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Aligning IT and business strategy: an Australian university case study

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Alignment with business objectives is considered to be an essential outcome of information technology (IT) strategic planning. This case study examines the process of creating an IT strategy for an Australian university using an industry standard methodology. The degree of alignment is determined by comparing the strategic priorities supported by both the IT and university strategic plans, using Sharrock's 'four agendas' framework. The significant differences between the two strategies are examined and explained, revealing the need for IT strategic planning methodologies to include a framework to measure business alignment.

Keywords: alignment; business; information technology; strategy

Introduction: technology in higher education

This case study presents an examination of the process of creating an information technology (IT) strategy for a small Australian university, and the university's attempt to align IT to the business needs of the institution. The IT strategy was developed over a 3-month period, commencing in March 2014, using a strategic planning methodology from an IT research and advisory firm.

The mass adoption of internet-enabled technologies and mobile devices has revolutionised both the way industries go about their business and their consumers' expectations. These devices are powered by constantly improving communications and computing infrastructure, which in turn is enabled by Moore's law, an observation about the rate of growth in semiconductor capacity (doubling approximately every two years). Moore's law has become a metaphor for rapid rates of growth/change everywhere (Schaller, 1997, p. 58). Changing technologies, services and student/consumer expectations represent both an opportunity and a threat for universities everywhere, including Australian universities.

In their report on the effects of digital disruption on the Australian economy, Deloitte (2013) categorised education in the 'Long Fuse, Big Bang' quadrant, predicting a 15–50 per cent change in metrics over a period of 4–10 years, noting government regulation as a possible inhibitor of the rate of change. While the impact of digital disruption is large, the longer lead times give institutions a chance to (re)position themselves to take advantage of the new opportunities presented by the changing technology landscape. In a report on the future of Australian universities, Ernst and Young (2012) identified the most significant challenges currently facing higher education, including technology, and highlighted three business models likely to emerge in response to these challenges: *streamlined status-quo, niche dominator* and *transformer*.

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In this case study, the university strategic plan is firmly located in the *niche dominator* business model, targeting specific areas of strength and focusing research and teaching operations in these areas. One of the key features of this business model is streamlining the back office and reducing the cost of operations. This is clearly the type of strategic objective that IT could contribute to if it is properly aligned to business strategies.

The business/IT alignment imperative

Alignment with the strategies and activities of the business has been widely recognised as one of the top issues or problems in IT strategy. In their early attempt to define a method of measuring this alignment, Reich and Benbasat (1996) refer to prior examples of this, dating back to the mid-1980s, around the time when the first lower cost personal computers (cheaper in comparison to mainframe computers) were appearing in organisations in any numbers. Referring to the concept as a 'linkage' rather than as an alignment, they defined it as 'the degree to which the IT mission, objectives, and plans, support and are supported by the business mission, objectives, and plans' (Reich & Benbasat, 1996, p. 56).

Alignment is a priority for higher education IT, the first three items on the EDUCAUSE top 10 issues of 2014 also focus on business/IT alignment (Grajek, 2014). Similarly, the Council of Australian University Directors of IT (CAUDIT) also focuses on providing business solutions and alignment (CAUDIT, 2014). Table 1 shows how each body describes and ranks these priorities.

Creating better alignment of business and IT strategies to provide valuable solutions to the business are goals that dominate the IT profession in all industries, but different types of organisations present different challenges for those responsible for making this happen. The challenges facing a publicly listed, for-profit manufacturing company will be very different from those faced by a university with multiple missions and broad-ranging social responsibilities inherent in the public good aspects of higher education. In itself, IT culture

Table 1. Comparison of relative priorities of IT/business alignment.

	Business solutions	Business/IT alignment
EDUCAUSE	Priority 1 Improving student outcomes through an institutional approach that strategically leverages technology	Priority 2 Establishing a partnership between IT leadership and institutional leadership to develop a collective understanding of what information technology can deliver Priority 3 Assisting faculty with the instructional integration of information technology
CAUDIT	Priority 1 Supporting and enabling teaching and learning Priority 2 Supporting and enabling research	Priority 6 Establishing a partnership between IT leadership and institutional leadership to develop a collective understanding of what information technology can deliver

Source: CAUDIT (2014) and Grajek (2014).

Table 2. Comparison of differences between Academic and IT culture.

IT culture	Academic culture
Emergent profession	Mature profession
Change agent	Values tradition and scepticism
Institutional focus	Disciplinary focus
Focus on production	Focus on innovation
Quest for consensus and alignment	Quest for truth
Organisational anonymity	Reputation driven
Activities/services rendered transparent	Labyrinthine processes and practices
Speed is a valued objective	Speed may be antithetical to quality
Short life cycle for products, services, outcomes and underlying technology	Work products designed to endure for years, decades or even centuries
Uses a highly idiosyncratic and technical language to communicate intentions	Uses a *different* highly idiosyncratic and technical language to communicate expectations

Source: Albrecht et al. (2004, p. 129).

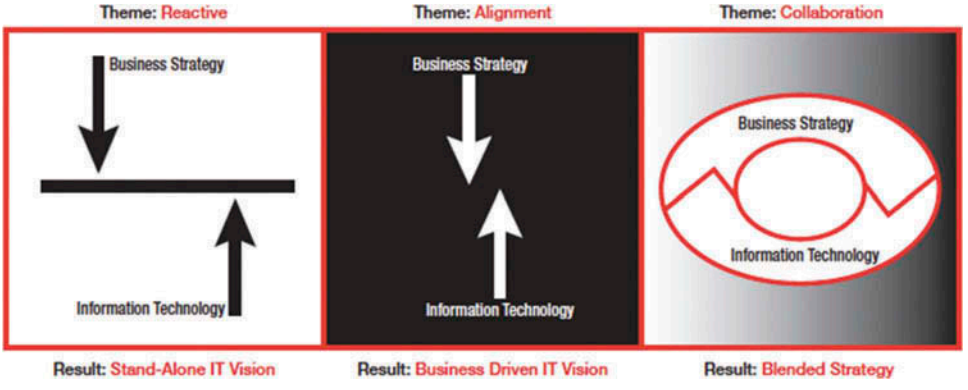

Figure 1. Types of business/IT alignment (Albrecht et al., 2004, p. 129).

differs from academic culture. Drawing from Albrecht et al. (2004), Table 2 highlights some of the potential difficulties.

With this level of potential gap between the business and IT, the process of developing the strategy is important. Figure 1 from Albrecht et al. (2004) shows three methods of developing IT strategies, each demonstrating a different level of engagement with the business.

The case study

In this case study, the approach to IT strategy development followed by the university was an Alignment model. In this model, the business strategy is developed first, and then business and IT leaders collaborate to produce an IT strategy to support it (Albrecht et al., 2004). In the case study, the delay between creation of the business and IT strategic plans was nearly 2 years. Overall, the IT strategic planning approach undertaken was based on the Gartner IT strategic planning model shown in Figure 2 (Schulte, 2015).

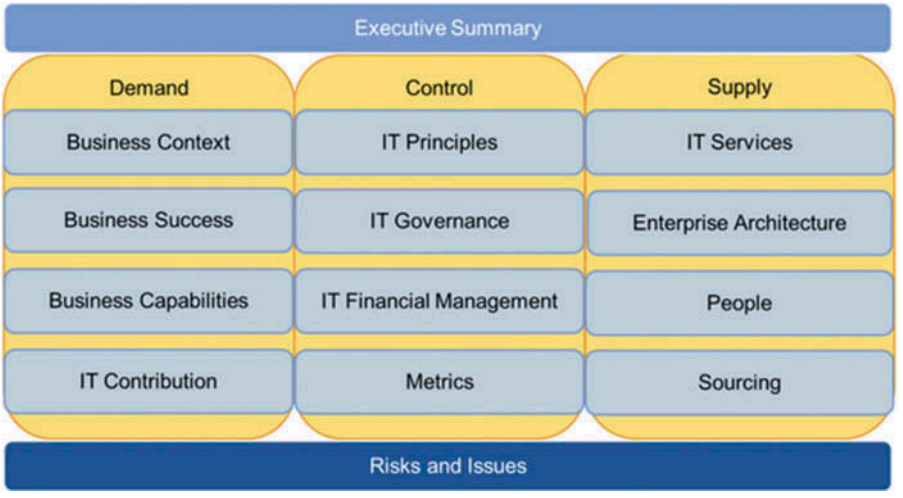

Figure 2. Gartner IT strategic planning model (Schulte, 2015).

In the case study, the university's nomenclature for these phases was

1. IT strategic vision (Demand)
2. IT strategic plan (Control)
3. Implementation (Supply)

This paper focuses on the first of these phases, the IT strategic vision. The primary assumption underlying this phase is that it will provide the connection and alignment of IT to business strategy. Consultation in this phase involved interviewing senior executive staff and workshop groups with senior academic and professional staff (deans and directors) from several stakeholder communities: teaching staff, research staff, professional staff, IT managers and students. The results of this consultation were compiled into an IT strategic vision document that was presented to, and ratified by, the institution's senior leadership.

Methodology and analysis

In order to analyse the degree of business/IT alignment, Sharrock's 'four management agendas' framework (2012) was applied. Produced from a thematic analysis of Australian university strategies, this presents a higher education industry-specific set of institutional priorities, as shown in Table 3.

The Sharrock model has been used to help assess the degree of alignment between the university strategic plan and the IT strategic vision. Using these definitions, business priorities are categorised into one of the four 'management agendas' to allow valid comparisons to be made. In order to determine the business priorities for IT, the strategic plan was examined for explicit or implied mentions of IT, or concepts related to IT capability. The results are shown in Table 4.

The case study university's strategic plan itself contained very few direct references to IT, but several indirect references were present. For example, new forms of student engagement could reasonably be assumed to include new technologies to

Table 3. Four domains of university management.

Professional community (PC) Shared aims, values and expertise; working with high levels of commitment, trust and group affinity	*Creative engagement (CE)* Pursuing learning, discovery and innovation; involved in outreach and activism; and seeking external partners to support creative projects
System integrity (SI) Ensuring coherent processes to support governance, planning, academic standards, quality assurance, financial probity, efficiency and effectiveness, and reporting	*Sustainable enterprise (SE)* Attuned to trends in external market conditions and government policy and funding settings; with well-defined priorities, and an explicit game plan to acquire and invest the resources needed to build the capability to sustain academic programmes

Source: Sharrock (2012).

Table 4. Case study university priorities and enabling resources.

University priorities	Enabling resources
Learning and teaching	New forms of student engagement Modernisation of IT
Research	Research collaboration
Engagement	Modernisation of IT
Internationalisation	High-quality IT
Enabling services	Modern systems High-quality IT as a tool for research, teaching and professional operations

supplement pedagogies. After duplication of items was taken into account, the four business priorities for IT remained. These are shown as rows in Table 5, which summarises the analysis. Initial analysis of the data using the four management agendas framework assigned each business priority to a single management agenda. Examination of these results gave an incomplete picture of the agendas being supported, as every priority clearly had impacts on other agendas. As a result, secondary categories were added to the analysis. Management agendas in the secondary categories are considered to be agendas that are supported *as a consequence* of activity in the primary agenda.

Table 5. Strategic plan management agendas for IT.

Priority	Primary agenda	Secondary agenda
New forms of student engagement	CE	PC and SE
Research collaboration tools	CE	PC and SE
Modernised systems and infrastructure	SI	SE, CE and PC
High-quality IT tools as an enabler of teaching, research and professional operations	SE	SI, CE and PC

Notes: CE, creative engagement; SE, sustainable enterprise; SI, system integrity; PC, professional community.

New forms of student engagement

IT is an implied enabler of this priority. The main drivers of new forms of student engagement will have to be people and pedagogy, that is, the professional community (PC) agenda, where shared values across staff groups support the student experience. While new technology and software tools will undoubtedly play a supporting role in new types of student engagement, so too will other factors, such as the physical facilities, as learning spaces are transformed from traditional tutorial rooms and lecture theatres to collaborative group learning spaces. The small, implied, IT component of this priority consists of communication/collaboration software and fits primarily in the creative engagement (CE) agenda, with its focus on learning, engagement and innovation. The wider PC agenda of this priority is enabled by the CE dimension and is thus considered a secondary agenda for IT.

Research collaboration tools

While internationalisation is described as the key element of the overall strategy, research is the common theme that binds all the plan's priorities together. The research section of the strategic plan focuses on collaboration amongst researchers, particularly from other international institutions. The implied priority for IT is to provide the technology required to support this collaboration. Collaboration amongst researchers is clearly located in the PC domain; however, the technology required to support it is primarily part of the CE agenda, pursuing learning, discovery and innovation, and external collaboration. The PC agenda is supported as a consequence of the CE agenda and thus is classified as a secondary agenda.

Modernised systems and infrastructure

Unlike the previous two priorities, modernised systems and infrastructure are direct references to almost everything that is typically considered to be IT. There are enough potential arguments around the semantics of what could be considered to constitute a 'modern' system or piece of infrastructure to fill another dissertation. For the purposes of this discussion, 'modern' systems and infrastructure are assumed to be systems and equipment that are supported by vendors and have a future product development roadmap, or those that are actively developed and supported in-house.

Modernised systems and infrastructure primarily support a system integrity (SI) agenda, keeping the technology platform current, secure and fit-for-purpose.

High-quality IT tools as an enabler of teaching, research and professional operations

The final strategic priority is IT as an enabler of the business operations of the university, an objective consistent with those identified earlier by EDUCAUSE and CAUDIT. Where the previous priority was concerned with establishing a stable, modern, operating platform, this priority is about providing the tools and technologies to meet the current and emerging business needs of every facet of the university's operations including its 'back office' operations such as finance and human resource management.

Management agendas supported by IT

In order to rank the agendas, a simple weighted approach was applied. An overall total value of 1 was given to both primary and secondary instances, with 0.5 allocated to each category. A value per instance within categories was determined by dividing 0.5 by the number of instances in each category. Four primary instances meant a value of 0.125 per instance, and 10 secondary instances meant a value of 0.05 per instance. The decimal values have been converted to percentages and the scores are summed to determine the final priority ranking. The results of the analysis of the management agendas are presented below. The raw count of instances is shown first, with the percentage figure presented afterwards in parentheses (Table 6).

The final priority order of business agendas is thus:

1. Creative engagement
2. Sustainable enterprise
3. Professional community
4. System integrity

In order to be aligned to the business requirements laid out in the strategic plan, the IT strategic vision should support the management agendas in the same order.

IT strategic vision management agendas: stakeholder feedback

In the case study, the IT strategic vision was constructed from feedback gathered in workshops and meetings held with senior executive and stakeholder groups representing the business areas of the university. Workshops were delivered in a common format, focusing on the four questions in the demand section of the Gartner model. The results of the workshops are summarised in Table 7, with the management agenda domain shown in parentheses.

A final, unofficial question was asked in each of the workshops: 'what sort of relationship do you want to have with IT, a client/service provider relationship, or a business partner relationship?' The answer to this question was unanimously 'business partner'. This observation is significant as it implies close alignment and collaboration between business areas and IT on high-value business priorities. An answer of 'client/service provider' would have indicated the type of relationship where IT only provided

Table 6. Mapping of primary and secondary attributes.

Professional community (PC)	*Creative engagement (CE)*
Primary 0 (0 per cent)	Primary 2 (25 per cent)
Secondary 4 (20 per cent)	Secondary 2 (10 per cent)
Total score: 20 per cent	Total score 35 per cent
System integrity (SI)	*Sustainable enterprise (SE)*
Primary 1 (12.5 per cent)	Primary 1 (12.5 per cent)
Secondary 1 (5 per cent)	Secondary 3 (15 per cent)
Total score 17.5 per cent	Total score 27.5 per cent

Table 7. IT strategic vision themes and management agendas.

Question 1: University environment and context – common themes

- There is increasing competition from other universities as well as TAFE and private providers (SE)
- Educational technologies are changing the ways in which students engage with learning (CE)
- Compliance and regulatory requirements have significant impacts on the ability to undertake one's job (SI)

Question 2: 'Business success' – common themes

- Highest possible level of student engagement (CE)
- Good management information which is used to underpin continuous improvement in services (SE)
- Fast, reliable, integrated systems (SI)
- Documented, streamlined and automated processes (SI)
- Up-to-date website – information required by both staff and students (SI)
- Easy-to-use search function on the website (SI)

Question 3: 'Business capabilities' – common themes

- Integrated systems (SI)
- 24/7 support and response capability (SI)
- Clearly mapped and understood business processes (SI)
- Collaboration tools (CE/PC)
- Mobile, self-service, interactive services for students and staff (CE)
- Facilitate the use of 'bring your own device' (CE)

Question 4: IT contribution to 'business success' – common themes

- Enabling technologies that 'makes the job easier' (SE)
- Increased hours of support, ideally 24/7 (SI)
- A learning and teaching environment that is 'geographically independent' (CE)
- Technology to provide trustworthy and reliable data as information to support decision-making (SI)
- Learning analytics required to support student recruitment and target 'at risk' students (SI)
- Better integration of systems (SI)

Source: Case study university, 2014.

business areas with commodity-type services, for example, desktop support or access to the internet.

University environment and context

The first question attempted to contextualise the business requirements of IT by situating the university within its operating environment. As expected, the themes identified by the workshops represented a spread of management agendas.

The most notable omission from the themes that emerged from this question was the international dimension. It can be implied in 'competition from other universities', but when

the stated theme of the strategic plan is internationalisation, it is reasonable to assume that an international connection should be explicit. Research is similarly missing-in-action; the absence of these two areas is a common feature of the themes identified in the workshops.

Business success

This question identified what factors (not necessarily relating to IT) business areas need to succeed. The themes identified by this question show a heavy bias towards the SI agenda.

Business capabilities

Business capabilities build from the business success question. The answers here should be a list of the capabilities that the business believes it needs to facilitate business success. Once again, these are not necessarily related to IT. The themes identified by this question do not quite reflect this intent. For example, while clearly mapped and understood business processes are a (highly) desirable requirement for business success, they are the product of a business process analysis and design capability, rather than the capability itself. Similarly, integrated systems are either the output of a systems integration capability or the prerequisite for an enterprise-wide business intelligence capability.

During the workshops, this question consistently required the facilitator to either repeat it or attempt to clarify it. The Gartner model is intended to be applicable to IT operations across all industries, yet the results of this question clearly show that in the case of this question it did not quite translate into a higher education context.

IT contribution to 'business success'

The final question sought to identify where the business sees that IT can make a contribution to its operations. When attempting to achieve alignment of business and IT strategies, this is the most important question. The themes identified by this question were predominantly in the sustainable enterprise (SE) and SI domains. On a raw count of the number of themes identified, the SE agenda is dominant; however, 'Learning analytics required to support student recruitment and target "at risk" students' is effectively a student-specific subset of 'Technology to provide trustworthy and reliable data as information to support decision-making', making the SE and SI count effectively even.

Where the themes in previous questions contained obvious omissions from the strategic plan, themes in this question are more reflective of it. Student engagement (CE) and enabling technologies (SE) feature in both, indicating at least a partial alignment between the strategic plan and the IT strategic vision.

Overall, the themes identified in the IT strategic vision workshops showed a significant bias towards items located in the SI management agenda. While not wholly out of step with the IT priorities from the strategic plan, which contained a very broad SI component on modernising systems and infrastructure, the bias towards the SI agenda for IT indicates a lack of alignment between the two strategies.

Analysing the strategic misalignment

Question 4 (IT contribution to 'business success') is the key question when examining this misalignment. Using the same framework used to analyse IT in the strategic plan, the

Table 8. Analysis of question 4: IT contribution to 'business success'.

Workshop theme	Primary agenda	Secondary agenda
Enabling technologies that 'makes the job easier'	SE	SI, CE and PC
Increased hours of support, ideally 24/7	SI	SE, CE and PC
A learning and teaching environment that is 'geographically independent'	CE	PC and SE
Technology to provide trustworthy and reliable data as information to support decision-making	SI	SE
Learning analytics required to support student recruitment and target 'at risk' students	SI	SE
Better integration of systems	SI	SE, CE and PC

themes identified by question 4 have been categorised with both primary and secondary management agendas. The results are presented in Table 8.

Enabling technologies that make the job easier

This theme is a direct analogue of the strategic plan priority; 'high-quality IT tools as an enabler of teaching, research and professional operations'. Primarily based in the SE management agenda, enabling tools and technologies that increase the efficiency of business area operations will free up resources, making them available for other value-adding activities. Having such a broad primary agenda, this theme will consequentially support all the other management agendas.

Increased hours of support, ideally 24/7

This theme is very firmly based in the SI management agenda, supporting system access, accuracy and security. Equally important in this theme is the support of the people side of the equation, providing expert assistance and advice for business areas in the use of the systems. By primarily supporting the SI agenda, this item services all other agendas in a secondary capacity.

Learning and teaching environment that is geographically independent

Geographically independent learning and teaching environments are a subset of the 'new forms of student engagement' strategic plan priority. High-quality, geographically independent, online learning environments are part of the CE management agenda, providing the toolset on which new learning materials, optimised for online delivery, can be built. The PC and SE agendas are secondarily served by this theme. Providing the tools that support the further development of a PC of scholars and students helps maintain the relevance and viability of the institution.

Technology to provide trustworthy and reliable data as information to support decision-making

The technology and reporting capability to support management decision-making is located in the SI management agenda. The technology presentation layer will be the most visible aspect of this theme to the business, whether it be via simple tabular reports in spread sheets or advanced data visualisations. However, the majority of the work required to deliver this capability actually lies in integrating the underlying systems and defining common definitions of the data to report on. This theme is tightly tied to the SE secondary agenda, which uses the reporting information output of this theme as its key input.

Learning analytics required to support student recruitment and target 'at risk' students

This theme is a student-specific subset of the previous theme and has been classified in the same way.

Better integration of systems

The final IT strategic vision workshop theme also supports the SI management agenda. As noted in the previous two themes, it is a foundation requirement for good management reporting. Being broader than the previous two themes, however, this theme provides secondary support for all the other management agendas. While reliable management information underpins SE decision-making, better systems integration also supports the PC and CE agendas by bringing disparate systems together and allowing their information to be used in new and different ways to connect staff, students and the community.

Management agendas supported by themes identified in the IT strategic planning workshops

In order to make a valid comparison, the same weighting regime used in the strategic plan analysis above was applied; the results are presented in Table 9.

Final comparison of agendas

The final results of the comparison between the management agendas defined in the strategic plan and those identified in the IT strategic vision workshops are given in Table 10.

Table 9. Summary of IT strategic plan themes.

Professional community (PC)	*Creative engagement (CE)*
Primary 0 (0 per cent)	Primary 1 (8 per cent)
Secondary 4 (15 per cent)	Secondary 3 (12 per cent)
Total score: 15 per cent	Total score 20 per cent
System integrity (SI)	*Sustainable enterprise (SE)*
Primary 4 (33 per cent)	Primary 1 (8 per cent)
Secondary 1 (4 per cent)	Secondary 5 (20 per cent)
Total score 37 per cent	Total score 28 per cent

Table 10. Final comparison of agendas.

Agendas	University strategic plan (per cent)	IT strategic vision workshops (per cent)
Creative engagement	35	20
Sustainable enterprise	27.5	28
Professional community	20	15
System integrity	17.5	37

The most striking difference between the two is the relative position of the SI agenda. While SI was the least important agenda item for the strategic plan, participants in the IT strategic planning workshops identified it as their number one agenda and relegated the strategic plan's top agenda for IT, CE, to third place, at less than half the value previously assigned to it. The results were not completely dissonant, however; both exercises rated the SE agenda second, giving it almost exactly the same weighted score.

This emphasis on the SI agenda clearly stood out. While the answer to the final, unofficial, workshop question on the type of relationship business areas wanted with IT was always 'business partner', the focus of the answers given throughout the workshop had all felt heavily biased towards the type of commodity services that typify the lowest end of the SI agenda, desktop support, printing and bigger staff email inboxes for example. The ranking of SI as the top agenda supports this observation.

Creation of the IT strategic vision

The final steps in the methodology were the creation of the IT strategic vision and its approval by the case study university's senior executive group. The analysis of the results, however, shows a misalignment of the priorities in the strategic plan and IT strategic vision. The question this raises is, what (if anything) went wrong with the *process* that was supposed to provide business and IT alignment?

Findings on the process of alignment

In the development of the IT strategic vision, alignment with the university's business objectives was intended to occur as a result of a number of key factors in the creation process:

1. Use of the Gartner IT strategic planning framework
2. Wide and representative stakeholder engagement
3. A senior executive check point at the end of each phase

Each of these elements was present in the IT strategic vision creation process, and yet the analysis of management agendas shows that the end result was not fully aligned: the result of the workshops gave top priority to a different management agenda than the strategic plan. The question is why?

IT strategic planning framework

The Gartner IT strategic planning framework is a generic framework designed to be applied to many industries. Using it in a higher education institution is no more or less valid than using it in a retail, mining or professional services organisation. The practical experience of the workshops revealed that there was a level of disconnect between the intent of, and responses to, some of the questions. This can be attributed to a level of confusion over the terminology, particularly around the capabilities question (question 3). Ultimately, however, the results of that question were still consistent with the results of the entire workshop.

The only gap in framework in the case study context is its over-reliance on the senior executive 'checkpoint' to assure alignment. In this case, it would have been useful had the model also included a method with which to quantify alignment.

Stakeholder engagement

The assumption that engaging with a wide range of senior stakeholders from every level of the business would result in an IT strategic vision aligned with the business strategy was the foundation of the planning process. The stakeholders contributing to the IT strategic vision workshops were all senior staff. As such they could reasonably be expected to be aligning their business requirements with those of the strategic plan and yet this did not seem to fully happen.

The difference between the business agendas identified in the strategic plan and the IT strategic vision workshops can also be explained in part by timing. The strategic plan was constructed and released in 2012. Over the two years between the release of strategic plan and the IT strategic vision workshops, the university undertook a number of other significant business initiatives, including

- a curriculum review and implementation of new degree structures;
- creation of a research strategy;
- restructure of the Academy, halving the number of schools;
- recruitment of all new school deans;
- review of transnational offerings;
- restructure of professional services, halving the number of directorates.

As well as these major changes, some others that are significant to the strategic business/IT alignment did not occur, most notably the creation of strategies to support two core priorities of the strategic plan, in Teaching & Learning and in Engagement.

Rather than representing a misalignment between business and IT strategies, the results of the workshop show IT aligning with an evolving business strategy. In describing the Learning School of strategy, Mintzberg et al. note that strategies 'emerge as people … come to learn about a situation as well as their organization's capability of dealing with it' (Mintzberg, Ahlstrand, & Lampel, 1998, p. 176). As a result of the implementation of the strategic plan, the major initiatives listed above were undertaken at what can only be described as breakneck speed for a university.

All the major areas of institutional operations, both academic and professional, have been affected by these changes, with most areas being impacted by multiple

simultaneous initiatives. The results of such an ambitious programme conducted over such optimistic timeframes inevitably include a period of lag as policies, procedures and systems catch up to changing business processes and requirements. In this type of environment, the SI management agenda is clearly needed. While the core of the strategic plan remains the same, the results of the IT strategic vision workshops are reflective of an evolution of the business strategy as it adapts to the implementation of the overall strategic plan. The workshops provided the vehicle to identify changing strategic business needs and translate them into a series of management priority agendas for IT that differed from the original university strategic plan, but were still ultimately supportive of it.

Senior executive 'checkpoint'

The Gartner model makes allowances for a potential misalignment between the business strategy in the form of a senior executive 'checkpoint' on completion of the first stage. In the absence of an alignment analysis framework, any determination on the alignment of the IT strategic vision with the university's strategic plan was a subjective judgement. The process of creating the vision did not include any formal measures of alignment or any framework for comparing them. Had a structured analysis been performed, it would have highlighted the discrepancy between the results of the IT strategic vision workshops and the strategic plan identified above.

Ultimately the identification of an apparent misalignment between business and IT strategies does not have to make any difference to the overall IT strategy. The senior executive accepted the IT strategic vision despite the apparent misalignment of the results of the workshops with the strategic plan. It does, however, encourage an extra level of investigation into the reasons for the difference, which will, if nothing else, result in a better understanding of the business needs the IT strategy is attempting to align to, and the IT capability that may inform 'emergent' strategic options.

Conclusion

The objective of this paper was to examine the process of attempting to align a university IT strategy with the institution's business strategy, using one university's experience as a case study. The *process* the university followed to produce an IT strategy aligned with the needs of the business can ultimately be considered successful, despite producing an IT strategic vision based on a different set of management agendas from those set out in the strategic plan. Starting from a position where the strategic plan primarily supported a CE agenda, the process of gathering requirements through workshops revealed that what the business areas actually required was in the SI agenda. This change in management agendas was the result of an 'emergent' evolution of the business strategy, where order and control is now required after a series of institution-wide initiatives changing many of the fundamental operating parameters.

The process could be improved with the addition of an explicit framework or more sophisticated way to measure business/IT alignment. This would provide a solid, quantifiable measure that could be used as a cross-check before taking the completed IT strategic vision to the senior executive group. If, as in this case study, workshops produce a contrasting view of priorities, these can either be re-examined or explained before

presenting the final output. Either scenario will result in a better understanding of IT capabilities and their potentially closer alignment with business needs.

Disclosure statement

No potential conflict of interest was reported by the author.

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