# DESIGN; A BUSINESS CASE

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## THE DESIGN MANAGEMENT SERIES - ARTICLE # 3 / 7

### The most imminent challenges of management

We have now explored some of the possible barriers for uptake of design, design management and design thinking in business. However, for design to resonate in boardrooms across the world, we also need to understand to which challenges, solutions – and to which questions, answers – are sought.

On a day-to-day basis, the challenges facing managers and leaders of organisations will vary as greatly as the nature of their activities, the characteristics of their markets or audiences and the strategies that they are pursuing. However, there are some universal challenges, which are independent from sectors and strategic intents. In their 20th CEO Survey from 2017, the global consultancy firm PwC asked 1379 CEO's from 79 countries the following question; *"Given the business environment you're in, which one of the following do you most want to strengthen in order to capitalize on new opportunities?"* The most frequent answer was ***innovation*** – the most imminent concern for 23% of the CEO's asked. The next four areas of concern were ***human capital, digital and technological capabilities, competitive advantage*** and ***customer experience.*** [1]

These five main concerns correspond quite nicely with the areas of expertise and research represented by the aforementioned gurus; ***innovation*** (W. Chan Kim & R. Mauborgne, Clayton Christensen and Henry Chesbrough), ***human capital*** (Chris Argyris, Ikujiro Nonaka & Hirotaka Takeuchi and Henry Mintzberg) ***digital and technological capabilities*** (Karl E. Weick)***, competitive advantage*** (Gary Hamel & C. K. Pralahad and Michal Porter) and ***customer experience*** (Joseph Pine & James Gilmore and Karl E. Weick)**.**

The fact that there are inherent conflicts between some of the ideas represented by the gurus will not keep us

[1] PwC (2017): *20th CEO Survey: 20 years inside the mind of the CEO... What's next?* – page 12

from recognising all of the above as equally important cornerstones of an aggregated legacy of what we'll refer to as "the gurus' thinking". As an example, one might argue that there is a per se conflict between the fundamentals of blue ocean thinking, challenging and constituting an alternative to competitiveness, and the fundamentals of striving towards competitive advantage, as is the focus of other gurus. However, as the PwC survey shows, both innovation and competitive advantage are major concerns in the real world, leaving the cited gurus equally valid and important in our construct.

### Innovation

Innovation is a term used to describe the creation of something novel, which can be replicated and which in its applied form generates commercial or perceived value. According to OECD, there are four types of innovation; [2]

***Product innovation*****:** A good or service that is new or significantly improved. This includes significant improvements in technical specifications, components and materials, software in the product, user friendliness or other functional characteristics.

***Process innovation*****:** A new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software.

***Marketing innovation*****:** A new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

***Organisational innovation*****:** A new organisational method in business practices, workplace organisation or external relations.

The "***Blue Ocean***" [3] approach of Kim & Mauborgne prescribes that rather than competing within the confines of the industry or sector that you are already part of and trying to steal customers from rivals, you focus on developing an uncontested market space that makes competition irrelevant. They claim that there are two ways to create such new spaces; either to launch a completely new industry – which is rare and radical, or create a new space from within a red ocean by expanding the boundaries of an existing industry. There is no doubt that the idea of radically changing the game by either capturing an market or niche that no-one else have already occupied, or to expand the boundaries of the market that one already competes within

[2] Oslo Manual (2005): *Guidelines for Collecting and Interpreting Innovation Data,* 3rd Edition

[3] Kim and Mauborgne (2005) *Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant*, Harvard Business School Press

comes across as appealing to many companies. However, if blue oceans we easily found, they would quite rapidly turn red, one ocean at the time. A challenge, thus, for most companies and their leaders is to identify such opportunities; how to do it, how to manage and whom to involve in such processes.

Another approach to innovation is *"**disruptive innovation**"* [4] introduced by Clayton Christensen – as an alternative strategic path to the incremental improvements, which characterize many categories, and where the continuous optimization of a product or service often tends to result in products, which are too advanced for their audiences, and often too expensive to be profitable, as the users are unable to appreciate, thus also unwilling to pay for, all the advanced features offered. Disruptive innovation implies the introduction of a radically different solution to any given problem, rooted at the bottom of the market, and then moving up and replacing already existing propositions.

This approach to disruption is quite different that the more recent use of the word, which focuses on introducing something in the marketplace, which thoroughly disrupts the market and leaves existing players obsolete. To clarify the difference between Christensen's original conception of the word disruptive and the more contemporary use of the word, in an interview with the web magazine **Inc.** in 2015 [5], he summarizes his thoughts in five points;

- *Disruptive innovation* does not necessarily apply to every industry in which newcomers make the incumbents stumble
- *Disruption* specifically refers to what happens when the incumbents are so focused on pleasing their most profitable customers that they neglect or misjudge the needs of their other segments
- The *disruption* happens when the newcomer having already conquered the customers the incumbents are neglecting begins to conquer the high-margin customers, too
- Strictly speaking, Uber is not disrupting the taxi business
- *Disruption* is a process, not a single moment or an isolated product introduction

However, the notion of disruptiveness – both in Clayton Christensen's interpretation of the concept and the encyclopaedic meaning of the word, on which the more current use is built – has proven its durability as a factor on the innovation agenda. That, however, does not make it easier for organisations to apply the concept in their own industries or product categories, and as a result, a great majority of companies and organisations continue improving their propositions gradually and relentlessly in their daily struggle for

[4] Christensen (1997): *The Innovator's Dilemma; When New Technologies Cause Great Firms to Fail*, Harvard Business Review Press

[5] Mochari, Inc (2015): *The Startup Buzzword Almost Everyone Uses Incorrectly* - November 19, 2015

market shares and profitability.

The third cornerstone related to innovation is the concept of *"**open innovation**"* [6]. The Berkley professor Henry Chesbrough revived the concept, dating back to the sixties, in a book named "Open Innovation" in 2003, and since then, it has been an inevitable theme when discussing different approaches to innovation. The fundamental idea of open innovation is to engage both internal and external stakeholders in the pursuit of innovative products, services and business models. The rationale acknowledges that valuable knowledge is available if entering into a dialogue with the market and with other players in the value chains that one belong to – not least users and communities of users, who possess insights, which cannot be accessed through own research. Moreover, a more open approach to working with other companies in pursuit of some of the same goals as one's own organisation can be valuable, for example through buying and selling licences, establishing joint ventures or spin-offs, and entering into collaborative projects with universities and other players.

The idea of open innovation has been embraced both by commercial organisations and public service providers, as it seems obvious that only very few organisations have the capacity to produce all the knowledge needed to undertake successful innovation. The barrier, thus, does not seem to be the acceptance of the concept, but the knowledge of how to build the relations needed, how to engage them in the process and how to capture and assess the input that can actually support the intentions of the undertaking.

The list of literature about innovation is massive. A Google Book search results in 714.000 hits – clearly not indicating the number of individual titles published, but still indicating that the topic has enjoyed an overwhelming interest among researchers and commentators, and – of course, that there is an insatiable market for such literature out there. Our choice of three titles and three approaches to the phenomenon, thus, reflects neither the diversity nor the depth of innovation as a topic. We do, however, qua their game-changing characters believe that the three angles will resonate broadly.

## Human capital

One of the most valuable assets for any company is its human capital; its people and their expertise. Finding the challenge of growing human capital to capitalizing on new opportunities thus is no surprise. Human resources management is more and more often connoted to two other, closely related concepts; organisational development and organisational design. While also being used to describe the correlation between the cost of education and the return through labour income, human capital is more often used in a much broader sense, and more true to the way that Adam Smith used it almost three hundred years ago; *"the*

[6] Chesbrough (2003): *Open Innovation; The New Imperative for Creating and Profiting from Technology,* Havard Business School Press

*acquired and useful abilities of all the inhabitants or members of the society".*[7]

In a corporate context, human capital is the value represented by its staff members through their application of skills, know-how and expertise; its combined human ability to solve business problems.

As human capital in an organisation only exists to the extent that its people choose to stay and devote their individual intellectual assets to the benefit of the organisation, attracting the right people with the right individual human capital and focusing on building their capacity and productivity is one part of the challenge. The other part is to create an organisation, which disposes op the optimal aggregated human capital to ensure not only the organisation's collective productivity, but also its ability to innovate – as already discussed – and its competitive advantage, which we will discuss shortly.

Many gurus have dedicated their research and professional practice to the capitalisation of human capital.

Chris Argyris (1923-2013) dedicated a substantial part of his academic career to an area of which he was a pioneer; behavioural science – and in the context of organisational learning; to organisational development and to how increased capitalisation of the human capital can be achieved through organisational learning. Together with Donald Schön – the originator of *"The Reflective Practitioner: How professionals think in action"*, thus the idea that the main objective of design is to explore and experiment – he developed the theory of "*double-loop learning"* [8], which they described as '*when organizational error is detected and corrected in ways that involve the modification of underlying norms, policies, and objectives*'. Argyris understood – long before many others – that creating an environment of learning, but also of constant organisational development, was a prerequisite for attracting, nurturing and capitalizing on the most valuable human capital.

Human capital is often described as skills, know-how and expertise – or as "*"the acquired and useful abilities"* – as expresses by Adam Smith. Some of these useful abilities are not necessarily immediately available or communicable. The two Japanese researchers, the organizational theorist Ikujiro Nonaka and the Harvard strategy professor Hirotaka Takeuchi in their book "*The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation"* [9]*,* demonstrate that there are two types of

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[7] Cadell (1812): *The Works of Adam Smith: The nature and causes of the wealth of nations*

[8] Argyris and Schön (1974): *Theory in Practice* - Jossey-Bass, San Francisco

[9] Nonaka and Takeuchi (1995): *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation* – Oxford University Press

knowledge. On one hand, there is the explicit knowledge that has been researched and documented, written down and passed on. Then, there is tacit knowledge, which is silent, and which is acquired only by experience, and communicated only indirectly, through metaphor and analogy. They explain the success of many Japanese companies by the fact that they have learnt how to transform tacit knowledge into explicit knowledge, thus increasing the aggregated human capital.

Our third guru with focus on human capital is the Canadian academic Henry Mintzberg. However, he would probably disapprove strongly to that introduction, as a recent post on his own blog reads:

***People are human resources.*** *Not me! Feel free to let yourself be called a human resource. I am a human being, thank you. Not even a human asset, let alone human capital. Enough of the demeaning vocabulary of economics - turning us all into things. Resources are things we throw away when we no longer need them. Is that how to build a great enterprise: by throwing away the human beings?* [10]

His research and writing have consistently and evolutionary over more than forty years revolved around the relations between management and managers on one hand and organisational design and the role of the individual on the other. And, to the extent that one clear recommendation can be draw out of his massive production, it could be a single statement from one of his articles;

*First, organizations are communities of human beings, not collections of human resources. As human beings, we engage with our communities. Indeed, we cherish the very sense of community, since it is the social glue that bonds us together for the social good, and so allows us to function energetically. Organizations thus work best when they too are communities, of committed people who work in cooperative relationships, under conditions of trust and respect.*[11]

To build such a community requires management strategies and managers, who respect and care for the individual, commitment and a true sense of responsibility.

Mintzberg's ideas resonate among more and more individuals, as well as companies – perhaps in particular in organisations that have grown from start-ups to being grown-up corporate cultures. But creating communities instead of more traditional organisations is demanding and is not necessarily something that every manager or CEO is cut out to do.

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[10] Mintzberg (2017): http://www.mintzberg.org/blog - *Some Half-truths of Management*, 22 March 2017

[11] Mintzberg (2010): *Developing Naturally: from Management to Organization to Society to Selves*

## Digital and technological capabilities

A digital strategy is a prerequisite for any meaningful strategy across sectors and industries. What challenges many, though, is the increasing complexity and speed of systems and solutions, and only few managers without a strong background from an ICT-related professional environment will be able to see through the choices to be made, the upsides and downsides of alternative digital paths. Thus, one of the key factors to exploiting the endless possibilities of digitalization is to attract the best possible staff, bringing cutting edge, relevant knowledge into the organisation – to help prepare the best possible strategies and to constantly ensure that the organisation does not lose momentum due to lack of digital savviness.

To enhance an organisation's performance through digitalization is not just a matter of bits and bytes and of being first mover. Crucial issues include determining to which extent the products or services delivered in themselves can be partly or wholly digitalized, how to exploit digitalization in increasing productivity and effectiveness of the delivery, the role of digital as opposed to face-to-face engagement with clients, users and other stakeholders and many others. ICT (information and communications technology) effects on financial, operational and environmental performance, better internal communication within the supply chain, increased market share, access to new markets, effective working procedures and improved organizational learning. [12] At the end of the day, the right choices of which technologies to invest in and how to prioritize the steps towards increased digitalization build on a series of assessments, both in terms of viability, feasibility and customer experience. The latter is a separate issue, but it cannot be isolated from the digital and technological strategies of an organisation.

The organisational theorist Karl E. Weick has dedicated his academic career to exploring concepts like *loose coupling*, *sensemaking*, *mindfulness* and *organizational information theory*. In particular the second concept; ***sensemaking*** plays an important role when making decisions of digitalization and the introduction of new technologies, as it is one of the keys to successfully undertaking organisational change, and the focus of Weick was exactly that; how we make sense of our surroundings, of complexity and of the changes taking place around us. [13]

Complexity is a given, and it is not the same as complicating matters. The researcher John Kamensky has captured this quite nicely, by saying that

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[12] De Groote & Marx (2013): Su & Yang (2009); Kotelnikov (2007); Meacham, Toms, Green Jr, & Bhadauria (2013)

[13] Weick (1995): *Sensemaking in Organizations,* Sage Publications

*Understanding the difference between a complicated problem and a complex one is important for today's leaders. They require different strategies and tools that are largely not interchangeable. Sometimes a problem will morph from one state to the other—either from complicated to complex, or vice versa—so you'll need to be ready to adapt your strategies and tools accordingly.* [14]

Change is not a given, and it can be hard. That's probably why I saw a cartoon in an article on transformation, portraying a boardroom situation, where the chair says *"Instead of risking anything new, let's play it safe by continuing our slow decline into obsolescence."* Fear of change is real, and the Dutch researchers Henk Kleijn and Fred Rorink have identified the seven most common and most significant psychological motives to resist change. They are fear (*I don't know if I can handle it*), guilt (*I could never subject my colleagues to this*), alienation (*will the change make me superfluous*), infringement (*do I retain my privileges*), own needs (*will the change hamper my career*), threat (*this will weaken my position*) and uncertainty (*I have no idea what this will mean to me*). [15]

So, in addition to all the more pragmatic challenges elated to safeguarding the organisations digital and technological capabilities, there are numerous factors, which requires and understanding of how people react to the changes and uncertainty that digitalization brings with it. Understanding the principles of sensemaking and organizational information theory can facilitate such processes and minimize the potentially adverse effects of processes, which are inevitable for most organisations to survive.

### Competitive advantage

Despite some gurus and others claim that striving for competitive advantages in any crowded category is futile, while only setting new standards and creating new spaces through disruptiveness and radical innovation secures the survival of a provider of products or services long term, the fact is that most organisations and most managers find themselves in a real life situation, where competitors exist, and where clients or customers have a choice – thus looking for the best proposition amongst many.

An undisputable pioneer with regard to strategies for competitive advantage, and in many ways the guru over them all is Michael Porter. Despite having influences strategies across the world for almost four decades, he was appointed the most influential thinker by the "Thinkers50" – a recognised global ranking of management thinkers – both in 2005 and 2015, proving that his thinking is still as relevant as forty years ago.

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[14] Kamensky (2011): *Managing the Complicated vs. the Complex*, IBM The Business of Government, Fall/Winter 2011, pp. 66-70

[15] Kleijn and Rorink (2005): *Verandermanagement : een plan van aanpak voor integrale organisatieverandering en innovatie* (*Change Management – a plan of approach for integrated organisational change and innovation*) - Pearson Education, London

One of his contributions is the "***Five Forces***" [16] analysis of an organisation's competitiveness. This analysis focuses on ***Competitive Rivalry*** - mapping the number and strengths of your competitors, their products and services, and how they compare with yours. The second factor to be analysed is ***Supplier Power*** – an analysis of how vulnerable you are to supplies shortages, price increases, your suppliers' innovation and quality. The third force is your customers' ***Buyer Power*** - their ability to drive your prices down and to which extent they are strong enough to dictate terms to you. The fourth factor to be analysed is your organisation's ***Threat of Substitution.*** Is the solution that you offer likely to be replaced by another technology or a less costly process, which could threaten your position as a supplier? Finally, the analysis looks at the ***Threat of New Entry*** – both in terms of what the threshold is for entering the space that you're in and the likelihood of new suppliers entering your market with a more attractive proposition.

By applying Porter's thinking and the Five Forces analysis, one gets not only a measure of the organisation's competitiveness, but also a much clearer picture of which possible disruptions are on their way, which trends are dominating the market development and which business models seem to be the most sustainable within the sector or industry that you are operating.

Another cornerstone for developing competitive strategies is the thinking of two other gurus, Gary Hamel and C. K. Pralahad – both well-known from the previous list of top thinkers. Their approach to competitiveness is looking into the future to assess what your organisation will look at in for example ten years from now. Thy pose some quite simple questions to inform that assessment, focusing on how the senior management look at the future, which issues they are concerned about, how your organisation is viewed by your competitors, what your strengths are, whether you're trying to catch up or leading the pack, whether you have an agenda for transformation and whether your time is spent maintaining your position or inventing the future. Based on how you respond to those questions – on a slide ruler – you get a clear impression of whether your company may be devoting too much energy to preserving the past and not enough to creating the future. Their thinking is based on the fundamental assumption that your competitiveness today does not reflect your competitiveness in the future;

*The market a company dominates today is likely to change substantially over the next ten years. There's no such thing as "sustaining" leadership; it must be regenerated again and again.* [17]

So, competitiveness – both here and now, and not least when looking into the future – depends upon strategies, which are rooted in a thorough understanding of your own organisation, its strengths and

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[16] Porter (1979): *How Competitive Forces Shape Strategy*, Harvard Business Review, May 1979 (Vol. 59, No. 2), pp. 137-145.

[17] Hamel and Pralahad (1994): *Competing for the Future*, Harvard Business Review, July-August 1994, adapted from the book *"Competing for the Future"*, Harvard Business School Press, September 1994

weaknesses, but also of the constant development in the marketplace, of your supply chain and your competitors; those already taking place as well as hose that can be envisaged in the next decade or so.

### Customer experience

The fifth area identified by the CEO's asked by PwC as an area necessary strengthen in order to capitalize on new opportunities, was customer experience. This rather abstract, and yet determining factor for whether your users choose the products or services you offer, or whether they choose to go elsewhere, is not only important – it's also complex and with transversal implications. Just before the turn of the millennium, Joseph Pine and James Gilmore were pioneers in articulating the changing role of experiences, as something stretching way beyond the entertainment industries and changing the entire playing field of business to what they called the experience economy.

Their thinking was triggered by the increasingly prominent role of technology in raising the expectations of the customer, as well as by their own studies of consumer economic trends, showing that the behaviour of consumers was increasingly motivated by the quality of the experience as an equally important parameter to the quality of the service or good itself. Their idea was that this development would have to trigger an evolution of products and services from ***commodity*** (characterized by undifferentiated products) to ***goods*** (characterized by distinctive, tangible things) to ***service*** (characterized by the activities you perform) to ***experience*** (characterized by the feeling customers get by engaging it) and ultimately to ***transformation*** (characterized by the benefit received by engaging). [18]

Customer experience – often abbreviated CX, and user experience, abbreviated UX – are often confused or used synonymously, as more and more interfaces between a supplier and a client – transactions, if we wish – are digital. However, UX is only one out of several elements of CX, focusing usability, interaction design and information architecture, enabling the completion of any desired task in a digital domain. Customer experience extends beyond that, encompassing interactions on all other platforms as well, including one-to-one customer service, advertising, pricing, delivery and after-sales-service, as well as the perception of one's brand, what's being shared on social media, press coverage and hearsay, extending the experience beyond first-hand encounters with the organisation.

*We identify four categories of customer experience touch points: brand-owned, partner-owned, customer-owned, and social/external/independent. The customer might interact with each of these touch point categories in each stage of the experience. Depending on the nature of the product/service or the customer's*

[18] Pine and Gilmore (1999): *The Experience Economy*, Harvard Business School Press, Boston

*own journey, the strength or importance of each touch point category may differ in each stage.*

Especially the social/external/independent touch points add complexity to the challenge:

*These touch points recognize the important roles of others in the customer experience. Throughout the experience, customers are surrounded by external touch points, (e.g., other customers, peer influences, independent information sources, environments), that may influence the process. Peers may exert influence, solicited or unsolicited, in all three stages of the experience.* [19]

However, no matter how complex, a key to increasing one's competitiveness is the ability to craft coherent and integrated customer experiences.

A crucial element in creating attractive customer experiences across platforms and touch point categories points back to another guru, Karl E. Weick, to whom we have already referred under "*Digital and technological capabilities*", and his work on sense-making. The concept has recently had a certain renaissance, and this time exactly in the context of creating meaningful customer experiences. The author Christian Madsbjerg, who is partner in the consultancy firm RED Associates, in his newest book, argues the need for a more humanistic approach to understand customers and markets, instead of relying entirely on algorithms and big data. He defines sense-making as "*the ability to synthesise a lot of different kinds of data in order to make sense of a situation or a culture or a world*." [20] Or, one could add – a specific group of people – a segment or a market.

And – making sense is ***the*** purposes of design activity, according to some. [21]

So, working systematically with improving customer experience requires continuous optimization of all interfaces with the customer, based on the data available, but also the ability to synthesize and analyse that data in a context of understanding the motives and drivers of individuals or organisations.

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[19] Lemon and Verhoef (2016): *Understanding Customer Experience Throughout the Customer Journey* - Journal of Marketing: AMA/MSI Special Issue - Vol. 80 (November 2016), 69–96

[20] Madsbjerg (2017): *Sensemaking; What Makes Human Intelligence Essential in the Age of the Algorithm*, Little Brown Book Group

[21] Krippendorff, Klaus (1989): *On the Essential Contexts of Artefacts or on the Proposition that 'Design is Making Sense (Of Things)'*. Design Issues 5 (2): 9-39.

## Bridge

We have now tried to portray some of the design, design thinking and design management paradoxes of our time, and to pave the way for a discussion about how the fear of embracing it as a strategic framework for business development and change can be turned towards an urge to explore their potentials. We have also tried to paint a contemporary picture of the challenges that many companies face, and the areas, which CEO's from all over the globe most want to strengthen in order to capitalize on new opportunities.

A popular phrase in management discussion forums for some time has been *"culture eats strategy for breakfast"* – often attributed to Peter F. Drucker, without anyone having yet been able to trace the quote to him. What we know, though is, that Edgar H. Schein has said that "*culture determines and limits strategy"*[22], which probably was meant to say the same. What seems clear, though, is that to foster innovation, nurture your human capital, build digital and technological capabilities, improve your competitive advantage and deliver memorable customer experiences, you need both a robust and resilient culture, as well as well-conceived and implementable strategies.

**Next Week: The Design Management Series, Article # 4/7: What happens when design excellence is added to strategy**

[22] Schein (2004): *Organizational Culture and Leadership* - Jossey-Bass Publishing.