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# Managing Complexity in Global Organizations as the Meta-challenge

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## How it all began

'Complexity' is currently often considered the latest business buzzword – it reflects a current common reality, but not a lasting one. Whenever the complexity concept is introduced to executives in globally operating companies, the response is: 'Yes, complexity is the real leadership challenge that I face. How can I focus on my area when everything else is connected? How can I be held accountable when everything is interdependent? How can I sort this out? It's overwhelming.' These are good questions with few answers. 'Complexity' is much more than a buzzword – rather a reality that is here to stay. Therefore the origin and generators of complexity will first be considered before presenting some of the answers that some companies have found to respond to complexity.

Complexity was multiplied to its current heightened level because globalization entails a far-reaching erosion of boundaries, a process that is still ongoing. Many types of boundaries have faded: trade liberalization has substantially alleviated the flow of goods, capital, people, and knowledge around the globe. The world has clearly moved beyond the key triad markets. Internationalizing companies from developed and developing economies try to tap the benefits of globalization to an unprecedented degree and therefore face – as well as contribute to – the complexity of eroding boundaries. Various motives rank high on the list of possible drivers of foreign expansion, such as learning, spreading risk, gaining access to new customers, realizing economies of scale and scope, or optimizing a value proposition with partners. However, the road to the 'Promised Land' turns out to be more demanding than expected, and complexity is the most common and pervasive challenge that arises.

Complexity is seen as a core challenge of present and future companies. Complexity cannot just be made simple and will not disappear in the near future. Managing complexity must therefore become a core competency of top executives and management. As a first step, it is crucial to understand what drives complexity.

## What generates complexity?

In this research, four major sources of complexity have been identified that interact together to create today's environment. Each of these sources of complexity was created by the erosion of boundaries, but their effects differ.

1. **Diversity**. Global organizations face a complex set of challenges characterized by diversity both inside and outside the organization. This is more than just diverse sets of people as is often thought, but rather diversity across every aspect of the business itself. Inside the organization, for example, executives must manage and respond to more diversity in the (internationalizing) human resources (HR) pool; more variety in the management systems; more variety in the means and ends, ranging from simple financial goals to a more comprehensive view; and different business models for different types of business units. Outside the organization, there is also higher diversity, e.g. heterogeneous customer needs; differing cultural values; a plethora of stakeholders with different claims (investors, customers, employees, regulators, etc.); various political, economic, and legal environments; and, finally, competitors' differing strategies. While diversity on these dimensions used to be

limited within a firm, most firms increasingly face each of these types of diversity. Managing differences is not trivial, and reducing the diversity often means being less responsive.

2. **Interdependence**. In addition, companies must manage the effect of global interdependence within business to an unprecedented degree: everything is related to everything else and the impact is felt both more quickly and more pervasively. Value webs have replaced traditional value chains. Reputation, financial flows, value chain flows, top management, and corporate governance issues have reached advanced levels of interdependence. Managers have to take the effects of nonlocal events into account. The less clear-cut the boundaries of a company become, the more it is exposed to impacts on the value chain flow through mistakes, frictions, reverse trends, or even shocks. Risks appear as quickly as opportunities are captured or missed. Interdependence creates opportunities for globalization, but taking advantage of these opportunities raises difficult challenges.
3. **Ambiguity**. The business world today is characterized by too much information with less and less clarity on how to interpret and apply insights. A diversity of accounting standards renders financial figures ambiguous. Studies, scenarios, survey results, and reports become less reliable due to an ever-increasing uncertainty. Cause–effect relationships become difficult to determine; e.g. many businesses find it more and more difficult to discover what their clear value drivers are. Are they image, price, related services, privileged relationships, speed, knowledge, or something else? Cause–effect relationships have become blurred.
4. **Flux**. As if these three complexity drivers were not enough, managers have to face yet another – flux, in other words change that has a changing nature. Even if (temporary) solutions regarding interdependence, diversity, and ambiguity have been figured out for a specific company, industry, and personal situation, the situation may change the next day. Today's solutions (and especially those of the past) may be outdated tomorrow. Changes occur in many directions at once, and at faster and faster rates.

## What are the repercussions?

Everything is diverse and nothing is stable; everything is in 'fast flux'. Interdependence is flowing in changing directions. The future is no longer the prolongation of the past – industry 'breakpoints' that fundamentally alter the value proposition in industries occur more rapidly. Any prediction could occur through sheer luck, as multiple influencing factors can materialize in different ways. The variety of options could overwhelm traditional decision making, as information often lacks clarity and is ambiguous. Multiple interpretations of the same facts are possible, depending on the prospective or cultural framework. No shared understanding can be assumed per se, whether inside or outside the organization. Thus, interdependence, diversity, and ambiguity – all in flux – are the building blocks of managerial complexity and explain why global companies have often been perceived as the most complex of organizations.

Many people have tried to simplify the complexity, and most contemporary management literature is misleading in this regard. As our colleague Philip Rosenzweig has argued in detail in his book, *The Halo Effect and Other Business Delusions*, current developments have grave impacts on management theory. Much has been written to cater to managers' desire for certainty. Studies typically examine successful companies to see what managers 'did' and then conclude that all managers should act similarly. Since unpredictability makes people uncomfortable, delusions are created regarding performance as a voluntaristic matter of choice (companies can choose 'to be great'); they like the certainty promised by these solutions. However, in an interdependent world, much depends on contingencies that have no clear distinction between input and output. Managers' accountability therefore contains an arbitrary element: yes, they are responsible, but results are influenced by factors beyond their control. This does not, however, mean that 'blind destiny' or 'luck' rules, but that navigating through this complexity requires a different way of thinking, acting, and organizing than the typical 'control' mentality.

## Is management doomed, or are there solutions?

A long list of advantages lures companies into globalizing. Geographic expansion abroad offers the vast potential benefits of a much larger market arena, spreads risks, gives scope-, scale-, and location-based cost advantages, and provides exposure to a variety of new product and process ideas. However, without the ability to cope with the associated complexities, managers risk having reality lagging behind their expectations.

The practical consequence of complexity is that a dilemma often shapes the decision-making process. A managerial dilemma occurs, when:

- there are two or more conflicting legitimate goals to meet demands;
- both cannot be simultaneously achieved with the given resources.

For example, companies in the financial service industry set up competing distribution channels, but expect far-reaching cooperation across the company (e.g. shared services and product platforms) to reap economics of scale. In manufacturing, one ongoing dilemma is between global standardization and response to global market needs. Any required priority decision results in tension. As dilemmas cannot be solved, they need to be managed – continuously.

Global companies first reacted to this complex business environment by creating complex organizations. This was consistent with Ashby's law of requisite variety that an organization's internal complexity should match the complexity of its external environment. Multiple axes of management have been seen along product lines, geographical dimensions, customers, functions, and projects – one global company had a six-dimensional matrix structure (for a short time, at least). The simple relation between headquarters as strategic decision makers and subsidiaries as implementers is further blurred by centres of excellence or competence, market responsibilities, joint ventures, etc. To bind all of this together formally, companies often resort to sophisticated corporate policies on nearly everything: from strategy formation to anti-harassment. Add all of this together and it can be seen that it easily matches the volume of a federal law register.

However, structures and policies alone are not the solution. The more complex structures and policies become, the more complex they are to manage. The organization eventually implodes, spending more time managing the internal complexity than interacting with the environment, where real value is created.

Companies that are beginning to grapple with complexity in effective ways interpret Ashby's law differently. They harness the complexity already inherent within the organization – in people, their relationships, and so on – to work for the company rather than against it. They add Thoreau's advice to the recipe: simplify, simplify! However, they carefully choose what they simplify, without making the organization or its processes too simple.

The overall advice recommended in this book is to focus on the professional quality of decision making and to simplify organizational processes in specific ways, rather than predicting the outcome and simplifying a personal picture of the environment.

## *Simplify a few key issues: use complexity as an opportunity elsewhere*

Four key issues have been identified around which companies must simplify: purpose and values, core processes and decentralization, early awareness systems, and leadership. Once these are clear and consistent throughout the company, managers in different parts of the company can respond to complexity in their areas according to their needs and realities.

It starts with purpose and values as fundamental issues. The purpose, the reason for being in this business, is a 'guiding star' on the horizon, a framework for prioritizing goals. Every business book mentions the importance of purpose and values, so perhaps this is nothing new. In simple and stable environments, the vision, even if it is a wishy-washy vague statement not clearly understood by everyone, can provide enough guidance for people to manage well. In a complex environment, however, the guidance provided by a clear statement of the purpose and values is critical. Every manager in the company should understand clearly and deeply what really drives the business, what the fundamentals of the business's profitability are, and why the company is in business. Once this is understood, it leads to the values, the business 'shoulds and oughts', that determine priorities in dilemmas, help focus the actions, and provide consistent patterns of behaviour over time. The companies best at dealing with complexity never have more than three or four core values, i.e. values that are never to be compromised and are consistent with a compelling business logic that explains why they are so important. A longer 'laundry list' of values is confusing at best and at worst is a rationale for any action. At the same time, it is helpful to have a few behavioural values beyond the core that guide the 'how' of the execution; behavioural values can be compromised, but every deviation must be explained. A clearly defined and well-accepted set of core values plus a guiding set of behavioural values therefore allows diversity at the periphery, empowerment for local adaptation, learning and experimentation, the existence of additional values per region, unit, profession, etc., as long as they do not contradict the core values.

Besides alignment according to values, another key lever to manage complexity is a combination of standardized core processes and decentralized authority. Core processes are those used by the entire company. Core processes vary from business to business, but most managers know what is vital. For example, in a consulting firm, the core processes might be knowledge sharing and recruiting; in a heavy manufacturing firm, they might be capital budgeting and logistics; in a pharmaceuticals firm, they might be research and development and go-to-market processes. A firm's core processes should always be standardized (not necessarily centralized) and based on comprehensive, accessible information platforms. Such processes might change over time, and more often than the business model or the core values. It is therefore important to erase old processes when introducing new ones (often complexity is mistaken for legacy – the idea that one just piles everything new on to the old). Only standardized processes generate the transparency that is key for accountability on the levels further down the organization. With such transparency and accountability, decentralization is possible without the company breaking down into political silos and bickering fiefdoms. In turn, decentralization that is consistent with the core processes allows local managers to address complexity in a way that is most effective for them.

As complexity creates many unpredictable situations, managers need an early awareness system. This sounds like a contradiction, but it is not. Chaos is simply a degree of complexity with rules and drivers that are not fully understood. It is comparable to a weather-forecasting system: never completely right, but rarely completely wrong. Early awareness does not need sophisticated systems or much workforce. It is a mindset, a sensitivity that allows 'weak signals' indicating emerging change and foresight to be understood. To deal with complexity, the variables that create predictable outcomes should be identified when they are within a specific range and unpredictable outcomes when they are not. As one executive recently said, 'We track hurricanes. As long as they stay outside this range, we don't pay much attention or put anything into action. But as soon as they hit inside this range, we start to put our contingency plans into place.' When facing complexity, managers need to identify which 'hurricanes' they need to track and which levels or ranges should trigger contingency plans.

Leading a complex organization requires an entirely different mindset. A hierarchy works if every level is doing something distinct and specific. However, due to the interdependence in complexity, this is impossible in today's organizations. By simplifying and clarifying vision and values, core processes and decentralization, and early awareness systems, the hierarchy can give way to 'heterarchy', a networked organization in which every part reflects a different perspective of the whole. The boss need no longer 'tell' the team members what exactly to do (in high complexity a 'telling' style does not lead to responsiveness), but can depend on their initiative, creativity, and competence for success. Leadership in a networked organization means not only providing different leadership roles and styles depending on the situation (but always consistent with the purpose, values, and core processes), but also means leading the different parts of a networked organization so they can work together to create value. The leader of a complex organization must create and communicate understanding of the different roles that managers, teams, business units, and bosses play in the interdependent structure; otherwise, the confusion is intensified. Leadership cannot be repetitive, but should be predictable. Permanent communication is therefore *the* leadership survival tool in complex organizations, but much more in terms of 'storytelling', interpreting context and meaning, and investing in relationships than in transferring dry facts or ultimatums.

How does it work in practice? The authors have not yet come across a company that has mastered global complexity – perhaps there are none; perhaps there will never be any! However, the various sections of this book identify several global companies that highlight various aspects of managing complexity, or the effects of not managing it well. The decade-long difficulties of General Motors (GM) – and to a lesser degree, Ford – clearly have their roots in the company's traditional control mode, which has led to GM's vast bureaucracy and a typical outcome: mediocre products due to risk aversion, mistrust of management (reflected in the high degree of unionization), high-transaction costs, and slow response. A counter-example is Toyota with its very clear value set (which is being challenged as the company becomes truly global) and its simpler worldwide core business processes and standardized processes model (the famous notion that every Toyota engineer can work in any Toyota factory around the world without encountering adaptation problems is probably slightly exaggerated, but only slightly. . . ).

A similar set of elements is found in many other global companies: family businesses, a luxury goods business (due to identification with the product), and Dupont (known for its strong values). Research and development (R&D)-driven industries, such as the pharmaceutical industry, are known for focused business models. Energy companies, especially Exxon Mobile, are driven by standardized global processes, whereas fast-moving custom goods and the food industry are known for their strong regional decentralization, but are bound together and have shared processes across business lines. In the following, a real world, real learning example is provided to illustrate complexity drivers and simplifiers further.

## Complexity drivers and simplifiers in action – a case study

Allianz, Europe's largest insurance provider, had integrated all the previously separated and more-or-less fragmented parts of its global insurance industry into a new division called 'Allianz Global Corporate & Speciality (AGCS)'. The complexity drivers were all in place: different cultures, different processes, different client focuses with different product offers, and high uncertainty about the portfolio of contract values (surprises had previously led to losses being incurred in some units). This happened in a cyclical market with fragmented regulation and a nature-driven chance of significant risks like storms and floods.

The new CEO (Chief Executive Officer) of the division, Dr Axel Theis, realized that he had no chance of success if he were to let all the complexity drivers continue to work in the new, much bigger company. He also realized that he was caught on the horns of a dilemma: to offer more comprehensive customer-focused solutions, he needed to remove silos and push for an increasingly boundary-less company, although this would increase the interdependence between the units and, thus, the internal complexity. Without a new approach, complexity would overwhelm the organization. Creating boundaries would also limit the impact on a specific organization if an event were to occur. Boundaries would, however, make it impossible to serve clients globally, while the elimination of boundaries would allow the impact of any event to 'travel' throughout the organization, triggering many responses and interventions as the organization became increasingly interdependent. How could this cycle be broken and the dilemma managed?

After deciding on the basic structure of and appointments to the key management functions, the new CEO arranged a three-day retreat for his executive team and most of their direct reports (underlings who prepare reports). The challenge was clear: understand what it means to work in one global company and draw the necessary managerial conclusions to make the new division a sustainable success.

The group's first focus was to identify what it meant to be a global company. This was emphasized as being the only option given the current market conditions, the clients' demands, and the portfolio risk diversification. The latter was important, as in order to have sufficient risk diversification, certain products in this segment of insurance can only be offered globally. After consensus had been reached, the big question was: what did globalization mean for the the unit's operation? The top team had identified four complementary building blocks that followed from the core decision that the unit needed to be global: focus on the global processes, a specific approach to client focus, excellence in risk management, and being an 'Employer of Choice'.

In the Financial Services industry, any product innovation can be copied easily and immediately. Therefore the entire value proposition to the customer is critical, as is excellence in risk management (which not only influences the prices to be charged but also the products that can be offered). Customers in this segment are professional and it is extremely important to understand their specific risks and to speak their 'language'. Tailoring solutions would definitely increase complexity, but a sure solution was to have standards and modules regarding underwriting, client relations, and claims handling besides the additional technical services. Units could then cooperate seamlessly and innovative solutions would not be a barrier to consistency in service quality. This meant that the risk management system would have to be improved, so that decisions regarding whether, and at what price, risk could be underwritten were taken quickly – additional advice might also help to mitigate or reduce risks.

However, without global processes and a qualified and dedicated workforce, even a good value proposition and excellence in risk management could not produce sustainable results. A set of criteria was developed to determine the most effective processes for global application and to implement them rapidly throughout the organization. As usual, a huge challenge was to overcome the information technology (IT) 'legacy systems', and the restrictions that they imposed on the organization. The management team again faced a dilemma: making life easier for customers could make it more complex for the organization. ‘Where do you need to embrace complexity to add value for customers?’ was the critical question raised by Axel Theis.

To avoid ‘airy-fairy’ visions (which are sometimes difficult to distinguish from hallucinations), the top management team’s next focus was the three key stakeholder groups: clients, shareholders (in this case, headquarters), and employees. It was important to identify what these stakeholder groups expected from the new division and what could be offered them. For example, with respect to the employees, the team defined what they were promised (e.g. international career opportunities, high rewards for high performance, etc.) and also what the organization expected from them (e.g. result orientation, openness to change, etc.). Once this had been determined, the management team developed an easy-to-tell but compelling ‘strategy story’, which included the goals and vision for the following three to five years and the actions that were needed to move in that direction. Optimizing the communication to the three stakeholders was essential in terms of reducing the complexity to ensure that there would be no difference between expectations and delivery.

This formulation of the strategy, based on the building blocks, brought about a push in alignment and helped to reduce the internal diversity. It created a focus on global, standardized processes that further reduced internal complexity and made interdependence more manageable. Furthermore, excellence in risk management reduced ambiguity and uncertainty in key value-creation areas. Together with the ‘Employer of Choice’ strategy, it allowed for a more decentralized organization that could experiment and test new ideas to respond to the ongoing changes in the environment. The implementation does, of course, now need some time, but it is no longer an impossible mission – it is building on key simplifying processes. The alignment within the company helps to prevent the complexity outside the company from being overwhelming. The AGCS management is convinced that building the competencies of managing such complexity is creating a competitive advantage for this global insurance division.