Entrepreneurial partnerships

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Abstract

This paper presents findings from a review of existing national and international research on partnerships, regional development and innovation. This research is framed within the context of the need for entrepreneurial linkages between VET and industry. The research found that the range of industry involvement strategies is limited only by the needs of the business partners in the skill ecosystem, and market opportunities for the VET provider. As the broadening VET involvement in industry partnerships is occurring in direct response to industry requests, the continuous complexity and change experienced by industry is reflected in a widening and changing role for VET. Complex partnerships can present challenges for VET organisations without mechanisms for recognising effort and resources deployed across organisational boundaries. Consequently, current funding and data collection arrangements have difficulty capturing information that reflects versatile activities such as collaboration building. The research also found that the current system still primarily rewards prescribed outcomes in an increasingly complex and changing work environment. Thus whilst the shifting role of the VET professional is directly responding to industry need, it is not receiving appropriate recognition in data collection and funding systems. Information in this paper complements the information discussed during the AVETRA session Entrepreneurial partnerships and policy implications.

Introduction

In recognition of the importance of skill ecosystems/ complex partnerships and workforce development to economic development and TAFE capacity building, TAFE NSW International Centre for VET Teaching and Learning (ICVET) undertook research into complex industry/ VET partnerships. ICVET's focus was on research that resulted in the development of several case studies that document local and international models of complex partnerships between industry and VET organisations. ICVET research informed the development of a Capability Development Strategy for customisation by TAFE NSW staff. The aim of the strategy is to provide TAFE NSW with the skills to integrate learning and employment solutions to support regional economic, social, cultural, and environmental development and sustainability.

This paper seeks to outline the key findings of this work.

Research method

The ICVET research was initiated to examine complex partnerships that had not previously been identified through national projects and to further examine factors leading to successful partnerships.

The research involved a multi-method approach in three:

Phase 1 primarily involved a desktop review of existing national and international research in the areas of VET and industry partnerships, regional development and industry clusters.

Phase 2 involved drawing on information available through the Skill Ecosystem National Project[1], which identified a range of innovative intervention strategies that support complex industry/ VET organisation partnerships.

Phase 3 of the research lead to the development of case studies of the practices and experiences of local and international VET partnerships that were using innovative intervention strategies. The case studies documented success factors and how opportunities for partnerships/ innovations were conceived and negotiated. Interviews with participants in the local case studies provided additional information on how readily the VET sector is able to introduce complex partnerships.

- In the Shearer training case study strong links have been established with the Shearing Contractors Association and other industry groups to the extent that existing worker traineeships have gone from zero to 270 in 12-18 months. Key partnerships have been formed and supported by effective flexible delivery, leading to cultural change in a conservative industry.
- In the Sheep Cooperative Research Centre case study, a staff member from the Primary Industries Curriculum Centre of TAFE NSW is seconded to the Australian Sheep Industry CRC (Sheep CRC). The partnership between TAFE NSW and Sheep CRC is leading to the development of resources to support the delivery of national competencies in sheep and wool by RTOs, better integration between VET and industry funded extension programs; support of a national industry education program covering VET and schools; and potential for real links between VET and universities by working with common course content.
- The Riverina Institute case study describes industry and TAFE NSW-Riverina Institute working together to establish a Food and Wine Technology Centre to cater for the needs of a highly competitive regional industry. The centre provides flexible customised training and services for the local food and wine industry. The industry is changing and future pressures from rapid expansion and global exports/imports mean the partnership now has an opportunity to move to a new level of partner commitment.
- In this case study TAFE NSW Southern Sydney Institute entered a unique partnership with Sutherland Shire Council and the University of Wollongong (UOW) to develop and jointly oversee a business development precinct called Sutherland Shire Hub for Economic Development (SSHED). SSHED has just won Australian Business Incubator of the Year for innovation in business

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[1] The goal of the Australian Government skill ecosystem project is to reposition policy on work and skills as a key component of economic and regional development initiatives. The project is testing and developing skill ecosystems, a new and dynamic framework for skills policy. The website is a http://www.skillecosystem.net/ .

development. 76 new jobs have been created and five companies now have over $1 million turnovers. This case study has the ingredients of a skill ecosystem and can be described as in the early stages.

- This case study describes how South Western Sydney Institute customised the TAFE NSW Graduate Certificate in Management of Innovation for a group of local SMEs. TAFE teachers and industry representatives undertook the course together, working collaboratively in groups on workplace projects. The success of these workplace projects has strengthened teacher confidence in working with industry as well as providing the space for innovation to occur amongst teachers and local industry. This case study could become a skill ecosystem and is a potential model that could be rolled out to seed meaningful TAFE and industry partnerships.

The case studies document five different approaches to skill ecosystems. Each case study is at a different stage in the lifecycle of a skill ecosystem, meaning it may not yet be a fully developed skill ecosystem. Nevertheless each has achieved considerable successful outcomes for the VET organisation and industry alike. More detail on the case studies and exemplars can be accessed at
http://www.icvet.tafensw.edu.au/research/partnership_entrepeneurship.htm

Findings and discussion

The research suggests that the majority of industry-training provider partnerships are based on a service provider model where the RTO provides customised or onsite training for a company to meet an existing skill need. Most of this service provision addresses the current training needs of the organisation and may lead to additional training. Essentially these partnerships are narrow in application and based on an external organisation delivering a specified product, with contact and influence quarantined by the training at hand. However, skill ecosystems and complex partnerships are systems with interdependencies and collective interests creating opportunities for VET organisations to draw on all their expertise and education networks. The ICVET case studies are examples of partnerships that are skill ecosystems or on the way to becoming skill ecosystems.

Skill ecosystems are communities of interrelated and interacting organisations working as a coherent entity to increase opportunities for sustainability, innovation and growth. The Skill Ecosystem National Project identifies skill ecosystems as concentrations of workforce skills and knowledge in an industry or a region. A skill ecosystem can also be thought of as a complex partnership. It takes time to develop successful skill ecosystems, to build trust and openness amongst partners.

Skill ecosystems look to effect change on the supply side (training, labour supply and recruitment practices available for people entering or in companies within the ecosystem) and the demand side (the work processes, technology and competitiveness of companies in the ecosystem). Given the evidence of significant skill wastage (Loble 2005) and employers continuing to highlight skill shortages, more attention needs to be applied to the demand side of the skill equation. In particular, some commentators call for increased

focus on the nature and quality of the jobs offered by employers and the extent to which the skills of workers are actually being deployed and developed in those jobs" (Hall & Lansbury 2006). The methods in which jobs are created and skills are deployed across organisations and industry are critical for ensuring a consolidation of workforce capability.

When addressing capacity building possibilities for industry and VET organisations in complex partnerships, workforce development[2] is integral to the success of the partnership, but on its own provides only half the solution. The work processes, technology and business strategies of companies in the ecosystem all underpin the viability of the companies and their likelihood of continued economic development. Restructuring work processes, technology and supply chains helps develop competitive practices which inturn increase sustainability of the organisations involved, including VET organisations. Overseas experience suggests that demand side changes are needed to successfully sustain economic growth this is an area that may be new to some in the VET sector (Conway & Loker 1999).

Traditionally VET service provision generally occurs after an organisation has commenced on a particular strategy, rather than being an economic enabler by being involved in the innovation or problem definition process. VET involvement earlier in the development of technology or strategy rollout can afford VET a valuable role in the diffusion of innovation and capacity development for both VET and industry. Skill ecosystems / complex partnerships offer a vehicle for two key functions; economic and workforce development. Economic sustainability is as important to partner companies as it is to VET organisations and its goals of addressing industry needs and building new capacity.

The types of complex partnerships identified through the ICVET case studies are:

- a national industry concentration;
- a sectoral grouping; or
- regional cluster and all incorporate their supply chains.

Examples of the different forms of skill ecosystems include the UK Automotive Alliance case study which employs a national industry model with workforce development undertaken by the industry cluster initiated Automotive Academy. The Automotive Academy is organised as a central hub with regional spokes. On the other hand Riverina Wine and Food Technology Centre and the New York Garment Industry Development Corporation take a sectoral approach. While the SSHED and the Shearer Training case studies implement a regional approach. The New York Garment Industry Development Corporation case study examines reshaping labour markets, quality improvement and addressing skill and labour shortages, which were all part of the solution to demand driven problems.

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[2] Sutton (2001) argues that human resource management, recruiting job seekers, job matching, mentoring and addressing issues of retention are all part of workforce development.

The roles of VET organisations and their staff are changing given the changing environments in which they operate. Many of the methodologies now widely used in the VET sector such as communities of practice, self directed learning, action learning, work based learning and problem based learning, for example, all reflect changes in work across all industry where an emphasis is placed on individual responsibility for work and learning alongside the rise of teamwork and networking (Schienstock 2004). The roles adopted by training organisations vary across skill ecosystems and may involve more than one training organisation. The New York Garment Industry Development Corporation is a deliverer of training programs, a process and technology consultant and a supply chain broker, the Automotive Academy acts as a training broker and provides a training quality assurance role. The Sheep CRC VET Program Leader interprets CRC innovations to develop skill training for delivery by a range of VET providers. The Riverina Wine and Food Technology Centre provides training and testing facilities for industry innovations.

Some demand driven roles that VET organisations have adopted in the case studies and in the research literature include:

- Specialised work based training;
- Recruiting and placement;
- Workforce portals (covering teacher and student skills);
- Bringing buyers and sellers together;
- Providing access to facilities (business accelerators/ testing laboratories);
- Business development services;
- Hosting business seminars and local trade shows; and
- Marketing and lobbying.

The range of potential involvement strategies is limited only by the needs of the business partners in the skill ecosystem and market opportunities for the VET provider. The broadening of VET involvement in industry partnerships is occurring as a direct response to industry requests and shows the complexity of the VET marketplace. The continuous change experienced by industry is reflected in a widening and changing role for VET.

The New York Garment Industry Development Corporation (GIDC) has helped many firms make their operations more efficient and also has linked firms to new markets and sources of revenue. By helping to upgrade the quality of the workforce, while at the same time providing services that improve the overall operation of businesses, GIDC has become a valued actor in New York City's garment industry (Conway & Loker 1999).

Schienstock (2004) notes that renewal approaches

> "need to include a focus on innovation and learning as a strategic goal, intelligent use of modern ICT, development of decentralised organisation forms, establishment of a trust based business culture and improvement of human resources. But improving human resources cannot increase the learning capacity

of companies significantly if business structures do not become more reflexive."(p: 25)

This approach is also recognised by the Skill Ecosystem National Project which acknowledges the possibility of a holistic approach beyond workforce development in the 'VET as innovation partner' type of skill ecosystem.

Supporting complex partnerships that seek to effect holistic interventions require business development and VET coordination. Interdepartmental funding and support are most likely needed to support a truly responsive VET sector. Whilst interagency cooperation is happening in regional areas and in isolated projects, more work needs to be undertaken to see how this can happen more strategically across VET and business/ regional development agencies.

VET practitioners working closely with industry find their roles changing to support the new directions and services required by industry. During interviews for the case studies, TAFE practitioners noted that their role was changing to involve more quality assurance of workplace training, more resource development for specific workplaces, more mentoring of workplace supervisors and perhaps not surprisingly, more administration. Teachers also noticed that companies were requesting less complete qualifications and requiring training for smaller groups in areas that did not always involve technical skills. Teachers were using more sophisticated analytical and negotiation skills to identify realistic career pathways for a sector or when negotiating roles and responsibilities for partnerships.

New and incumbent workers require specialist or context specific skills developed through immersion in the workplace and through customised training. Defining industry skill needs is becoming more complex as skill shortages, skill gaps and vacancies become harder to define partly due to changing patterns of work. Specialisation in skill ecosystems is likely to create the demand for clusters of competencies and vocational streaming rather than occupationally based national qualification pathways. Skill ecosystems

> "stem from common economic interests and needs while occupational clusters arise through common skill sets. Occupational clusters cut across many industry clusters and the workforces of any given industry includes many occupational clusters. The uniqueness of [skill ecosystems and] industry clusters is context; the uniqueness of occupational clusters is content" (Rosenfeld et al 2003; p7)

The key question VET organisations will need to ask is "what are the unique features of this workplace in this skill ecosystem that provides competitive advantage?", "what are the changing content needs of this vocational stream?", and "how are we as an RTO going to involve ourselves in the priorities of this workplace".

Whilst these challenges are a key issue for VET organisations, the research suggests that attitudinal changes are occurring amongst teachers involved in the skill ecosystem case

studies. Teachers have become more involved in their particular industry, entering competitions and supporting workplace innovations, thus increasing the perception of professionalism amongst them and industry and raising the profile of the teachers. Interviewees mentioned that teachers not involved in the project were becoming interested in the work the project teachers were doing and therefore were starting to look around for opportunities to participate in similar projects.

As noted earlier, many of the competitive pressures facing business are complex and require multiple solutions rather than one off interventions. Companies are moving to compete less on price and more on value, particularly as more production moves offshore where low wages keep costs low. The movement away from taylorist management and broader fordist systems sees post-fordist labour practices of flexible specialization, 'just-in-time production' and outsourcing as the focus of many businesses (Dubois et al 2002, Schienstock 2004)). Consequently, the interrelationship of supply chains that exist in skill ecosystems increases the complexity and the specifics of the business /industry context and thus the challenge for RTOs.

The skills required for collaborative partnerships are not necessarily new for VET practitioners. Industry consultation and networking have been key planks in VET policy for many years. However, one difference is the need for long term thinking and planning on industry and community partnerships that go beyond traditional funding periods. Another difference between the skill ecosystem and traditional VET delivery strategies is that the benefit of close cross faculty collaboration to facilitate dynamic collaborative partnerships requires open internal systems which are often absent in contemporary VET organisations.

Cross facility involvement can present challenges to VET organisations and networks that have no mechanisms for recognising effort and resources that are deployed across organisational boundaries. Finding teachers in other facilities that have a solid understanding of the skill ecosystem's specialisation and context is an important consideration. Given the feature of specialisation in skill ecosystems and complex partnerships, cross facility staff will require an understanding of the skills context to maintain partner trust and provide effective training. A deeper and comprehensive understanding of specialist contexts will evolve through these ecosystem partnerships as all collaborate in problem and solution identification. This creates an added demand on VET teachers to quickly develop a deep understanding of specific contexts.

Research commissioned by the Business Council of Australia and the Dusseldorp Skills Forum predicts that the number of new entrants into Australia's labour force is expected to slump to 24,000 a year by 2040 – compared to 190,000 in 2002-03 (Access Economics, 2005). Existing workers often require training to cover skill gaps not necessarily for up skilling purposes, taking the emphasis off hierarchical occupationally based career paths. The numbers of companies requesting existing worker training is already sizable, and with the aging population, will continue to grow in importance. Some of the training in the case studies was for existing workers. Training for existing workers tends to be informal, just in time, technology or product specific, and can be

immediately put into practice. This creates expectations within industry for similar delivery approaches. Collaborative partnerships can enable VET practitioners to develop training much earlier in a product or process development cycle. The challenge of delivering short just in time training is an ongoing issue for the public VET sector.

Current funding and data collection arrangements have difficulty capturing information that reflects versatile activities such as collaboration building activities. The current system rewards prescribed outcomes, one size fits all (with some customisation) in an increasingly complex and changing work environment. Data collection of this kind is important for accountability purposes and for providing readily understood information to the general population. As a taylorist model for the mass 'production' of training the funding and data collection system reinforces the paradigm of large companies who require standardised occupational skills with one best method for performing particular tasks.

The current data and funding system emphasises national qualification outcomes that may not be required by companies involved in skill ecosystems. Current realities however see companies drawing on two formerly opposed logics, one of deskilled routinised low discretionary jobs and the other of skilled autonomous high discretionary jobs (Buchanan, 2005). New work organisation models highlight the complex realities of competition, VET data collection systems need to be expanded to capture demand side issues. Currently there is little recognition of time and resources spent developing relationships, negotiating roles and services and administration of workplace training. The shifting role of the VET professional is in direct response to industry need, yet the effort is not receiving any recognition in data collection and funding systems. An added bonus of broadening data collection systems to reflect business realities may result in a paradigm shift within the VET system as people naturally focus on their key performance areas.

Conclusions

Meeting industry requirements involves in most cases, delivering national Training Package outcomes. However, as stated above, changing business complexity, innovation and competitive realities means effort needs to be more targeted and focused on the specific workplace context and its needs. Skill ecosystems pose several challenges for the Australian VET system. Global business development shifts are creating emergent challenges regardless of the implementation of skill ecosystems. More companies are looking for holistic services, which require greater sophistication in the solutions offered. Driving the impetus for new VET delivery models is a necessity for precise workforce development strategies and accurate planning through inter-government coordination to underpin economic development strategies. Skill ecosystems offer VET organisations multiple and changing roles in workforce development with opportunities for partnerships across: facilities, government departments, VET organisations, higher education and business.

Institutional arrangements have a significant impact on innovation. VET organisations are not immune to the pressures facing industry. The need to be flexible in structure and service /product roles is as important to the success of VET as it is to the survival of industry. Skill ecosystems are useful when the two key functions of economic and workforce development are pursued. Economic development and capacity building are just as important to business as they are to the VET sector.

As more teachers respond to demand driven industry engagement rather than attempting to engage industry in government interventions, such as traineeships, institutional arrangements are going to become more critical to the success and proliferation of industry partnerships. This underpins the need to research and identify the critical processes that support innovative delivery strategies and lead to complex partnerships such as skill ecosystems and industry clusters.

The conference session will discuss successful factors of skill ecosystems and complex partnerships.

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