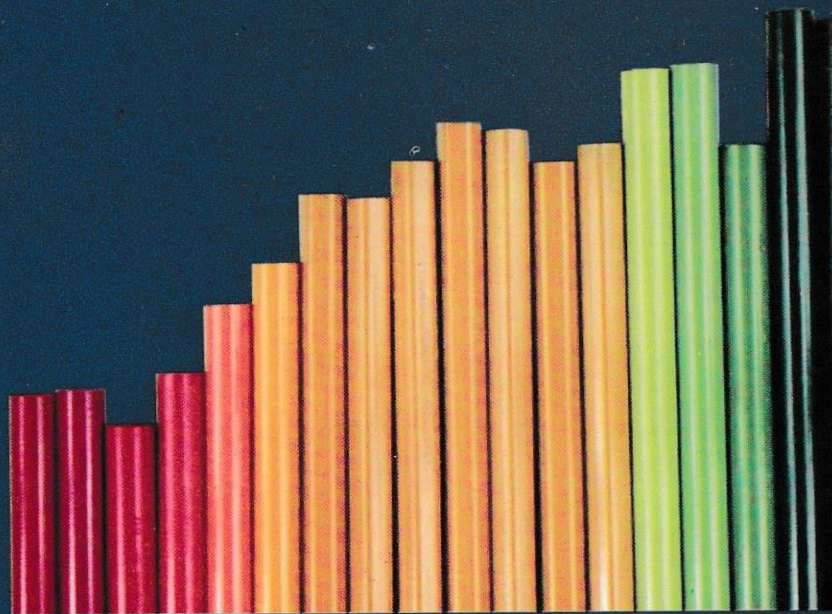


MANPOWER DATA and LABOUR MARKET ANALYSIS in NIGERIA



Edited by
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The Process of Generating Labour Market Statistics and the Role of Information Technology: An Overview

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Introduction

Labour market is the market where labour is bought and sold. In this institutional setting, labour is supplied by households and demanded by households, firms and the public sector.

Labour market processes include labour demand, labour supply, labour allocation, wage determination, trade unionism as well as collective bargaining. Umoh (1997) maintains that the labour market processes determine the organization, institutions and behaviour of the market in a developing economy. The labour market is important, not only for the labourers (workers) and employers but also for consumers, voters and taxpayers. For instance, union wage increase demands aggravate inflation in an economy in the absence of corresponding increase in the output of such economy. Bloom and Northrup (1969) view strikes by workers as capable of raising the problems of the extent to which a free society should attempt to curtail the right of the individual to withdraw his labour from essential occupations.

In the labour market, it is in the character of wage earners to agitate for higher incomes, shorter work hours, better working conditions and job security. Employers, on their part, recruit, train, manage and retain workers which in their perception are most

efficient at wage levels and working conditions that would ensure their maximum profit. Moreso, government officials that we elect as voters and support as tax payers (or those appointed by our elected politicians) must formulate public policies pertaining to labour.

These policies encompass education of the workforce, control of labour management conflicts (that would result in misallocation of resources and costly work stoppages), the softening of the harsh blows dealt the worker by illness and old age, discrimination of various kinds as well as limited opportunity for employment (Cartter and Marshall, 1972).

Labour

Labour is the productive services embodied in the physical effort, skill and intellectual power of human beings. The labour available in any society or nation at any given time is made up of the quality and quantity of workers as well as the quality and quantity of those able and willing to work but who are without jobs. To be efficient, the labour force must constantly undergo the type of education and training that is adapted to the needs of the society (Akpakpan, 1999).

Labour Demand

The demand for labour is a decreasing function of real wage because the marginal products of labour declines with increased labour. According to Rees (1971), the downward sloping demand curve for union labour shows the number of workers employers will choose to employ at each wage with unchanged demand for their product. The number of workers employed is a function of real wage rate, otherwise the labour demand curve would be a vertical line.

Moreover, both employment and wages are crucially influenced by the productivity of the workers. The implication of this is that if, in the long run, wages are greater than the value of marginal product of labour (contribution of workers' services to the value of output), employment in certain firms will decrease. We can,

therefore, say that the demand for labour is derived from the demand for goods and services which labour helps to produce.

The views of Marshall (1920) concerning the demand elasticity for labour is still relevant today. The more the demand for labour is wage inelastic,

- a. the more essential is union labour to the production of the final products;
- b. the more inelastic the demand for the final product;
- c. the smaller the ratio of the cost of union labour to the total cost of the product, and
- d. the more elastic the supply of the other factors of production.

Labour Supply

The supply of labour is determined by the decisions of individual workers about how much of their time to put into work. However, it is the real wage that determines the incentive to work. The incentive to supply labour is stronger at higher wage than lower one. However, as real wage rises above certain threshold value, workers are better off and would want to spend some more time for leisure and out of work. These are the income and substitution effects.

How Efficiency is Impeded in the Nigerian Labour Market

Efficiency in the labour market could be impeded due to fundamental shifts in labour demand and supply. Problems arise because changes in labour demands may not be met by changes in supply and vice versa. Moreso, both employers and union practices militate against efficiency of the labour market as an allocative mechanism for seeking the best jobs, the jobless finding the right jobs and employers finding the best workers.

Most employers in Nigeria insist that applicants must hitherto have had many years of experience on the job in other establishments. This "experience" syndrome restricts many new entrants into the labour market to the unemployment bank and aggravates the excess labour supply problem.

Types and Sources of Data for the Labour Market

As labour market data are varied, so are their sources. The various types and sources of data for the labour market are summarized in the following table:

<i>Types of Labour Market</i>	<i>Sources</i>
1. Labour force: rural/urban	Urban and rural surveys
2. Rural employment	Rural survey
3. Urban employment rate percent	National census or survey
4. Youth and adult unemployment	Rural and urban surveys
5. Unemployment rates by level of education	National labour force survey and population census
6. National unemployment rate	Federal Office of Statistics
7. Labour force by sector of the economy	Sectoral labour force surveys
8. Employment in the Federal Civil Service	Federal Civil Service Commission
9. Discharges from Federal Civil Service	Federal Civil Service Commission
10. Civil service labour force by State	State Civil Service Commission
11. Discharges from civil service by population conurbation	State Civil Service Commission
12. Unemployment rates by population conurbation	Federal Office of Statistics
13. Percentage distribution of unemployed persons by age group and sex; urban and rural	Federal Office of Statistics

<i>Types of Labour Market</i>	<i>Sources (Cont'd)</i>
14. Percentage distribution of unemployed persons by educational level and by sector	Federal Office of Statistics
15. Employed persons (15-59 yrs) by major industry, sex and sector	Federal Office of Statistics
16. Employed persons (15-59 yrs) by major occupations, sex and sector	Federal Office of Statistics
17. Labour force participation by sex, sector and by state	Federal Office of Statistics
18. Registered unemployment and vacancies declared	Federal Ministry of Labour and Productivity
19. Trends in trade dispute:	a. Central Bank of Nigeria; Statistical Bulletin and Annual Reports b. IMF; International financial statistics c. Federal Ministry of Labour and Productivity
20. Incidence of child labour: urban and rural	Urban and rural household surveys.
21. Labour supply by sectors	a. Sectoral survey b. National Manpower Board c. Federal Ministry of Labour and Productivity
22. Labour demand by sectors	a. Sectoral surveys b. National Manpower Board c. Federal Ministry of Labour and Productivity

Capabilities of Information Technology in Labour Market

1. Information technology (IT) is a veritable force which drives socio-economic development of nations in the twenty-first century. The labour market cannot be an exception.
2. IT has the potential of creating national database on labour and manpower. Through on-line labour market information, labour mobility and accessibility of labour market information is possible. It, therefore, ensures efficient diffusion of labour market information both nationwide and worldwide. It also ensures sectoral, national, regional and international labour market information networks for the purpose of cooperation and labour resources sharing.
3. IT can be utilized to restructure government, citizens and business interface for better administration of labour among others.
4. IT skills can be used to empower the labour force efficiency and thereby improve the productivity of enterprises.
5. IT is useful for education, wealth creation, poverty eradication, job creation as well as global competitiveness. According to Federal Ministry of Science and Technology (2001), the objectives of IT for Nigeria include:
 - a. the building of a mass pool of IT literate manpower;
 - b. the development of human capital with emphasis on creating and supporting a knowledge-based society.
6. IT can provide sufficient information on current and future manpower needs of a nation. This is possible with IT as an avenue for regular feedback from employers to producers of labour to guide curricula.
7. IT enhances digitalization of academic resources which cost less than hard copies and are easier to use. It makes it possible to circulate research findings electronically in advance of publishing. This provides bases for human capital capacity building.
8. IT creates opportunities for individuals and organizations for

the enhancement of possibilities for successful transactions from education to employment, re-entry into the labour market by the social categories that were hitherto constrained by existing lack of information.

9. IT offers productive linkage of organized labour with the organization's management. It can help in bridging the information gap between users and producers of labour by helping in coordination among stakeholders in the labour market. IT information is vital for scholarship awarding institutions through the use of such awards to bridge the gaps in labour demand and supply.
10. IT processes generate more and better job opportunities which take care of both the low income group and affluent middle-class as well as the top echelon of the society. Through IT, human capacity gaps may be identified and the asymmetries in the existing structure and approach of human capital formation may be corrected. It may also help in human capital accumulation for greater gender balance and social equity.
11. Finally, investment in IT human resources is capable of encouraging the proliferation of small and medium enterprises (SMEs). IT-based SMEs will contribute a lot to the economy, especially non-industrialized ones. The SMEs have special strategic significance due to their potentials as generators of jobs and creators of wealth.

Application of Information Technology to Labour Market Data Analysis

Information technology is applicable to the analysis of labour market data as follows:

1. Through the use of computers, firms, organizations and economic sectors can compute, know and apply optimal levels of labour requirements using linear programming and other mathematical methods. This would ensure more efficient operation of labour and enhance productivity and profitability.

2. Information technology is useful and applicable in the management of the workforce. It is applicable in job scheduling and analysis of optimal levels of employee output.
3. Through the use of information technology and the assignment technique in operations management, workers can be optimally and more efficiently allocated to jobs.
4. Through the use of fibre optic networks, high speed gateways and broad band/multimedia technologies, employee activities can be tracked.
5. IT is useful in analyzing the labour demand-supply gaps, determining the quality and quantity of labour needed to close the gap and forecasting future labour needs as an organization grows.
6. IT is useful in workflow automation. This involves automation of labour activity, document tracking and escalation.
7. Computer softwares are available to help in the analysis of the degree of labour-capital substitutability required as a firm or institution grows in the long run.
8. Radio and television facilities are veritable channels for the transmission and analysis of labour related issues. This would keep labour producers and users abreast of latest occurrences in the labour markets.

Conclusion

This paper takes an overview of the process of generating labour market statistics and the role of information technology. The labour market processes involve labour demand, labour supply, labour allocation, wage determination, trade unionism and collective bargaining. As a result of breakthroughs in information and communications technology, a lot of gadgets have become available and relevant in the generation of labour market statistics. These include satellite (VSAT, fibre optic networks, high speed gateways and broadband/multimedia technologies), telephone, internet

facilities, computers, robotics, e-mail facilities, radio, television and other electronic gadgets.

These IT gadgets enhance generation, storage and dissemination of labour market information, which by themselves ensure mobility of labour from areas of excess to areas of need.

To maximize the use of information technology in generating labour market statistics, we propose the development of labour-market information systems network (LMIS-NET).

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