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Developing education businesses for global markets: the ITEV model and the dilemmas it raises.

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Abstract

This paper presents the outcomes of an institutional research project targeting high growth, revenue generating courses, conducted over four years at a prestigious, research intensive, Australian university. The Innovation and Technologies in Education Ventures (iTEV) project was established to evaluate the benefits of technology enhanced learning and to provide evidence of return on investment. The first phase of the iTEV project evaluated several pilot studies generated through an academic led process resourced on an innovation grant model. This phase revealed the infrastructure issues facing a traditional campus-based institution in managing online course development and distribution for distance education students. It failed, however, to establish a business model for revenue generation. Following this first phase iTEV implemented a managed investment model, working with Deans to sponsor courses that were subjected to a three phased business development approach. The University provided funds which were directed towards project management and instructional design. Two models were introduced: one regarded the course as a partnership with The University having shared equity and risking its return within academic led processes; the second model regarded the course as an independent business. The University was the investor providing a fully repayable loan on terms agreed with the Dean and monitored against performance. Outcomes from these projects were captured in case studies that demonstrated the diversity of models in use and compared financial data. This paper presents the iTEV project and discusses the strategic and operational implications for a research intensive university. It also raises the many professional dilemmas faced by academic and management staff in adopting business practices in a university environment.

Introduction

The University of Sydney is the oldest university in Australia and the largest of those whose primary focus is research. Other Australian universities – particularly some with a stronger emphasis on teaching – have been faster to adopt flexible and distance education and to develop online courses. The increased demand for programs that minimise attendance requirements has hitherto not been a high priority for research intensive universities. External pressures, including diminishing government funding, a competitive interest in post graduate professionals and a “fight for excellence “ in attracting top research funds, staff and students, has forced the Tier One universities to explore a wider market (Curren 2004, Marginson, 2006). The wider market of emerging consumer learners has characteristics and expectations however that challenge the traditional, campus based and predominantly undergraduate research university.

There are many opportunities – across all of the University’s faculties – to develop post-graduate courses that are highly competitive in markets much larger than their traditional base. Many departments and schools within the seventeen faculties of The University of Sydney are now looking to the development of new courses that can be delivered in a more flexible way.

There are significant risks associated with the development of programs in a globally competitive, commercial environment. The risks are not only financial, they extend across all areas of accomplishment that the University considers important – research excellence, quality learning and teaching, and authentic community engagement.

High growth programs, designed to scale and for distribution worldwide, have up to now been the domain of specialist or dual mode distance education institutions with system support and infrastructure designed to match. Now, with the availability of ICT tools on the desktop and increased confidence in new pedagogical approaches supporting distributed learning environments, there is a growing cottage industry within universities (Tiffin and Rajasingham, 2003). Individual academics and small clusters at the School/Department level are able to develop distributed programs with very little regard at the start for sustainability in the face of success, ie attracting large numbers of students.

With atomistic development and cottage industry systems, the risks escalate as student numbers grow. Operational and financial risks include: the quality of administrative and advisory services; ensuring regular supply and access to learning materials and information; selecting and briefing adjunct faculty; standardising assessment; and, ensuring a robust and reliable support system for the learning environment. These operations add up to a significant overhead. In most research intensive universities a shared services approach, which would enable a more rational and effective development pathway for the development of high growth programs, requires significant business process re-engineering. Implementing shared services where these have previously been silo operations is a long term solution. For universities caught up in the development of distributed eLearning programs within the cottage industry model, management solutions are needed in the short term to manage risks which are more immediately threatening than the operational and financial ones mentioned.

For a research intensive university, coursework growth has the potential to undermine research productivity. Research intensive universities must sustain their research rankings, at all costs. Research suffers when academic staff find themselves peddling coursework in popular areas and not able to hand over the administrative support and teaching burden as student numbers grow. University researchers are now in open competition for funding with industry based researchers who do not carry a teaching load.

Quality learning and teaching is now also a public process and, with increased privatisation, of interest to those who pay real dollars for the experience – the learners, employers, parents, and governments. Teaching performance, based on quality audits and student satisfaction surveys, is now tied to funding in Australia. It is therefore no surprise that risk taking initiatives, which in education means addressing the needs of emerging markets and designing innovative programs, are best avoided if they are going to pose threats to the brand. Some universities do not have a choice when it comes to building tuition revenue by developing new products, but for a university like Sydney which is relatively wealthy, the financial imperative is not a strong incentive at the individual and department level.

The University of Sydney now receives less than 20% of its revenue from Government. Like all Universities in the fully publicly funded era it was able to run its operations with a huge dependency on the goodwill and pro bono contribution of practicing clinicians, industry specialists and alumni. The growing dependence on commercial activities, particularly in the learning and teaching arena, is now confusing this relationship. Accountability, transparency and the ability to cost activities more accurately is actually forcing program costs to rise in order to distribute income more equitably. This poses a major risk to research intensive universities where authentic community engagement is fundamental if they are to remain relevant, responsive to professional bodies and continue to benefit from the partnerships and alliances that support them.

The challenge then, is to minimise risks in programs that are clearly needed, and designed to be, revenue generating.

Using business discipline to minimise risks

The University of Sydney initiated an institutional research project that has resulted in the development of an approach to the management of post-graduate course development that regards an academic course as a small business venture. The business discipline implements management processes that serve to minimise risks in this cottage industry phase of development. The Innovation and Technology in Education Ventures (iTEV) project was established in 2001. It was located within the Office of the Vice-Chancellor and was funded through the Vice-Chancellor's strategic development fund. Applying an action research cycle iTEV has had three distinct phases of development:

iTEV Phase One: evaluating innovative delivery technologies

The Innovation and Technologies in Education Ventures (iTEV) project was established to evaluate the benefits of technology enhanced learning and to provide evidence of return on investment. The first phase of the iTEV project evaluated several pilot studies generated through an academic led process resourced on an innovation grant model. Programs in Law, Project Management and Gerontology were supported in the development of online delivery, multi media resources and business development. The three programs were presented to an international panel and evaluated for impact. (www.usyd.edu.au/itev). The evaluation supported the high quality and innovative design of the pilots. The pilots revealed the infrastructure issues facing a traditional campus-based institution in managing online course development and distribution for distance education students. The investment in the pilots was generous and not replicable across the University generally. We needed to find a generic process that would establish a business model for revenue generation.

iTEV Phase Two: implementing a managed investment model for postgraduate programs regarded as small businesses

iTEV implemented a managed investment model, working with Deans to sponsor courses that were subjected to a phased business development approach:

- Venture definition or Feasibility study.

A project is approved by the iTEV steering committee, the iTEV team then evaluates the opportunity and conducts a risk assessment of the faculty's capacity, commitment and appreciation of the demand for the program. This phase scopes the business and supports a preliminary business concept with data on the characteristics of demand aligned with the design of the products and services. This phase provides the Dean and the Steering Committee with the confidence to proceed with the venture. It is fully funded by the iTEV fund.

- Business case.

A standard business case development is followed to quantify demand, map the competitive environment and propose the business model, with financial analysis. It includes a resource and implementation plan. The Dean undertakes to finance the business case whether or not the business then proceeds. If it proceeds, the cost of the business case can be rolled into the loan required.

- Project startup.

The decision to start the venture requires immediate funds to provide business development support to the academic team such as business and project management, instructional design and marketing. The start up funds enable the venture to get beyond break even point with the surplus capacity needed for ongoing management support.

Two models were introduced with the funding program: one regarded the course as a partnership with The University having shared equity and risking its return within academic led processes. This model was applied in the Faculty of Veterinary Science with the Master in Veterinary Public Health Management and the Faculty of Engineering with the Project Management Graduate Program. The second model regarded the course as an independent business with The University as the investor providing a fully repayable loan on terms agreed with the dean and monitored against performance. This was applied in the Faculty of Health Sciences on the Master in Sexual Health Program and the Faculty of Medicine for the Sydney Professional Master of Medicine Program.

Outcomes from these projects were captured in case studies that demonstrated the diversity of models in use and compared financial data. Two other cases were included that had received limited investment from iTEV. The Master in Pain Management had benefited from an iTEV project evaluating its business model and the Master in International Education that participated as a case study without previous iTEV investment. iTEV funding support in these cases had varied from \$20,000 to \$250,000.

The internal report on these cases revealed that it was not possible to compare the financial development costs due to variable factors relating to nature of discipline, design parameters and delivery constraints. Fixed and variable development costs showed a wide variation and reflected the inability of the financial systems at the time to isolate costs to specific programs. Failing the availability of local data, iTEV adapted a cash flow analysis tool developed at the University of British Columbia by the DET. The tool predicted a return on investment of 40.9% over a six year period for a hypothetical program at The University of Sydney if the enrolment growth was 30 in Year 1, 60 in years 2 & 3, and 90 in years 4 & 5. It included \$1000 spent on marketing for each new enrolment.

The cases revealed some critical success factors that have helped to guide the third phase of iTEV's development:

Programs need a venture team supporting but independent of the academic specialists including:

- An academic entrepreneur and research leader as sponsor
 - Professional project and business management including marketing and sales competency with an emphasis on learner/customer relationship management
 - Instructional design competency in designs that scale, are transnational and include systematic support for stakeholders in the whole value chain
 - A governance or board structure to monitor performance to achieve strong growth projections
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iTEV Phase Three: Strategic business development for faculties

The project is now in its third phase, designed to integrate the outcomes within the work of the faculties generally and to disestablish iTEV as a research and development unit. The University has recently restructured and devolved responsibility for business development and entrepreneurial investment to the Deans. The seventeen faculties will operate in about seven clusters but with a much greater horizontal integration to enable interdisciplinary program development. The business processes and tools that have been developed by iTEV along with reports of projects and ventures have been made accessible to The University community. iTEV projects are now at the faculty level, working with Deans directly on business development strategies that articulate continuing professional education and postgraduate coursework with the dual aim of revenue generation and the identification of high quality personnel for research training.

A “course as a business” model

The first test of any business is not the maximisation of profit but the achievement of sufficient profit to cover the risks of economic activity and thus to avoid loss. Drucker (1973).

The remainder of this paper describes the approach of regarding a course as a small business. As mentioned earlier, this approach has proven to be useful in helping to identify, quantify and reduce financial risk. It will also help to ameliorate risks in other areas. The most important of those may be to minimise the possibility of damage to, and increase the likelihood of enhancing, the reputation of The University – the “brand name” – that underpins the scale of this opportunity.

From a business perspective, The University’s reputation translates into a “brand name” that is a very valuable intangible asset. It provides the opportunity for courses that can be marketed at premium prices, and/or can be distributed to a much wider audience in the Asia-Pacific region, and beyond. The area of postgraduate education is among the most important for the realisation of this strategy.

Value chain analysis is a useful tool used to define the key components of elearning and distance education businesses (Standing Stones, Elloumi, 2004). By applying value chain analysis to education program development it is possible to map the interdependencies of the business and student support systems with the technology infrastructure and academic course development processes. This mapping of the total learning environment has proven very useful in presenting the business perspective to academics immersed in their subject.

The “course as a business” model has both strategic and operational implications for the management of courses. Some limit, and some may enhance, its usefulness. Before considering the implications, it is important to define what is meant by the management of a business.

The functions of business management

The functions of management for a business are planning, organisation and control. This simple idea was proposed by Peter Drucker in 1955 (Drucker 1955). Though management theory has developed a lot since then, it remains an elegant and powerful concept. It has particular relevance to managing small and medium size organisations.

It suggests a continuing process in which “organisation” – meaning all the activities of the business – is planned in advance and controlled after the event. Control systems enable managers to refine their planning of future activities. It is an iterative process.

For a start-up business – such as a new course – proper planning must precede the commencement of activities, including the development of the product.

Universities are traditionally good at the organisational aspects of developing and delivering courses. New courses are often developed by one or more academics and are subject to stringent oversight as to their academic content and rigour. Their delivery, by the author or others, is subject to strict quality assurance processes to ensure their efficacy for students and to protect the reputation of the institution.

Formal plans however, are not often seen (though individuals might rigorously plan their work. Formal control systems are even more foreign. Budgets are not usually prepared or published at this level within the institution, even for costs and resources that are easily measurable. Performance is rarely measured against what was expected before the course started, apart from student assessments and some elements of quality assurance programs. Student numbers are often the main measure of success.

Strategic Implications

Some strategic considerations arise from regarding a course as a small business.

Business Strategy and Autonomy

An important tenet of business management theory is that strategic planning should apply to a “strategic business unit”. The underlying principle is that plans should be prepared by those who have the responsibility to do so, and operations should be managed and controlled by those who have the authority to do so.

A “course” is not autonomous. It is subject to the imperatives of the larger organisation in which it operates – the school, the faculty, the university. It is dependent upon the policies and procedures of those higher organisational units, and in many cases also on services they provide.

Another consideration, particularly within the rich tradition of The University of Sydney, is that the academic staff needed to develop and deliver the course – akin to the employees of a small business – in fact enjoy considerably more autonomy than most employees. Their cooperation is more voluntary than compellable.

These represent serious limitations to the general applicability of the model. iTEV has had mixed success in applying its novel approach, as might be expected.

Professional Management

To be successfully managed as a business, a course needs professional managers. Given the diversity of the activities involved in developing and delivering a post-graduate course in e-learning, a management team will usually be needed. Apart from an academic “program” manager, it may also involve a professional “project” manager to perform and/or oversee activities such as market research, marketing, recruitment, delivering student services, instructional design, managing the technology interface and administration.

Both the program and project managers, if not the whole team, should be involved in planning the whole project. They should ensure proper reporting (control) systems are established to enable performance to be measured against plans, and plans to be updated, at least annually.

iTEV has had some success in recruiting and funding professional people to work in development teams. They have included qualified project managers, instructional designers and administrative staff. In some cases they have greatly enhanced the work of the academics, and in one case enabled a course to be offered within six months of the start of its development.

Up-Front Investment

New courses are traditionally designed by an academic specialist in a particular field who then often delivers the course, at least initially. The costs of course development are therefore largely made up of academic salaries. They are not necessarily regarded as “costs” to the course, and do not involve any additional cash expenditure.

Developing flexible learning courses and offering them to larger, possibly remote audiences involves many additional activities. Many involve direct costs, and many have to be paid far in advance of any fee income. They can amount to hundreds of thousands of dollars (not including academic salaries).

The model is useful in regarding this as similar to investment in a new business. It is likely to benefit from proper planning and proper financial control, however those funds are provided. The model may also allow notional measures of “return on investment” to be estimated for those who provide the funds. That could include estimating return to the faculty that pays the academic salaries for development (assuming that they in fact receive a proportion of the resulting fee income).

Where fee income from students is split between different parts of the institution – as is usually the case, at least notionally – the model may allow estimates to be made of the differences in returns on investment to different parts, eg to university administration, college, faculty, school, department or even the “return” of the course itself.

Operational Implications and Dilemmas

Regarding a course as a small business has many implications for the way its activities are conducted and managed.

Academics as Entrepreneurs

An interesting analogy is to regard the academic who “drives” the development of a new course as similar to the entrepreneur who starts a small business. Those, such as venture capital managers, who invest in start-up businesses have developed strategies to manage their investments. Strategies include establishing a “board of directors”, instituting proper planning and reporting systems, providing business advice, and ensuring adequate administrative support. They often, after the start-up phase, use their influence to support or replace the entrepreneur with professional managers experienced in managing a high-growth business.

iTEV was involved in reviewing the performance of one course developed by a very capable, entrepreneurial academic. His reputation, drive and dedication produced strong growth in student numbers, despite being in a very competitive market. But he needed to do everything. As the course grew quickly, elements of its management began to falter, and with that so did student satisfaction. iTEV's review resulted in the appointment of an independent manager for the whole course. Its growth and success have resumed.

Returns and Risks

Professional management of that course has demonstrated another similarity with high-growth small businesses. A well-managed course, once established, can have relatively low variable costs, and therefore high "profit" and return on investment.

These are similar characteristics to the high growth, high gross margin businesses favoured by venture capitalists. If high returns can be demonstrated in particular instances, it may be possible to attract development (investment) funds from other sources. The idea of forming joint ventures may be extendable from those that are based on academic relations to those that are purely commercial. An important parallel is that they may be high risk ventures, meaning that returns may vary significantly – from high to negative, or even loss of the investment funds.

Students as customers

The model would regard students as customers. They may pay significantly higher fees than in the past, and demand a commensurately high level of service. Some services normally provided by a central facility within the university may just not be good enough. They must be either enhanced or replaced at the local level, or even by the management team. iTEV cases have provided support staff to ensure that prospective students do not have to "wait in line", or even attend campus, to enrol in the course.

Some roles may be reversed to serve both academic and commercial purposes. Academic staff may play an important "marketing" role. Prospective students (customers) – making what for them is an important investment decision – often seek direct contact with the academic manager to gain assurance that they will be exposed to research and scholarship of international standing.

Competition and marketing

The course operates in a competitive market. This dictates the need for a marketing function in the management team. In an institution like The University of Sydney, whose faculties are accustomed to attracting only the best and brightest, marketing is foreign. It is regarded by some as contrary to the ethos of the institution, especially a prestigious, research-based institution.

The functions of marketing – including the concept of understanding the market by conducting market research – can enhance the commercial success of a course. They may have advantages in other directions as well, such as enhancing the reputation of the institution – or perhaps a particular discipline – within a profession or community.

In one of iTEV's case studies, a strong marketing plan resulted in much higher initial enrolments than were originally anticipated. Its successful launch made good impressions in industry and government circles. The following year, the faculty abandoned the "business planning" approach. Commercial team members left and were not replaced. The "project" was then managed by one administrative assistant, a couple of days a week. New enrolments plummeted.

Instructional Design

The role of the instructional designer is critical to the success of flexible learning courses. It is another role not always used in campus-based courses, and may be regarded as rather "commercial". It is so in the sense that the instructional designer, apart from enhancing the presentation of a particular unit of study, also ensures a consistent "look and feel" of all units of study that make up the course. The role is as important to flexible course development as are many commercial roles, eg industrial design, in commercial product development.

One of iTEV's clients was unwilling to use an instructional designer, especially in the rush to develop the initial core units for presentation in the first semester of a new course. The development team was also influenced in its planning of the whole course to use a core subject developed elsewhere within the faculty. The author of that course was unwilling to consider changing her preferred face-to-face format into a more flexible one. The anomalous situation of having overseas students enrolled in a course that included one core unit only deliverable on campus was resolved but emphasised the need to take a program, rather than a single unit of study, approach.

Developments in learning theory and the liberation of new approaches to program design enabled by elearning technologies make a team approach to program development essential.

Conclusion

The iTEV project has asserted the benefits of business management practices in the development of profitable education programs. It has done this within a research intensive university where individual autonomy and random acts of innovation thrive in a cottage industry approach to program development. A shared services model will enable improved management controls across the university but requires considerable business process re-engineering that will take some time to achieve. Until then, the risk management afforded by adopting a model that regards education program development as akin to running a small business assists in protecting the university brand. Research excellence, quality teaching and learning, and authentic community engagement dominate the university's strategic goals. Developing education businesses for global markets is a high risk opportunity and very carefully managed in this University's context, and at all costs.

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