

WORKFORCE PLANNING TO SUPPORT COMPANY TARGET ACHIEVEMENT

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ABSTRACT

One subsidiary of a national oil and gas company has a role in supplying raw material of oil and gas to sustain in the business and for the national interest to meet oil and gas needs. It is expected to reach 145% above the current target in the next five years. The fulfillment of a sufficient workforce with the right skills and competencies are essential things to ensure the target achievement for organizations. It is expected that the company could have the right number of workers, with the ability to suit their needs and at the right time. The workforce planning becomes vital for the effectiveness of managing the workforce sustainably. This research analyzes workforce planning to support company target achievement through the evaluation research, which uses qualitative and quantitative analysis. The qualitative analysis using semi-structured interview techniques, and quantitative analysis using secondary data and benchmarking analysis. The secondary data benchmark was conducted with global and Indonesia oil and gas companies. Pertamina EP shall implement the Internal Labor Market strategy, which fills executive and managerial levels from internal sources and external recruiting for below positions of those left by the previous incumbent. Organizational restructuring by building a Shared Service Center (SSC) organization for supporting functions is one of the proposed strategies to improve organizational effectiveness. Competencies development strategy is mandatory to ensure the readiness of workers to occupy current and future positions.

Keywords: Workforce Planning, Evaluation Research, Benchmarking, Internal Labor Market, Shared Service Center (SSC)

INTRODUCTION

Oil consumption in Indonesia is increasing every year. On the contrary, the production of oil continues to decline. Figure 1 shows Indonesia's oil production and consumption gap, getting bigger from 2000 to 2018.

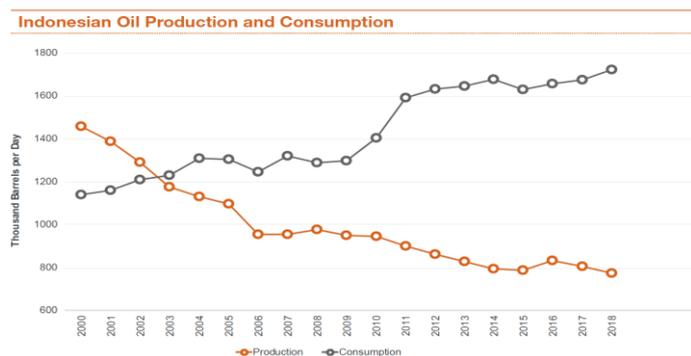


Fig. 1: Indonesian Oil Production and Consumption
(Source: PWC, 2019)

In 2020, the Government of The Republic of Indonesia has announced to boost up the oil lifting target to 1 million barrel in 2030. The Government targeted all oil and gas companies, especially national oil and gas company, to increase their production. PT Pertamina EP, as a subsidiary of a national oil and gas company, is targeted to achieve 145 percent target from current oil and gas production. This target is challenging because most of the oil production sources are from old field wells, with equipment that has also decreased in performance, and the operating area covered is very wide.

With all the challenges above and the strategic plan that will be carried out, it certainly requires support from various aspects. One of the important aspects is from human resources, who will carry out business strategies and operations.

The essential things for organizations in managing their interest were finding out the number of workers needed, the proper skills, and the precise time. If this is not settled, there will be a lack of workforce that can interfere with the achievement of targets or even excess labor, causing the company to become unproductive. Therefore workforce planning is important to support the company's target achievement.

At present, many managers complain regarding the shortage of workforce in their core function. On the other side, there are critiques on the excessive workforce in supporting function. The capabilities possessed by workers are also not evenly distributed. Some incumbents in critical positions will retire in the next five years. Pertamina EP also would like to insist on applying new technologies to enhance oil recovery.

Under these conditions, the question arises whether PT Pertamina EP has implemented the workforce planning and whether the existing workforce can support the achievement of targets in the following years and the recommendation to support company target achievement.

LITERATURE REVIEW

Workforce Planning

The organization implements Workforce planning as a process to estimate the demand for labor and evaluate the sources, size, and natures of supply that will be met by demand (Reilly, 1996).

The term of 'Manpower planning' was predominantly known before 'Workforce planning.' Although the term 'Manpower planning' is still used occasionally, the new term of "Workforce planning" has been used because it moves away from gender-unequal connotation and suggests a more qualitative approach to thinking about the workforce (Reilly, 1996).

Workforce planning can bring several benefits to an organization. It helps organizations to 'get the right people in the right job at the right time.' It allows effective and efficient use of workers and organizations to prepare for restructuring, reducing, or expanding their workforces (Sinclair, 2004).

The workforce planning process helps organizations by providing overarching objectives that integrate various units and give employees space and time to think about their shared goals for the future (Sinclair, 2004).

The process of workforce planning can be summarized from several works of literature, and concludes as follows:

1. **Aligning business and organization strategy:** the business and organization's strategic plan may provide insights into expected changes in the volume of work, the geographic distribution of work, service delivery modes, access hours, or client types that are served. These plan elements could have significant implications for particular skills demand or competencies (Cotten, 2007).
2. **External analysis:** Mathis & Jackson (2010) mention external analysis conduct in industry trends, economy, regulatory factors, and technology advancement. When scanning the potential and future workforce, it is essential to consider some variables, including the aging of the workforce, the growing diversity of workers, female workers and work-life balancing concerns, availability of contingent workers, outsourcing possibilities
3. **Current internal workforce:** internal workforce analysis such as:
 - a. **Workforce trends** including age distribution, retirement risk in crucial leadership or technical position, organizational structure and culture, employee morale, and current levels of performance (Cotten, 2007).
 - b. **Workforce segmentation.** There are two approaches to workforce segmentation. The first identifies different types of job families, functions, roles, and competencies within the organization. The second segment roles by value or type of work performed to focus on the most critical roles together (CIPD, 2018).
4. **Assessing and determine future workforce needs** of two components of forecasting: the estimate of workload and staffing requirements; and competencies and skillsets needed (Cotten, 2007).
5. **Identify workforce gap:** the information about the current and available workforce, as well as future requirements, will help to identify the gaps that need to address.
6. **Develop a strategy to close the gap:** the most common strategy to close workforce planning is based on the concept Buy, Build, and Borrow. Buy is hire in new talent from an outside organization. Build is to develop talent within the organization. Borrow is to acquire talent from outside organizations. It could be using a contingent worker or outsource (CIPD, 2018).
7. **Monitoring & evaluation:** common evaluation indicators include workforce demographics, demographics in mission-critical positions and occupations, workforce gaps measurement, retention rates, and employee climate assessments (Cotten, 2007).

It can conclude that the framework of workforce planning comprises 7 (seven) steps, as shown in figure 2 below,



Fig.2: Framework of Workforce Planning
(Source: Author)

Indonesia Workforce

Indonesia's population in 2020 is around 273 million people, with the median age is 30.2 years, and the number of the adult population approximately 185 million according to the latest census figures. The number of employees increased from 127 million in 2018 to 129 million in 2019. The unemployment rate decreased from 6.87 million in 2018 to 6.81 million in 2019. Indonesian workers are better educated and have a greater capacity for adopting new technology than the average worker at nowadays. However, the younger groups share (aged 15 – 29) of the working-age population is projected to decline from 40% to 34% between 2010 and 2035, entailing an increase in the mature age population. From 2010 to 2015, the number of workers with tertiary education has increased by more than 1 million annually and those with a senior secondary education by more than 2 million annually. Indonesia's labor force consists of more than 30 million of senior secondary and 10 million of tertiary education graduates (Allen, 2016).

Moreover, the quality of tertiary education is low, and the learning achievement of most students is inadequate. In a 2008 World Bank survey of employers, two-thirds complained that finding employees for professional and management positions were challenging or highly difficult. In some sectors, the education system is not providing enough graduates, while in other sectors, those who are graduating do not have the right skills (Allen, 2016).

Consequently, many individuals with postsecondary qualifications work in low-skill occupations, which suggests that despite holding degrees, they lack the right skills. In 2015, 52% of the employed population was underqualified for their positions. McKinsey estimated that demand for semi-skilled and skilled workers might rise to 113 million by 2030, and likely to lead for skills shortages and skills mismatches throughout the economic activities (Allen, 2016).

It is estimated that 51.5 % of workers are underqualified, 40.0 % are well-matched, and 8.5 % are over-qualified. Occupation mismatch in Indonesia tends to be associated with the low education levels of production workers and agricultural laborers and many clerks that are overqualified for their jobs. Under-qualification is also a challenge in higher-level occupations (Allen, 2016).

High levels of under-qualification and lower levels of over-qualification point towards an issue of skill shortages. This is an important issue, as high levels of skill and qualification mismatch are typically associated with lower levels of labor productivity. The high proportion of underqualified workers may, therefore, be one reason for weaker labor productivity growth and slow transition to higher-value activities throughout the economy (Allen, 2016).

Internal Labor Market

Doeringer and Piore (Stoikov et al., 1972) introduced the term internal labor market to describe institutional practices that supplant the external market, which reflect long-term commitments between the employer and the employee. For example, the reliance on formal career paths, hiring tendency of only to lower levels within each career path, and the practices that link pay to jobs in a rigid hierarchy instead of individual employee's capabilities.

Moreover, Internal Labor Market analysis provides a fact-based platform for decision making regarding many essential human capital aspects. At the most basic level, Internal Labor Market examines the flow of people into, through, and out of an organization by using workforce data to answer fundamental questions about the company.

Contingent Worker

Contingent workers are "any job in which an individual does not have an explicit or implicit contract for long-term employment" (Plovika & Stewart, 1996). The contingent workforce includes temporary workers, on-call workers, leased workers, some contractors, and some part-time employees (Stickney, 2008).

Contingent workers are highly skilled or experts in their fields. These contingent workers are hired on specified tasks under a statement of work (SOW) provision. The contingent workers will leave once the project is over and maybe called back when another project arises. Therefore, contingent workers are not employees of a company, and the company has no responsibility to provide continuous and permanent works.

Shared Service Center (SSC)

An SSC can be viewed as a particular sourcing arrangement, having a long-term and strategic impact (Bergeron, 2003).

Moreover, SSCs bring together the notion of centralizing activities to avoid duplication but simultaneously remaining responsive to local business needs (Janssen & Joha, 2006).

Furthermore, SSCs are different from the outsourcing model. SSCs are a particular kind of sourcing arrangement supporting a collaborative strategy (Bergeron, 2003), while outsourcing involves contracting out to a third party vendor, eliminating a burden, downsizing, creating flexibility, and focusing on core activities (Baldwin et al., 2001).

Also, SSCs involve in-sourcing, which is restricted by the boundaries and capabilities of the internal organization (Janssen and Joha 2006). In-sourcing delivers internal control, standardization of internal processes and systems, organization-wide dissemination opportunities, the internal concentration of expertise, and consolidation of systems and competence (Baldwin et al., 2001).

SSCs can be used to share services between departments within an organization or between organizations. The former kind of SSC type can be called an intra-organizational SSC, while the latter is called an inter-organizational SSC.

Competencies

The competency definition is the underlying characteristics of an individual that is causally related to criterion-referenced good and superior performance in a job or situation (Spencer & Spencer, 1993).

This concept originated is from McClelland (1973) that use this approach for predicting competence that was notably different from widely accepted intelligence tests of the time. He suggested that although intelligence influences performance, personal characteristics, such as an individual's motivation and self-image, differentiate successful from unsuccessful performance and can be noted in a number of life roles that include job roles.

Moreover, Boyatzis & Boyatzis (2008) mention that no single factor differentiates successful and less successful performance. The factors are ranging from personal qualities, their motives and experience, and also behavioral characteristics. Boyatzis defined competency as 'capacity of a person that leads to behavior which meets the demands of job within the parameters of the organizational environment, which in turn brings the desired results. He made a distinction between threshold competencies, which are the essential competencies required to do a job, and performance competencies, which differentiate between high and low performance.

Furthermore, different types of competencies levels are classified in different ways. They can be subdivided into organizational and individual. In the individual competencies category, there are technical and personal functioning.

Some practitioners distinguish between technical and non-technical competencies: Technical competencies are specific to certain roles, and nontechnical competencies are more generic.

RESEARCH METHODS

This study uses an evaluation research framework. Evaluation is a process of collecting data about organizations, processes, programs, services, and resources systematically, as enhancing knowledge and decision making processes, and lead to practical application expectations (Preskill, 2005).

This research also uses a combination of quantitative and qualitative methods. The quantitative method will use a documentary review, and the qualitative method will use the interview technique for data collection.

According to Saunders, Lewis, & Thornhill (2014), in determining the research sample, there are at least three essential elements that shall be carefully considered. These essential elements are population, target population, and the samples to be analyzed.

This research identifies Pertamina EP stakeholders as the population. Management is the target population. This research takes the samples from the management, which deals with the workforce in Pertamina EP.

Furthermore, the interview technique to get comprehensive and enrich the result will be employed by this study. According to Powell (2006) and Neuman (2014), an interview is a tool for digging deeper into the background of the problem and propose solutions. Interview conduct to 6 (six) participants and 5 (five) are management level.

The qualitative phase validity and reliability refers to the paper with the title "Establishing Trustworthiness" (Lincoln & Guba, 1985). The data collection thus included a taped and transcribed record of the conversations, multiple respondents, and the opportunity to observe production at most organization levels, and data from archival sources.

The primary data is collected from interviews through a semi-structured interview. The secondary data are collected from the organization database, organization web site, and report.

The data then analyzed to mapping the company's target internal workforce condition and benchmarked it to another oil and gas company. All of these analyses are then formulated to create a recommendation to support the achievement company target.

FINDING AND DISCUSSION

Workforce Planning Process

Based on data analysis, it is found that PT. Pertamina EP has implemented workforce planning, as shown in table 1.

However, the process is not systematic, and there are no guidelines in their workforce planning. Therefore PT Pertamina EP needs to provide guidance or manual for developing comprehensive workforce planning that aligns with the strategic objective and critical needs of the organization.

Workforce Number & Demography

Currently, the total workforce of PT Pertamina EP is 3841 employees. The average workforce age is 38 years old, with average tenure service is nine years, and the turnover rate is 0.18 percent. There are seven levels of PT Pertamina EP career structure, which comprise of Executive level, Managerial level, and Operational level.

Eighty-six percent of workers at the executive level will retire, 36 percent at the managerial level, and 61 percent of advisors (senior individual contribution equivalent to managerial level) will retire in the next five years. There is 8 percent of the operational level will retire in the next five years.

Table 1: Workforce Planning Implementation Checklist

Process of Workforce Planning	Checlist	Notes
1. Aligning Business and Organization Strategy	√	- Documentation of strategic and operational business goals of the organization - Based on the interview
2. External Analysis	√	- Based on interview external analysis conduct to some extent
3. Current Internal Workforce	√	- Documentation of workforce profile - Interview result, it is known that workload analysis has been carried out to find out the current workload of the employee
4. Assessing and determine future need	√	- Documentation of recruitment needs in specific competencies - Interview result, the method to determine future needs
5. Identify workforce gap	√	- Documentation of recruitment needs in specific competencies - Description of risks associated with not fulfill a vacant position
6. Develop a strategy to close the gap	√	- Document of strategic workforce planning
7. Monitoring & Evaluation	√	- Organization review every 2 or 3 years

PT Pertamina EP needs to address the future condition above, and it is proposed to use internal labor market practice. Such practices are usual for jobs that require a great deal of organization-specific knowledge (Stoikov et al., 1972).

The upstream oil and gas industry is the most complex of all the oil and gas business sectors. The industry is high risk, highly regulated, capital intensive, and very technology-intensive industry. The regulation of this segment refers to the production, access to reserves, pricing & taxation, and more strict environmental regulation. Safety is an essential thing in the oil and gas business that also required common sets of regulations and procedures, which needed to be fully internalized by all employees.

Internal Labor Market practice has three basic structure features, i.e., job ladder, entry only at the bottom, and movement up this ladder, which is associated with the progressive development of knowledge or skill (Althausser & Kalleberg, 1981).

Fulfillment job vacancies through the internal promotion will provide promotion opportunities as an aid in recruiting better employees. Moreover, by promoting employees who have made good on simple operations to more difficult ones, and by hiring outsiders for the simple jobs, the risk of misfit is largely eliminated (Slichter, 2018).

With an internal labor market strategy, companies can fill the void left by workers promoting or retiring by optimizing the workforce. Filling these positions can be done through succession planning, internal job posting, or lateral moves.

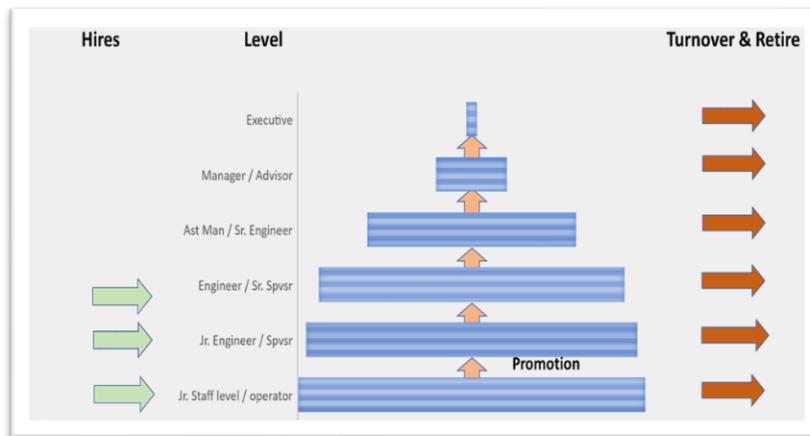


Fig 3. Internal Labor Market

PT Pertamina EP has several divisions: Office to CEO Division, Finance and Business Support Division, Production Division, Development Division, and Exploration Division. Office to CEO division and Finance and Business Support Division are support functions, while Production Division, Development, and Exploration Division are categorized as a core function.

Based on the benchmark with global companies, the average ratio of core and support functions approximately 5:1. The number of Pertamina EP employees at the core function is 2905 employees, and at the support function is 936 employees.

Therefore the ratio between core and support function in PT Pertamina EP is 3,1: 1. The ratio number between the core function and supporting function shows that Pertamina needs to add the core employees and to minimize the supporting employees.

A more in-depth analysis in workforce data, it is found that the organizational position fulfillment on core function only 81 percent, especially in the Exploration division, is 72% and Development division is 61%.

Executive management has emphasized this shortage of fulfillment in the core function as the significant drawbacks in their production line. Meanwhile, based on an interview with executive management, it is stated that there are too many supporting employees in PT Pertamina EP.

Based on headcount productivity analysis, it is found that PT Pertamina EP earns before tax per employee is the lowest compare to other companies, as shown in Table 2 below.

Table 2: Peer-Headcount Productivity Benchmarking

As Per 2018 Historical Data	Unit	Pertamina EP	A Co.	B Co.	C Co.	D Co.
Headcount productivity						
Oil and gas production/employee	MBOEPD / workforce	0.07	0.07	0.10	0.23	0.82
Revenue / employee	Million	0.82	0.71	1.09	4.26	6.41
Earn before tax/employee	Million	0.35	0.39	0.71	6.22	1.23

It is proposed that to increase headcount productivity, to strengthen the core, and to improve support function ratio at the same time, Pertamina EP shall implement fulfilling the shortage of workforce in core function through the contingent workforce, implement an organizational restructuring and improve employee competencies.

Pertamina EP can increase employment flexibility by using a contingent workforce. When workload arises, or a sudden urgent project comes up, a contingent worker can perform the extra work.

However, once the business slows down again, the company does not have to pay wages for a worker that is not vital to the organization. The company can find the skills and experience they need for a specific project in a contingent worker that they cannot find internally.

Meanwhile, to improve the support function ratio, it is proposed to implement the organizational restructuring.

The support function of PT Pertamina EP has the redundancy of administrative processes and operational activities under five assets and the Head Office. Each asset has a full cycle organization as well as in the supporting function under Head Office. Under these conditions, the same and repetitive processes could occur at the head office and assets.

It is proposed to form The Shared Service Center (SSC) as a business solution to improve efficiency by unbundling and centralizing activities. The basic premise for The Shared Service Center (SSC) is that one local department services to others with more relatively low efforts.

The Shared Service Center (SSC) has a management structure designed to promote efficiency, value generation, cost savings, and improved service for supportive function and build as a separate and accountable semi-autonomous unit within an organizational entity.

A bundled of administrative activities will be provided to the operational units based on agreed conditions. By bundling the development, maintenance, and use of services, the costs can be shared among the units to achieve higher efficiency.

The Shared Service Center (SSC) is positioned closer to units, and the units do have a degree of ownership over the service delivery.

The Shared Service Center (SSC) approaches are different from outsourcing because outsourcing arrangements address the relationship between one client to external vendors. In contrast, the Shared Service Center (SSC) arrangements address the relationship between many clients and only be one internal vendor, both belonging to the same organization, i.e., Pertamina EP.

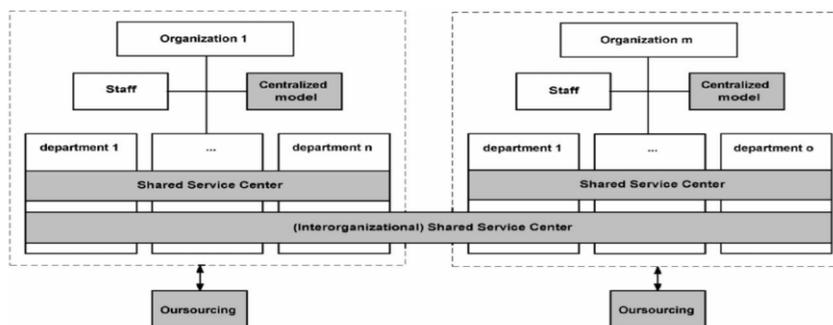


Fig. 3 The Shared Service Center Model
(Janssen & Joha, 2006)

Competencies of Workforce

PT Pertamina EP has conducted competencies mapping both for technical competencies and leadership competencies for a senior position and managerial position. The result reveals there are competencies gap between the current competencies level and required competencies. Competency related to project management, company man, offshore, and tertiary recovery are critical competencies that need improvement. Based on the interview, most of the respondents said employees need more experience to master the competencies.

Related with leadership competencies, competency strategic leadership, strategic decision making, and entrepreneurial are competencies most have the most significant gap.

Pertamina EP needs to address those findings, and it is proposed Pertamina EP to build a development program to increase technical competencies and leadership competencies. The program consists of job-site approach, which is classroom training, and off-site approach that consists of coaching, job training, and assignment. The competencies development program will focus more on off-site approach.

LIMITATION

This research limits the scope only to workforce planning. The implementation program will be offered, but the implementation evaluations are not included in this research.

CONCLUSION AND RECOMMENDATION

This paper shows the importance of Workforce Planning in supporting the achievement of company targets. This is because, in the analysis carried out in this workforce planning, it is related to people / human resources and people who will carry out all company plans and strategies to achieve their targets.

Besides, the results of the analysis and recommendations that need to be carried out often require planning and implementation in the long term. For this reason, the company needs to do workforce planning regularly to always adjust to the company's strategy or target. This paper proposes seven steps that can be taken in workforce planning.

PT Pertamina EP, as a subsidiary of a national oil and gas company, has implemented the workforce planning to align and to support company target achievement. However, it needs improvement by providing guidance or manual for developing comprehensive workforce planning to make the process more systematic.

Pertamina EP need to achieve the company target, and it is proposed some strategy:

1. Proposed SSC organization for support function to optimize and increase the performance effectiveness in the support function
2. Pertamina EP needs to use a contingent worker to fulfill the vacant position in core function.
3. Pertamina EP needs to use internal labor market practice to address the vacant of critical positions due to retirement.
4. Build the professional development program to improve technical competencies and executive development programs to improve leadership competencies that consist of job-site approach and off-site approach.

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