

# Growth, Competitiveness, and the Crucial Roles of the Social Sciences

JOAN M. NELSON

## INTRODUCTION

I would like to focus on this question: In Malaysia's drive for excellent universities that support and encourage the nation's progress, *where do the social sciences fit in?* The usual argument is that they are part of a balanced liberal arts education, designed to shape responsible and well-informed citizens. I agree with this view, and think it is very important. However, I suggest that the social sciences have additional contributions that relate in very direct and practical ways to the challenges of technical and economic development and successful competition in the world economy.

## SOCIAL SCIENCES AS KEY CONTRIBUTORS TO EFFECTIVE TECHNOLOGICAL TRANSFER AND ADAPTATION

Science and technology (S&T) are seen as keys to development, the means to stimulate rapid growth, to catch up with and even surpass achievements of wealthy industrialized nations. Therefore, plans for higher and secondary education place tremendous emphasis on science, mathematics, and technology. According to Malaysia's 9<sup>th</sup> Development Plan, in 2005 more than half of all students in higher education are enrolled in S&T programs. The Plan envisages increasing that proportion, and also increasing the proportion of secondary students concentrating in science and mathematics.

Economists and historians have studied in some detail on how industries and economies in developing countries learn from and absorb the techniques and concepts of more advanced economies. One of their important findings is that mastering technology in its narrow sense is not enough. Of course it is crucial for engineers, biological scientists, chemists and other scientists to understand the scientific concepts and learn the technical skills needed to use specialized equipment and materials. However, to put these technologies to practical use in building infrastructure, establishing and expanding factories, firms and industries, or improving health care systems, they must be combined with what might be called "social technologies"—organization, laws and regulations, codes of good business and administrative practice, customs, values. Without appropriate "soft" or social technology, "hard technology" often works poorly.

Mastering social technology means understanding how and why organizations and systems in business, industry, or specific firms and factories work well or poorly. This is at least as difficult as mastering “hard” technology. In fact, it may be more difficult. Why? Because social technologies are deeply embedded in, and grow out of local cultures, incentives and assumptions about human relationships. They are also embedded in broader economic and political systems that affect their operations. However, these social and economic and political frameworks are mostly taken for granted by the people in the systems. They barely recognize the influence of the frameworks. It is even harder for people from other countries and cultures to observe a system and understand how it is shaped by the society in which it is embedded.

Moreover, even “hard” technology cannot simply be copied. It usually has to be adapted to different environments and contexts. That is easiest to see with regard to agricultural techniques: they cannot simply be transferred from one country to another. Indeed, even within a country they have to be tested locally to see what works with the very specific combination of climate, soils and local customs. Medical knowledge also needs to be put in the context of local conditions. Diet, sanitation facilities and practices, social relations, patients’ incomes, and a wide range of additional factors affect the incidence of disease and the most effective treatments.

Soft or social technology requires even more – a lot more – adaptation. The organization, operating rules, and incentives that work well in an American factory or hospital may not work well at all in different societies. To adapt foreign institutions to local conditions, you must first understand why the institution works in its original setting. Then, you must analyze what aspects of that institution are transferable, and what aspects need to be changed in subtle or not-so-subtle ways to work in your own nation. Both tasks require quite a lot of social science knowledge.

These considerations point to absolutely essential roles for social sciences, as part of a country’s efforts to modernize and compete effectively in the global economy. In the same way that basic scientific knowledge is necessary for the young engineer to master his field, basic social science knowledge is important for understanding the social technology that goes along with the hard technology, and for adapting that social technology so that it will work in a different social context. In short, social science is not merely a helpful, but an essential partner to successful transfer and adaptation of hard technology.

#### SOCIAL SCIENCES AS INSTRUMENTS FOR INSTITUTIONAL REFORM

Social sciences also make a second major contribution to the nation’s modernization and growth. Many of the institutions and systems that are part of

modern societies are not technology-intensive—for example, most branches of the civil service, the school system, and the system of justice. In rapidly changing societies, these institutions also must change. *The social sciences are directly relevant to the absolutely crucial task of improving the performance of national institutions that are not very “hard technology intensive.”*

Reforming institutions is always difficult. There are no neat templates or blueprints for how to make a school system more efficient and effective. Reforming institutions is not a science, but an exploratory art. The process starts with a diagnosis of why an agency or a system is not working well. The reasons often extend beyond the walls of the particular agency or system into the larger society or even the political system. Once reformers understand the causes of poor performance, they must design feasible changes that may make a difference. They may need to borrow ideas from other national institutions or from abroad, modifying them to fit the specific situation, experimenting, evaluating the results, and introducing further changes. Throughout the process (which can take years), reformers have to think about how to overcome passive resistance or open opposition from those who think the changes will hurt them or the programs to which they are committed. The reform process is always “political” even if it has nothing to do with national politics. At every stage in the process of reform, there is often a need for some research – to sort out the nature of the problems, to scan the range of possible solutions, to test specific approaches and to evaluate changes after they have been put in place. This whole complex task of reforming key institutions to make them work better requires good social science skills, and good social science research.

#### SOCIAL SCIENCES AS THE SOURCE FOR EMPIRICALLY-BASED POLICY EVALUATION

There is a third role for social sciences that is implicit in what I just said, but should be made explicit: *University-based social sciences are or should be the most important source of critical empirically-based examination of government policies.* In this globalizing world, even policies that worked extremely well when they were first introduced need to be appraised, to evolve, and sometimes to be replaced. The public often recognizes when things are not working well, but understanding the failures and figuring out better approaches requires analysis and research.

The media also play the role of critic – sometimes irresponsibly, often quite responsibly. However, journalists do not have the time or money or training to probe into the underlying causes for policies that are not achieving their goals. Journalists usually focus on the here and now: they are not likely to look far into the past or to try to anticipate emerging problems. In social science, it is a bit of an insult to describe a piece of research as “journalistic.” Non-

governmental organizations may also be effective critics of particular policies. Think tanks that are not part of universities can also carry out excellent appraisals, if they are truly autonomous of political parties and the government. However in all the advanced countries of which I have any knowledge, the universities are a primary source of critical policy research. It is an absolutely crucial role, and doing it well requires strong social sciences.

## MAXIMIZING THE CONTRIBUTIONS OF THE SOCIAL SCIENCES

I have argued that social science education and research have crucial roles in universities, not only to promote broad liberal education (which I think is very important), but also, and much more immediately practical, to contribute to the modernization of the country. If that argument is right, we must ask the next questions: What kinds of social science education? What kinds of research? And what policies and approaches should universities adopt to encourage social science that is effective in complementing science and technology, improving crucial institutions, and providing responsible but tough analysis and criticism of policies and institutions?

We may be able to learn a lesson from the history of the spread and adaptation of technology from more to less advanced societies. In countries like Japan, Korea and Taiwan, which were particularly effective in mastering and adapting technology from abroad, universities and publicly funded laboratories focused fairly closely on practical problems and applied research, not on basic theoretical research. Researchers established and maintained close consultative arrangements with potential users of their findings, mostly in business and industry. They did not retreat into ivory towers. Social science research, and even to some degree social science teaching in universities in mid-income countries aiming for rapid up-grading might also do well to *focus mainly on issues that are important to development, competitiveness, and the emergence of an equitable and humane society*. The questions and challenges posed by rapid economic and social transformation are intellectually exciting as well as potentially practical. Prioritizing these issues is in no way a sacrifice. Focusing on real issues close at hand (and on similar trends, past or present, and attempted solutions in other countries) is also one of the best ways to make students really interested in social science courses, and help them see the real world relevance of social science concepts and methods.

To suggest that social science teaching and research in the universities should be oriented towards understanding trends and the problems of development do not mean that social science faculties should become, in effect, adjunct staff of government agencies. Professors and researchers must be free to select their own focus and priorities, within broad guidelines. A crucial part of their potential contribution is precisely to identify important problems that

need more analysis, because the problem has been poorly specified, or is politically sensitive, or is “over the horizon,” not yet clearly recognized in policy circles. They can only serve that important function if they are autonomous.

In the United States, a great deal of research on economic, social, governance, and other social science issues is conducted by free-standing research and advocacy organizations – so-called “think tanks.” Some of the biggest and best known are Brookings, the American Enterprise Institute, Carnegie Endowment for International Peace, and the Heritage and Cato Institutes. Some non-governmental organizations that are mainly engaged in action programs, like the Population Council, also have strong research units. There are hundreds of such organizations, financed by foundations, corporations, individual donors, and sometimes by political parties. Some of them include contracted research as a small or large part of their programs, and some of the contracted work is for the federal government or state or local governments.

Think tanks that are not associated with universities offer researchers a huge advantage: freedom from time-consuming responsibilities for teaching and administration. Good research is time-consuming. It is very hard to do as a sideline. Especially in a country with rather few freestanding research institutes, it is important to think about how to give university faculty enough time and space to do serious research. That requirement conflicts with the high-priority task of teaching, especially where enrolments are expanding rapidly. However, the conflict may not be as severe as it looks at first glance. Time off for research often improves and enlivens teaching. Furthermore work on serious research projects is a tremendously important part of the education of post-graduate students.

The experience of US autonomous social science research organizations also suggests some thoughts regarding the selection of research topics. Their research programs often combine some contract projects sponsored by the prospective user (often a government agency) and autonomous projects funded by a foundation grant or by the center itself. The total research program therefore, is a mix of immediately relevant and longer term, more exploratory, more innovative projects. That combination is also feasible and probably desirable at universities.

Malaysia’s 9<sup>th</sup> Development Plan calls for research collaboration between Malaysian and high-quality foreign universities, as part of the effort to improve quality. That strategy demands some realistic thinking about what kinds of research are likely to have particular advantages to being pursued in Malaysia. In the social sciences, a big part of the answer to that question is: research that focuses on Malaysian experience, perhaps in broader comparative perspective, as a way of testing theories or deepening understanding of particular economic or social processes and patterns.

Joan M. Nelson, Ph.D.  
Professor & the Pok Rafeah Distinguished Chair in International Studies  
Institute of Malaysian and International Studies (IKMAS)  
Universiti Kebangsaan Malaysia  
43600 UKM Bangi  
Selangor, D.E. Malaysia