

## The Agile Paradigm and Organisation Development in Higher Educational Institutions

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### **Abstract**

*This article has two objectives. First, is to provoke consideration as to whether a set of constructs known as 'the Agile Paradigm' provides a relevant model for organisation development in Higher Education Institutions as they confront a period of increasingly VUCA (volatile + uncertain + complex + ambiguous) conditions, a changing and threatening competitive environment, a need to become stronger in facilitating personal development and a different landscape of opportunities and threats largely provoked by the onset of the 4<sup>th</sup> Industrial Revolution.*

*The second objective is to outline the findings of a scoping research study into the range of competences that will be needed by future students of Management to enhance their ability to be agile – resilient, efficient and effective - when facing 21<sup>st</sup> century challenges.*

**Keywords:** *Agile Paradigm; 4<sup>th</sup> Industrial Revolution; Requisite Agility; Organisation Development in HE; Competences of Students of Business; Entrepreneurship and Management.*

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## **1. Introduction**

This article draws from three decades of research and scholarly analysis to present an argument that a set of constructs, collectively known as the ‘Agile Paradigm’, provides a timely organisation development model for Higher Education (HE) Institutions. This is needed as many HE Institutions are seeking to acquire the range of organisational competences required to address novel challenges that many currently face, resulting from (i) the emergence of the 4th Industrial Revolution; (ii) increasingly VUCA (volatile + uncertain + complex + ambiguous) conditions; (iii) high levels of radical technical innovation; (iv) growing requirements for responsible strategies; (v) a need to prepare students for careers that will be replete with uncertainty and (vi) major changes in the competitive environment for HE products and services.

In addition, we outline the findings of a scoping research study into the specific competences that will be required by students of management to enhance their ability to be resilient, efficient and effective when working in agility-intensive enterprises.

The article is structured as follows. First, the early development of the Agile Paradigm is described; second, later developments related to agility-orientated organisation development are summarised; third, the relevance of the Agile Paradigm for HE Institutions is explored; fourth, the findings of a scoping study into the competencies needed to be efficient, effective and personally resilient in the mid-21<sup>st</sup> century are presented and, fifth, implications for educators are outlined.

## **2. The Development of the Agile Paradigm**

The context for the development of the Agile Paradigm was a worsening crisis for western manufacturing companies that became, pervasive severe and damaging in the 1980s. Asian rivals had gained comprehensive competitive advantages and entire western industries were at risk of collapse. Analysts found many generic weaknesses, including slow responsiveness, a lack of flexibility, high costs, intractable quality problems, a weak capacity to reconfigure resources rapidly, ineffective project-based management and an inability to undertake rapid value-creating innovation (Womack, Jones, & Roos, 1990).

In 1991, to seek ways to address these pressing industrial, social and economic problems, the US government sponsored a major industry-led study that brought 100 senior executives from major American companies to the Iacocca Institute in Bethlehem, Pennsylvania for an in-depth problem-solving process. This high-level taskforce concluded that American companies needed to be reconfigured radically, so that they became *Agile*, meaning that they (i) were quick to create and seize opportunities; (ii) able to customise products for individual customers; (iii) were early and capable adopters of hard technologies (like digitalisation) and

(iv) soft technologies (like quality control) and (v) utilised fully the latent talents of employees through directed empowerment. This combination of needed organisational attributes was dubbed by the Iacocca taskforce as the ‘Agile Paradigm’.

### 3. Agility-Orientated Organisation Development

Concepts and techniques that enable organisations to adopt the Agile Paradigm have evolved considerably since the Iacocca study. This was needed as those who manage organisations became aware of the transformational impact of socio-technical forces that are reshaping many aspects of society, described as the 4th Industrial Revolution. Key features have been summarised by Kuzin (2021, p. 194) who stated that: “Globalization and Fourth Industrial Revolution have transformed technology, society and the way of our life, global economy, markets and competition, industries and organizations, communications, and business models”. Of great importance are the consequences of advances in digital technologies that create opportunities and destroy key elements of competitive advantage in many industrial sectors, including HE. Also important are changing corporate ethics, as environmental sustainability becomes an increasingly important agenda item for top managers. These are examples of a world that will be increasingly characterised, at least in part, by being VUCA (volatile + uncertain + complex + ambiguous).

Early developers of concepts and techniques for structured agility-orientated organisation development were military organisations, including NATO, (Alberts & Hayes, 2003). As it was shown that advances in digital technology could enable previously impossible levels of competent decentralised decision-making. Large companies, like IBM, previously castigated for being ponderous and bureaucratic, (Gerstner Jr., 2002) adopted ways of organising that greatly strengthened their dynamic capabilities. Work at the Centre for Research in Innovation Management in the UK identified the specific characteristic of enterprises that were systemically agile (Bessant, Francis, Meredith, Kaplinsky, & Brown, 2001). Developments in project management, especially in the software industry, made huge strides in developing capable and intrapreneural teams (Verheyen, 2019). More recently, techniques have been developed for achieving *requisite* agility that is needed “as not all organisations need to be agile; not all parts of an organisation need to be equally agile and not all organisations need to adopt the same type of agility” (D. L. Francis, 2020, p. 169). Extremely influential are case studies of outstandingly successful 21<sup>st</sup> century businesses, like Amazon, Facebook and Netflix (Dutta, 2019; Smith, 2018), as these demonstrate the importance of developing high levels of personal and organisational agile competences in people and systems and embedding agility-orientated values into an organisation’s culture, both at organisation-wide and local levels.

#### **4. The Relevance of Agility-Orientated Organisation Development for HE Institutions**

Larger HE Institutions, but not all specialised HE colleges, have unusually complex organisational challenges which hinder them from developing agile capabilities. This is because they face a range of fundamental tensions between functions that are not present in enterprises with a single strategic driving force. Especially significant are tensions between: (i) providing quality-assured qualifications for students; (ii) ensuring that academic staff to remain at the cutting edge of their disciplines; (iii) taking multiple steps to increase the probability that students will enjoy a life-affirming experience; (iv) requiring that professional staff undertake developmental projects to complete research, increase impact, develop new capabilities and adopt beneficial technologies and (v) ensure that different areas of study develop a distinctive identity, acquire relevant dynamic and operational capabilities and develop governance procedures specific to their specialisation.

Each of these functions requires a different type of organisation, thereby greatly increasing complexity. Adapting Mintzberg's contingent organisational model (1998), the first key deliverable mentioned above (providing assured qualifications) requires a *disciplined bureaucracy* form of organisation in which individuals competently perform their prescribed roles; the second (maintaining expertise) requires a *professional bureaucracy* organisation in which specialists act as intrapreneurs within their areas of influence; the third (building an inclusive and supportive culture) requires a *values-led* organisation that drives institution-wide socialisation to develop a coherent organisational culture; the fourth (undertaking new initiatives) requires short-term adaptive micro-organisations or '*adhocracies*' and the fifth (having appropriately differentiated specialist units) requires a *divisionalised* form of organisation. Each of these forms of organisation needs a very different managerial approach that increases complexity and slows enterprise-level adaptation.

A recently developed model for agility-orientated organisational development (D. L. Francis, 2020, pp. 18–20) addresses this type of organisational complexity by using a two-level framework: (i) systemic and (ii) local. Level One (systemic agility) refers to the organisation as a whole that needs, through actions and patterns of commitment decisions, an evolving and agile-friendly organisational personality or identity, held in place by shared beliefs, common values and shared intent to realise an enterprise ambition - the 'kind of organisation that we want to become'. Level Two (local agility) relates to 'sub-units' that may be departments, services, functions, initiatives or capabilities. Local agility is needed as not all parts of an organisation need to be equally agile and not all sub-units need to be agile in the same ways. A localised approach to organisation development requires working with sub-units separately, thereby increasing the developmental workload, but this increases the probability that the deliverables required from requisite agility will be entirely apt for sub-units.

Localised agility capability development will be targeted at one or more of the domains of the 6Ps model (D. L. Francis, 2020, pp. 33–35). These are *Product Agility* (P1) that targets outputs of a sub-unit that are provided to external and/or internal customers and/or other stakeholders. *Process Agility* (P2) targets sequences of activities that enable core tasks to be accomplished and integrated. *Positional Agility* (P3) targets how a sub-unit communicates with customers (internal and external), potential customers, entities in its ecosystem and stakeholders or influential bodies. *Paradigm Agility* (P4) targets principles of organising and systems of thought and includes the constructs that people within a sub-unit use to make sense of the world. *Provisioning Agility* (P5) targets where and how resources are obtained including financial, knowledge, technological, locational, contractual, reputational or legal assets. *Platform Agility* (P6) targets how outputs are integrated to be readily accessible.

The inherent complexity of larger HE Institutions means that many, perhaps all, of the sub-units will be significantly differentiated in terms of their outputs, organisation type, functions performed, dynamic and operating capabilities needed, exposure to change drivers and their need to be proactive in relation to ‘do-different’ and ‘do better’ opportunities and threats in any, or all, of the 6P areas described above. Accordingly, each sub-unit needs to possess considerable strategic competence that includes determining where and how their sub-unit needs to be agile by: (i) appropriate use of organising frameworks known as ‘scrum’ (self-managed teams); ‘tribes’ (interdependent teams that work in the same area); ‘chapters’ (individuals with similar specialisms who learn from each other) and ‘guilds’ (knowledge-sharing communities); (ii) adoption of technological advances to facilitate step-changes in process cycle-times and to facilitate beneficial coordination; (iii) improving processes for creating or identifying potentially beneficial opportunities and establishing ad hoc organisations to progress them; (iv) developing people, technologies, systems and learning practices situationally relevant agile competences.

It is essential to note that the empowerment of sub-units as strategic hubs in the way described above can become dysfunctional if increasing diversity undermines institutional-level strategic coherence. For this reason sub-units need to be constructively confined to act as entities with strong fractal characteristics (Sihn, 1998) meaning that their permitted individuality will be limited by a requirement to adhere to the vision, mission, values, collective ambition and core processes of the wider organisation.

## **5. Changing Required Managerial Competencies**

The arguments presented above have focused on HE institutions but the need for requisite organisational and personal agility is widespread, probably ubiquitous, as it affects all forms of enterprise. This is widely recognised and the acquisition of requisite agility is a top-five priority for many of the world’s larger companies (Wouter, Handscomb, Salo, & Thaker,

2021). In the remainder of this article, we consider the implications for those who educate future managers, entrepreneurs and leaders.

Curricula for delivering managerial education programmes should be based on an insightful and evidence-based conceptualisation of the likely changes in the nature of managerial work in future decades. This facilitates the development of a comprehensive definition of the range of competences that will be needed by individuals who will play these roles. Subsequently a facilitative pedagogic architecture for students of management, and kindred disciplines, can be constructed.

It is predicted that, in the next 20 years, much routine work will be performed by intelligent machines so the centre of gravity of managerial work will shift towards performing non-routine activities that, by their nature, will require high levels of organisational and personal agility. As explained above, the competent management of non-routine activities requires that an organisation be systemically facilitative and sub-units must be responsibly opportunistic in driving progress in one or more of the 6P areas specified above. This enables managers to be capable of developing and implementing situation-specific theories of Winning, Change and Action.

Although managerial situations vary significantly it is necessary for educators to develop a generic model to enable them to develop a core pedagogic architecture. To experiment with constructing such a framework the author undertook a scoping research investigation to develop a model using input from practicing senior managers undertaking non-routine tasks. The research design was straightforward. Earlier the author and a colleague had written a book (D. Francis & Woodcock, 1996) that had listed 12 competences needed by managers to enable them to cope creatively with the uncertainty, complexity and opportunities of managerial life. The competences assessed concerned: (i) self-management; (ii) values clarification; (iii) visioning; (iv) creativity; (v) personal development; (vi) problem-solving and decision-making; (vii) goal setting; (viii) management style; (ix) organising skills; (x) teambuilding skills; (xi) developing others and (xii) customer focus.

Between 2016 and 2019 the author was given access by UK's Henley Management College to 16 management teams (average size 5 team members) who were studied as they explored radically different futures for a global civil engineering company. Each team was observed for at least eight hours by the researcher who used the 12 categories outlined above as a coding system and recorded when each was demonstrated. In addition, the researcher noted when an additional competence, not included in the coding system, was demonstrated. It is important to state that this study required subjective assessments that were not validated by an independent researcher so the findings must be considered as illustrative, not definitive. When the data were analysed, it was found that each of the 12 competences listed above had been demonstrated and six additional competences were identified. These were (a) influential

networking; (b) risk assessment; (c) systems (especially digital) design; (d) reflective practice; (e) fast responsiveness and (f) willingness to take responsibility.

In this short article we cannot explore these dimensions in depth but can use them identify a key challenge for HE Institutions. Put simply it is this. Most of competencies needed for an individual to be capable of operating effectively in an agile-intensive environment concern issues like the character, grit, emotional intelligence, interpersonal skills and self-management. Attributes such as these are not developed in libraries or lecture halls but when students face real-life issues, overcome difficulties, build teams, achieve success, receive feedback and participate in experiential learning. Many, probably most, HE institutions currently see their core task as conveying bodies of knowledge and developing academic skills. Although beneficial, this orientation provides insufficient personal development in the areas mentioned above as these need inner-directed competencies that fall outside of the scope of traditional academic learning. So, should we consider that HE institutions are institutionally unable to provide the required capability building? In the opinion of this researcher the answer is firmly ‘no’. Although not mainstream, there are many examples of HE professionals who have developed educational initiatives that address a generic need for individuals, teams, organisations and enterprise ecosystems to become resilient, adaptive, opportunistic and dynamic using methods such as Action Learning (Sanyal, Rigby, Nicholds, & Hartog, 2015), Team Academy (Tosey, Dhaliwal, & Hassinen, 2015), Emotional Intelligence Development (Boyatzis, Goleman, & Rhee, 2000) and Scrum Organisation (Verheyen, 2019). It is possible to build on these initiatives and use similar processes to develop those who have management roles in HE Institutions so that students experience learning within a requisitely agile organisation.

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