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## Agile Organization as a concept of production adjustment in the face of the crisis

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### Abstract

The concept of an Agile Organization is the part of the management concepts which aim at adjustment of the production to ever changing environment. In today's fast changing landscape, agility may prove to be the difference between success and failure for any business. An organization can be agile only and only if it is focused on business drivers and the factors that shape the business drivers. The aim of the article is to present the concept of an Agile Organization and to identify its basic assumptions for the production in the face of crisis.

## 1. Introduction

The concept of an Agile Organization is the part of the management concepts which aim at adjustment of the production to ever changing environment. Agility is the feature of an organization which enables making changes in the scope of running operations, processes and business connections in reply to changing situations both outside and inside the organization. In order to better adjust the product to the demands of customers an agile production requires the integration of projects and production engineering with the marketing and distribution channels. The aim of the article is to present the concept of an Agile Organization and to identify its basic assumptions for the production in the face of crisis.

## 2. The essence of Agile Organization

Agility is a concept that incorporates the ideas of flexibility, balance, adaptability, and coordination under one umbrella. In a production context, agility typically refers to the ability of production to rapidly adapt to market and environmental changes in productive and cost-effective ways.

The concept of „agility” as an attribute of production organizations arose in response to the requirements of the modern business to operate in predictable ways even in the face of extreme complexity (TSOURVELOUDI C.N., VALAVANIS K.P. 2002).

In particular, software development organizations have developed a specific set of techniques known as Agile Methods to address the problems of changing requirements, uncertain outcomes due to technological complexity, and uncertain system dynamics due to overall system complexity. Some of the ideas that have shaped thinking in the agile community arose from the studies of Complexity science and the notion of complex adaptive systems (CAS). Agile methods integrate planning with execution allowing an organization to „search” for an optimal ordering of work tasks and to adjust to changing requirements (DYER L., ERICKSEN J. 2009).

The agile enterprise is an extension of this concept, referring to an organization that utilizes key principles of complex adaptive systems and complexity science to achieve success. The agile enterprise strives to make change a routine part of organizational life to reduce or eliminate the organizational trauma that paralyzes many businesses attempting to adapt to new markets and environments (HAMEL G., VALIKANGAS L. 2003). Because change is perpetual, the agile enterprise is able to nimbly adjust to and take advantage of emerging opportunities. The agile enterprise views itself as an integral component of a larger system whose activities produce a ripple effect of change both within the enterprise itself and the broader system (HOLBROOK M. 2003).

Comparing agile enterprises to complex systems we can observe that interactions, self-organizing, co-evolution, and the edge of chaos are concepts borrowed from complexity science

that can help define some of the processes that take place within an agile enterprise (CILLIERS P. 2000).

Interactions are exchanges among individuals etc. They are an important driving force for agile enterprises, because new ideas, products, services, and solutions emerge from the multiple exchanges happening over time. The interactions themselves, rather than individuals or the external environment, are significant drivers of innovation and change in an agile enterprise.

Self-organizing describes the spontaneous, unchoreographed, feedback-driven exchanges that are often found within agile enterprises. Vital initiatives within the agile enterprise are not always managed by one single person- rather all parties involved collectively make decisions without guidance or management from an outside source. The creativity and innovation that arises from this self-organizing process gives the agile enterprise an edge in developing (and redeveloping) products, services, and solutions for a hypercompetitive marketplace.

Co-evolution is a key process through which the enterprise learns from experience and adapts. The agile enterprise is constantly evolving in concert with (and in reaction to) external environmental factors. Products and services are in a constant state of change, because, once launched, they encounter competitors' products, regulators, suppliers, and customer responses that force adaptations. In one sense, nothing is ever completely "finished," although this does not mean that nothing is ever made, produced, or launched.

The edge of chaos is a borderline region that lies between complete anarchy or randomness and a state of punctuated equilibrium. The agile enterprise ideally operates in this region, needing the tension between constant change and the constraints that weaken change efforts to keep the organization perturbed enough for innovation and success. In other words, the edge of chaos is the space in which self-organizing and co-evolution flourish. Figure 20 illustrates how change initiatives cause organizations to go through an intense period of resistance and chaos and how these periods cause a drop in the performance of organizations.

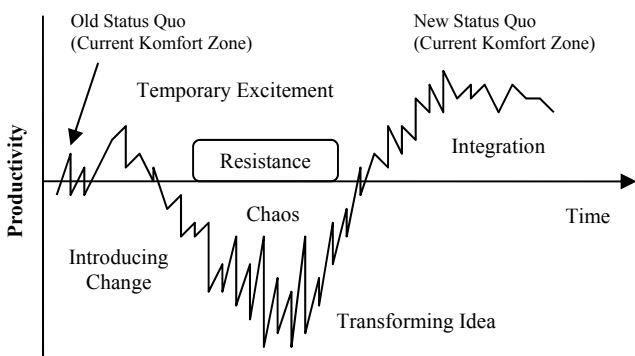


Fig. 1. Benefits of using agile

Source: (BROWN A.D. 2002)

### 3. Processes and structures Agile Organizations

Agile organizations have the processes and structures that enable them to know what is going on both internally and externally, as well as to provide the mechanisms needed to act quickly on that knowledge. This approach focuses on teamwork, information flow and communication based on trust. As pointed out by R. Ulewicz and M. Mazur manufacturers are interested in optimizing operational costs and the increase of production (ULEWICZ R., MAZUR M. 2013). Although some view technology as the main way to attain that state, evidence indicates that enterprises can best achieve agility by following basic management principles, using imagination to see an organization in a different light and having a willingness to adjust or change as needed, based on circumstances.

Being agile requires capabilities that are shaped by designing and managing business processes and technology enablers jointly. That can be achieved through the steps in the three distinct yet related areas outlined below (STACEY R. 2006):

1. *Learn to sense and respond by:*

- Establish relationships with customers, suppliers, partners and the public in order to always know what's happening around you.
- Create structures and processes to understand the information you receive and how to act on it.
- Facilitate learning from various processes based on recurrent sense-and-respond cycles to support the collection, distribution, analysis and interpretation of data associated with business processes and the generation of response alternatives.
- Assess how business technology investments are handled in your firm's strategic planning and budgeting activities in order to prepare for future spending and to avoid past pitfalls.

2. *Emphasize improvement and innovation by:*

- Follow best practices, listen to your customers and improve existing capabilities to constantly foster innovation instead of only being opportunistic.
- Focus on creating innovative processes through new technologies, services and strategies; generate "next" practices; and focus on fine-tuning your current operations.
- Combine improvement and innovation initiatives to constantly reposition yourself regardless of turbulence in the market.
- Examine the initiatives that are currently under way to ensure that they advance your organization and don't just maintain it.

3. *Distribute and coordinate authority by:*

- Adopt radically different forms of governance and translate your mission and objectives into information that can be easily interpreted by constituents.
- Replace traditional command and control approaches with mechanisms that facilitate coordination within and across locales, providing individuals, groups and units the autonomy to improvise and act on local knowledge, while orchestrating coherent behavior across the firm.

- Supplement processes with personal accountability and align them with the appropriate supporting business networks and information architecture.

According to J. Collins there are 10 characteristics of a truly agile organization which potentially would help an organization make the leap (COLLINS J. 2001). He suggested the following characteristics in order of increasing importance:

- Work and Life Balance and Consistent Delivery – Empower teams which are dedicated to personal and organizational goals. Create a discipline of shorter release cycles.
- Servant and Leader – The entire spectrum of managers should serve by leading and lead by serving. Instead of making decisions for the team, managers should support team commitments.
- Sustainable and Successful – Maintaining sustainable pace and stability, all divisions of the organization should focus on customer value.
- Contributing to the Community and Maintaining a Profitable Company – Apart from profitability and core business, making a positive impact on the community should be a focus area.
- Collaborative and Smart – Hire smart people and foster collaboration to spread the intellect.
- Bottom-up and Top-down Decision Making – Leaders are informed by knowledge workers and vice versa to complete the cycle. Tacit knowledge helps and informs explicit knowledge.
- Personal Flexibility and Rhythm – Create a regular cycle of delivery and value.
- Quality and Faster – Entire organization focuses on value delivery and a quick feedback regarding the value.
- Creating Your Own Reality and Corporate Vision – Rather than implementing a corporate vision by having clearly defined rigid roles, Agile organizations hire great individuals who guide the corporate vision with their passion.
- Commitment to be great; disciplined culture and metrics – Metrics such as work/life balance, bottom-up and top-down decision making, servant leadership practices, innovation practices and technical debt help to decipher where the organization is on its path to greatness.

One type of enterprise architecture that supports agility is a non-hierarchical organization without a single point of control (STACEY R., GRIFFIN D., SHAW P. 2000). Individuals function autonomously, constantly interacting with each other to define the work that needs to be done. Roles and responsibilities are not predetermined but rather emerge from individuals' self-organizing activities and are constantly in flux. Similarly, projects are generated everywhere in the enterprise, sometimes even from outside affiliates. Key decisions are made collaboratively, on the spot, and on the fly. Because of this, knowledge, power, and intelligence are spread through the enterprise, making it uniquely capable of quickly recovering and adapting to the loss of any key enterprise component.

Leadership style is of paramount importance as leaders have the prime responsibility for understanding the reason for change and making it happen in an organization. So to be an agile organization the organization must probe the leadership

style and put concerted efforts to develop leaders, who believe in capitalizing on the opportunities available and thus beating the competition with speed of dissecting the environment and surging ahead on the basis of insight gained. It is leaders who bring about clarity in what needs to be stable in the company and what needs adaptability. This clarity brings focus on things that organization needs to do to be agile.

Companies can develop focus on business drivers when leaders question the fundamentals of the business. Among other things leaders must primarily look at short term and long term opportunities and clearly understand the implication of following short term opportunity on the long term goals of the business. Generally organizations following one short term prospect after another appear to be agile but equally agile and shrewder are those businesses that have assessed the long term benefit of short term prospects and have made informed decision of pursuing them or dropping the idea.

Assumption and confidence that what had worked so well for the organization in the past will continue to fuel its future growth makes the organization numb to the challenges and prospects that lie ahead. The means and ways adopted to achieve success in the past have huge influence on the culture of the organization. Arrogance in leaders at all levels and being unmindful to the emerging needs and expectations of stakeholders are some of the outcomes which create invisible and seemingly impenetrable wall between the organization and "agility".

To gain agility in today's typical environment, the leaders must question the structure, the processes and even the culture in the organization and empower people by enhancing their knowledge and competencies and trust them to take decisions in the best interest of the company. People must be made to face and understand ground realities – unhappy customers, frustrated stockholders and confused partners – to create a sense of urgency and be challenged to solve the real time business problems to unleash their capabilities.

Although agile enterprises by definition include numerous, constantly co-evolving and moving parts and they are operating at the edge of chaos, they do require some structure.

The enterprise must develop specific structures (also called system constraints) to serve as a counterbalance to randomness and anarchy, keeping the enterprise optimally functioning on the edge of chaos. These structures – including a shared purpose or vision, resource management aids, reward systems, and shared operating platform- often emerge from three key organizational processes: strategizing, organizing, and mobilizing (DYER L., ERICKSEN J. 2009).

Strategizing is an experimental process for the agile enterprise, in which individuals repeatedly generate ideas (exploration), identify ways to capitalize on ideas (exploitation), nimbly respond to environmental feedback (adaptation), and move on to the next idea (exit). Organizing in ongoing activity to develop structures and communication methods that promote serial incompetence. It often includes defining a shared vision, as well as systems and platforms that ground the enterprise (GODIN S. 2000).

Mobilizing involves managing resources, ensuring the fluid movement of people between projects, and finding ways to

enhance internal and external interactions. Typically, enterprise values, personal accountability, and motivational and reward systems are a key output of this process.

#### 4. Conclusion

Agility helps keep the organization on the forefront of the competition always leading the pack. The major causes of chaos on a project include incomplete understanding of project components, incomplete understanding of component interactions and changing requirements. Sometimes requirements change as a greater understanding of the project components unfolds over time. Requirements also change due to changing needs and wants of the stakeholders. The agile approach allows a team or organization to implement successful projects quickly by only focusing on a small set of details in any change iteration. This is in contrast to non-agile approaches in which all the details necessary for completion have equal priority inside of one large interaction.

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### 敏捷组织面对危机的生产调整概念

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#### 关键词

敏捷组织  
生产  
加工

#### 抽象

敏捷组织的概念是管理概念的一部分，旨在调整不断变化的环境的生产。在当今快速变化的景观中，敏捷性可能被证明是任何企业的成功与失败之间的区别。一个组织只能是敏捷的，只有当它专注于业务驱动因素和决定业务驱动力的因素时。本文的目的是介绍敏捷组织的概念，并确定面对危机时生产的基本假设。

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