Agility: a crucial capability for universities in times of disruptive change and innovation

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Government funding cuts have provided a new impetus to Australian universities to re-examine their value proposition and corporate focus. While the sector has gone through waves of change in recent times, institutions are now scrambling for their place in a highly competitive market. Institutions explore new revenue opportunities and digital transformation to achieve cost savings and efficiencies. The digital world is driving innovation and continuous change at such a rapid and random rate that universities are struggling to keep up with demand.

Introduction

The film, music, newspaper and retail industries – among many others – have already experienced the impact of the digital revolution and experienced the need to adapt or perish in the face of such unprecedented change and swing in consumer preferences. White (2013), a former journalist who experienced this impact on the print media first hand, warns of seeing the same warning signs of technology's impact on the higher education sector and the consequences of ignoring them. Universities have been warned to overhaul or perish (Hare, 2012). Given the growing take up of online education, views are being expressed about the longevity and viability of higher education institutions (Coy, 2013). It is becoming increasingly clear that business models and corporate focus need to be reframed and renewed to ensure that they are relevant to current and future markets and more importantly, will stand the test of time and still exist to meet the ongoing demand and challenges of the times.

Over the years, the higher education sector has faced a barrage of disruptions and reforms as a result of government reform, market demand and volatility, economic pressures and technological innovation. Recent innovations to open up education, including Massive Open Online Courses (MOOCs), blended learning, collaborative models and free education with elite universities, have changed the landscape of the education sector (Marques, 2013;Valiathan, 2002; Associated Press, 2013). These innovations have placed the sector on high alert to the disruptive force of the digital revolution.

In Australia, recent government announcements about funding cuts and proposed reforms to the university funding model (Matchett, 2013; Hurst & Tovey, 2013) have compounded the situation. Now, more than ever, business models are needed that have strategic foresight capability

underpinned by corporate and business agility to respond and adapt to change with minimum latency. Agility is an increasingly crucial factor for survival in this new throwaway paradigm of innovation upon innovation.

What is meant by agility in an organisational and operational sense? Agility encompasses the ability to respond and adapt to change in a timely manner so that change quickly becomes the norm for the organisation. Sambamurthy *et al.* (2003, p. 238) define agility in the context of business success as 'the ability to detect and seize market opportunities with speed and surprise'. An agile organisation has this sense of opportunistic sensitivity and adaptability embedded in its strategic and operational DNA.

Many facets of agility as an organisational capability have been researched and reported. Doz and Kosonen (2010) provide a framework for strategic agility and corresponding leadership actions that accelerate the process of business transformation and renewal. Goodhue *et al.* (2009) published their findings of the effectiveness of enterprise systems in addressing business agility. Systems and hardware agility are significant players in today's technology-driven businesses. Sambamurthy *et al.* (2003) discuss the strategic role of IT investments and capabilities in shaping agility in organisations. They also present an argument that agility comprises the three interrelated capabilities of customer agility, partnering agility and operational agility. Cultural agility, espoused by Caligiuri (2013), is another interesting perspective of agility that relates to the professional working in cross-cultural environments. Being culturally agile in a globalised market is a definite advantage in successfully negotiating, operating and delivering outcomes under foreign domains. The sections that follow describe these facets of agility in greater detail and relate these capabilities to the university sector as it seeks to re-imagine, transform and innovate.

Strategic agility

Doz and Kosonen (2010) describe three main dimensions in strategic agility as strategic sensitivity, leadership unity and resource fluidity. Strategic sensitivity includes leadership actions such as anticipating with foresight, experimenting and corporate venturing, distancing to gain perspective, abstracting to concepts and models and reframing to imagine and generate new business models. Strategic sensitivity is particularly pertinent to leadership at universities as they observe and monitor innovations unfolding from a distance, explore new opportunities and markets through digital transformation and different business models.

Leadership unity encompasses actions designed to create a bond and trust within the leadership team. These actions include engaging in dialogues to explore, understand and develop; revealing motives and aspirations, integrating and building interdependencies to define a common agenda for success, aligning to a common interest, and caring empathy and compassion to provide personal safety to be playful. At universities where leadership is based on a multi layered decision making and governance model built around numerous committees overlaid by leadership at central, faculty and sub faculty levels, this unity is critical in providing the organisation with a strong level of trust and commitment to collaboratively achieve its strategic goals and objectives.

Resource fluidity drives the agility of the organisation at the operational level. Actions include decoupling tightly integrated single entities into well-functioning separate entities to gain flexibility, modularising business processes and systems into plug and play components, dissociating resource use from resource ownership, switching to enable parallel use of multiple business models, and grafting of new business models through acquisition. Resource fluidity equips operational leadership with meta capabilities to optimise operations and explore opportunities for greater flexibility in delivery. While the first two dimensions focus on exploring, aligning and building relationships, resource agility mobilises the resources to provide an agile foundation upon which its innovations and experiments can be built.

Business agility

Businesses today are so highly technology-based that their agility and manoeuvrability depend greatly on the agility of the various components that form their IT landscape. Today's large enterprise systems are so complex and tightly integrated that making quick changes in response to external triggers or change in business direction is mostly a huge undertaking and not without considerable costs and risks. This is particularly the case in universities, where business processes are complex and varied and built into systems that are not designed with agility in mind (Mukerjee, 2012).

It is commonly understood that automation of processes brings improved efficiency and a more streamlined approach. What needs greater awareness is the impact of highly customised and complex solutions on an organisation's ability to respond quickly to change. Glass (2002) found that the complexity of software increases by 100 per cent for every 25 per cent increase in the problem

complexity. Thus, while customisations and complex solutions may appear to provide the alignment and benefit to the business unit requesting the solution, it introduces a level of rigidity and maintenance overhead to the enterprise system that may ultimately impact on the agility of the organisation.

Research undertaken by Goodhue *et al.* (2009) indicates that there are ways to enhance enterprise systems to achieve agility. They conducted interviews with business and IT managers from 15 companies to gain insight into how agility challenges in enterprise and non-enterprise systems are addressed. They concluded that, contrary to concerns expressed about enterprise systems restricting agility, there were four ways of leveraging off enterprise systems to facilitate agility. These include the use of existing system functionality not previously implemented, leveraging off high quality and well integrated data, use of third party special purpose add-ons to the enterprise systems and vendor enhancements to the system. This may provide the extra functionality required to address the business challenges but may not necessarily provide the organisation with the latency that it needs to respond in a timely manner, particularly if resources are limited. The ability to achieve the desired agility then becomes a question of cost and affordability.

Non-enterprise systems are less complex with fewer interdependencies, making them more flexible and easier to change. Because of this decoupling from complex interrelationships, they can provide the resource fluidity of plug and play. However, if a global change is required, this agility is somewhat limited. It is generally easier to make a global change on a single enterprise-wide system than it is to change multiple non-enterprise systems spread across many countries.

Whether enterprise systems or non-enterprise systems are used with vanilla implementations or complex customised solutions, there does not appear to be an immediate answer to the dilemma experienced by organisations with respect to systems and agility. Rettig (2007) discusses this dilemma and the greater expectations created by technology. She highlights the need for communication between the business and IT to enable better understanding and realistic expectations. Understanding the limitations of enterprise systems can often lead to helpful discussions and exploration of what is needed and what else can be done. Systems are only one part of the equation; there are other factors that can facilitate greater business agility. At an operational level, an organisation's capability to create, modify and re-design its processes, and therefore its operations, in response to change with minimum latency defines its agility. The speed with which an organisation is able to respond from the time the need for a change is identified to the time the change is implemented and operational determines its place and voice in the competitive market: missed opportunities could have a severe impact on an organisation's competitive edge. Universities are notorious for having complex and non-standard business processes. Their agility could be significantly enhanced by streamlining and optimising their business processes.

In his paper on the efficiency of lean versus agility, Verstraete (2004) talks about agility in terms of reactive and responsive companies. Reactive companies have efficient business processes across the enterprise but do not proactively address potential disruptions. Thus, while they are efficient and optimised to value add, these companies are not in a ready state to deal with sudden or unexpected change. Responsive companies have well-established business processes across the organisation and proactively look for ways to address disruptions.. The aim of responsive companies is to reduce response times by reducing the latency between planning and implementing change. It has been suggested that one of the barriers to change is embedding business processes in a transaction within an application. Separating business processes from system-based transactions enables change to be made quickly to the business process, thus providing greater ability and room to move with change. IT infrastructure that can quickly resize and reconfigure in response to identified change can also provide the underlying flexibility.

Cultural agility

Cultural agility refers to the ability of a workforce to operate effectively and successfully in cross-cultural and international environments with complex cultural issues, customs, behaviours, attitudes, values, regulatory and legal requirements and competition (Caligiuri, 2013). A culturally agile professional is able to successfully assess, operate and deliver within the cross-cultural context whether the professional is operating by communication across borders or located within a foreign country. As universities become increasingly global in their reach and operations, cultural agility is likely to be a competency that will be sought after and reflected in the recruitment, training and development processes. Technology can enable a university to identify, reach out and expand, but culturally sensitive and aware staff can make a difference in the way interactions and communications with the deal makers, customers and legal and regulatory personnel are handled.

Customer agility

Customer agility draws on relationships with customers to provide valuable input into the innovation of products and services, including product design, testing and feedback, as well as a communication network (Sambamurthy *et al.*, 2003).Tools that manage customer relationships and provide analytics of customer data, preferences, social network interactions and volume can enhance an organisation's customer agility. In this age of online transactions, virtual communities and social networks, these valuable customer relationships and participation can be discovered, built and enhanced through the use of technology tools. Universities have a rich source of customers, a good proportion of which are already actively engaged in innovative spaces of social networks and the online world. This multi-generational group of consumers is a valuable source of customer preference, feedback on existing products and services, and partnership to develop new ideas and products.

Partnering agility

Partnering agility is an organisation's ability to leverage off its partnerships and relationships with suppliers, providers, vendors, business partners and any other third party arrangements (Sambamurthy, *et al.* 2003). This capability provides an organisation with a ready network of enabling resources to draw upon for innovative partnerships, funding sources, advice, support and provision of services and products when required. Partnership with technology providers and suppliers can provide the expertise and support required for joint innovation programmes. Universities have successfully demonstrated this agility in the area of collaboration with industry partners for research purposes, industry work experience and placements. More can be done with industry and technology partnerships in learning and teaching innovation. MOOCs have galvanised movement in this space in a significant way (Kolowich, 2012). Fundraising through philanthropy and other avenues is also a growth area for partnerships in universities.

Conclusion

The human element represents a critical core of any organisation. While agility at the leadership level aims at the strategic, agility at the very heart of the operational level relies on the individual staff member. A mindset who is always alert for change through active involvement in processes that inform of change such as regular environment scanning, monitoring business process for improvements and routine use of analytics and feedback mechanism for trends, patterns and consumer sentiment sets the tone for readiness to act, adapt and adopt.

Technology now has a pivotal role to play in enabling and enhancing the agility capability of an organisation. The challenge of digital transformation is foremost on the agendas of most organisations in today's global and digital economies. Customer expectations, satisfaction and preferences are now of greater significance in driving strategy and innovation. Technology is so embedded in businesses that the line between business and technology is almost invisible. For businesses to be successful, this closely intertwined relationship must be reflected in the strategic and operational models of the organisation. Large organisations with separate IT departments (such as universities) need to ensure closer alignment between the business and their provider(s) of IT services and functions to ensure a greater understanding of needs and capability so that minimum latency between identification of a change and its implementation can be achieved. This may mean a rethink of the models of delivery and service away from the traditional model to a more agile approach.

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Outdated structures, consisting of silos and too many handover points working under old methodologies that have not been optimised against the current delivery model, will struggle to deliver outcomes in the timeframes required by the business. The question of managing and supporting a diverse range of systems and software remains a big challenge for universities. The diversity of systems is a reflection of the diversity and complexity of business needs. Researchers work in specialised fields that require software developed to address their unique requirements for innovation and discovery. Lecturers and teaching staff operate in a space in which new delivery methods and models are constantly evolving to satisfy new ways of engaging a multi generational student population in a highly digitised market. Administration and management require enterprise systems and tools to support their functions, as well as the provision of service to staff and students. If resources are limited, diversity and complexity can be a distraction that has an impact on the

organisation's agility and ability to maintain its strategic focus. It may be possible to simplify and consolidate systems to a certain degree, after which the business imperative to specialise or differentiate takes greater priority and importance. This is a tension that universities will need to address through constant communication and close collaboration with their IT departments.

In conclusion, organisations that are slow to respond strategically and operationally are likely to struggle in the rapid digital world of throwaway innovations. Universities must learn to evolve and embrace game changing transformations. It is time to start 'getting comfortable with chaos' and 'stop defending the status quo' (Penttila, 2009). The randomness of innovation and the trend for quick innovation upon innovation means that we are dealing with more paradigm shifts than incremental shifts. Unless an organisation is appropriately structured, managed and resourced to move with the times as an agile entity, its ability to respond to change and, ultimately, its survival will be under serious threat.

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