

Where will you find the future employees your organisation need

Author: Benjamin Sombi . January 2020

No business in the world wants a *surplus of employees* who are not being fully and effectively deployed. There is no leader who wants gaps in their employees which results in reduced productivity, performance and profitability. Organisations need to invest in *workforce supply assessment*.

In our last article, we talked about how to *forecast employee demand* within the organisation. Once an organization has forecast its *future requirements for employees*, it then goes on to the next stage. How can it fulfill its requirements? It, therefore, needs to determine if there are sufficient numbers and types of employees eligible for the positions in question.

Supply analysis thus involves planning for the procurement of employees. Employee *supply analysis* tries to answer who, where, how and when of the recruitment process. It scans the internal and external environment for the best-fit candidate for the positions in question. Thus, there are two sources of *supply- internal and external*.

Internal supply includes staffing tables, Markov analysis, skills inventories, management inventories, replacement charts and succession planning. *External supply* includes demographic changes, education of the workforce, labor mobility, government policies and unemployment rate.

Forecasting external workforce supply

There are multiple levels at which *external workforce supply* can be predicted, including global, national, provincial, regional, and local. Information that will help develop an understanding of external *HR supply* includes; *Supply and demand* of jobs or skills, educational attainment levels within a region, compensation patterns based on experience, education, or occupation, immigration and emigration patterns within an area, forecasts of economic growth or decline, competition for talent, industry or occupational expected growth levels strategic plan, public policy, government, and legal changes, trends in labour force participation (including entry and exit) and technological development patterns.

Information may also be available at specific levels. For example, predictions of enrolment and graduation levels in specific majors from academic institutions can identify the number of new entrances in the *external labour force* who possess a specific skill set.

Forecasting internal workforce supply

By reviewing the data in the HR audits, projections can be made for future *HR supply*. The internal labour force may be affected by temporary absences such as leaves of absence (e.g., educational leave, maternity/paternity leave), permanent absences (e.g., death, disability, retirement), or turnover (e.g.,

resignations, dismissals, layoffs). Death, disability, and retirement are considered actuarial losses in that these are life events that affect all populations. These can be predicted with some degree of accuracy by using mortality rates, understanding occupational health and safety risks, or reviewing demographic information about the population.

Below are some of the methods that are used to forecast internal workforce supply. The methods are both quantitative and qualitative.

1. Trend analysis

Trend analysis is considered one of the simplest methods of *forecasting future workforce supply*. It assumes that past trends and ratios in employee movement are stable and indicative of future trends and ratios in employee movement. The information collected in the human resources audit is used to identify labour patterns—hiring patterns, retirement patterns, productivity patterns, and turnover patterns.

By examining the trends of the past, the human resources department can predict the effect of the same activity on the future of the organization, because it is assumed that these patterns will remain stable.

When applying complex models, trend analysis is not used alone, rather is treated as a necessary step in understanding the current workforce profile and the assumptions that can be made.

The steps used in trend analysis for forecasting demand are the same as for *forecasting supply* (check our previous article).

For example, an organization reviewing historical data may realize that every year, approximately five percent of their staff retire, six percent resign, and three percent are dismissed. Using a simple trend analysis, *future HR supply forecasts* can be established by assuming an average reduction in internal HR supply of 14 percent per year.

1. Markov analysis

A Markov analysis extends beyond the staffing table to help *predict internal employee* movement from one year to another by identifying percentages of employees who remain in their jobs, get promoted or demoted, transfer, and exit out of the organization. By tracking and predicting employment movement within an organization, the Markov analysis allows for the development of a transition matrix to *forecast internal labour supply*.

The Markov analysis identifies areas of high turnover, specifically at general labourer and machine operator levels. It may be of interest to the organization to assess the causes of turnover at these levels and identify whether the turnover can be minimized.

While this provides a very clear approach to *forecasting HR supply*, there are two key challenges to using a Markov analysis. First, the organization must be large enough to provide information on different jobs and occupations. Second, organizations that are experiencing periods of change or very

high turnover might find that this model does not accurately predict *future supply*.

A state-owned commercial bank in China used techniques such as Markov chains and competence analysis for workforce supply prediction. These techniques made sure that they have enough employees to fill certain positions through internal transfers. Competence analysis then accessed and made sure these employees have the right skills and competencies.

1. Skill/ Competency models

Building on the skills inventory, the skills/competency models focus on matching the right skills or competencies needed for each job with the skills available within the organization. Unlike other models that predict headcount (e.g., trend analysis or Markov models), the skills/competency models focus on identifying the skills/competency supply within the organization and helping focus future recruitment, selection, retention, and training activity in core areas of key skills/competencies needed for the organization to succeed.

In any competency profiling exercise, please consider the business plan, business strategy & objectives, organizational principles, job descriptions, regulatory or other compliance issues, predictions for the future of the organization or industry and customer & supplier requirements.

1. Replacement chart

A replacement chart is used to estimate vacancies in higher-level jobs and identify how potential HR supply can fill these vacancies via internal movements from lower levels jobs. A comprehensive replacement chart will include information regarding possible replacements for vertical or horizontal movement. Generally, a replacement chart includes information about employees' performance, readiness to fill the position, and education. In some cases, a replacement chart will include information about an employee's age, tenure, gender, and visible minority status in addition to the required experiences, education, or skills needed for the position.

The demographic information provided in an effort to manage firm diversity, but be careful when conducting a replacement plan not to allow such information to result in any potential illegal discrimination.

1. Succession planning

While replacement charts provide identification of potential replacements for vacancies within an organization, succession planning focuses on identifying, developing, and tracking future leaders for executive positions or positions that are critical to the success of the organization. Succession planning is a longer-term process of grooming a successor (selected from a pool of candidates on the basis of perceived competency) for the management or critical positions.

One can use the skills inventory, HR audit, or a succession summary to help identify potential successors and skill gaps that can be addressed through succession planning.

Workforce supply analysis is a very important part of the workforce planning value chain. Together with workforce demand, it is imperative for businesses wanting to plan their growth and limit situations where they are faced with too many or too few employees or the wrong skillsets.

Benjamin Sombi is a Data Scientist, Entrepreneur, & Business Analytics Manager at Industrial Psychology Consultants (Pvt) Ltd a management and human resources consulting firm.

<https://thehumancapitalhub.com/articles/Where-Will-You-Find-The-Future-Employees-Your-Organisation-Need>