

Session 4: Workshop 5

Title: How can government best encourage collaboration?

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Chair: Professor Peter Katjavivi, Vice-Chancellor, University of Namibia

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Chair's Introduction

Collaboration between the private sector and universities is becoming increasingly important, and is a particularly crucial topic in African, Caribbean and Asian countries, where such links are not as well developed as in Northern Europe and in North America. Some of the reasons for this are:

- A preoccupation with fulfilling lecturing and publication requirements at the expense of the needs of the wider society
- Universities have lacked the aggression to market their expertise, both to the government and to the private sector
- African governments have tended to seek expertise from universities/governments outside the African region

To counter these problems, the University of Namibia has established partnerships with Namibia's private sector, designing courses to meet specific problems in the region; and a Multi-disciplinary Research and Consultancy Centre has been set up to pool the entire consultancy potential of the university community.

Dr Strangway's Presentation

Background - universities require new sources of funding

In the Canadian university context, universities are publicly funded through taxation, which has affected the universities' ability to raise funds easily from the private sector, as they are already deemed to be sufficiently funded. However, universities have begun to seek funding from new sources. A scheme at the University of British Columbia, where the government matched the university's fund-raising efforts dollar for dollar, raised C\$270m. Rather than acting as a replacement for existing university funding, money was raised that would otherwise be impossible to find; at British Columbia 55 endowment chairs were created, which would not have been possible without this partnership attitude toward fund raising. Key to such schemes working was that the government looked on the scheme as an investment (in partnership with the university). Similar schemes might, however, be difficult to initiate in an African context.

The need for sustained investment in Canadian universities

Specific problems in Canada have emphasised the urgency for increased funding for research and development in universities.

- Canada's expenditure on research and development ranks 15th in the list of OECD countries (1.4% of GDP). In the recent general election the federal government made a commitment to bring Canada into the top 5 of OECD countries. The government acknowledged the importance that the "knowledge economy" would play in Canada's future development.
- Canadian universities are losing 30,000 faculty members a year through retirement. The USA is also experiencing a similar problem with faculty retirement; and the increase in hiring in the USA is exacerbating Canada's recruitment problems. Canada is already disadvantaged compared to the USA, as legal requirements force the universities to try and seek Canadian citizens for academic posts. This shortfall in staffing is affecting research programmes within Canadian universities.
- Canadian universities have been unable to exploit intellectual property to its ultimate potential. Often companies would be bought up by American companies, and Canada would lose the benefit. How can small spin-off companies grow into large, stable and successful ones?

How the Canadian Foundation for Innovation (CFI) helps

In 1997 the CFI was set up, with the aim of strengthening the capability of Canadian universities, colleges, researchers and other non-profit organisations to carry out world-class research and technology development. The CFI's programmes seek to:

- Strengthen Canada's capacity for innovation
- Attract and retain highly skilled research personnel in Canada
- Promote networking and collaboration amongst researchers
- Maximise the utilisation of research infrastructures within Canadian institutions

The CFI is an independent organisation, with the federal government providing an initial investment on start-up. The CFI is now responsible for a budget of C\$3.15bn, raised in conjunction with institutions and funding partners. On average, the CFI contributes about 40% of a project's costs. The CFI has been involved in a diverse range of projects:

- The CFI has sponsored the Canadian wine industry institute research programme, contributing 40% of the costs whilst the Canadian wine industry provided 20% of the costs. The research has brought about a partnership between the university, the wine producers and the grape growers.
- During a recent severe winter Canada suffered severe power cuts owing to ice bringing down power lines. The CFI funded a project to prevent this recurring, and work from this has now been used in research on de-icing planes.

The CFI enables universities to explore partnerships with companies/organisations that would not otherwise be possible. Private industrial companies have expressed reservations at undertaking research projects entirely by themselves, explaining that in controversial areas the public/interest groups would be suspicious of the results. The integrity and independence of university institutions can validate research projects.

Discussion

How can other countries start similar schemes?

Lobbying key decision makers, such as finance ministers or prime ministers, is essential. Emphasising problems caused by the "brain drain" also captures media interest, which generates wider public interest. In the Canadian context the constitution means the education system is controlled entirely at the provincial level. By providing funds for the CFI, the federal government has been able to assist education, research and development provision legitimately. It also enables the government to strengthen the "knowledge economy". Preferential taxation terms also make the CFI a good place to invest funds. The federal government is keen to prevent an academic "brain drain", and is also keen to support the improvement of, and collaboration over, the development of new research resources. One scheme the CFI is participating in is the "Canada Research Chairs" initiative, where the government has provided C\$900m to establish around 2,000 research Chairs by 2005.

How was the government persuaded to support the venture?

A key turning point in the creation of the CFI was a meeting between university presidents and the finance minister in 1996. The minister became interested in a scheme that did not just require constant, infinite funding, but had concrete plans to invest the money in sustainable schemes, and to seek additional funding from different partners.

How does the CFI choose which projects to support?

There are three key criteria:

- Quality of research and need for infrastructure
- Contribution to strengthening the capacity for innovation
- Long-term potential benefits for Canada

A strong, well-planned proposal is vital for a project to secure funding - however good the researchers, a poorly thought-out proposal that cannot show sustainability will be turned down.

In developing countries it is difficult to secure government funding for similar schemes. But, in Namibia a joint venture between the University and Namibia Breweries has involved developing a non-polluting industrial brewery plant. By-products have been

used to develop new products such as agrofertilisers, that have benefits for the wider community.

Action Points

- With universities seeking new means of funding, schemes such as the CFI are of great interest on an international level. Can the ACU highlight comparable examples of establishing new partnerships in other countries?
- Universities in developing countries find it difficult to obtain block funding for setting up schemes like the CFI. Can the ACU explore how these countries can establish partnership within these financial constraints?