Effective Skill Formation: The Missing Link between Capital Investment and Increasing Prosperity

Anil VERMA*

ABSTRACT

This paper argues that industrial relations systems play an important role in converting investment into sustainable growth. However, in order to understand this linkage, it is necessary to view skill formation as a key outcome of industrial relations systems. Skill formation is more than simple education or training for a given job. The term is used here to capture the processes that help workers acquire marketable skills and employability in the broader labour market. It is through effective skill formation that capital flows create sustainable growth. When effective skill formation is absent, investment flows can create employment in the short-run but as market conditions change, the newly created employment can quickly disappear. Effective skill formation, it is argued, mediates between investment and sustainable growth through both equity and efficiency processes occuring within industrial relations systems. Thus, a lack of effective skill formation and absence of voice mechanisms have contributed to the making of the crises although these effects have not been the same in every country. A corollary to this hypothesis is that economies with more effective skill formation processes and greater voice would be the first ones to recover from the crises, other factors held constant.

* Faculty, Rotman School of Management and Centre of Industrial Relations, University of Toronto (Canada).

INTRODUCTION

The global financial crisis of 1997 to 1999 in many parts of the developing world including Asia, Latin America and some parts of the former Soviet Union resulted, among other things, from poor banking practices. This explanation, although accurate, masks a more serious structural weakness in the process that created the boom in the first place, namely, that of inadequate investment in skills of the populace. This fundamental weakness may be viewed as the missing link between capital investment and sustainable economic growth and prosperity. Lessons drawn from these crises frequently do not include the role of industrial relations institutions that form a vital part of the economic growth dynamics but whose role is not well recognized in contemporary economic policy and planning.

The booming emerging economies benefitted during the 1985-1995 period from large amounts of foreign and domestic investment. In its report, *The East Asian Miracle*, the World Bank (1993) recognized the role of new capital inflows in spurring rapid growth in the region. The report cited factors that facilitated capital inflows into these economies such as prudent macroeconomic management of the economy (e.g. control over inflation) and open market policies. But the record of every country receiving large amounts of capital investment is not the same. The efficiency of capital in generating prosperity varies considerably across different countries (Campos and Root 1996). This variance raises several questions. Does foreign investment always translate into sustainable growth and growing prosperity? Why do some countries benefit more from financial investment than others?

This paper develops the argument that industrial relations systems play an important role in converting investment into sustainable growth.

CAPITAL INVESTMENTS AND GROWTH

Economic theories that promote free markets and downplay a role for policy interventions suggest that low rates of economic growth can be attributed to lack of investment. Hence, one way to spur growth is to create conditions for rapid inflows of capital (Figure 1). Although this is generally true in the long-run there are other mediating factors to consider when the objective of economic growth is expanded to include sustainable growth and social development. Hence, we need to develop this model further by introducing the mediating variables.

Figure 1 *Capital Investment & Prosperity: The Desired Policy Linkages*

Although direct evidence on the impact of skill formation is hard to find, there are a number of clues that point to the role of skill formation in translating investments into growing prosperity. To begin with, there is some empirical evidence to suggest that the benefits of new investments such as FDI, are not always fully realized by everyone (Blomström, et al. 1992). A study of employment in the *maquiladoras* in Mexico found only a very small effect on indirect employment (Fuentes et al. 1993). For every job created directly by FDI there were only 0.2 indirect jobs created in the local economy. This evidence suggests poor backward linkages with the local economy. In such cases, if the investment is withdrawn all benefits disappear without any residual benefits for the host economy. In contrast, another study in the auto industry in Mexico found that over 30 percent of the parts were locally sourced (Shaiken 1991). This suggests a much greater impact of new investments on indirect employment and hence, possibly on skill formation. These findings also provide the motivation to look for possible intervening variables.

Other studies suggest that the relationship between FDI and growth may be mediated among other factors, by the availability of skills. For example, Blomström et al. (1992) found that the positive relationship between FDI and growth was much stronger for higher income countries than for poor countries. It can be argued that besides many other factors a key difference between the rich and poor nations is that of availability of a well-trained and skilled workforce. This possibility was tested more directly in another study that found FDI to be more productive in countries where a minimum threshold stock of human capital existed (Borensztein, Lee and Gregorio 1995).

Research on investment flows has also stressed the importance of backward linkages to the local economy (Aaron 1998; Battat, Frank and Shen 1996; Gereffi 1997). Although this literature has not explicitly addressed the issue of skill formation, it can be argued that one of the principal outcomes of backward (or forward) linkages, besides creating employment, is skill formation. These skills remain in the economy even when the foreign investment is withdrawn by one company or one country. Thus, effective skill formation can be said to mediate the relationship between investment and sustainable growth.

A second factor of interest to industrial relations scholars is that of workers' voice. While the link between voice in the workplace and the ability to create growth may appear far-fetched to some, it is widely recognized that distributional mechanisms in the economy can nullify the positive impact of growth on alleviating poverty. According to one study, initial income inequality lowers the rate at which income-poverty falls with growth (Ravallion and Chen 1996). This is true at any positive rate of growth. Moreover, if the initial inequalities are large enough growth may have no impact on poverty reduction.

The effect of unions on wages and wage differentials is well-known. Unions generally tend to increase wages and reduce wage differentials (Freeman and Medoff 1984). Although much of the previous research comes from industrialized countries, there is reason to believe that union effects on wages and differentials are even higher in developing countries. Thus, voice for workers in the form of the right to organize and bargain can significantly influence distribution of income attributable to new capital investments.

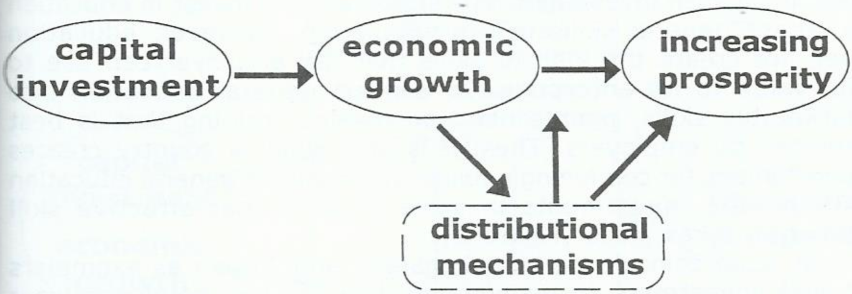
Other distributional mechanisms can also be expected to improve with better skill formation especially in the developing context. Better literacy, knowledge of business, engineering and social science concepts can only lead to improved awareness of rights and responsibilities. Thus we may also argue that better skill formation will contribute not only to better growth but also to better distributional mechanisms (Figure 2).

SKILL FORMATION AND ITS ROLE IN SUSTAINABLE GROWTH

Much of the discussion above relates to what may be observed when the process of capital inflows starts. It is useful to carry through this line of thinking to the next time period to develop a more dynamic picture over time. If the growth generated by the initial round of investment leads to effective skill formation and improved distributional mechanisms, it begins to attract more capital over time. This causes the causality to run in the opposite direction with respect to new capital, i.e., skill formation creates new capital flows which in turn creates further skills. This has been referred to as the "virtuous circle" (Birdsall and Sabot 1995). The economic development process in Singapore, Hongkong and Taiwan in the last few decades are good illustrations. These jurisdictions reported increasing flows of new capital with rising wages and in some years with increase in unionization.

The virtuous cycle is created by an effective policy response to the so-called secondary market conditions of rising wages and increasing demand for voice (Verma, Kochan and Lansbury 1995).

Figure 2 Capital Investment & Increasing Prosperity: The Role of Distributional Mechanisms



As wages rise, producers could move to higher value-added production. To enable this move up the value chain employers need a more skilled workforce and an efficient physical infrastructure. Such a move allows the economy to cope with rising living standards. Thus, effective skill formation plays a crucial role in the virtuous cycle.

There is another policy response to rising wages and demand for voice. It is to reverse gains made in wages and voice with the objective of restoring the initial sources of comparative advantage which attracted the capital flows in the first place. In some instances, governments curb wage growth by legislation or administrative means. In other cases, there is an attempt to curb unionization to allow capital increased flexibility without institutional constraints. These regressive measures are one way to turn back the clock and restore initial factors of comparative advantage. While some degree of concessions and sacrifice may be necessary in crisis situations, it is self-defeating, in the long-run, to push back standards of living as soon as some gains become evident.

EFFECTIVE SKILL FORMATION

Since so much emphasis is placed here on effective skill formation, it is important to briefly consider its dynamics. Effective skill formation is a partnership between private and public investment in skills. Education provides general skills while job-related training provides skills specific to technology and organization. For job seekers, success in the labour market comes from a creative mix of the two. Neither education nor training by itself can give the job seeker long-term success in dynamic and competitive markets.

Employers are generally loathe to pay for general skills in the form of education because it is hard for them to fully capture the returns on such investment. The state needs to invest in education to create general skills in the population. However, education does not create the kind of skills that the employer can use to add value to its enterprise. To convert general education into marketable skills, people need on-the-job training that is best provided by employers. Thus, it is only when a country creates opportunities for combining public investments in general education with private investments in skills training that effective skill formation takes place (Figure 3).

It is no coincidence that Singapore and Taiwan as exemplars of such investment in people, are also the two countries least affected by the current crisis. In contrast, Thailand's investment in education has fallen far behind the inflows of capital it has received in the past twenty years. On the other hand, public investment in education in the Philippines has run ahead of private capital available for investment. In both Thailand and the Philippines better growth became realizable when private and public investments in skills were better matched.

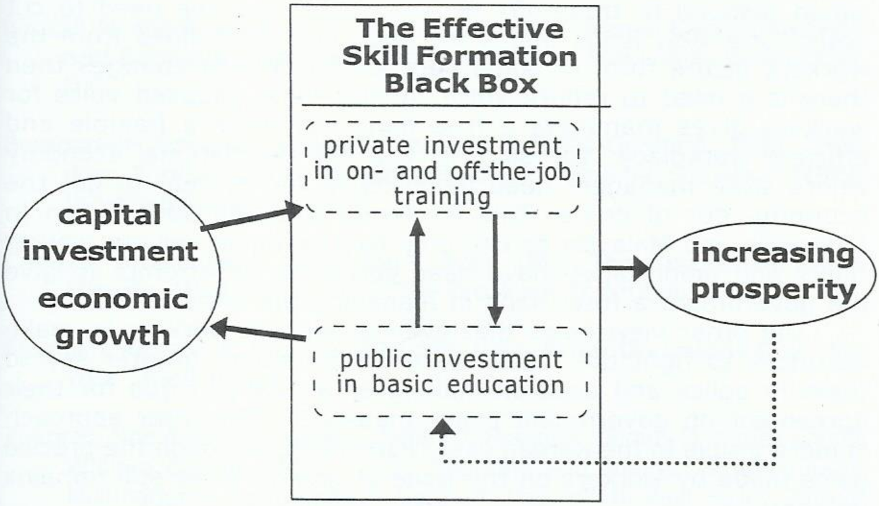
IMPLICATIONS FOR RESEARCH AND POLICY

The foregoing discussion provides a basis for developing a research and policy agenda around skill formation and voice processes that appear to be important mediators between new investments and reduction in poverty.

Policy planning needs to recognize more explicitly that skill formation is not a standardized process with predictable outcomes. It varies a lot across different investments. The question we need to pose is why? Other things being equal, we posit that general education linked to job-related training is most likely to result in effective skill formation. In research, we need to compare and contrast capital investments that impart good skills to the workers with those that tend to develop few skills marketable outside a particular firm.

Education-training links can be examined in a variety of ways. Formal links between educational institutions such as colleges, vocational schools, and universities on one hand and industry on the other hand can be tracked in the context of new investments. Firm-level policies on training can also be a window on the process of skill formation. Apart from functional training and skills, it may

Figure 3 Increasing Prosperity and Effective Skill Formation



be also important to track training in "soft" skills such as problem-solving, communication and ability to work in a team (ILO 1999).

In addition, we need to consider the utility of setting skill formation standards for new investments and auditing these processes during the course of investment flows. Much in the same way as environmental impact assessments are made there is a need to evaluate new investments in terms of their ability to generate sustainable growth. Each project would need to ensure a minimum level of investment in training. The host government would need to encourage contacts between new investments and appropriate public education institutions to ensure a supply of skills and to participate in developing new curricula. Without such an assessment to guide future investments, we may just be working our way to the next crisis.

CRISIS MANAGEMENT: THE ROLE OF VOICE

Lastly, we consider the need to monitor the role voice may play in any attempt to restructure developing economies in the face of a crisis. Even as policymakers struggle to contain and fight present-day crises, it would be prudent to rebuild on a more sound footing than was the case in the initial wave of growth. This would mean that more careful attention needs to be paid to skill formation and voice mechanisms.

The case for better voice faces an uncertain future. In the crises of 1997-1999, it was not clear how different governments would respond to trade-offs between voice and the need to cut costs. One view holds that if we need new flexibilities from the workers in the form of wage cuts and work rule changes then there is a need to reduce voice. In this view, reduced voice for workers gives managers a free hand to create a flexible and efficient workplace. The same is true for the national economy where state managers need flexibility in the system to get the economy out of crisis. This is clearly the approach taken in Indonesia and Malaysia to cite only two examples, where worker rights and unionization have been curbed in an attempt to give the government a freer hand in managing the crisis.

The other view holds that even as we ask workers to make sacrifices to fight the crisis, we need to extend greater say to them in policy and decision-making as a *quid pro quo* for their agreement on government policy measures. The latter approach is more visible in the Korean case (Park 1998) although the precise gains made by workers on the issue of greater voice still remains unclear.

It is hard to ignore the role that voice plays in providing better distribution of economic gains. That voice may be also linked to skill formation makes it all the more important to consider giving workers more say in decision-making. This will not only speed up recovery from past crisis but also build a sound foundation for sustainable economic growth in the future.

References

Aaron, Carl. 1998. "Foreign Direct Investment and Poverty Alleviation", Background Paper, Foreign Investment Advisory Service, a joint venture of the International Finance Corporation and the World Bank, Washington, D.C.

Battat, Joseph, Isaiah Frank and Xiaofang Shen. 1996. **Suppliers to Multinationals: Linkage Programs to Strengthen Local Companies in Developing Countries**, Occasional Paper 6, Foreign Investment Advisory Service. Washington, D.C.: International Finance Corporation and the World Bank.

Blomström, Robert Lipsey and Mario Zejan. 1992. "What Explains Developing Country Growth?". **NBER** Working Paper No. 4132.

Birdsall, N. And R. Sabot. 1995. **Virtuous Circles: Human Capital, Growth and Equity in Asia**. Report prepared for the World Bank, Washington, D.C.

Borensztein, Eduardo, Jong-wha Lee and José De Gregorio. 1995. "How does Foreign Direct Investment Affect Economic Growth?" **NBER Working Paper** No. 5057.

Campos, Jose Edgardo and Hilton L. Root. 1996. **The Key to the Asian Miracle**. Washington, D.C.: The Brookings Institution.

Freeman, Richard B., and James Medoff. 1984. **What Do Unions Do**? New York: Basic Books.

Fuentes, Noe Aron, Tito Alegria, Jeffery T. Brannon, Dilmus D. James and G. William Lucker. 1993. "Local Sourcing and Indirect Employment: Multinational Enterprises in Northern Mexico". In Paul Bailey, Aurelio Parisotto and Geoffrey Renshaw, Eds., **Multinationals and Employment: The Global Economy of the 1990s**. Geneva: International Labour Organization.

Gereffi, Gary. 1997. "The Reorganization of Production on a World Scale: States, Markets and Networks in Apparel and electronics Commodity Chains". In Duncan Campbell, Aurelio Parisotto, Anil Verma and Asma Lateef, Eds. **Regionalization and Labour Market Interdependence in East and South-East Asia**. London: Macmillan.

ILO (International Labour Organization). 1999. **Skills in Asia and the Pacific**: Why Training Matters. Technical Report. Bangkok: ILO, Regional Office for Asia and the Pacific.

Park, Young-bum. 1998. "The Financial Crisis in Korea: The Industrial Relations Connection", **Perspectives on Work**, 2(2), 37-41.

Ravallion, Martin and Shaohua Chen. 1996. "What Can New Survey Data Tell Us About Recent Changes in Distribution and Poverty?" **The World Economic Review**, 11(2).

Shaiken, Harley. 1991. "The Universal Motors Assembly and Stamping Plant: Transferring High Tech Production to Mexico". **Columbia Journal of World Business**, 26(2), 124-37.

Verma, Anil. 1997. "Labour, Labour Markets and Economic Integration of Nations". In Duncan Campbell, Aurelio Parisotto, Anil Verma and Asma Lateef, Eds. **Regionalization and Labour Market Interdependence in East and South-East Asia**. London: Macmillan.

World Bank. 1993. **The East Asian Miracle: Public Policy and Economic Growth**. Washington, D.C.: World Bank and Oxford University Press.