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Human Resource Development for Industrialization

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INTRODUCTION

Human resource development (HRD), has at present emerged as an enduring field of study, seeking answers to strategic questions that economics could not satisfactorily provide. If economics is concerned primarily with economic equilibrium and related problems, it does not have much to offer in determining the realistic strategy on the effective utilization of human resources. However, broad concepts of manpower utilization, and specific arguments, for instance on the choice of technology and labor-intensive technology has been advanced by economists. The notion of optimum manpower utilization for the sake of faster growth and better social progress is not new in economic thinking.

However, to achieve full utilization is far from simple. It requires that the development process shall be guided by social interests, it requires adequate socioeconomic change and political forces to carry it through, and it also requires certain important economic and managerial measures.

CONCEPT

The concept of HRD is therefore a substantive and complex field. It embraces three levels of strategic planning and analysis of which are, the aggregate, sectoral and the industry level. The primary objective of HRD is the effective utilization of scarce or abundant talent in the interest of both broad and specific national objectives as well as the objectives of industry, business and individual employee. In its broadest sense, it is the development of plans of action to meet the manpower requirements in anticipation of the changing conditions of the social, economic, industrial and business environment. As part of manpower

planning, manpower requirements are first identified in broad categories according to sectors. Table 1 shows the current and projected manpower utilization for Malaysia. The labor force is further broken down to broad classifications, defined in terms of professional and technical, administrative and managerial, clerical, sales, service, agricultural and production. Realistic plans for the development and utilization of the manpower resource are made after consideration of the external and internal factors affecting the manpower objectives of each industry and organizational unit. The integration of macro with the micro perspectives is therefore important in order to maintain focus and relevance. In view of the dynamic nature of the environment, the bottom-up process of providing periodic feedback need to be maintained in order to ensure relevance of the plan to changing situations. The absence of a constant bottom-up process for plan refinement would result in a mismatch between supply and demand.

INDUSTRIALIZATION AND STRUCTURAL TRANSFORMATION

It is recognized that for any case of industrialization the major categories of human resources required are, from the various disciplines of engineering for example mechanical, electrical, electronic, civil and telecommunications. There is also a need for supportive technical staff, scientists for basic and applied research, system analysts, computer science programmers for information technology and data processing, teachers and trainers in relevant field, managers and administrators, accountants and lawyers, and entrepreneurs.

To a large extent industrialization influences the manpower utilization structure and affects the qualification requirements for labor. This is obvious because there is a close interrelationship and mutual interaction between job structure, educational attainments and vocational training of manpower on the one hand, and economic and technical progress, on the other.

Education and vocational training play important social and economic roles. First, it provides the vehicle for social mobility to realize the restructuring objective of the New Economic Policy (NEP). Second, it meets the demand for the appropriate labor force to propel the industrialization process.

In order for education and training to play its role succesfully, there is a strong need for the provision of adequate places and facilities

TABLE 1. Malaysia: employment estimates by major occupational group, 1985-90

Occupational group	1985		1988		1990		Average annual growth rate (%)		
	('000)	(%)	('000)	(%)	('000)	(%)	1986-1988	1989-1990	1986-1990
Professional and Technical	419.2	7.4	444.5	7.3	481.7	7.4	2.0	4.1	2.8
Administrative and Managerial	124.8	2.2	134.7	2.2	149.7	2.3	2.6	5.4	3.7
Clerical	543.9	9.7	581.3	9.5	611.9	9.4	2.2	2.6	2.4
Sales	576.7	10.3	670.4	11.0	768.2	11.8	5.1	7.0	5.9
Service	646.4	11.5	705.8	11.6	761.6	11.7	3.0	3.9	3.3
Agricultural	1,753.1	31.2	1,900.7	31.2	1,959.4	30.1	2.7	1.5	2.2
Production	1,560.5	27.7	1,650.1	27.1	1,777.2	27.3	1.9	3.8	2.6
Total	5,624.6	100.0	6,087.5	100.0	6,509.7	100.0	2.6	3.4	3.0

Source: Fifth Malaysia Plan, Tables 4-3.

to meet growing demand. Relevance and quality of labor force has to be emphasized. Flexible and adaptive structures need to exist to meet continuing changes. Periodic industry feedback on needs also had to be developed. Industry should also participate in forecasting global trends and training at both organization and tertiary level.

At present, the process and the administrative arrangements are not sufficiently robust to absorb the changes taking place in the labor market. This lack of robustness in the labor market is the result of the non-integrative entities of the public and the private sector. To illustrate the non-integrative nature of both sectors, it is necessary to discuss the current process and administrative arrangements involved.

In the public sector, forecasting industry needs is undertaken by the Labor Ministry. This is done on the basis of sample surveys carried out by the Statistics Department and the intermittent requests by employers for specific skills. On the other hand forecasting government sector needs is done by another agency, that is the Public Services Department (PSD). This is internally undertaken based on the projections made PSD. Economic Planning Unit is responsible for integrating both the industry and the government sectors.

In the case of the private sector, forecasting of industry needs is almost absent. Staff development in the form of in-house training is undertaken by individual firms and organization. A comprehensive plan of action based on national and regional or global trends is never developed.

The gap between planning and real needs has to some extent hampered effective manpower development for industrialization especially in the high technology sector. The other serious flaw in Malaysia's manpower development is the insular projection of manpower requirement in its plans. In Japan for example, the Ministry of Trade and Industries, in planning the manpower requirements for Information Technology (IT) started by examining the global trends of the IT industry, the manpower situation and from there examines the Japanese situation. This process enables the Japanese to have both a global and a regional perspective of situations. It then plans the appropriate strategy accordingly.

Under the Fifth Malaysia Plan, the focus of HRD is broad and 'fuzzy'. Among the objectives of HRD are, raising the productivity of the labor force through education and training, as well as the upgrading of skills to meet the growing manpower needs of the country. It is further mentioned that the education and training system has been

reoriented to be more responsive to future manpower needs. The outputs of degree and diploma holders by course from local institutions are also presented in the Malaysia Plan. They are however not adequately analysed by comparing to the projected demands of the various industries. This exercise is important in order to ensure twinning between supply and demand, and to measure the targets set under the Human Resource Development (HRD) goals.

Despite of the importance of HRD in Malaysia's economic development, it had shown weaknesses due to its historical and reactive approach. This is the result of exclusive reliance on the monthly surveys of industrial statistic, by the Department of Statistics for determining employment patterns and trends in the manufacturing. The format of the survey covers such industries as food, beverage, tobacco, textile, clothing, leather, wood, furniture, paper, plastics, non-metalic mineral products, electrical and non electrical machinery and appliances, transport equipments and some other industries that are categorized as miscellaneous. However, the format does not provide adequate correspondence or reference to the twelve industry sub-sectors of the Industrial Master Plan (IMP), for the purpose of HRD. The resource-based industries under IMP cover the sectors on rubber products, palm oil products, food processing, wood based products, chemical including petrochemicals, non-ferrous metal and non-metalic mineral products. The non resource-based industries cover sectors on electronics and electrical, transport equipment including motor vehicle and ship building, machinery and engineering, ferrous metal and textile products. Detail categories of occupations for the various industry types on labor utilization, and projected demands in short and medium term perspectives are not provided. This renders the whole exercise of manpower planning confusing.

EDUCATION AND TRAINING

Education and vocational training are critical vehicles in the process of developing human resources for industrialization. Education, particularly at the tertiary level, if it does not meet the needs of the labor market, will entail serious negative consequences.

The desire and aspiration of individuals in choosing their occupations are influenced much more by their formal education and vocational training than by their actual knowledge and the real needs of society and economy. This is obvious since the real value of formal

qualification is measured only by their applicability in the labor market. The socially expected knowledge often cannot be found in formal education, and it is in the labor market that the individual often faces the hard reality that there is no demand for the occupations that might be expected by individuals on the basis on their formal education.

It is therefore of utmost importance that formal education and vocational training operate as an integral part of the manpower development process, linking the supply with the demand in terms of both quality and quantity.

CONCLUSION

To meet Malaysia's industrialization program, HRD is still a very fragmented and imprecise activity. Its 'fuzziness' becomes aggravated when one is focusing on a moving and dynamic environment.

A clear forecasting format on manpower requirements, utilized at the macro and micro levels is vitally needed. Precise demand patterns at the micro level and fine tuned according to specific industries and jobs must be undertaken. Each industry's growth rates in short and medium terms need to be worked out not just for the purpose of capital formation but also for HRD.

Current patterns of HRD appears to be aggregative, static and often 'off tangent' to economic and industry trends. The policy impetus through incentives and venture capitals given to small and medium scale industries have not been adequately matched by HRD. While the Government provides the necessary infrastructure and climate for the growth of small and medium scale industries, the absence of a sufficient number of entrepreneurs hampers the smooth take-off of the industrialization plan.

It is also recognized that universities and formal training institutions have entrenched interests. They need to expand rather than change. If change is desirable, then they may require sufficient lead time to recruit and adjust the faculty and the curriculum to new demands. HRD is a complex activity, for it demands a clear operational plan among the various institutions and industries. In the final analysis economic development is the development of people, of their potentials, skills, capabilities, resourcefulness and commitment.

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