques for analyzing industry and competitors. Simon and Schuster.
- Porter, M. E., 1985/2008b. Competitive advantage: creating and sustaining superior performance. Simon and Schuster.
- Porter, M. E., 1990/2011. The Competitive Advantage of Nations. Simon and Schuster
- Porter, M. E., 1996. What is Strategy? *Harvard Business Review*, 74(6), pp. 61-78.
- Porter, M. E., 2008c. On competition. Harvard Business Press.

Poulfelt, F., Bhambri, A., Greiner, L., 2005/2010. The Changing Global Consulting Industry. In: Greiner, L.E. & Poulfelt,

F., eds. Management Consulting Today and Tomorrow: Perspectives and Advice from 27 Leading World Experts, pp. 5-32. Routledge.

Prahalad, C. K. & Hamel, G., 1990. The core competence of the corporation. *Harvard Business Review*, 68(3), pp. 79–91.

Prahalad, C. K. & Hamel, G., 1994. Strategy as a field of study: Why search for a new paradigm?. *Strategic management journal*, 15(S2), pp. 5-16.

Rae, J., 2015. Good design drives shareholder value. *DMI*. Available at: http://www.dmi.org/?page=designdrivesvalue Rae-Dupree, 2008a. Business looks for renewal in right-brain thinking. *The New York Times*. 6 April. Available at:

http://www.nytimes.com/2008/04/06/business/worldbusiness/06iht-unbox07.1.11694141.html?_r=0

Rae–Dupree, 2008b. Design Is More Than Packaging. *The New York Times.* 4 October. Available at: http://www.nytimes. com/2008/10/05/business/05unbox.html

Raelin, J. A., 2000. Work-based learning: The new frontier of management development. Addison-Wesley.

Reason, B., Løvlie, L., & Brand Flu, M., 2016. Service design for business: A practical guide to optimizing the customer experience. John Wiley & Sons.

Reason, P., 2006. Choice and quality in action research practice. *Journal of management inquiry*, 15(2), pp. 187–203. Reason, p. & Bradbury, H. (eds.), 2001/2008. *Handbook of action research: Participative inquiry and practice*. Sage.

Rittel, H.W.J., 1972. On the Planning Crisis: Systems Analysis of the First and Second Generation. *Bedriftsøkonomen*, 8, pp. 390–396.

Rittel, H.W.J. & Webber, M.M., 1973. Dilemmas in a general theory of planning. *Policy sciences*, 4(2), pp. 155–169.

Robson, C., 2002. *Real World Research: a resource for social scientists and practitioner-researchers*, 2nd ed. Oxford: Blackwell Publishers.

 $Rouleau, L., 2013. Strategy-as-practice\ research\ at\ a\ crossroads.\ M@n@gement, 16(5), pp.\ 574-592.$

Rowe, p. G., 1987/1991. *Design thinking*. mit Press.

Rumelt, R., 2011. *Good strategy/bad strategy: The difference and why it matters.* Profile books.

Sangiorgi, D., Prendiville, A., Jung, J. & Yu, E, 2015. Design for Service Innovation & Development. Final Report.

Sarvary, M., 1999. Knowledge management and competition in the consulting industry. *California management review*, 41(2), pp. 95-107.

Sato, S., Lucente, S., Meyer, D. & Mrazek, D., 2010. Design thinking to make organization change and development more responsive. *Design Management Review*, 21(2), pp. 44-52.

Schein, E. H., 1987/1999. *Process consultation revisited: Building the helping relationship.* Reading, MA: Addison-Wesley. Schybergson, O. & Evenson, S. (2016) Time to Re-Think Design Thinking. *The Huffington Post.* 10 December. Available

at: http://www.huffingtonpost.com/advertising-week/time-to-re-think-design-t_b_12455924.html

Schön, D.A., 1983. The reflective practitioner: How professionals think in action. Basic books.

Seemann, J., 2012. Hybrid insights: Where the quantitative meets the qualitative. Rotman Magazine, Fall, pp. 56-61.
Seidel, V. P., 2000. Moving from Design to Strategy The Four Roles of Design-Led Strategy Consulting. Design Management Journal (Former Series), 11(2), pp. 35-40.

Seidel, V. P. & Fixson, S. K., 2013. Adopting design thinking in novice multidisciplinary teams: The application and limits of design methods and reflexive practices. *Journal of Product Innovation Management*, 30(S1), pp. 19–33.

Shostack, G.L., 1982. How to design a service. European Journal of Marketing, 16(1), pp. 49-63.

Simon, H.A., 1969/1996. The sciences of the artificial. MIT press.

Simon, H.A., 1973. Does scientific discovery have a logic?. *Philosophy of Science*, pp. 471-480.

Simon, H.A., 1987. Making management decisions: The role of intuition and emotion. *The Academy of Management Executive (1987-1989)*, pp. 57-64.

Slywotzky, A.J. & Euchner, J, 2015. Business Design. Research–Technology Management, 58(1), pp. 12–18.

Slywotzky, A. J. & Morrison, D. J., 1997/2007. The profit zone: How strategic business design will lead you to tomorrow's profits. Crown Business.

Smith, B., 2015. Intuit's CEO on Building a Design-Driven Company. *Harvard Business Review*, 93(1/2), pp. 35-38.

Sniukas, M., 2010. Reshaping strategy: exploring the content, process and context of strategic innovation. VDM Publishing.

Sniukas, M., Lee, p. & Morasky, M, 2016. The Art of Opportunity: How to Build Growth and Ventures Through Strategic Innovation and Visual Thinking. John Wiley & Sons.

Spekman, R. & Kotler, P., 2005/2010. The Marketing Consultant. In Greiner, L.E. & Poulfelt, F., eds. Management Consulting Today and Tomorrow: Perspectives and Advice from 27 Leading World Experts, pp. 127–150. Routledge.

Stevens, J. & Moultrie, J., 2011. Aligning strategy and design perspectives: a framework of design's strategic contribu-

tions. *The Design Journal*, 14(4), pp. 475-500.

- Stevens, J., Moultrie, J. & Crilly, N., 2008a. Designing and design thinking in strategy concepts: Frameworks towards an intervention tool. In: *International DMI Education Conference*.
- Stevens, J., Moultrie, J. & Crilly, N., 2008b. How is design strategic? Clarifying the concept of strategic design. *Design Principles and Practices: An International Journal*, 2(3), pp. 51-60.
- Swann, C., 2002. Action research and the practice of design. Design issues, 18(1), pp. 49-61.

Taylor, F.W., 1911/2004. Scientific management. Routledge.

Trowler, P., 2012. Wicked issues in situating theory in close-up research. *Higher Education Research & Development*, 31(3), pp. 273-284.

Trueman, M. & Jobber, D., 1998. Competing through design. Long range planning, 31(4), pp. 594-605.

Turner, A. N., 1981. Consulting is more than giving advice. Harvard Business Review, 60(5), pp. 120-129.

Van Der Pijl, P., Lokitz, J., Kay Solomon, L., 2016. Design a Better Business: New Tools, Skills, and Mindset for Strategy and Innovation. Wiley.

Van Wulfen, G, 2016. The Innovation Maze: Four Routes to a Successful New Business Case. BIS Publishers.

Verganti, R., 2009. Design-driven innovation. Boston, MA.

- Vesa, M. & Vaara, E., 2014. Strategic ethnography 2.0: Four methods for advancing strategy process and practice research. *Strategic Organization*, 12(4), pp. 288-298.
- Von Clausewitz, C., 1983/2001. On War.

Warren, F., Sharples, R., Joe, Ph., 2012. Delivering design-led business transformation. An Enterprise Architect Whitepaper. Microsoft.

Weiss, L. (2002). Developing tangible strategies. Design Management Journal (Former Series), 13(1), pp. 33-38.

Whittington, R., 1996. Strategy as practice. Long range planning, 29(5), pp. 731-735.

Whittington, R., 2001. What is strategy-and does it matter?. Cengage Learning EMEA.

Whittington, R., 2006. Completing the practice turn in strategy research. Organization studies, 27(5), pp. 613-634.

Williams, R., 2003. "Consultobabble" and the client-consultant relationship. *Managerial Auditing Journal*, 18(2), pp. 134–139.

Williams, R., 2004. Management fashions and fads: Understanding the role of consultants and managers in the evolution of ideas. *Management Decision*, 42(6), pp. 769-780.

- Williams, R. & Rattray, R., 2004. Consultobabble's facilitatory role in process consultation. *Managerial Auditing Journal*, 19(2), pp. 180-190.
- World Economic Forum, 2016. The Future of Jobs. Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution.
- Woudhuysen, J., 2011a. The craze for design thinking: Roots, a critique, and toward an alternative. *Design Principles and Practices*, 5.
- Woudhuysen, J., 2011b. The next trend in design. Design Management Journal, 6(1), pp. 27-39.
- Wylant, B., 2010. Design thinking and the question of modernity. The Design Journal, 13(2), pp. 217-231.

Yin, R. K., 2013. Case study research: Design and methods. Sage publications.

Yoo, Y. & Kim, K., 2015. How Samsung Became a Design Powerhouse. Harvard Business Review, 93(9), pp. 73-78.

Zuber-Skerritt, O., 1992. Action Research in Higher Education: Examples and Reflections. Kogan Page Ltd.

Zuber-Skerritt, O. & Perry, C., 2002. Action research within organisations and university thesis writing. *The Learning Organization*, 9(4), pp. 171-179.

Websites

Accenture – https://www.accenture.com/

BCG – http://www.bcg.com/

BCG DV — https://bcgdv.com/

Deloitte Digital — http://www.deloittedigital.com/

IDEO – https://www.ideo.com/

Livework Studio - https://www.liveworkstudio.com/

PwC Digital — https://digital.pwc.com/