IBSA Enterprise Summit

Parliament House, Canberra, June 22, 2009

Society for Knowledge Economics

By Mark Runnalls and Dr. Christina Boedker

Enterprise Innovation

Introduction

This paper sets out some perspectives on innovation, and the ways in which leadership, culture and management within organisations contribute to innovation and productivity.

Why should enterprise innovation capability be important to us during the most severe global financial crisis for seventy years? We believe it to be important for a number of reasons

First, the crisis indicates that change is needed and as such allows, indeed calls for the consideration of alternative ways of doing things. As Barack Obama replied when asked did the difficulties facing him in his new role as President daunt him: “It is only in times of great crisis that great things can be achieved.”

Second, it is clear that economies that reorganise themselves and seek new opportunities for growth will be the ones to recover fastest from the crisis. More importantly, we must remember that this global recession is nothing more than a (big) blip in an otherwise persistent set of trends, challenges and opportunities that Australia and our global economy and society face.

If we are to address the opportunities that lie in emerging knowledge based industries and increasing international competition, then the need to improve productivity and innovation performance are significant challenges and opportunities that demand change in the way our workplaces are led and managed.

Defining Innovation and the Current State in Australia

Innovation and Business Skills Australia[1] has defined innovation as “the conscious exploitation of ideas leading to a new or modified product, process or service which adds economic and/or social value.”

The Society for Knowledge Economics[2] in conjunction with the Business Council of Australia defines innovation as “the application of knowledge to create additional value and wealth.”

The Australian Bureau of Statistics shows that innovation is about three things, including the delivery of new or significantly improved: 1) goods and services; 2) operational processes; and/or 3) organisational processes.

[1] IBSA (2008), Innovation Inside.
[2] Business Council of Australia- Society for Knowledge Economics (2006), New Pathways to Prosperity, Australia

According to the recent White Paper from Senator Kim Carr 'Powering Ideas'[3], in the last eight years Australia has slipped from 5th to 19th in the World Economic Forum's Global Competitiveness Index.

The Australian Bureau of Statistics' 2006-07 survey of innovation in Australia finds that of the 708,000 businesses surveyed only 260,544 (or 36.8%) are "active innovators"[4].

The participation rates for innovation within business do appear to rise as organisations get bigger: 30.6% of businesses with 0-4 people innovate; 44.7% of businesses with 5-19 people; 55.7 of businesses with 19-200 people and finally; 66.1% of businesses with over 200 people.

The World Economic Forum's Global Competitiveness Report (2008-09) indicates that Australia lags behind in terms of business management and innovation capabilities at the workplace level. For example, in the 'capacity for innovation' category, Australia ranks number 20 whilst Germany comes in at number 1, with the Scandinavian countries following close thereafter. Furthermore, on the 'sophistication of company operations and strategy', Australia ranks number 26 (the USA is number 1). A number of reasons for this are suggested including culture and leadership styles that can inhibit and/or enable knowledge sharing and innovation from taking place.

A recent report from Gallup Consulting in February 2009 suggests that around 80% of people within workforces in Australian workplaces are not "engaged at work"[5]. The study goes on to say this has a substantial impact on national productivity.

Research by the World Bank (2007) found that Australia fared poorly in providing venture capital for risky projects suggesting an attitude of risk avoidance may be an underlying impediment to increasing business investments.[6]

Yet, amongst this alarming picture there are reasons for optimism. For example, consider why does Australia have one of the highest rates of entrepreneurship in the world, yet one of the lowest rates of innovation within companies?[7] What are the raw materials within the human capital of Australia that we can build on to create a better future? And what might be some of the barriers inside business that need to be removed for innovation to lift?

This paper sets out to briefly examine the link between innovation and productivity at the workplace level. It also points out international trends and developments aimed at lifting enterprise innovation rates and hence productivity. Finally, we put forward a potential agenda for improving enterprise innovation in Australia.

---

[3] Federal Department of Innovation, Industry, Science and Research (May 2009), Powering Ideas: An Innovation Agenda for the 21st Century, Canberra.
[4] Australian Bureau of Statistics, Innovation in Australian Business, 2006-07 (cat. no. 8158.0), 22nd August 2008.
[5] Australian Financial Review 10th February 2009.
[6] World Bank (2007), Knowledge Assessment Methodology.
[7] http://www.gemconsortium.org/

1. Proof of the Link between Innovation Performance and Leadership and Management Capability.

The significance of management skills associated with managing innovation *at the workplace level* is increasingly recognised.

An OECD study (2004) found that creating a knowledge sharing culture and alliances for acquiring knowledge were becoming more widespread internationally, and that a clear association could be observed between such practices and innovation and productivity, though not one which is well researched or understood.

A recent Economist Intelligence Unit (2006) world-wide survey of executives and managers found that knowledge and innovation management (in areas such as marketing and product development) was the greatest source of anticipated productivity gains over the next 15 years.

The findings from the IBSA overseas study tour in 2008[8] concluded that enterprise innovation requires:

- Leadership that encourages, recognises and rewards innovation at all levels in the enterprise;
- A conscious desire for innovation to support growth and profitability;
- A culture that embraces diversity, tolerance, talent and technology;
- The foresight to make change that is relevant to companies and individuals, and useful for the world.

These findings are supported by a short Australian opinion survey by Open Forum (2008), which found that enablers of innovation includes technology adoption, a can-do attitude, higher education standards, networking and sociability. Also identified were a number of barriers to innovation, including social and political conservatism, risk-averse thinking, short-termism in business thinking, a lack of systemic support for innovation and a lack of leadership and communication in business.

McKinsey (2006) found that management capability (i.e. the quality of management and management processes) is more important to how a company is managed than business lines, government policy, or geography.[9]

Arundel et al (2007)[10] conducted a large cross-country survey on innovation in Europe and suggest that the way workplaces are organised can influence innovation performance. They identified four types of work organisation:

- Discretionary Learning Organisation – an adhocracy which can be typified by high levels of learning, and task complexity with much responsibility allocated to the employee;

[8] IBSA (2008) Innovation Inside.

[9] Stephen J. Dorgan, John J. Dowdy, and Thomas M. Rippin (2006), The link between management and productivity, McKinsey Quarterly, Feb. 2006.

[10] Arundel et al, (2007), How Europe's economies learn: a comparison of work organisation and innovation mode for the EU 15. Industrial and Corporate Change, Volume 16, Number 6, pp. 1175–1210, November 12, 2007.

- Lean Production – a European adaptation of Japanese methods typified by low levels of employee discretion in work design;
- Taylorist – a hierarchical, low employee discretion, low levels of learning and problem solving; and
- Traditional – with simple management structures.

Innovation rates are highest in the Learning Organisation, which encourages and facilitates interaction between people with diverse skills and competencies. By delegating responsibility for problem solving to a wide range of people, ideas can be transformed into new products and processes and new competencies developed.

Black and Lynch (2003) found that firms in the USA which re-engineered their workplaces to incorporate high performance practices experienced higher productivity. Those practices include providing information technology to non-managers, profit sharing, and employee participation in workplace problem solving (particularly so in a unionised workplace).

Leadership is key to an organization's innovation performance. In a series of publications, Professor Dechamps[11] outlines the contours of innovation leadership and finds that innovation requires a specific form of leadership. Innovation leaders are those executives *who stimulate, steer, sustain and promote the innovation agenda in their firm*. Different innovation strategies may require different styles of leadership since styles of innovation leadership may differ between 'fuzzy front-end' and 'speedy back-end' of the process. The front-end of innovation focuses on exploring opportunities, generating and selecting great ideas relating to customer problems and turning them into attractive solutions. It requires a great deal of *organisational creativity*. The back-end of innovation, by contrast, must convert these concepts into winning new products or services and bring them to market as quickly and cost effectively as possible. It requires *organisational discipline*. Both ends involve complex cross-functional processes, but these processes are very different in nature and require very different styles of leadership.

Jassawalla and Sashittal (2002)[12] suggest that an innovation-oriented culture has the following guiding values, beliefs, and assumptions of participants:

- Taking initiative and exhibiting creativity and risk-taking are important and expected;
- All participants are capable of being trusted in a co-creative endeavour and are important, equal stakeholders;
- All participants (including leading customers, key suppliers, and members of other functional groups) are insiders and should be involved early in the product development process; and
- Organisational change is energising and refreshing. Change should be embraced rather than resisted.

[11] Deschamps, J-P, (2008), Innovation leaders : how senior executives stimulate, steer and sustain innovation San Francisco: Jossey-Bass. See also Deschamps, J-P. (2005), Different leadership skills for different innovation strategies, Strategy & Leadership, 5: 31-38, 2008.

[12] Jassawalla, A.R. and Sashittal, H.C. (2002), Cultures that support product-innovation processes, Academy of Management Executive 16(3): 42-54, 2002.

Jassawalla and Sashittal see collaboration as fundamental to the development of an innovative culture. Yet, they note the risk that collaboration can also stop staff from challenging the status quo thus inhibiting new thinking and innovation.

Furthermore, the Fujitsu Innovation Index (2007, p. 5) finds that almost a quarter (22%) of organisations in Australia believes that the key driver of innovation performance is an 'innovation culture'. More than half (54%) of the respondents said the chief method they would use to encourage staff to embrace an innovative culture is to establish open communication to boost and facilitate staff feedback. Yet, the report also points out that establishing an innovation culture is so much more than just open communication and a 'suggestion box' in the canteen. The largest innovation performance gap between Leaders / Progressives and Laggards is companies' ability and willingness not just to ask for ideas but to capture them and identify those with the greatest likelihood of success. Innovation quality control is best performed when a formal innovation governance framework is established to enable a structured innovation process.

The evidence appears to be clear and conclusive; there is a link between workplace practices, innovation and productivity in organisations. Specifically, there is much research to suggest that culture deserves mention alongside leadership and management in creating and enabling innovation.

2. International Trends and Developments Directed at Lifting Enterprise Innovation (specifically leadership and management capabilities)

In a recent, but as yet unreleased research report, by the Department of Education, Employment and Workplace Relations (prepared by the SKE), a number of overseas programs are identified that are being used to create what have become known as 'High Performing Workplaces'.

Those initiatives, in countries such as Ireland, Finland, Canada the UK and New Zealand, look to create uplift in national productivity through practical programmes designed to improve standards of leadership, management practices and culture in participating organisations.

These newer programs support a more informal approach to workplace transformation and learning by offering and running workplace development projects, providing access to informal learning networks, and by disseminating information and research on high performance management and work practices to the business community. Examples include:

- Ireland's National Workplace Strategy – Workplaces of the Future with a 11mn Euro budget per annum;
- Finland's Workplace Development Program with a 14.5mn Euro budget per annum;
- New Zealand's Workplace Productivity Programme with approximately $2mn in funding per annum;
- Canada's Workplace Skills Initiative (budget unknown); and

- UK's Department of Innovation, Universities and Sciences 'Train to Gain' programme with a 30mn GPB budget per annum.

Evidence from these overseas programmes suggests that focusing on the workplace as a key area to drive productivity improvements is both practical and effective. Such initiatives are being deployed in combination with more traditional interventions into lifting workplace performance including education and skills training.

3. Productivity Impacts of Enterprise Innovation

Innovation has been defined to include the improvement of organisational processes that create new value. Much research has been done to demonstrate the productivity impacts of such process improvement. These have also been used to support the business case for government programmes. A selection of these studies is reviewed here:

- Black and Lynch's (2003)[13] study, *What's Driving the New Economy?:The Benefits of Workplace Innovation*, found that workplace innovations and re-engineering efforts accounted for approximately 30 percent of output growth in US manufacturing over the period 1993-1996, or 89 percent of multifactor productivity.

- The UK Work Foundation (2003, 2005), *Cracking the Performance Code study,* found that the best managed 30% of UK companies achieved higher growth, sales per employee, profitability and exports. The study also found that increasing the performance of just 10% of companies in the bottom third to the average level would add GBP 2.5 Billion to UK GDP and 0.25% to trend growth;

- A London School of Economics / McKinsey (2007) study of *Managerial Practices and Productivity* across 16 countries found that "improving management practice is... associated with large increases in productivity and output. Across all the firms...a single point improvement in management practice score is associated with the same increase in output as a 25% increase in the labour force or a 65% increase in invested capital".[14]

- A study on behalf of the Irish Government *National Centre for Partnership and Performance* by Prof Floyd (2008) found that adoption of high performance work systems (such as strategic human resource management and others) was associated with a 15% increase in labour productivity, or EUR 44,000 per employee, equivalent to EUR 12 million per median company (270 employees). Good management practices were also associated with an 8% reduction in employee turnover, or the equivalent to retention of additional 2 employees per median company;

[13] Black, SE and Lynch, LM (2003), What,s Driving the New Economy?: The Benefits of Workplace Innovation, FRBSF Working Paper, 2003-23.
[14] It is worth noting that this study is being recreated in Australia at present, and will afford a benchmark view of Australian performance against other participants.

- The Watson Wyatt's study (2008/09), entitled *WorkUSA Survey,* deduced that when employees are highly engaged, their companies achieved 26% higher labour productivity, lower turnover and 13% higher returns to shareholders over a 5 year period. This supports earlier research that posits that organisations with strong cultures and aligned, engaged workers outperform those with weaker cultures.

4. An Agenda for Enterprise Innovation, including Key Focus Areas Going Forth

There is much to applaud in the recent 'Powering Ideas' Innovation White Paper, including the increase in funding for research and development and skills improvement. However, not everyone agrees that skills development and training is a panacea. As Watson (2008)[15] notes some Australian workers are *over-educated for their jobs and under-utilising their skills at work*. Examining the extent to which workers make use of their existing skills and abilities, his conclusion is that skills are underutilised in some sectors by up to 40%, with the average being around 10-15%.

This indicates that workplace environments and management and leadership capabilities may need to change to maximise the use of existing skills and ensure than the individual employee is given an opportunity to contribute to his/her fullest potential at work.

In a paper outlining policy options for Australian Innovation Policy Smith and West (2007) point to the example of the Australian wine sector:[16]

> "It is possible to innovate and to produce technologically leading products without being able to create the business capacities to appropriate the benefits of the innovation. The Australian wine sector is a good example. It has created leading products that are now largely owned by foreign multinationals as a result of failure to build the complementary assets that would underpin global business presences by domestic firms."

They go on to state that external factors and characteristics (such as the governance system, the financial system etc) are highly important, but leadership, ethical management and risk attitudes are also critical to workplace innovation and play a significant role in growing a successful organisation.

This supports the contention that focusing on supply side inputs (i.e. skills development) alone will not result in more innovative and productive organisations.

The Karpin Report[17] released in Australia in 1995 provided the most comprehensive insights into the way Australia prepares its managers for work

[15] Watson I. (2008), Skills in use labour market and workplace trends in skills use in Australia, Paper presented to Jobs Australia National Conference 2008, Brisbane.
[16] Smith K. and West J. (2007), Innovation Policy, Productivity, and the Reform Agenda in Australia: A Framework for Analysis, Australian Innovation Research Centre, University of Tasmania, Jan. 2007.

and leadership. It also presented policy recommendations and options based on the Task Force findings and may be worth revisiting to determine if its recommendations still hold true:

> "As the business environment changes, so do the skills and characteristics required of those employees who are best positioned to interpret and influence future changes; namely managers".

The 'Powering Ideas' White Paper states one of the main policy priorities is to increase the proportion of businesses engaged in innovation by 25% over the next decade. A key challenge is what initiatives, in addition to those described, should be undertaken by government and business to achieve those lofty ambitions?

The experience from overseas indicates that to increase innovation and productivity in workplaces more must be done to improve ways of leading, managing and organising inside Australian workplaces.

DEEWR, with assistance from the SKE, is considering and evaluating a range of possible policy recommendations moving forward, including:

- A National Human Capital or Workplace Performance Survey in Australia. The USA has in place a Federal Human Capital Survey, which measures national performance across four pillars, including Leadership and Knowledge Management; Results-Oriented Performance Culture; Talent Management; and Job Satisfaction;

- Building learning networks, for example through larger scale collaborative industry projects where diverse stakeholders (public and private companies, researchers, associations and others) jointly solve practical business problems and pilot new goods, service, strategies and processes to lift innovation activity and capability in the workplace;

- An assessment of management education programs to ensure that Australia's education system is focused on delivering the capability needs of managers in coming decades;

- Researching, assessing and communicating the usefulness and impacts of alternative leadership styles, management structures, organisational cultures and people management practices as drivers and/or impediments to innovation at the workplace level;

- Developing a National Work Plan addressing many of the above elements, incorporating a consultation process with key stakeholders across industry, government, academia etc and an action / implementation plan

[17] Karpin (1995) 'Renewing Australia's Managers to Meet the Challenges of the Asia-Pacific Century Industry Task Force on Leadership and Management Skills'

going forth.

Undoubtedly, the success of Australia's national innovation system will increasingly depend on the quality of leadership and management at the organisational level. As workplaces become more flexible and responsive in a changing competitive environment, the emphasis of economic reform will need to evolve to address the leadership, culture and management of Australian organisations, as well as the infrastructure and programs required to support the development of innovative capabilities within organisations.

The IBSA National Innovation Summit provides an opportunity to contribute to the development of an agenda that seeks to increase Australia's innovation participation rates which in turn increases national productivity, prosperity and sustainability. It is an opportunity to identify what needs to be done to build a better future, better companies, more engaged workforces, and more productive and innovation organisations with skilled and capable people. To identify what each one of us, both individually and as part of our respective organisations, can do. It is a chance to challenge orthodoxies and vested interests that have resulted in our present situation, - to be heard and make a contribution.

We look forward to hearing your views.