

## **Striving for Agility in a VUCA Environment: The Analytic Hierarchy/Network Process**

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### **Introduction**

The business world is currently operating in an increasingly challenging environment characterized as volatile, uncertain, complex, and ambiguous (VUCA). If anything, the current COVID-19 crisis is a demonstration of this. What began as a health crisis has become a social and business crisis of large proportions. The current world is dynamic, which is fundamentally different from the past which was much more stable. The success that resulted in the past from simply offering excellent products and services does not sustain anymore. Agile transformation appears to be the right response that is needed from business organizations for this new environment. Many argue that the claims that agile transformation does not work as expected are a result of an inadequate understanding of the fact that agile is about mindset change. The agile movement was born out of the belief that amazing experiences can happen if people come together and seek common ground. It is a breakthrough approach that needs to be understood in order to implement it because it is a total mindset change. It is not business as usual, and therefore the typical practice of continuous improvement will not work anymore.

Academics have been supporting business since the industrial revolution began by contributing relevant knowledge and methods. This support gets more sophisticated as businesses need to respond to the increasingly complex environment. This increased sophistication includes breaking down boundaries between disciplines, and facilitating implementation by designing the right cross-discipline approach for any given situation.

Presentations at the 2018 Drucker Forum indicated that a major transformation of management is already under way. Models of “the organization of the future” have emerged in a number of large post-bureaucratic organizations. These organizations are all thriving in a VUCA marketplace in their unique ways, but also think that they still have much to learn and improve upon. They are in the continuous learning mode.

The purpose of this article is to create awareness that the AHP/ANP is capable of supporting an organization’s continuous learning process, but it needs to be complemented by Appreciative Inquiry (AI) that is applied by a competent facilitator. AI is the groundbreaking approach for organizational development that uses narrative and story-telling to capture different knowledge, perceptions, and aspirations from members of the organization. The potential for amazing results strongly depends on how well the facilitator internalizes agile mindsets, his facilitating competence to synergize AI and AHP/ANP applications, and his ability to implement it in group and organization settings.

### **Academic supports follow business journey**

Early in the era of the industrial revolution, academics played a crucial role in designing techniques and systems to help businesses be more effective and efficient in their operations. At that time, workers were considered as simply one of the business' resources to exploit. Total Quality Control (TQC) was initiated in Japan when workers were involved in using statistical process control to solve quality and productivity problems in operations. They realized that long term process improvement is more important than short term financial gains.

As participation spread to the whole organization, and the concept of quality and productivity emerged as something that could be improved, the Total Quality Management (TQM) movement began to flourish. The initiative of applying the new approaches of unending continuous improvements and participative management led to an awareness that well-defined organizational boundaries were crumbling with the need to align different initiatives. Academics supported this development as they applied their concepts and methods to participative management in general and group decision-making in particular. Problem solving and creative thinking also emerged as needed skills. The TQM movement challenged academics to cross boundaries and integrate their disciplines by designing effective supports.

TQM focuses on continuous process improvements by looking inward, assuming that the higher the product quality, the higher the customer satisfaction. There were times when product quality was considered as a competitive advantage. This was when TQM had not emphasized enough the total shift that was needed from the deep rooted 'product out' thinking to the new 'market in' mindset. This mindset requires producers to really listen and respond to what their consumers want rather than blindly follow internal policies, standards and procedures. It is about commitment, not compliance.

Striving for agility in a VUCA environment requires a total mindset shift, of which the 'market in' becomes the most critical. The "market in" concept moves the attention from internal, which assumes that the organization knows what their customers want, to external, which looks out and directly asks the customers what would delight them. It is a mindset that requires agility, not blindly copying approaches that work in other organizations. Agile is a mindset of people that continuously focuses on delivering value to customers as the primary goal of their work.

Appreciative Inquiry (AI) is a breakthrough approach for organizational development. It involves a guided conversation about what matters using stories. According to Stephen Denning, stories help people make sense of organizations, generating fresh depth and breadth of perception as meaning emerges internally from narratives they hear from external sources. When we believe in stories, they resonate and generate creativity, interaction and transformation. An open-ended question would naturally prompt story telling that could lead to learning and inspired actions. Therefore, formulating the right question could lead to desirable changes.

## **Agile management and leadership**

Stephen Denning is the world's greatest promoter of the importance of story-telling in management and leadership. He maintains that striving for agile means building organizations that are as innovative as they are efficient, and as passion-filled as they are pragmatic. It is a journey of continuously growing agile mindsets in organizations; it is not about implementing a new practice, process, or structure.

Denning defines Radical Management with his Seven Principles of Continuous Innovations as seen below:

1. Delighting Clients
2. Self-Organizing Teams
3. Client-Driven Iterations
4. Delivering Values to Clients in Each Iteration
5. Radical Transparency
6. Continuous Self-Improvement
7. Interactive Communication

These changes require commitment and leadership from management as the distinction between leadership and management dissolves. It is a feedback process where managers are committed to change and leaders also manage.

## **How the AHP supports continuous learning in organizations**

Agile decision making is a very complex process of setting priorities among diverse important dimensions. It requires eliciting and integrating different judgments of relative importance from the understanding, perceptions and preferences of many people to come up with a more-or-less acceptable collective sense of priorities. Below, we discuss how the AHP/ANP can support the adoption of Denning's four vital management principles for the agile journey.

- *Transparency*  
An AHP model is a hierarchy or network representation of a thinking process. It shows what key elements are being considered, how they influence each other and the relative strengths of their influence. The use of the AHP fundamental scale, deriving relative priorities in 0 to 1 ratio scales, and synthesizing the priorities across a structured model, enables the AHP/ANP to model a system of any complexity that is being analyzed without theoretical constraints. The hierarchy/network structure could be single and simple, single and complex, or a set of interconnected models. When the modeling is done well, the purpose of the thinking is clear and well defined. An AHP/ANP model is an effective means for sharing complex information in a concise way. Tangible models help people understand, and perceive the situation even if they are not involved in the process.
- *Competence*  
AHP/ANP techniques help a facilitator to integrate the knowledge and aspirations of individuals into a coherent group outlook. As a means for group collaboration, it develops group alignment and competencies which play a significant role in group and organizational learning. The AHP/ANP is equipped with a variety of techniques that enable its facilitator to allow

different input from actors or group participants that have different roles and authority. Actors or institutions that pursue their own objectives that would affect the organization's achievement could be considered as elements in a level of a model. Judgments of relative importance can be assigned to the decision makers, whereas judgments on likelihood or preference are left to the experts. Relative priority can also be assigned to the different people providing judgments before aggregating in order to obtain a final result of synthesized priorities.

- *Localization*  
An AHP facilitator can design a series of AHP/ANP processes that ensure alignment in the case where a big organizational problem needs to be decomposed into smaller ones to be dealt with by any number of small groups.
- *Upside*  
When the modeling process is done well, it opens up the possibility for personal growth by the individual facilitating the group process, participating in an AHP/ANP modeling process or interpreting its outcome.

### **Two philosophies representing the AHP/ANP axioms**

AHP/ANP users need to make sure that its axioms are satisfied so that a valid model is created that produces the expected output. Internalization of the two important philosophies underlying the AHP helps apply the AHP/ANP mathematical axioms in practice.

- *It is better to be approximately right than precisely wrong.*  
It is essential that the important elements in an AHP/ANP model be elicited from the group involved in the process. This is where the AI approach could play a role. Redundancy in eliciting judgments of relative importance, inconsistency measures, and sensitivity analyses are the means for ensuring acceptance of the relative priority obtained from the ANP/AHP process. A facilitator has room to judge the extent of their use to meet the expectations of the participants as a group and keep them satisfied with the process. The facilitator is responsible for striking the balance between striving for accuracy and keeping excitement in the group high.
- *Objectivity is agreed upon subjectivity.*  
A sense of priority is inherently subjective, therefore absolute objectivity cannot be accomplished in group decision making. A certain level of objectivity can only be accomplished through discussion that aims to align perceptions while respecting each individual's sense of priorities. The facilitator needs to be able to ensure that only homogeneous judgments are being aggregated. This result can be obtained either through group discussion or by revising the AHP/ANP structure. The AHP's technique of measuring the distance of two ratio scales is useful to assess the level of compatibility between the judgments of one particular member to those of group aggregation. High incompatibility indicates new knowledge or a different way of thinking, and then further exploration would be useful. Different perceptions and judgments of individuals in a group are assets, not problems.

## **Conclusion**

The VUCA environment requires agile responses that are obtained by continuously learning organizations that practice management and leadership with a new mindset. The AHP/ANP is the means to facilitate the changes in such organizations, strengthened by the AI approach to elicit the important and relevant factors or ideas for the organization from members of the organization, experts, and its stakeholders. The AHP/ANP facilitates systematically structuring, eliciting judgments of relative dominance, synthesizing, and analyzing the result in a rational way. Its iterative and dynamic capabilities enable organizations to review and improve a developed model to their satisfaction over time.

Supporting organizations to continuously learn to run as organic entities with networks of teams is a challenging, yet exciting, learning and growing opportunity for AHP/ANP practitioners. The AHP/ANP is holistically applicable to organizations, in their collaboration with customers and other stakeholders, in breaking down internal and external boundaries, and in shifting the understanding of management and leadership.

It has been shown during the decades of its development and its many applications that the AHP/ANP is capable of supporting the process of becoming agile. AI, as a breakthrough approach in organizational development, is indispensable for supporting AHP/ANP facilitators. AI is helpful for inquiring about and eliciting organizational values and valuable assets, and AHP is helpful for prioritizing those values and valuables. Together, they can be a powerful support system for the business world to continually innovate in its agile transformation.

Enhanced decision-making and learning are two of the 15 UN Global Challenges for Humanity, therefore the integration of the two groundbreaking approaches of AHP/ANP and AI can help with this challenge. This integration requires solid collaboration between academics and practitioners.

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