

Human Resource Development : The Key Towards a Developed and Industrialised Society

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ABSTRAK

Pentingnya sumber manusia kepada kejayaan sesebuah negara dapat dibuktikan dari contoh-contoh masa lalu seperti tamadun Greek dan Islam dan contoh-contoh masa kini seperti negara Jepun, Korea dan Switzerland. Dapat dikatakan bahawa sesebuah negara itu tidak semestinya berjaya jika ia mempunyai sumber alam semula jadi yang banyak jika sumber manusianya tidak mampu memanfaatkannya. Oleh itu kertas ini cuba menerangkan hubungan antara pembangunan sumber manusia dan proses perindustrian sesebuah negara. Di dalam kertas ini terdapat definisi konsep HRD, faktor-faktor yang boleh mempengaruhinya dan pendekatan yang boleh digunakan. Akhir sekali, kertas ini menghuraikan HRD, dalam konteks ke arah menjadikan negara industri yang maju.

ABSTRACT

The important relationship between the quality of human resource and the well-being of a nation has been repeatedly proven through examples from the past and present. Civilizations such as Greek and Islam and modern nations such as Japan, Korea and Switzerland flourish because of their human resources. Abundant natural resources necessarily do not guarantee the success of a nation, but abundant skilled human resources can creatively utilize limited natural resources. Thus, this paper seeks to explain the relationship between Human Resource Development (HRD) and becoming a developed industrialized society. The paper defines the concept HRD, explains factors that will influence HRD and outlines some approaches to HRD. In the final section, it looks specifically at HRD and industrialization process.

INTRODUCTION

History has taught us that the character and strength of a nation is invariably tied up with the quality and attributes of its citizenry. Ancient Greek Civilization flourished by the strength and military skills of the Spartans and the culture and spirit of the Athenians. Islam, born in the desert of Arabia, spread into an enduring civilization, with an empire that lasted for almost eight hundred years. It laid the foundations for modern science, medicine, law, architecture, mathematics and cosmology. This was achieved by a community that was once backward but subsequently propelled by the pursuit of knowledge with complete adherence and devotion to the Quran and the teachings of

Prophet Mohamed, s.a.w.

Industrialized countries like Japan, Switzerland and South Korea have emerged from limited natural endowments. They have no minerals and the climate, land structure and soil are not conducive to agriculture. Yet, these countries have achieved spectacular economic growth on the strength and ingenuity of their human resources.

On the other hand, there are countries that are well endowed with natural resources such as minerals or oil that have failed to capitalise on their given wealth. They remain observers, not partaking in the exploitation of their resources. They choose by their own default to remain on the fringes of progress. They are content to oscillate between developing

and under - developed status, dependent on foreign technology and expertise to exploit their dwindling resources. These countries have failed to develop effectively their human resources, to capitalise on their natural wealth and to steer their own destiny.

At the industry level human resource development is not only essential, but critical to a company's survival. There is an intrinsic impermanence in modern industry where market and technology are so volatile that failure to proact to change and be innovative will result in a company being driven out of business. A company that is short on capital can borrow money but a company that is short of the required human resources has little chance of survival either in the short or long term perspective.

Human resource development has currently emerged as a serious field of study, seeking answers to strategic questions that conventional wisdom has not satisfactorily provided. If economics is concerned primarily with economic equilibrium, productivity of labour and cost of production and related problems, it does not have much to offer in determining a realistic strategy for the effective utilization of human resources either at the micro or macro level.

CONCEPT OF HUMAN RESOURCE DEVELOPMENT

The concept of human resource development (HRD) is a substantive and complex field. It embraces three levels of strategic planning and analysis of which are the aggregate, sectoral and the industry levels. The primary objective of HRD is the effective utilization of scarce or abundant human resources towards achieving both broad and specific objectives of the nation as well as industry, business and the individual employee. In its broadest sense, it is the development of plans of action to meet the human resource requirements in anticipation of the changing conditions of the social, economic, industrial and business environment.

The requirements of human resource planning are first identified in broad categories according to sectors - agriculture, manufacturing, construction, trade and banking, government services and others. The labour 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 human resources are made after consideration of the external and internal factors affecting the personnel objectives of each industry and organizational unit.

Global trends, market and technological changes and the time span of the HRD projection are factors that influence HRD plans. At the same time national priorities and company objectives are essential ingredients that determine the thrust and shape of HRD.

The integration of macro with micro perspectives is, therefore, vital in order to maintain focus and relevance. In view of the dynamic nature of the environment, the bottom-up process of providing periodic feedback needs 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.

GLOBAL TRENDS AND THE HRD ENVIRONMENT

It is currently accepted that HRD is the key towards a developed and industrialized society. The process of developing an HRD plan for Vision 2020 involves projections and reviews of three consecutive outline perspectives plans and six five-year plans. Based on what transpired during the past 30 years, it is apparent that the next 30 years will witness more rapid and volatile changes in the environment. To minimise any dislocation from the changes that are impacting externally, it is essential that strategic plans for HRD, with systematic links among the players and the constituents involved, be developed. At the same time a rigorous monitoring and evaluation mechanism is vital to provide feedback for adjustments in the plan.

Periodic review and fine tuning of the goals and the operational plans of HRD are essential to ensure relevance and to avoid wastage of resources which may disrupt the industrialization goals.

In planning for HRD, particularly for skills and expertise that require long gestation

periods, changes in technology for targeted industries need to be closely monitored. This role known as *boundary spanning* is vital as changes in technology and market structure have far reaching implications on human resource requirements and job behaviour. The following are some pertinent changes in the environment that must be taken into consideration in planning for HRD either in short term or long term perspectives:

1. Compared to the 70s and 80s, the next three decades will witness a formidable technological explosion facilitated by the advance of information technology, modern medicine and biotechnology. The technological explosion may render most scientists technically obsolete ten years after graduation. It is highly probable that they would lack the latest skills and knowledge in their own fields' if they are not constantly kept abreast of the elements taking place. Most scientists would be unfamiliar with ten or fifteen new sciences which may spring up in the meantime. In terms of HRD, the implication would be to develop team players' skills to enable scientists to work as a multi-disciplinary team or to have continuous training programs to upgrade knowledge.
2. The next thirty years will also witness a tremendous communication explosion with faster and shortened distances for travel. There will be a substantial increase in productivity for those nations that have the capacity of changes in the relevant fields to acquire relevant knowledge and new technology.
3. New knowledge and technology will affect power relationships and facilitate decentralization in government or in industry.
4. Economic activities will be more global than they are today. This would mean that ownership of firms would be very much internationalised. These trends have the following implications on human resource development:
 - (a) Every employable person will have a choice of more than one place to work.
 - (b) There will be a universal fraternity of specialists and a tremendous demand for excellence and professionalism.
 - (c) The nature of work will change with new technologies and new culture. Routine jobs will be performed by robots.
 - (d) Labour transmigration may take place on a greater scale from developing to developed countries, attracted by higher salaries and other incentives.
5. There will be shorter product life. Every four to five years a company may change 50% of its products. Marketing knowledge and skills would be a great asset.
6. There will be a tremendous expansion of the service sector, in particular the information related industry.
7. Information replaces energy as the main transforming resource. It adds value to products and services by increasing the efficiency of labour, materials and capital used.
8. Information speeds the discovery of minerals and reduces the cost of their recovery. It facilitates the discovery of new materials, the development of new equipment and new processes.

The changes in the environment may accelerate to such an extent that countries which do not have the absorptive capacity for technology transfer and diffusion or the creativity and technology to undertake Research and Development (R & D) may never establish any competitive edge in a global market. Monitoring the changes, adapting and introducing new innovations will require knowledge and skills.

"It is blindingly clear that the most important resource of any nation must be the talents, skills, creativity and will of its people"

- (Mahathir, 1991)

An effective and realistic HRD plan must be able to absorb the shocks and ride with the rapid changes taking place.

APPROACHES IN HRD

These are the ad-hoc approach, the incremental model and the comprehensive approach.

1. The Ad hoc Approach

Under this approach, the HRD plan is short term and localised. It is often a reaction to specific problems faced by an industry or an agency. For example, as a response to acute shortage of systems analysts, a crash training program for one to three years is developed. This approach has very limited utility as it is reactive and short-termed. Where the trained manpower has longer gestation period, the immediate requirements cannot be met. More often than not, an agency limps along without support staff when new technology is introduced or an expansion programme is implemented.

2. The Incremental Model

This approach has some elements of the Ad hoc approach the human resources but it has a wider perspective of time and focus. It is utilised where demand is unclear and erratic. To be useful and effective this model requires a smoothing out process over a period of time of the HRD plan. This approach may achieve the objective of the HRD plan if the following requirements are met:

- a) There is clear identification of the skills required for specific jobs in specific industries for short and long term perspectives.
- b) An internalised feedback and evaluation system is built in to improve and adjust the operational plan.
- c) There is continuous data update of technology and product change for the targeted industries.
- d) Continuity of ownership and support of plan at the micro level.

3. The Comprehensive Approach

This approach has the following elements as inputs into its HRD plan:

- a) Information on Global trends of the industries targeted as priority. The information covers the rate of growth, the market structure, human resources demands and the various relevant techno-

logical innovations either current or in the pipeline.

- b) It integrates the human resources needs of all the players, namely the industry, the government and the training institutions.
- c) The approach mobilises the commitment and support of the critical constituents.
- d) The HRD goals are clear and various critical milestones are identified for purposes of evaluation.
- e) The plan draws some reference points from the priority or targeted industries in selected countries. This is used to stimulate and measure the HRD requirements and monitor the changes accordingly.
- f) Within the HRD plan, incentive packages for staff development and succession plans are integrated.
- g) There is a strong commitment to training. Formal and informal training for every category of staff is catered for over their entire career with the company or institution.

The most effective HRD plan is based on the comprehensive approach as its perspective is more extensive and global. It uses detailed indicators from model countries as reference points in developing and reviewing its own HRD plan. The involvement of various players with its implementation plan makes the HRD relevant and useful.

INDUSTRIALIZATION AND STRUCTURAL TRANSFORMATION

It is recognized that in order to pace towards industrialization the major categories of human resources required are:

1. The various disciplines of engineering : mechanical, electrical, electronic, civil and telecommunications.
2. Support : technical staff, chargemen, electronic technician, etc.
3. Scientists and technologists for R&D.
4. Systems analysts, computer programmers for information technology and data processing.
5. Teachers and trainers in various fields.
6. Managers and administrators.

7. Accountants and lawyers.
8. Entrepreneurs.

Industrialization in a highly competitive global environment influences the human resources utilization structure and affects the qualification requirements and the mental aptitude of workers. This is obvious since there is close interrelation and mutual interaction between job structure, educational attainment and technical training on the one hand, and economic and technological progress, on the other. The road to industrialization in the next 30 years may involve the following incremental changes:

1. The demand for simple and heavy manual labour diminishes and jobs involving non-manual efforts rises.
2. The development of robotics for routine and structured or dangerous tasks. The range of individual occupations expands with new types of jobs and locations.
3. The development of science and technology and the increasing dependence on skilled worker and information technology.
4. The importance of positive values, ethics and a sense of commitment as a driving force towards higher productivity and resilience.

It is imperative that modern education at tertiary level be changed to include the various elements necessary to balance technology, social and natural sciences, engineering with ethics, morality and leadership training.

Education, including technical and vocational training plays important social and economic roles. First, it provides the vehicle for social mobility to realise the restructuring objective of the New Development Policy. Second, it meets the demands for the appropriate labour force to propel the industrialization process. Third, it assists in developing the human resources in skills, knowledge and spiritual value according to the Malaysian mould and values.

The most vital ingredients required in achieving the objectives of Vision 2020 through HRD are:

1. Adequate places and facilities in tertiary education to meet demands.

2. Relevance and quality in curriculum and facilities.
3. Flexible and adaptive structures within training institutions to meet rapid changes and new demands.
4. Periodic industry feedback on needs and performance to enable changes and adjustment either in content or in the direction of training and education.
5. Industry participation in forecasting global trends in technology and human resources forecasting.
6. Industry participation in training at organization level and tertiary levels.

Entrepreneurship training and broad-based education to foster entrepreneurial spirit is therefore important. The training may cover business start-ups, appreciation of technology for small-scale enterprises and some practical training on self-employment.

At present, the process and the administrative arrangements are not sufficiently robust to absorb what is taking place in the labour market. This lack of robustness in the administrative arrangements is the result of the non-integrative nature of both the public and the private sectors. It is necessary to briefly the current process and administrative arrangements involved.

In the public sector, forecasting industry needs is undertaken by the Ministry of Human Resources. 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 by PSD. The 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 organizations. 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 development of human resources for industri-

alization especially in the high technology sector.

The other serious flaw in Malaysia's HRD is the insular projection of human resources requirement in its plan.

In Japan for example, the Ministry of Trade and Industries, in planning the human resources requirements for Information Technology (IT) started by examining the global trends of the IT industry, the human resources situation and from there examined the Japanese situation. This process enables the Japanese to have both a global and a regional perspective of situations to enable it to plan a more proactive positioning in HRD.

CONCLUSION

The forward and backward links in the administrative arrangements for HRD are still very fragmented. The relationship between the aggregate and the industry levels in carrying out human resource auditing and forecasting human resource requirements in medium and long terms needs to be strengthened.

For a start, a clear forecasting format on human resources requirements, at the macro and micro level, needs to be introduced. Precise demand patterns at the micro level and fine tuned according to priority industries and specific jobs must be undertaken. The industry's growth rates in short and medium term need to be worked out not just for the purpose of capital formation but also for HRD.

Current patterns of HRD appear 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. Consequently, 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 this segment of the industrialization plan.

It is recognized that universities and formal training institutions need a more flexible system of operation. Currently, they are slow to respond to change. If change is

desirable, institutions require long lead time to recruit the required faculty and adjust the curriculum to new demands.

HRD has emerged as a vehicle towards realising the goals of Vision 2020. Industrialization and economic growth depends principally on the development of people - of their potentials, skills, capabilities, resourcefulness and commitment. They are the carriers and the guardians of the nation. Planning and investment in HRD is vital in sustaining growth and maintaining social and economic change.

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