



Technical Education and Skills Development Authority
and
Philippine Statistical Research and Training Institute

SKILLS NEEDS ANTICIPATION Workplace Skills and Satisfaction Survey (IT-BPM Sector)

Table of Contents

EXECUTIVE SUMMARY	8
1.1 Objectives of the Study	13
1.2 Scope of the Study	14
REVIEW OF RELATED LITERATURE	15
METHODOLOGY	17
3.1 Questionnaire	17
3.2 Selection of Sample	19
3.3 Preparation for the Survey	20
3.4 Data Collection Strategies	21
3.5 Editing, Encoding, and Analysis	21
RESULTS AND DISCUSSION	22
4.1 Basic Organizational Background	23
4.2 Critical Human Resources	27
4.3 Skills in your Business	35
4.4 Fourth Industrial Revolution and Emerging Skills	42
4.5 Green Jobs and the IT-BPM Sector	45
4.6 Learning and Development	48
4.7 Business Strategy	55
4.8 Work Processes and Technology	59
4.9 Organizational Performance	61
4.10 Workforce Characteristics in the IT-BPM Sector	65
4.11 Recruitment in the IT-BPM sector	65
4.12 Attrition in the IT-BPM Sector	66
4.13 Projections on Skills Demand in the IT-BPM Sector	66
4.14 Fourth Industrial Revolution and the IT-BPM Sector	67
4.15 Green Jobs and Emerging Skills	68
4.16 Employee Performance in the IT-BPM Sector	69
4.17 Performance of TVET Graduates and Certified Employees	69
4.18 Policies/Practices/Programs for Employees	69
4.19 Future Development Plans of IT-BPM Companies	70
CONCLUSIONS AND RECOMMENDATIONS	71
REFERENCES	74

List of Abbreviations

AGD	Animation and Game Development
AI	Artificial Intelligence
CAPI	Computer Assisted Personal Interview
CATI	Computer Assisted Telephone Interview
CC-BPO	Contact Center and BPO
CEDEFOP	European Centre for the Development of Vocational Training
CSS	Corporate Services Segments
DENR	Department of Environment and Natural Resources
DOLE	Department of Labor and Employment
DTI	Department of Trade and Industry
ETF	European Training Foundation
GIC	Global In-House Center
HIM	Health Information Management
IBPAP	Information Technology-Business Process Association of the Philippines
ILO	International Labour Organization
IoT	Internet of Things
IT-BPM	Information Technology-Business Process Management
ITO	Information Technology Outsourcing
NC	National Certificate
NCR	National Capital Region
PAPI	Pen-and-Paper Personal Interview
PSRTI	Philippine Statistical Research and Training Institute
SNA	Skills Needs Anticipation
STEP	Skills Toward Employment and Productivity
TESDA	Technical Education and Skills Development Authority
TVC	Technical Vocational Certificate
TVET	Technical-Vocational Education and Training
TWG	Technical Working Group
TWSP	Training for Work Scholarship Program
UK	United Kingdom
WSS	Workplace Skills and Satisfaction

List of Tables

Table 1.	Distribution of the 242 IBPAP member companies by region and subsector
Table 2.	Distribution of the sample in NCR, by sector
Table 3.	Distribution of the selected sites, by subsector
Table 4.	Distribution of the Participating Sites, their Employees and the Response Rate by Subsector
Table 5.	Distribution of Participating Sites by Subsector and Size
Table 6.	Distribution of Employees by Occupational Type
Table 7.	Distribution of Employees by Subsector and Occupational Type
Table 8.	Distribution of the Employees by Subsector and Employment Status
Table 9.	Distribution of the Employees by Subsector and Employment Status
Table 10.	Percentage of Female Employees by Subsector
Table 11.	Distribution of the Employees by Highest Educational Attainment
Table 12.	Distribution of the Employees by Highest Educational Attainment and Subsector
Table 13.	Distribution of the Employees by Age Group
Table 14.	Distribution of the Employees by Subsector and Age Group
Table 15.	Percentage of Sites which are Multinational per Subsector
Table 16.	Distribution of the Multinational Organizations by Location of Main Office
Table 17.	Distribution of the Employees by Gross Monthly Salary
Table 18.	Distribution of the Employees by Subsector and Gross Monthly Salary
Table 19.	Distribution of the Sites by Status of Employee Size, 2018 to 2019
Table 20.	Distribution of the Sites by Subsector and Status of Employee Size, 2018 to 2019
Table 21.	Distribution of the Sites by Expected Change in the Number of Employees for the Next Years
Table 22.	Distribution of the Sites by Subsector and Expected Change in the Number of Employees for the Next Years
Table 23.	Percentage of Sites with Skills Shortage in the Last Six Months per Subsector
Table 24.	Percentage of Sites with Fast Turnover per Subsector
Table 25.	Percentage of Sites with Fast Turnover per Reason for Difficulty in Retaining Employees
Table 26.	Hard-to-Fill Skills under each Subsector
Table 27.	Distribution of the Vacancies in the Sites by Required Educational Qualification

Table 28.	Distribution of the Vacancies in the Sites by Subsector and Required Educational Qualification
Table 29.	Distribution of the Employees Who Left the Site by Reason for Leaving
Table 30.	Distribution of the Employees Who Left the Site by Subsector and Reason for Leaving
Table 31.	Percentage of Employees Promoted to Managerial and Supervisory Positions per Subsector
Table 32.	Percentage of Sites with Structured Program for Managing High Potential Employees per Subsector
Table 33.	Percentage of Employees that Contribute to the Outstanding Performance of the Business per Subsector
Table 34.	Percentage of Employees who are Supported by Career/Structured Succession Planning Policy/Practices for Current and Future Development per Subsector
Table 35.	Distribution of the Employees by Performance Evaluation
Table 36.	Distribution of the Employees by Subsector and Performance Evaluation
Table 37.	Percentage of Sites with Employees Who Are Unable to Perform the Job per Reason
Table 38.	Distribution of the Sites by the Frequency of Implementation of Various Actions or Interventions for Employees who are Unable to Perform the Job
Table 39.	Percentage of Sites that have Undertaken Actions or Interventions to Employees with the Potential to Perform More Demanding Duties per Subsector
Table 40.	Average Percentage of the Positions in each Site per Specific Requirements by Policy
Table 41.	Average Percentage of the Positions in each Site per Specific Requirements by Policy per Subsector
Table 42.	Skills Content Index Score by Site
Table 43.	Average Skills Content Index Score by Subsector
Table 44.	Additional Employees as Percentage of Total Employees per Subsector
Table 45.	Skills with Projected Shortage
Table 46.	Distribution of the Sites by Incidence of the Projected Shift in Skills Requirements
Table 47.	Distribution of the Sites by Subsector and Incidence of the Projected Shift in Skills Requirements from Low to Mid
Table 48.	Distribution of the Sites by Subsector and Incidence of the Projected Shift in Skills Requirements from Mid to High
Table 49.	Identified Emerging Skills Associated with Fourth Industrial Revolution per Subsector

Table 50.	Percentage of Sites that are Aware of and Ready for the Emerging Skills Associated with the Fourth Industrial Revolution per Subsector
Table 51.	Percentage of Sites that are Aware of and Ready for the Emerging Skills Associated with the Fourth Industrial Revolution per Relative Actions that have Already Undertaken
Table 52.	Percentage of Sites that Have Identified Emerging Skills Associated with the Fourth Industrial Revolution by Preparations on their Human Resource
Table 53.	Distribution of the Sites by Extent of Implementation of Different Aspects of Green Jobs
Table 54.	Examples of Organizational Provisions from any Aspects of Green Jobs
Table 55.	Percentage of Sites with Plans and Acts on Aspects of Green Jobs that Have Made Use of the Tax Incentives/Import Duties Exemption Programs per Subsector
Table 56.	Percentage of Sites with Plans and Acts on Aspects of Green Jobs that Have Received Support or are Seeking Support from any Government Agency per Subsector
Table 57.	Percentage of Sites with Identified Emerging Skills as a Result of Green Jobs per Subsector
Table 58.	Identified Emerging Skills as a Result of Green Jobs per Subsector
Table 59.	Average Percentage of Payroll Expenditure Allotted for Training per Subsector
Table 60.	Distribution of Sites by Rating Scale of Various Statements
Table 61.	People Focus Index Scores by Site
Table 62.	Average People Focus Index Score by Subsector
Table 63.	Percentage of Sites with Policies Covering Various Documents
Table 64.	Percentage of Sites with Policies Covering Various Documents per Subsector
Table 65.	Percentage of Full-Time Employees in the Sites Entitled to Various Rewards or Opportunities
Table 66.	Mutual Gains Index Score by Site
Table 67.	Average Mutual Gains Index Score by Subsector
Table 68.	Distribution of the Sites by Extent of Sharing of Various Information
Table 69.	Employee Participation Index Score by Site
Table 70.	Average Employee Participation Index Score by Subsector
Table 71.	Distribution of the Sites by Rating Scale of Various Approaches to Business
Table 72.	VA Index Score by Site
Table 73.	Average VA Index Score by Subsector

- Table 74.** Distribution of the Sites by Extent of Implementation on Different Areas of Business Development
- Table 75.** Percentage of Sites with Plans to Expand on Other Areas of Development per Subsector
- Table 76.** Areas of Development for Expansion per subsector
- Table 77.** Distribution of the Sites by Core Equipment Condition as Compared with the Best Commonly Available Technology
- Table 78.** Distribution of the Sites by Core Equipment Condition as Compared with the Best Commonly Available Technology by Subsector
- Table 79.** Distribution of the Participating Sites by Rating of Different Outcomes from 2018 to 2019
- Table 80.** Distribution of the Sites by Subsector and Rating of Different Outcomes from 2018 to 2019
- Table 81.** Distribution of the Sites by Percentage of Employees Exhibiting Various Behavior at Work
- Table 82.** Discretionary Effort Index Score by Site
- Table 83.** Average Discretionary Effort Index Score by Subsector
- Table 84.** Percentage of TVET Graduate Employees per Subsector
- Table 85.** Distribution of Sites with TVET-Graduate Employees by Satisfaction Rating on their Work and Performance
- Table 86.** Distribution of Sites with TVET-Certified Employees by Satisfaction Rating on their Work and Performance

EXECUTIVE SUMMARY

Due to the fast-changing landscape of the country's economy brought about by the fourth industrial revolution and globalization, there has been an increasing clamor for a constant monitoring and anticipation of skills demand in the labor market. In the Philippines, there is lack of skills needs anticipation (SNA) study that will give information on the current and future skills demand in the industries.

The Technical Education and Skills Development Authority (TESDA) and the International Labor Organization jointly conducted the study on SNA with the intent to determine the employers' desired skills and competencies of its workers as well as to determine their satisfaction on the competencies and performance of Technical-Vocational Education and Training (TVET) graduates in the workplace. Priority sectors were identified, which includes the Information Technology-Business Process Management (IT-BPM). The anticipation of the skills requirements is undertaken through the conduct of the Workplace Skills and Satisfaction (WSS) Survey.

Methodology

- TESDA commissioned the Philippine Statistical Research and Training Institute (PSRTI) to conduct the study.
- Respondents were sampled from the 242-member companies of the Information Technology-Business Process Association of the Philippines (IBPAP). Stratified sampling was utilized considering five subsectors, namely, Animation and Game Development, Contact Center and BPO, Health Information Management, Information Technology Outsourcing, and the Global In-House Center, and the employee size of the sites.
- The survey collected data on 24 participating sites from the five subsectors, covering 33,425 employees. The number comes from the total of the employees in the 24 sites.
- The survey questionnaire was developed to elicit information on the profile of the companies, skills requirements by sub-sectors, skills requirements relevant to the Fourth Industrial Revolution, Green Jobs, current policies and programs of the companies, and satisfaction to TVET graduates and/or TVET certified employees.

Highlights of the Result of the Study

1. Profile of the IT-BPM Sector
 - As to employment status, 59.91% of the employees are employed full-time and 40.1% are outsourced. However, in the Information Technology Outsourcing and Global In-House Center subsectors, most are outsourced at 83.79% and 77.04%, respectively;
 - 83.2% of the total workforce are in the technical rank and file positions. The IT-BPM sector has a relatively young workforce as 77.9% of the employees fall under the age group of 18 to 34 years old;
 - There is a balanced distribution of females and males;
 - In terms of educational characteristics of the employees, majority of the employees have finished tertiary education (76.4%), particularly college education (70%) and only 14% of the employees are high school graduates. It should also be noted that Animation and Game Development and Contact Center

and BPO are the only subsectors with employees who have taken TechVoc programs (9.4% of the total number of employees);

- Around 75% of the vacancies in the IT-BPM sector require college degree;
- Only 1.5% of the vacancies are requiring TechVoc undergraduate or graduate applicants, found only in the Contact Center and BPO and Information Technology Outsourcing subsectors;
- Other sites, also in the Contact Center and BPO and Information Technology Outsourcing subsectors, employ high school graduates for 12.7% of the vacancies;
- There is 4.3% vacancies that do not require any educational attainment at all, existing in the Global In-House Center subsector;
- 74% of positions require induction training of more than two (2) weeks while 80% require continuous development;
- Overall, applicants who have undergone TechVoc programs may be considered in only 17% of the total vacancies.
- By policy, only 14.3% of the positions require Technical Vocational Certificate or National Certificate to do the job.

2. Performance of Employees

- Around 61% of the employees are able to perform the job and three (3) out of ten workers have the potential to perform more demanding duties than they currently have, most coming from the Global In-House Center subsector.
- Majority of the sites who have workers with potential to perform more demanding duties have taken action to utilize their potentials. These sites are mostly those with policies covering business plans, training plan, training budget, staff development policy or plan, and development for high potential staff, and agrees to statements such as supporting non-job related training, employees having their own say in their training needs, provision of training only that is required by the job, and training that covers future skills needs.
- An average of 8.5% of employees are underperforming; their low performance is mostly due to lack of behavioral skills, soft skills, and socio-economic skills.

3. Current and Future Skills Demand

Sub-Sector	Hard-to-Fill Skills	Projected Skills Shortage	Emerging Skills
<ul style="list-style-type: none"> • Health Information Management 	<ul style="list-style-type: none"> • Medical Claims • Medical Claims Management • Medical Claims Service Delivery Management • Worker's Compensation • Worker's Compensation Management • UM/UR • Medical Coding • Telemedicine 	<ul style="list-style-type: none"> • Medical Claims Representative • Medical Claims Specialist • Medical Claims Manager • Medical Claims Service Delivery Manager • Worker's Compensation Trainee • Worker's Compensation Associate • Worker's Compensation Specialist • Worker's Compensation Manager • UM/UR 	<ul style="list-style-type: none"> • Medical Coder (All specialties: inpatient or outpatient, or etc.) • Behavioral Health Professionals • Genetic Counselling Professionals

Sub-Sector	Hard-to-Fill Skills	Projected Skills Shortage	Emerging Skills
		<ul style="list-style-type: none"> • Medical Coder • Telemedicine 	
Information Technology Outsourcing	<ul style="list-style-type: none"> • Software Development • Enterprise Technical Architecture • Database Administration • Business Analysis 		<ul style="list-style-type: none"> • Data analytics • Artificial intelligence • Machine learning • Automation enablement
Global In-House Services	<ul style="list-style-type: none"> • HR Management • Risk and Compliance Analysis • Risk and Compliance Management 		<ul style="list-style-type: none"> • Artificial intelligence • Sale services • Robotics • Internet of things • Data analytics
Contact Center and BPO	<ul style="list-style-type: none"> • Business Process Improvement • Training Quality Assurance 	<ul style="list-style-type: none"> • Client Servicing • Workforce Management • Business Process Improvement • Training Quality Assurance 	<ul style="list-style-type: none"> • Artificial Intelligence • IT-related skills • Emotional intelligence • Robotics • Programming skills • People management • Virtual reality • Complex problem solving
Animation and Game Development		<ul style="list-style-type: none"> • Animation Artistry 	

4. Fourth Industrial Revolution in the IT-BPM Sector

- Majority of the sites are in transition from low to mid and mid to high skills requirement. On the other hand, 14.3% the sites, coming from the Information Technology Outsourcing subsector, have already transitioned fully from low to mid skills requirement.
- Only 2 out of 5 subsectors have sites that were able to identify emerging skills. It was observed during the pre-test and interview that many of the respondents do not have sufficient knowledge on the emerging skills related to the fourth industrial revolution. Responses of the sites seems to suggest their lack of awareness.
- Three (3) types of emerging skills were identified: IT-related skills, soft skills, and health-related skills. IT-related skills include artificial intelligence (AI), robotics, programming, and virtual reality. Soft skills consist of emotional intelligence, people management, and complex problem solving. Health-related skills are medical coder of all specialties, behavioral health professionals, and genetic counselling professionals.

5. Green Jobs in the IT-BPM Sector

- Majority of the sites have not yet taken actions relative to green jobs. Those who did have done so to create provisions in their sites relative to preserving the environment but not to modify or create green jobs and positions.

6. Policies/Programs for the Employees in the IT-BPM Sector

- Around half of the IT-BPM workforce are supported by career or succession planning and practices, notably in the Global In-House Center subsector where in 99% of the employees are supported by career or succession planning and practices.
- For workers with low performance or those who are unable to do their job, the regular actions taken by most sites include reviewing appraisals or performance, mentoring, implementing disciplinary procedures, and creating performance improvement. Intensifying training comes as a second solution and not as a primary intervention for low performing employees.
- For workers with high performance or those who have the potential to perform more demanding duties than they currently have, 70% of the sites have structured programs for such employees and 90% of the sites have done action to utilize their potential. Training programs such as leadership and development trainings, on-the-job trainings, client relationship management trainings, and other external trainings were provided. Workers were also upskilled and assigned to special projects that will allow them to demonstrate their skills and potentials.

7. Performance of TVET Graduates and/or TVET Certified Employees

- All of the three (3) subsectors (Animation and Game Development, Contact Center and BPO, and Information Technology Outsourcing) with sites employing TVET graduates and/or certified employees have satisfactory rating on the work and performance, at the very least.

Recommendations

1. The need to amend existing programs or develop new ones to fit in the requirements of the IT-BPM sector must be taken into account.
 - 1.1. In particular, TVET programs must be made more responsive and flexible for the industry.
 - 1.2. A market of competencies which the IT-BPM companies can refer to when developing their own programs must be established.
2. In the advent of fourth industrial revolution, emerging skills, green jobs, and re-assessment of training programs and regulations must be considered.
 - 2.1. The changing skills requirement in the IT-BPM sector may require TESDA to enhance its current programs and regulations, update its existing facilities, and re-assess its trainers and assessors.
 - 2.2. Development of training programs and regulations for the emerging skills associated with the fourth industrial revolution and green jobs may likewise be given attention to ensure that there will be available workforce with such skills in the near future.
 - 2.3. Focus must be given to the need for soft and essential skills such as analytical and critical thinking, emotional intelligence, and complex problem solving in the conduct of training programs, assessment, and certification.

3. In addition, awareness of the companies on the fourth industrial revolution and green jobs must be looked into to ensure preparedness on the expected changes that this age of globalization is bringing to the labor market and to encourage compliance of the sector to the Green Jobs Act.
 - 3.1. TESDA may actively coordinate with concerned government agencies (i.e., Department of Labor and Employment and Department of Trade and Industry) in promoting awareness on fourth industrial revolution and green jobs in the sector.
 - 3.2. Further, TESDA may consider including in the development of training programs a module to orient industry experts on the green competencies that should be embedded in the training programs.
4. Quality performance, especially from low performing employees and workers with potential to perform more demanding duties, must be ensured by providing continuous training programs and learning and developmental activities.
 - 4.1. Focus must not only be on technical skills but also on the soft and essential skills, as recommended above.
 - 4.2. If the non-priority for conduct of training as intervention for underperforming employees is due to budget limitations, TESDA may consider filling in the gap in terms of training support for existing workers of the industry.
 - 4.3. Further, the prioritization of scholarship provision under the Tulong-Trabaho program and the Training for Work Scholarship program may be reviewed and improved to address performance gaps among employees in the sector.
5. Given the low demand of TVET employees, discussion with the IT-BPM sector must be conducted regarding the industry's perspective on TVET programs as well as the evolving landscape of the Philippine education system.
 - 5.1. TESDA is recommended to initiate particularly the review of the placement of TVET in the Philippine Qualification Framework, the institutionalization of requiring National Certificate in hiring employees, and the conduct of industry-led assessment and certification, among others.
 - 5.2. The possible impact of imbalance between the supply and demand of TVET graduates and certified individuals must also be included in the discussion, ideally in the context of decent work.
6. The projected increase in labor and skills demand, together with the plans of the sites to venture in various areas, will have an impact on the country, particularly on economic and labour opportunities. With this, continued dialogue between the academe, the industries, the concerned government agencies, and key private institutions is vital to ensure that programs and policies addressing these are cohesive.

CHAPTER 1 INTRODUCTION

Due to the fast-changing landscape of the country's economy brought about by the fourth industrial revolution and globalization, there has been an increasing clamor for a constant monitoring and anticipation of skills demand in the labor market.

Having labor market information has been valuable in helping the education and training institutions to provide service to the society's future workforce as well as to employers (International Labour Organization [ILO], 2016). This can give knowledge on possible future skills gaps which when acknowledged, may aid policy makers in improving policies and programs on education and skills development that will open better working opportunities to the citizens, reduce unemployment and underemployment, and continuously provide support to the industries in their human resources needs (ILO, 2015).

Skills needs anticipation (SNA), defined by ILO (2017) as the method of identifying future skills needs, has been conducted in several countries over the past years through varying methodologies: qualitative methods, sector studies, employer-employee surveys, enterprise surveys, quantitative forecasting models, graduate surveys or tracer studies, and vacancy surveys.

Despite these readily available strategies and practices, there is a lack of SNA study in the Philippines, which makes it difficult for the education and training sector to create innovative programs to address employment problems.

With this, the Technical Education and Skills Development Authority (TESDA), commissioned the Philippine Statistical Research and Training Institute (PSRTI) to conduct a pilot study focusing on the Information Technology-Business Process Management (IT-BPM) sector of the country and utilizing the employer or enterprise survey methodology, specifically the Workplace Skills and Satisfaction (WSS) Survey. This report presents the data collection methodology conducted and the initial analysis of the survey data.

1.1 Objectives of the Study

In order to have information on the future skills needs of the industry, TESDA aims to conduct the SNA study through the Workplace Skills and Satisfaction (WSS) Survey with the following specific objectives:

1. Quantify skill gaps, shortages, and utilization;
2. Determine factors that impact skills utilization;
3. Identify emerging future skills needs; and,
4. Determine satisfaction of the employers on the competencies and performance of the Technical-Vocational Education and Training (TVET) graduates in the workplace.

The objective of this report, however, is to present the survey methodology conducted by the PSRTI in collecting data as well as the relevant tabulations of the collected data. The preliminary results from these tables shall serve as input to the SNA study of TESDA.

1.2 Scope and limitations of the Study

The WSS survey focused on the IT-BPM sector. The available list of companies considered is the group of 242 member companies of the Information Technology-Business Process Association of the Philippines (IBPAP). It covered only a sample of companies but the list was fully utilized due to replacement of unavailable firms.

The survey was carried out pre-COVID 19 pandemic thus, projections to “next years” written in this report may not be fully reflective of a good projection given that the country is currently under a pandemic crisis.

CHAPTER 2

REVIEW OF RELATED LITERATURE

This section presents the guidelines established by international organizations and existing studies on skills needs anticipation, particularly on establishment or employer surveys.

The European Centre for the Development of Vocational Training (CEDEFOP) released a set of guidelines in 2013 on developing an employer survey on skills needs. This survey on skills needs aims to determine the needs of the industries based on the perspective of the employer on the skills, competencies, and qualifications of their workforce. The suggested unit of analysis is an establishment instead of an enterprise which may consist of different sites in different locations. Computer Assisted Telephone Interview (CATI) is recommended in facilitating the survey if there is no existing updated list of establishments and relevant contact details and where face-to-face interview is not common in the country. To ensure representativeness of the sample, CEDEFOP suggests stratified sampling by dividing the available list of companies into relevant groups such as by sector, by location, or by size. Further, an ideal respondent is a person knowledgeable on the tasks or skills from the workforce needed by the establishment. This could be from the human resources department or a branch manager or head. Lastly, measures to improve response rates were given. These include starting with a small number of addresses per group. Replacements should be generated only when the survey team deems that the current status will not be enough to reach the target response rate. In addition, CEDEFOP recommended that all efforts should be made before classifying a company as a non-response. Finally, having an online form may increase number of participating companies (CEDEFOP, 2013).

The International Labour Organization (ILO), in collaboration with European Training Foundation (ETF), and CEDEFOP, also released recommendations in 2017 in conducting an establishment skills survey which aims to collect data from an establishment on the skills of the workforce as well as employee development strategies. Similar to the guidelines released by CEDEFOP, the paper suggests using establishment as the unit of analysis to ensure that respondents can give relatively accurate responses on the skills needs of the establishment. In addition, a complete and accurate list of all establishments with contact information can ensure success in the field operation. The sampling design must consider different factors such as budget constraints, timeline, desired accuracy, level of disaggregation, and available sampling frame (Mane and Corbella, 2017).

Several countries have started their research on identifying future skills needs. A pilot study on employer survey on skills needs by CEDEFOP was conducted in 2013 which aimed to identify changing skills necessity of the industries and the factors affecting these changes. The survey took into account nine European Union member states and a sample of 1,000 respondents per country except for Ireland which has only 500 respondents. The sampling design used was stratified sampling where the stratification variables are sectors of activity and size classes (CEDEFOP, 2013).

Cambodia had their first skills needs survey in 2013 which gathered data on 762 companies regarding information on skills gaps, skills shortages, difficulties in recruiting, and hard-to-fill vacancies. The study included the different sectors of industry such as accommodation, construction, finance and insurance, food and beverages, garments, apparel, and footwear, and rubber and plastics. Size and sector classification of the companies were taken as the stratification variables for the stratified sampling (ILO, 2013).

In 2017, a workplace skills survey, known as the Business Performance and Skills Survey was carried out. This covered 4,000 workplaces across different sectors in the economy. Topics included skills (current) demand, market conditions, business strategy, technology & business processes, leadership in organization, work & management practices, talent management and performance outcomes (Tan et. al. 2018).

Likewise, in Kenya, World Bank obtained data on the workforce, skills used, hiring practices, training and compensation, and background of companies through the Skills Toward Employment and Productivity (STEP) Employer Survey in the years 2016 and 2017. Data were collected through Computer Assisted Personal Interview (CAPI) from a target sample of 500 establishments. As in the survey in Cambodia, stratified sampling was also performed using size and sector classification of the companies as the strata (World Bank, 2018).

An employer skills survey was also conducted in the United Kingdom (UK) last 2017. The survey collected data on recruitment and skill-shortage vacancies, skills gaps in the workplace, training and workforce development, and high-performance workers. Establishments across the whole of UK covering all sectors and commercial, public and charitable spheres were considered. Similar to the above, stratified sampling was conducted wherein companies are stratified depending on their size, sector, and geographic location (UK, 2018).

This report incorporated the above guidelines and studies in designing the survey operation for the Workplace Skills Survey, particularly in sampling and in conducting the field interview.

CHAPTER 3 METHODOLOGY

3.1 Questionnaire

To attain the objectives of the survey, the questionnaire (see Annex A) for the WSS survey constructed by TESDA is composed of the following sections:

1. Profile of the Company

This gathers information such as the position of the respondent, the name and location of the site, and the subsector of which the site belongs.

2. Basic Organizational Background

This section asks for information on the distribution of employees by occupational type, distribution of employees by highest educational attainment, distribution of employees by age group, distribution of employees by gross monthly salary (Php), and the percentage of female employees. Further, it gathers information on which companies are part of multinational organizations and the location of their main offices.

3. Critical Human Resources

This particular section asks about the status of employee size from 2018 to 2019, the expected change in employee size for the succeeding years, the presence of unfilled position in the last six (6) months, whether or not the site has fast turnover, and the reasons for fast turnover. Likewise, it gathers information on the percentage of vacancies in the site relative to education requirements, the number of employees who left either due to resignation or end of contract or retirement, the number of employees promoted to managerial and supervisory positions, the presence of structured program for high potential employees, the percentage of employees with outstanding performance, and, the percentage of employees supported by career or structured planning policies or practices.

4. Skills in the Business

For this section, respondents are asked on the percentage of employees according to their performance (able to perform the job, unable to perform the job, and have the potential to perform with more demanding duties), reasons behind poor performance and corresponding actions applied, whether actions were done for those with more potential and whenever applicable, reason why no action was done. Correspondingly, the respondents were also asked on the percentage of all positions in the site that by policy require college degree, two (2) to three (3) weeks of induction training, continuous learning or developmental activities, at least three (3) years industry-relevant experience, and technical vocational certificate or national certificate. The number of additional employees needed for the succeeding years was also asked as well as the list of areas of skills that either may have shortage, no change, surplus, or will be hard to fill.

5. Fourth Industrial Revolution and Emerging Skills

This section contains questions on the status of sites relative to the shift in skills requirements, emerging skills, readiness for the fourth industrial revolution relative to the emerging skills, actions undertaken by sites who are ready, and preparations done for the human resource relative to the emerging skills.

6. Green Jobs and the IT-BPM Sector

Questions under this section include the extent of implementation of each site on various aspects of green jobs, provisions for any aspects of green jobs, whether the site have made use of the tax incentives or import duties exemption programs and have received support or is seeking support from any government agency, the name of the agency, and the list of emerging skills identified relative to green jobs.

7. Learning and Development

This section seeks for information such as the percentage of payroll expenditure allotted for training. It also seeks the site's rating of various training-related statements using a 5-point scale where 5 means "strongly agree" and 1 means "strongly disagree".

8. Work and Employment Practice

For this section, questions are about the site's policies covering various documents (i.e. business, training, and staff development plans, training budget, and development for high potential staff), the percentage of full-time employees entitled to various rewards or opportunities, and the extent of information sharing in the site with respect to financial information, business plans, operational challenges, and market analysis.

9. Business Strategy

Under this section, the sites are asked to rate various statements regarding approach to business and the extent of implementation of actions for different areas of business development. Questions on plans of expansion on other areas of business development were likewise included.

10. Work Processes and Technology

This section primarily focusses on gathering information on how up to date are the site's core equipment that are being used in the production of goods and services compared to the best commonly available technology in the country and in the overseas.

11. Organizational Performance

This particular section asks about the status of outcomes such as profitability, total sales or revenue, and market share for the period 2018 to 2019. Moreover, it seeks information on the percentage of employees exhibiting various behaviors at work.

12. Workforce Matters

The last section of the questionnaire, this gathers information on the percentage of employees in the site that are TVET graduates. Likewise, sites are asked to give satisfaction rating on the work and performance of TVET graduates and TVET certified employees.

The respondents accomplished the questionnaire through personal interview using the Pen-and-Paper Personal Interview (PAPI) method or self-administered questionnaire through either the online form or the printed copy of the questionnaire. However, the field enumerators were instructed to prioritize personal interview to minimize measurement errors, which are relatively likely in self-administered questionnaires.

The questionnaire was pretested to determine if there are certain questions that need improvement. The pretest helped estimate the length of the interview. Results of the pretest

were used to finalize the questionnaire and to plan for the field operation. See Annex B for the findings during the pretest.

3.2 Selection of Sample

The unit of analysis in this study is a site, instead of a whole company, to obtain relatively accurate responses regarding the skills of employees. IBPAP provided the list of 242 member sites that belong in the IT-BPM sector. Each of the sites are classified in the list under the following subsectors of the IT-BPM:

1. Animation and Game Development
2. Contact Center and Business Process Outsourcing
3. Health Information Management
4. Information Technology Outsourcing
5. Global In-House Center

Table 1 presents the distribution of the 242 IBPAP member companies by region and subsector. The location of the 242 IBPAP member companies are only in National Capital Region (NCR), Region III, Region IVA, and Region VII.

Table 1. *Distribution of the 242 IBPAP Member Companies by Region and Subsector*

Region	Animation and Game Development	Contact Center and BPO	Global In-House Center	Health Information Management	Information Technology Outsourcing	Total
NCR	1	99	89	5	38	232
Region III		2			1	3
Region IVA		2	3			5
Region VII		1	1			2
Total	1	104	93	5	39	242

The list of companies was further classified according to size: micro, small, and large. The classification rubric is as follows:

- Micro: 1-9 employees
- Small: 10-99 employees
- Medium: 100-199 employees
- Large: 200-above employees

In the list, only one (1) company is classified as micro, 17 are small, 21 are medium, and 203 are large companies.

Using this frame, a sample of sites was selected. However, since there are only ten companies outside NCR in the list, these were automatically included in the study to ensure that these companies are represented. Hence, sampling was only employed among the 232 NCR-located companies in the IBPAP list.

As in the establishment surveys conducted by other countries, the sampling took into account representation of companies across industry size and subsector.

The method of sampling was as follows:

- Step 1: Divide the collection of companies by different subsectors and industry size classification.
- Step 2: Select a random sample per sector and per size classification.

Given the resources available for the survey, the study utilized a 10% margin of error and 95% confidence level in computing the sample size. This resulted to a sample size of 63 NCR companies. The number of target respondent sites per subsector was computed proportionally to its size. Table 2 shows the calculated sample size per subsector.

Table 2. *Distribution of the Sample in NCR by Subsector*

Subsector	Number of NCR Companies
Animation and Game Development	1
Contact Center and BPO	26
Health Information Management	3
Information Technology Outsourcing	10
Global In-House Center	23
Total	63

Including the companies outside NCR, a total of 73 companies are to be interviewed. Table 3 (see next page) presents the distribution of 73 target companies by sector. Four (4) of these are small companies, seven (7) are medium companies, and 61 are large companies.

Table 3. *Distribution of the Selected Sites by Subsector*

Subsector	Number of NCR Companies	Number of Companies outside NCR	Total
Animation and Game Development	1	0	1
Contact Center and BPO	26	5	31
Health Information Management	3	0	3
Information Technology Outsourcing	10	1	11
Global In-House Center	23	4	27
Total	63	10	73

3.3 Preparation for the Survey

To ensure proper implementation and standardization of the survey, the enumerators went through a training, which aimed to give information on the background of the study, how to conduct the interview, preparing for an interview, setting up an interview, and in making a follow up. The training also focused on how to accomplish the questionnaire, ways of asking the questions, and filling out the questionnaire. In addition, there is discussion of survey issues, problems, and techniques to tackle these. Annex C shows the enumerators' manual used for the training.

After the training, IBPAP endorsed the survey and the enumerators to the sites. The PSRTI team conducted the next correspondence with the target respondents to schedule the interview visit.

3.4 Data Collection Strategies

The primary method of data collection is personal interview. The questionnaire was given in advance to allow the company to determine the best person/s to provide the information and to reduce the interview duration. However, in cases, where setting a personal meet-up is not possible, the companies were given an option to accomplish the questionnaire on their own either through the online form or the sent soft copy. For clarifications of responses, the enumerators conducted follow-up calls.

The target respondents for the interview were human resource managers, upper management employees (owners, senior managers, directors), or other personnel who are knowledgeable on the labor force of the company, specifically on skills utilization, gaps, and shortages among employees.

Interviews on companies which failed to give definite response to the request for participation given the allotted period were terminated and these companies were provided replacements.

3.5 Editing, Encoding, and Analysis

To ensure quality of data collected, accomplished questionnaires were checked by PSRTI for errors or inconsistencies. Properly completed questionnaires were then encoded and cleaned. The tabulations were then generated and the highlights of which are reported in the next section.

CHAPTER 4 RESULTS AND DISCUSSION

This section first presents some findings in the field operation. This is followed by the presentation of results through summary statistics and tabulations, which are arranged by section following the format in the questionnaire. The last part gives a brief summary of the results and some policy and program recommendations of PSRTI to TESDA based on the collected data.

Various issues were encountered during the field operations, which affected the response rate of the survey. One of these is the limitation in the frame. Due to the limited information available in the frame, reaching out to the target respondents proved to be difficult. Replacements were generated to combat the impending low response rate, which led the enumerators to contact all sites in the frame. Other issues and findings in the field operations are discussed in the field operation reports (Annex D).

Due to time constraint and difficulty in setting appointments, most of the respondents opted to participate by answering the online form of the questionnaire. Further, the employees who accomplished the survey are mostly from the human resource department of their sites.

As shown in Table 4, a total of 24 sites participated in the study of which 22 are from NCR and two (2) are from Regions III and IVA. Majority (54.2%) of these sites belong to the Contact Center and BPO subsector. Respondents were asked to give the current total number of employees in their site. Note that the respondents were allowed to approximate this during the interview. The total counts per subsector are shown in the same table.

Table 4. Distribution of the Participating Sites, their Employees, and the Response Rate by Subsector

Subsector	No. of Participating Sites	Response Rate (%)	No. of Employees
Animation and Game Development	1	100.0	81
Contact Center and BPO	13	41.9	14,536
Health Information Management	1	33.3	1,718
Information Technology Outsourcing	4	36.4	2,715
Global In-House Center	5	18.5	14,375
TOTAL	24	32.9	33,425

Note: Two respondents from the Contact Center and BPO did not provide total count of employees.

Due to the few numbers of companies in the frame, which are micro, small, or medium, 20 out of the 24 respondent sites are classified as large as presented in Table 5.

Table 5. Distribution of the Participating Sites by Subsector and Size

Subsector	Site Size		
	Small ¹	Medium ²	Large ³
Animation and Game Development			1
Contact Center and BPO		2	11

¹ Small: 10-99 employees

² Medium: 100-199 employees

³ Large: 200 and above employees

Subsector	Site Size		
	Small ¹	Medium ²	Large ³
Health Information Technology			1
Information Technology Outsourcing			4
Global In-House Center	2		3
TOTAL	2	2	20

4.1 Basic Organizational Background

Employees across all sites were classified based on three occupational types: managers and supervisors, technical rank and file/front liners, and administration and support rank and file.

In Table 6, majority (83.3%) of the employees are under the technical rank and file occupational type. This is consistent in all subsectors except in the Animation and Game Development where majority (70.4%) are managers and supervisors as can be seen in Table 7. These results are consistent to the published figures in the IT-BPM Roadmap 2022 where in rank and file workers are the most dominant, collectively forming around 88% of the total IT-BPM workforce, around 4% are managers and executives, and 8% are team leaders, supervisors, and HR managers.

This large percentage of technical workers in the IT-BPM sector may be considered by TESDA as the size of the labor market that will benefit from their programs and policies relative to upgrading the IT and business process technical skills in the country.

Table 6. *Distribution of Employees by Occupational Type*

Occupational Type	%
Managers and Supervisors	7.25
Technical Rank and File/Front liners	83.23
Admin and Support Rank and File	9.52
TOTAL	100.00

Note: Four respondents from the Contact Center and BPO did not answer.

Table 7. *Distribution of Employees by Subsector and Occupational Type*

Subsector	Occupational Type			TOTAL (%)
	Managers and Supervisors (%)	Technical Rank and File/Front liners (%)	Admin and Support Rank and File (%)	
Animation and Game Development	70.4	0.0	29.6	100.0
Contact Center and BPO	11.0	82.5	6.5	100.0
Health Information Management	9.9	72.5	17.6	100.0
Information Technology Outsourcing	3.8	90.2	6.0	100.0
Global In-House Center	3.5	84.4	12.0	100.0

Note: Four respondents from the Contact Center and BPO did not answer.

Table 8 shows that 59.91% of the employees are employed full-time and 40.1% are outsourced⁴. As presented in Table 9, this is also true for all subsectors except in the Information Technology Outsourcing and Global In-House Center subsectors wherein most are outsourced at 83.79% and 77.04%, respectively. Further, the part-time employees work in the Global In-House Center subsector.

Table 8. *Distribution of the Employees by Employment Status*

Employment Status	%
Full-time	59.91
Part-time	0.02
Outsourced	40.07
TOTAL	100.0

Note: Two respondents from the Contact Center and BPO did not provide total count of employees.

Table 9. *Distribution of the Employees by Subsector and Employment Status*

Subsector	Employment Status			
	Full-time (%)	Part-time (%)	Outsourced (%)	Total (%)
Animation and Game Development	100.00	0.00	0.00	100.00
Contact Center and BPO	99.69	0.00	0.31	100.00
Health Information Management	100.00	0.00	0.00	100.00
Information Technology Outsourcing	16.21	0.00	83.79	100.00
Global In-House Center	22.92	0.04	77.04	100.00

Note: Two respondents from the Contact Center and BPO did not provide total count of employees.

With regard to the sex distribution of employees across all participating sites, Table 10 shows that three of the five subsectors have predominantly female employees (54%), that is, Animation and Game Development, Contact Center and BPO, and Global In-House Center.

Table 10. *Percentage of Female Employees by Subsector*

Subsector	%
Animation and Game Development	55.3
Contact Center and BPO	56.4
Health Information Management	45.2
Information Technology Outsourcing	49.9
Global In-House Center	54.2

Note: Two respondents from the Contact Center and BPO did not provide total count of employees.

Table 11 and Table 12 show the distribution of employees according to the highest educational attainment achieved. Across all sites, majority (69.2%) of the employees are college level graduates. This is true in all subsectors except for the Contact Center and BPO wherein many employees are high school graduates (34.9%). Further, only in the Animation and Game Development and Contact Center and BPO subsectors are there employees who have undergone technical vocational education.

⁴ An outsourced employee is an employee of an outside company, usually known as the service provider. An outsourced employee is hired to perform tasks, handle operations, or provide services that are either usually executed or had previously been done by the company's own employees.

With this small percentage of positions requiring TechVoc or National Certificate relative to those needing college degree, the possibility that the certificate programs of TESDA may only be needed for upskilling but not as a requirement to enter an IT-BPM company must be investigated in order for TESDA to determine the actual demand for graduates of their technical programs.

Table 11. *Distribution of the Employees by Highest Educational Attainment*

Highest Educational Attainment	%
High School graduate (HS Grad)	14.0
Junior High School graduate (JHS Grad)	0.0
Senior High School undergraduate (SHS Undergrad)	0.0
Senior High School graduate (SHS Grad)	0.1
TechVoc course undergraduate (TechVoc Undergrad)	3.1
TechVoc course graduate (TechVoc Grad)	6.3
College level undergraduate (College Undergrad)	4.2
College level graduate (College Grad)	69.2
Master's degree	2.9
Doctoral degree	0.2
TOTAL	100.0

Note: Five respondents from the Contact Center and BPO subsector did not answer.

Table 12. *Distribution of the Employees by Highest Educational Attainment and Subsector*

Highest Educational Attainment	Subsector				
	Animation and Game Development (%)	Contact Center and BPO (%)	Health Information Management (%)	Information Technology Outsourcing (%)	Global In-House Center (%)
HS Grad	0.0	34.9	0.0	4.7	0.2
JHS Grad	0.0	0.0	0.0	0.0	0.0
SHS Undergrad	0.0	0.0	0.0	0.0	0.0
SHS Grad	0.0	0.0	0.0	0.0	0.2
TechVoc Undergrad	0.0	8.1	0.0	0.0	0.0
TechVoc Grad	20.0	16.2	0.0	0.0	0.0
College Undergrad	0.0	9.3	0.0	0.5	1.1
College Grad	80.0	31.1	100.0	91.1	92.8
Master's Degree	0.0	0.3	0.0	1.8	5.7
Doctoral Degree	0.0	0.0	0.0	1.8	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0

Note: Five respondents from the Contact Center and BPO subsector did not answer.

Table 13 shows that majority (77.9%) of the employees across all sites are aged 18 to 34 years. This shows that the sector has a relatively young workforce. The least percentage of employees (3.8%) comprise the age group of 45 years old and above.

Table 13. *Distribution of the Employees by Age Group*

Age Group	%
18 to 34	77.9
35 to 44	18.4
45 and above	3.8
TOTAL	100.0

Note: Two respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

In almost all subsectors, the largest percentage of employees belongs to the age group of 18 to 34 years old as can be seen in Table 14.

Table 14. *Distribution of the Employees by Subsector and Age Group*

Subsector	Age Group (years)			TOTAL (%)
	18 to 34 (%)	35 to 44 (%)	45 and above (%)	
Animation and Game Development	34.6	25.9	39.5	100.0
Contact Center and BPO	80.6	15.6	3.8	100.0
Health Information Management	76.0	21.0	3.0	100.0
Information Technology Outsourcing	77.4	21.8	0.8	100.0
Global In-House Center	75.7	20.2	4.1	100.0

Note: Two respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

In majority of the subsectors, the sites are part of a multinational organization, particularly in the Health Information Management (100%) and Global In-House Center subsectors (100%).

Table 15. *Percentage of Sites that are Multinational per Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	76.9
Health Information Management	100.0
Information Technology Outsourcing	75.0
Global In-House Center	100.0

Many (47.3%) of the main offices of the multinational companies are located in the United States of America, 15.7% are located in India, and 10.5% are located in the Philippines, as shown in Table 16.

Table 16. *Distribution of the Multinational Organizations by Location of Main Office*

Location	%
India	15.7
Japan	5.3
France	5.3
Norway	5.3
Australia	5.3
Philippines	10.5
United Kingdom	5.3

Location	%
United States of America	47.3
TOTAL	100.0

Across all sites, the largest percentage of employees (47.27%) earn a gross monthly salary of Php 26,000.00 to less than Php 50,000.00, as seen in Table 17. This is true in almost all subsectors except in the Contact Center and BPO where majority earn a gross monthly salary equivalent to the minimum wage to less than Php 26,000.00. Only 22.83% of the employees earn a gross monthly salary of Php 70,000.00 or more, most of which are from the Global In-house Center and the Information Technology Outsourcing subsectors. This finding supports the result of a consultation meeting by TESDA and with the subsector industry representatives, where the jobs in these subsectors have high complexity, as they require workers to think out of the box, create solutions, be multi-disciplinary and perform multiple functions. Critical and analytical thinking skills are required in both these subsectors. In the Global In-House Center subsector, the most essential skills are communication, customer service, functional expertise, leadership and negotiation and management skills.

Table 17. *Distribution of the Employees by Gross Monthly Salary*

Gross Monthly Salary (PhP)	%
Minimum Wage or below	0.04
Above minimum wage to less than 26,000	21.78
26,000 to less than 50,000	47.27
50,000 to less than 70,000	8.08
70,000 or more	22.83
TOTAL	100.00

Note: Four respondents from the Contact Center and BPO subsector did not answer.

Table 18. *Distribution of the Employees by Subsector and Gross Monthly Salary*

Subsector	Gross Monthly Salary (PhP)					
	Min. Wage or below (%)	Min. Wage to 26K (%)	26K to 50K (%)	50K to 70K (%)	70K or more (%)	TOTAL (%)
Animation and Game Development	10.00	20.00	66.00	2.00	2.00	100.00
Contact Center and BPO	0.00	72.23	15.55	6.19	6.04	100.00
Health Information Management	0.00	25.00	57.00	15.00	3.00	100.00
Information Technology Outsourcing	0.04	21.83	40.35	16.73	21.06	100.00
Global In-House Center	0.00	6.80	56.48	6.20	30.51	100.00

Note: Four respondents from the Contact Center and BPO subsector did not answer.

4.2 Critical Human Resources

As shown in Table 19, the employee size of majority (65.2%) of the sites increased from 2018 to 2019 while 30.4% of the sites have reported decrease in employee size for the same period.

This is not the case though for the Information Technology Outsourcing where 75% have decreased in employee size as presented in Table 20.

The Global In-House Center subsector, which reported one of the highest percentages of outsourced employees, is also one of the subsectors whose 75% of sites have reported increase in the number of employees. While there are more than 80% of employees in the ITO subsector are outsourced, only 25% of the sites reported increase in employee size.

Table 19. *Distribution of the Sites by Status of Employee Size, 2018 to 2019*

Status of Employee Size	%
Decreased	30.4
Stayed the same	4.3
Increased	65.2
TOTAL	100.0

Note: One respondent from the Global In-House Center subsector did not answer.

Table 20. *Distribution of the Sites by Subsector and Status of Employee Size, 2018 to 2019*

Subsector	Status of Employee Size			
	Decreased (%)	Stayed the same (%)	Increased (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	30.8	0.0	69.2	100.0
Health Information Management	0.0	0.0	100.0	100.0
Information Technology Outsourcing	75.0	0.0	25.0	100.0
Global In-House Center	0.0	25.0	75.0	100.0

Note: One respondent from the Global In-House Center subsector did not answer.

Considering the future, 87.5% of the sites are expected to have an increase in the number of employees while 12.5% are expected to still have the same number of employees as shown in Table 21. This is true across all subsectors as presented in Table 22. No site expected a decrease in terms of employment size in the future. Further, relative to the current number of employees, there is a projected need of 20.7% employees. All these point to the projected increasing employee size in the IT-BPM sector, which is in line with the projection of the industry as stated in the IT-BPM Roadmap 2022. However, it is to be noted that the survey was conducted in 2019, and the expected shift in the number of employees may change due to the COVID-19 pandemic.

Table 21. *Distribution of the Sites by Expected Change in the Number of Employees for the Next Years*

Expected Change in the Number of Employees	%
Decrease	0.0
Stay the same	12.5
Increase	87.5
TOTAL	100.0

Table 22. *Distribution of the Sites by Subsector and Expected Change in the Number of Employees for the Next Years*

Subsector	Expected Change in the Number of Employees			
	Decreased (%)	Stayed the same (%)	Increased (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	0.0	15.4	84.6	100.0
Health Information Management	0.0	0.0	100.0	100.0
Information Technology Outsourcing	0.0	25.0	75.0	100.0
Global In-House Center	0.0	0.0	100.0	100.0

Table 23 shows the percentage of sites across subsectors with skills shortage over the last six (6) months. Only the Contact Center and BPO and the Health Information Management subsectors have sites with skills shortages.

Moreover, in terms of skills, almost all subsectors have also declared hard-to-fill skills in the IT-BPM sector.

Opinions of sites regarding what skills will have shortage in the future are varying and thus, no definite skill shortage was identified in the Animation and Game Development, Information Technology Outsourcing, and Global In-House Center subsectors. Only Health Information Management and Contact Center and BPO subsectors have skills shortages which majority of the sites agree of.

As noted earlier, this survey was conducted in 2019, and the expected shift in the number of employees may change due to the pandemic. Even so, the Philippines' Labor Department is optimistic that the country's IT-BPM industry will continue to flourish and will continue to provide work opportunities.⁵

Table 23. *Percentage of Sites with Skills Shortage in the Last Six Months per Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	30.8
Health Information Management	100.0
Information Technology Outsourcing	0.0
Global In-House Center	0.0

Note: *Percentage of sites with unfilled positions in the last six months per subsector = Number of sites in the subsector with unfilled positions in the last six months / total number of sites in the subsector*

In Table 24, almost all subsectors have sites with fast turnovers. The major reason for fast turnover among the sites is the low wage received as compared to other companies (54.5%). Other reasons for fast turnover are personal and family matters, continuing education, health-related reasons, code of conduct violation, and demand for talent outpacing supply (Table 25).

⁵ Source: <https://cnnphilippines.com/business/2020/6/14/DOLE-sees-BPO-industry-resurgence-Philippines.html>

Table 24. *Percentage of Sites with Fast Turnover per Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	58.3
Health Information Management	100.0
Information Technology Outsourcing	50.0
Global In-House Center	25.0

Note: Percentage of sites with fast turnover per subsector = Number of sites in the subsector with fast turnover/ total number of sites in the subsector.

One respondent from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

Table 25. *Percentage of Sites with Fast Turnover per Reason for Difficulty in Retaining Employees*

Reason	%
Low wage compared to other companies	54.5
Geographical location of the firm	36.4
Unattractive conditions of employment	0.0
Lack of career prospect	36.4
Long working hours	9.1
Unsocial hours (night shift)	18.2
Not enough people who are interested in this type of work	18.2
Staff are not interested in long term commitment	45.5
Poaching	36.4
Others	50.0

Note: One respondent from the Contact Center and BPO subsector did not answer. Multiple responses were allowed.

Relative to the existence of unfilled positions in the last six months, the respondents were also asked about the skills, which will be hard to supply in the future. Table 26 shows these skills which majority of the sites claimed as hard to fill.

Table 26. *Hard-to-Fill Skills under each Subsector*

Health Information Management	Emerging Skills
Medical Claims	Data Analytics
Medical Claims Management	Legal processing outsourcing
Medical Claims Service Delivery Management	Automation Enablement
Worker's Compensation	Internet of Things
Worker's Compensation Management	Artificial Intelligence
UM/UR	Machine Learning
Medical Coding	Data Analytics
Telemedicine	Global In-House Services
Information Technology Outsourcing	HR Management
Software Development	Risk and Compliance Analysis
Enterprise Technical Architecture	Risk and Compliance Management
Database Administration	Contact Center and BPO
Business Analysis	Business Process Improvement
	Training Quality Assurance

Table 27 shows that majority (74.5%) of the vacancies in the sites require the applicants to be college level graduates. No site required junior high school graduate applicants in their vacancies. In addition, 4.3% of the vacancies do not require any education qualification at all.

Table 27. *Distribution of the Vacancies in the Sites by Required Educational Qualification*

Educational Qualification	%
HS Grad	6.9
JHS Grad	0.0
SHS Undergrad	0.1
SHS Grad	5.7
TechVoc Undergrad	0.6
TechVoc Grad	0.9
College Undergrad	6.4
College Grad	74.5
Master's Degree	0.5
Doctoral Degree	0.1
No Education Required	4.3
TOTAL	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

In the consultation meetings organized by TESDA, the industry representatives report that the Contact Center sub-sector has been more relaxed with educational attainment requirements. The non-voice services and other high-value IT-BPM services look for additional requirements such as international certifications for specific skills or higher degrees of education for specialized skills training. Some industry representatives also report that while the available jobs in the industry require applicants to be college graduates, not all of them possess the necessary skills that are required by the industry. Courses like Medical Coding is required by the industry but is not being taught in college, and can be supplemented through TVET. In addition, while the industry recognizes its inherent bias for college graduates, the perception of the industry is changing as it is now becoming more focused on skills rather than degrees or credentials.

The industry subsectors have identified the following skills that they are focusing on

Subsector	Core Skills	Essential Skills	Psychomotor Skills
Voice	<p>Communication skills is B2 CEFR Level (global standard)</p> <p><i>Applicants now are A2-B1 level. Below B2 level should be trained further for a duration of 150-200 hours to increase CEFR level by 1 step.</i></p>	<p>Analytical</p> <p>Critical</p> <p>Logical</p> <p>Ethical</p>	<p>Computer literacy</p> <p>Hardware servicing</p> <p>Typing</p> <p>Multitasking skills (able to navigate through number of windows)</p>

	Comprehension		
Medical transcription	Medical background	Analytical Critical Logical Ethical	Computer literacy Typing
	Advance coding		
Game/gaming	Traditional and digital drawing skills	Patient Creative Passion for excellence and quality Problem solving Analytical	Computer literacy Hardware servicing
	Vendor specific skills		

Source: NTESDP 2018-2022 Action Programming

As shown in Table 28, majority of vacancies in all of the five subsectors require the applicant to be a college graduate. Vacancies for high school graduates and for technical vocational graduates are only available in the Contact Center and BPO and Information Technology Outsourcing. Global In-House Center, on the other hand, has vacancies with no education required at 18.7%.

Table 28. Distribution of the Vacancies in the Sites by Subsector and Required Educational Qualification

Required Educational Qualification	Subsector				
	Animation and Game Development (%)	Contact Center and BPO (%)	Health Information Management (%)	Information Technology Outsourcing (%)	Global In-House Center (%)
HS Grad	0.0	13.3	0.0	1.2	0.0
JHS Grad	0.0	0.0	0.0	0.0	0.0
SHS Undergrad	0.0	0.0	0.0	0.3	0.0
SHS Grad	0.0	11.5	0.0	0.0	0.0
TechVoc Undergrad	0.0	1.2	0.0	0.0	0.0
TechVoc Grad	0.0	1.5	0.0	0.7	0.0
College Undergrad	0.0	5.1	0.0	4.9	13.0
College Grad	100.0	66.9	100.0	90.8	68.3
Master's Degree	0.0	0.5	0.0	1.5	0.0
Doctoral Degree	0.0	0.0	0.0	0.8	0.0
No Education Required	0.0	0.0	0.0	0.0	18.7
TOTAL	100.0	100.0	100.0	100.0	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Table 29 shows that majority (86.6%) of the employees left the site due to resignation. This is consistent for all subsectors except in the Information and Technology Outsourcing as can be seen in Table 30.

This result, along with the findings on fast turnover, is consistent with the human resource challenges discussed in the IT-BPM Roadmap 2022 wherein it is stated that the IT-BPM sector is commonly seen as having higher turnover compared to other industries (IBPAP, 2017). High attrition rate is not economical for the companies, as this will waste company resources for recurring recruitment and training provision. Loss of productivity is also anticipated, as the proficiency of new recruits will take time before it will be acquired by the employee. Last and more importantly, is the loss of ‘tacit skills’, or knowledge that is vital for problem solving specific to a particular work site. Industry associations should look into the possibility of creating strategies and policies to address this. The industry associations can look into researches on practical approaches to improve employee commitment and engagement.⁶

Table 29. *Distribution of the Employees Who Left the Site by Reason for Leaving*

Reason for Leaving	No.	%
Resignation	6,745	86.6
End of Contract or Retirement	1,046	13.4
TOTAL	7,791	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Table 30. *Distribution of the Employees Who Left the Site by Subsector and Reason for Leaving*

Subsector	Reason for Leaving		
	Resignation (%)	End of Contract or Retirement (%)	TOTAL (%)
Animation and Game Development	100.0	0.0	100.0
Contact Center and BPO	97.6	2.4	100.0
Health Information Management	97.1	2.9	100.0
Information Technology Outsourcing	32.9	67.1	100.0
Global In-House Center	95.6	4.4	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Overall, there are only 1.39% of employees promoted to managerial and supervisory positions in 2019. Table 31 shows the percentage of employees promoted by subsector.

Table 31. *Percentage of Employees Promoted to Managerial and Supervisory Positions per Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	1.5

⁶ For example, see Vance, R. J. (2006) Employee Engagement and Commitment: a guide to understanding, measuring and increasing engagement in your organization, Alexandria, VA: Society for Human Resource Management. This can be downloaded from <https://www.shrm.org/hr-today/trends-and-forecasting/special-reports-and-expert-views/Documents/Employee-Engagement-Commitment.pdf>. The content in the report is derived from real best practices and exemplars across different cultures and countries.

Health Information Management	6.3
Information Technology Outsourcing	1.8
Global In-House Center	0.6

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Overall, 69.57% of the sites have structured program for managing high potential employees. In Table 32, structured program for managing high potential employees is present in majority of the subsectors.

Table 32. *Percentage of Sites with Structured Program for Managing High Potential Employees per Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	75.0
Health Information Management	100.0
Information Technology Outsourcing	50.0
Global In-House Center	80.0

Note: One respondent from the Contact Center and BPO subsector did not answer.

Across all participating sites, 28.39% of employees contribute to the outstanding performance of their companies. Table 33 shows that the Animation and Game Development, Contact Center and BPO, and Global In-House Center have the highest percentage of employees contributing to their outstanding business performance.

Table 33. *Percentage of Employees that Contribute to the Outstanding Performance of the Business per Subsector*

Subsector	%
Animation and Game Development	50.0
Contact Center and BPO	35.4
Health Information Management	20.0
Information Technology Outsourcing	18.0
Global In-House Center	24.4

Note: Four respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

Further, 53.17% of the employees in all sites are supported by career/structured succession planning policy/practices. Table 34 shows that the average percentage of employees supported by such policies is highest in the Global In-House Center (99.5%). This could be related to the result that GIC has the highest percentage of employees with the potential to perform more demanding duties than they currently have.

Table 34. *Percentage of Employees who are Supported by Career/Structured Succession Planning Policy/Practices for Current and Future Development per Subsector*

Subsector	%
Animation and Game Development	25.0
Contact Center and BPO	24.4
Health Information Management	5.0
Information Technology Outsourcing	5.0
Global In-House Center	99.5

Note: Three respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

It is also worth considering how the workplaces take advantage (or not) of their available talent in the first place. Workers, after all, can learn new skills either through company-sponsored programs or their own initiatives. Even then, the former can raise questions as to whether or not the workers are forced to undergo additional training, or if they have a say as to how far they are willing to go with the program.

4.3 Skills in your Business

This section discusses the skills utilization in the business, where information about employees who are able or unable to perform the job, and those who can potentially perform more demanding duties than they currently have, are presented.

Table 35 shows that more than half (61.1%) of the employees are able to perform their job. However, there are 8.5% of employees who are unable to perform the job, which seems to suggest that these employees lack the skills that employers need or want.

Moreover, 30.4% of employees have the potential to perform with more demanding duties that they currently have. This may be linked to turnover, skills shortages, talent/people management, and organizational performance, as seen in Section 4.9. This result can imply that 1) a significant number of employees having higher skills that are required to perform their current jobs, and 2) that these employees exhibit behavior such as going above and beyond the call of duty and taking up duties of a colleague without being asked. While this may impress as a positive finding, several studies/literature call these employees as over-skilled workers, or employees whose skills are underutilized in their current jobs.

Table 35. *Distribution of the Employees by Performance Evaluation*

Performance Evaluation	%
Able to perform the job	61.1
Unable to perform the job	8.5
Have the potential to perform with more demanding duties than they currently have	30.4
TOTAL	100.0

Note: Three respondents from the Contact Center and BPO subsector did not answer.

Health Information Management has the highest average percentage of employees who are able to perform the job at 90.0% as shown in Table 36. Meanwhile, Global In-House Center has the highest average percentage of employees with the potential to perform more demanding duties than they currently have at 34.4%. These findings imply that both of these sub sectors are high-value, high-performing, deriving a higher amount of learning for workers. In contrast, Animation and Game Development have 20.0% of workers who are unable to perform their duties and a further 20.0% who could, which seems to indicate differing views on the concept of “skills utilization” within this sub sector.

Table 36. *Distribution of the Employees by Subsector and Performance Evaluation*

Subsector	Performance Evaluation			TOTAL (%)
	Able to perform the job (%)	Unable to perform the job (%)	Have the potential to perform with more demanding duties than they currently have (%)	
Animation and Game Development	60.0	20.0	20.0	100.0
Contact Center and BPO	57.0	9.8	33.2	100.0
Health Information Management	90.0	5.0	5.0	100.0
Information Technology Outsourcing	87.1	2.7	10.2	100.0
Global In-House Center	60.3	5.3	34.4	100.0

Note: Three respondents from the Contact Center and BPO subsector did not answer.

Table 37 shows the percentage of sites according to reason why the employees are unable to perform the job satisfactorily. Majority of the sites have identified lack of expected behavioral skills and lack of soft skills as reasons for the underperformance of the employees. Lack of advanced IT and software skills and lack of office and admin skills were the least stated reasons, identified only by 6.7% of the sites.

The results confirm the findings from TESDA’s National Technical Education and Skills Development Plan 2018-2022 Action Programming regarding how the industry recognizes the gaps in core and essential skills and where immediate intervention is necessary. A consensus was established that employers have been prioritizing and giving a premium on personal traits and essential skills which are not taught in traditional technical skills trainings being offered right now. As long as the prospective employees have the basic skills for the IT-BPM sub-sector being applied for, then it would be easy for the enterprises to teach them the necessary technical skills to level up if they have the essential skills. These non-technical core competencies - or essential skills - highlighted as particularly lacking from local graduates are leadership qualities and skills, emotional quotient (EQ), creativity, critical thinking, structured and logical thinking, and basic math.

Table 37. *Percentage of Sites with Employees Who Are Unable to Perform the Job per Reason*

Reason	%
Lack of basic IT-BPM skills (e.g. business environment, customer needs, work procedures, use of core equipment, etc.)	33.3
Lack of specialized technical skills for IT-BPM	13.3
Lack of advanced IT and software skills	6.7
Lack of expected behavioral skills (e.g. reliability, responsiveness, motivation, integrity, adaptability, etc.)	80.0
Lack of language skills	33.3
Lack of soft skills (e.g. complex problem solving, critical thinking, creativity, people management, coordinating with others, etc.)	73.3

Lack of socioemotional skills (e.g. extraversion, emotional stability, agreeableness, grit, consciousness, decision-making, openness, etc.)	46.7
Lack of management and leadership skills	40.0
Lack of office and admin skills	6.7

Note: Two respondents from the Contact Center and BPO subsector did not answer. Multiple responses were allowed.

Table 38 shows how frequent actions and interventions are applied to employees who are unable to perform the job. Top actions or interventions which are regularly conducted are creation of a performance environment (100.0%), review of appraisals or performance (86.7%), conduct of mentoring (80.0%), and implementation of disciplinary procedures of the company (66.7%). It is interesting to note that intensifying training comes as a second solution and not as a primary intervention for low performing employees.

Table 38. *Distribution of the Sites by Frequency of Implementation of Various Actions or Interventions for Employees who are Unable to Perform the Job*

Actions/Interventions	Frequency of Implementation			
	Never (%)	Sometimes or when necessary (%)	Always or regularly (%)	TOTAL (%)
Increase training activity/spend or increase/expand trainee programs	6.7	46.7	46.7	100.0
Conduct re-training	13.3	53.3	33.3	100.0
Reallocating work	26.7	60.0	13.3	100.0
Review of appraisals/performance	6.7	6.7	86.7	100.0
Conduct mentoring	0.0	20.0	80.0	100.0
Intensify supervision of staff	0.0	53.3	46.7	100.0
Apply corresponding disciplinary procedures of the company	0.0	33.3	66.7	100.0
Add people to complement the work	26.7	53.3	20.0	100.0
Change work practices	40.0	46.7	13.3	100.0
Create a performance improvement	0.0	0.0	100.0	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Overall, 90% of the sites have undertaken actions or interventions to utilize the potential of employees who have the ability to perform more demanding duties. In Table 39, only the Animation and Game Development site has not done any action yet for employees with potential to perform more demanding duties. The reason is that even though the management is aware of the potential of the employees, there are no definite plans laid yet, but the organization will review and re-deploy if necessary.

Table 39. *Percentage of Sites that have Undertaken Actions or Interventions to Employees with the Potential to Perform More Demanding Duties per Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	100.0
Health Information Management	100.0
Information Technology Outsourcing	100.0
Global In-House Center	75.0

Note: One respondent from the Contact Center and BPO, and one from the Global In-House Center subsector did not answer.

Some of the actions done by sites in the other subsectors are as follows:

- a) Upskilling and assignment to interim leadership roles;
- b) Giving special projects to allow them to demonstrate their skills and potentials;
- c) Providing training programs such as leadership and development trainings, on-the-job trainings, client relationship management trainings, and other external trainings;
- d) Enrolling employees in internship programs offered within the site/programs and under management trainee programs;
- e) Exposing employees to bigger responsibilities such as management roles;
- f) Reallocating work or funneling;
- g) Setting expectation of the future duties that the employee will handle;
- h) Assigning new project assignments that are more complicated/challenging;
- i) Conducting frequent monitoring, coaching, evaluation, and quality audit;
- j) Research and development;
- k) Running a secondment program that allows employees to take on a different job function or a higher skill set with the same function;
- l) Promoting employees to higher level positions; and
- m) Development plan

Table 40 shows that majority of the positions require college degree, induction training of more than two weeks, and continuous learning and development. In all five subsectors, majority of the positions require by policy to be filled up by a college degree holder and that employees undergo continuous learning or developmental activities while on the job. This further supports the finding in Table 27 where 74.5% of the vacancies in the sites require the applicants to be college level graduates.

While the high percentage of positions requiring induction training of more than two (2) weeks opens the possibility that lack of relevant technical skills may not be an issue in the sector. That is, for those college degree holders who may not be equipped with technical expertise, induction training is used to address lack in technical competency. Further, this requirement for induction training partnered with the high demand for college graduates may also mean that a college applicant who can be trained is preferred in the industry over a TechVoc graduate.

Table 40. Average Percentage of the Positions in each Site per Specific Requirements by Policy

Requirements by Policy	%
College degree to do the job	62.5
Induction training of more than 2 weeks	73.9
Continuous learning or developmental activities	82.4
At least 3 years of industry-relevant experience	32.5
Technical Vocational Certificate or National Certificate	14.3

Note: Two respondents from the Contact Center and BPO subsector did not answer for the first and second requirements. For the third to fifth requirements, two respondents from the same subsector did not answer. Multiple respondents were allowed.

Table 41. Average Percentage of the Positions in each Site per Specific Requirements by Policy per Subsector

Requirements by policy	Subsector				
	Animation and Game Development (%)	Contact Center and BPO (%)	Health Information Management (%)	Information Technology Outsourcing (%)	Global In-House Center (%)
College degree to do the job	100.0	58.0	100.0	50.0	68.3
Induction training of more than 2 weeks	0.0	72.5	100.0	82.3	80.4
Continuous learning or developmental activities	50.0	75.5	100.0	87.5	96.4
At least 3 years of industry-relevant experience	50.0	26.2	5.0	46.3	37.1
Technical Vocational Certificate or National Certificate	0.0	18.2	90.0	1.3	4.0

Note: Multiple responses were allowed.

Based on the responses in the abovementioned requirements, a Skills Content Index has been generated. The Skills Content Index provides different facets of the skills content of a company based on the demands of the jobs, such as qualifications required for doing the job (not what the job holder possesses), initial induction training to do the job, the need for continuous learning and development, and industry relevant experience. The logic here is that the skilled jobs (which coincides with more complex jobs) tend to score high in all those three categories. A workplace that has more jobs with the high scores are also a 'high-skilled' site. The skills index measurement also puts forth the skills that are applicable or relevant to the performance in the workplace are defined mostly by the way the work is organized, but nonetheless define the skill complexity or level needed by the industry as a whole. The scores for each of these facets were added to generate the Skills Content Index of a company.

It was found in this survey that Skills Content is positively correlated with other facets of a business such as employee participation (0.688), value-add (0.677), mutual gains (0.563) and people focus (0.53). People who are highly skilled, are very well supported in their training, and are well-informed about their companies' situation are likely to be more involved and committed to perform well in their work and fully utilize their skills, and are likely to receive monetary and non-monetary benefits.

The sites that got the highest Skills Content Index are from the Information Technology Outsourcing subsector, Global In-House Center subsector, and Contact Center and BPO subsector. The findings also present that the highest skilled work site in the Information Technology Outsourcing sector is on average four times greater in skills content than that of the lowest scoring work site in the Contact Center and BPO sector.

Table 42. *Skills Content Index Score by Site*

Respondent No.	Subsector	Skill Content Index
14	Information Technology Outsourcing	400
10	Global In-House Center	380
6	Contact Center and BPO	374
21	Global In-House Center	320
3	Contact Center and BPO	308
18	Health Information Management	305
19	Contact Center and BPO	300
23	Contact Center and BPO	295
8	Global In-House Center	270
9	Global In-House Center	260
11	Information Technology Outsourcing	254
16	Information Technology Outsourcing	250
5	Contact Center and BPO	240
4	Contact Center and BPO	235
2	Contact Center and BPO	229
1	Animation and Game Development	200
22	Contact Center and BPO	200
13	Global In-House Center	180.47
15	Contact Center and BPO	165
17	Information Technology Outsourcing	160
7	Contact Center and BPO	110
24	Contact Center and BPO	103

Note: Two companies did not respond.

As to the Skills Content Average by subsector, the Health Information Management, Global In-House Center and Information Technology Outsourcing generated the top 3 scores. This is to note, however, that the score for the Health Information Management represents only one site.

Table 43. *Average Skills Content Index Score by Subsector*

Subsector	Average Skill Content Index
Health Information Management	305
Global In-House Center	282
Information Technology Outsourcing	266
Contact Center and BPO	233
Animation and Game Development	200

The number of additional employees that the sites will be needing in the future was asked and relative to the current total number of employees, 20.7% will be needed. Table 44 presents the percentage per subsector. It should be noted that this survey was conducted in 2019, and this may change due to the COVID-19 pandemic.

Table 44. *Additional Employees as Percentage of Total Employees per Subsector*⁷

Subsector	%
Animation and Game Development	21.0
Contact Center and BPO	13.4
Health Information Management	25.0
Information Technology Outsourcing	12.0
Global In-House Center	24.2

Note: Five respondents from the Contact Center and BPO subsector did not answer.

The projected status of skills in different areas related to the IT-BPM sector was also inquired about. The skills where there is a projected shortage are shown in Table 45.

Table 45. *Skills with Projected Shortage*⁸

Health Information Management
Medical Claims Representative
Medical Claims Specialist
Medical Claims Manager
Medical Claims Service Delivery Manager
Worker's Compensation Trainee
Worker's Compensation Associate
Worker's Compensation Specialist
Worker's Compensation Manager
UM/UR
Medical Coder
Telemedicine

^{7 6} Values indicated in the tables may not be reflective of the current situation since the survey was conducted prior to the COVID-19 pandemic.

Contact Center and BPO
Client Servicing
Workforce Management
Business Process Improvement
Training Quality Assurance
Animation and Game Development
Animation Artistry
Emerging Skills
Data Analytics
Automation Enablement
Artificial Intelligence
Machine learning

4.4 Fourth Industrial Revolution and Emerging Skills

The shift in skills requirement in the advent of the Fourth Industrial Revolution can be classified into three skill sets: low, mid, and high. According to the industry roadmap entitled, “Accelerate PH: Future-ready Roadmap 2022”, low-skilled includes simple entry level and process driven tasks that require little abstract thinking or autonomy, mid-skilled involves complicated tasks that require experience, abstract thinking, and situational response, and high-skilled entails complicated tasks that require specialized expertise, abstract thinking, and autonomy. TESDA’s Labor Market Intelligence Report Issue No. 2, Series of 2019 mentioned that the introduction of new technologies will enable the IT-BPM sector to rise up the value chain and will result to a decrease in opportunities for jobs with low skills requirements. Correspondingly, this will result to greater number of employment opportunities for mid and high skills jobs. According to the survey conducted by Frost & Sullivan as part of the 2022 IT-BPM Roadmap, majority (45.8%) of the IT-BPM workforce in the Philippines in 2016 are low-skilled. The mid-skilled working population is at 39.4% while the high-skilled are at 14.7%. Experts state that in the next years, low-skilled jobs will most likely be automated and will require higher skills for the IT-BPM workforce.

Relative to this, Table 46 shows that majority (52.4%) of the sites are still in-transition when it comes to the shift in skills requirement from low to mid and mid to high while 14.3% have already fully transitioned from low to mid.

Table 46. *Distribution of the Sites by Incidence of the Projected Shift in Skills Requirements*

Shift in Skills Requirement	Rate of Occurrence			
	Not yet experiencing the changes (%)	In-transition (%)	Full transition (%)	TOTAL (%)
Low to Mid	33.3	52.4	14.3	100.0
Mid to High	47.6	52.4	0.0	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Table 47 shows that those sites in transition from low to mid are from the Health Information Management, Information Technology Outsourcing, and Contact Center and BPO subsectors while those that have transitioned fully are from the Information Technology Outsourcing.

Table 47. *Distribution of the Sites by Subsector and Incidence of the Projected Shift in Skills Requirements from Low to Mid*

Subsector	Rate of Occurrence			
	Not yet experiencing the changes (%)	In-transition (%)	Full transition (%)	TOTAL (%)
Animation and Game Development	100.0	0.0	0.0	100.0
Contact Center and BPO	36.4	54.5	9.1	100.0
Health Information Management	0.0	100.0	0.0	100.0
Information Technology Outsourcing	0.0	66.7	33.3	100.0
Global In-House Center	40.0	40.0	20.0	100.0

Note: Two respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

On the other hand, in Table 48, those transitioning from mid to high are in the Health Information Management, Information Technology Outsourcing, Global In-House Center subsectors. This may be attributed to the sites being part of a multinational organization.

Table 48. *Distribution of the Sites by Subsector and Incidence of the Projected Shift in Skills Requirements from Mid to High*

Subsector	Rate of Occurrence			
	Not yet experiencing the changes (%)	In-transition (%)	Full transition (%)	TOTAL (%)
Animation and Game Development	100.0	0.0	0.0	100.0
Contact Center and BPO	63.6	36.4	0.0	100.0
Health Information Management	0.0	100.0	0.0	100.0
Information Technology Outsourcing	0.0	100.0	0.0	100.0
Global In-House Center	40.0	60.0	0.0	100.0

Note: Two respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

Almost half of the sites have identified their top 3 emerging skills, which are associated with the fourth industrial revolution. Table 47 lists the emerging skills identified per subsector. Artificial intelligence, data analytics, and robotics are the most frequently identified emerging skills across subsectors. It may be noted that the respondent site in the Health Information Management subsector identified subsector-specific emerging skills.

Table 49. *Identified Emerging Skills Associated with Fourth Industrial Revolution per Subsector*

Subsector	Emerging Skills Identified
Contact Center and BPO	<ul style="list-style-type: none"> • Artificial intelligence • IT-related skills • Emotional intelligence • Robotics • Programming skills • People management

Subsector	Emerging Skills Identified
	<ul style="list-style-type: none"> • Virtual reality • Complex problem solving
Health Information Management	<ul style="list-style-type: none"> • Medical Coder (All specialties: inpatient or outpatient, or etc.) • Behavioral Health Professionals • Genetic Counselling Professionals
Information Technology Outsourcing	<ul style="list-style-type: none"> • Data analytics • Artificial intelligence • Machine learning • Automation enablement
Global In-House Center	<ul style="list-style-type: none"> • Artificial intelligence • Sale services • Robotics • Internet of things • Data analytics

Note: Up to three (3) emerging skills for each respondent were allowed.

Among those who have identified emerging skills in their subsector related to fourth industrial revolution, 40% reported that they were ready for the fourth industrial revolution. These sites are in the Contact Center and Global In-House Center subsectors as shown in Table 50. It seems from these results that sites who are not aware of and are not ready for the emerging skills associated with the fourth industrial revolution are those who are still in-transition from low to mid skills requirement (58.33%) and are not yet experiencing any changes from mid to high skills requirement (58.33%).

Table 50. Percentage of Sites that are Aware of and Ready for the Emerging Skills Associated with the Fourth Industrial Revolution by Subsector

Subsector	%
Contact Center and BPO	50.0
Health Information Management	0.0
Information Technology Outsourcing	0.0
Global In-House Center	50.0

Note: The site from the Animation and Game Development subsector did not identify any emerging skills related to the fourth industrial revolution. One respondent from the Information Technology Outsourcing subsector did not answer.

Four sites, equally divided between the Contact Center and Global In-House Center subsectors, were identified to be both aware of and ready for emerging skills associated with the fourth industrial revolution. As shown in Table 51, majority have already established plans to address the requirements, started some initiatives or programs in terms of training and development of the human resource, and started some initiatives or programs for the acquisition of equipment and materials relevant for the requirements.

Table 51. Percentage of Sites that are Aware of and Ready for the Emerging Skills Associated with the Fourth Industrial Revolution by Relative Actions that have Already Undertaken

Actions Undertaken	%
Established plans to address the requirements	75.0
Started some initiatives/programs in terms of training and development of the human resource	100.0

Actions Undertaken	%
Started some initiatives/programs for the acquisition of equipment and materials relevant for the requirements	75.0
Others	0.0
No action has been taken yet	0.0

Note: Multiple responses were allowed.

In line with emerging skills, sites⁹ who were able to identify their top 3 emerging skills associated with the fourth industrial revolution were also asked about their preparations on their human resource.

Table 50 shows that 66.7% of the sites have hired new employee/s who have the required skills, 77.8% have re-tooled/upskilled existing employee/s to acquire the required competencies, and 33.3% have done other preparations such as buying license of software for data analytics tools, operating in-house academies, and buying technology.

Table 42. *Percentage of Sites that Have Identified Emerging Skills Associated with the Fourth Industrial Revolution by Preparations on their Human Resource*

Preparations	%
Hire new employee/s who have the required skills	66.7
Re-tool/Upskill existing employee/s to acquire the required competencies	77.8
Others	33.3

Note: Two respondents from the Contact Center and BPO, and one respondent from the Information Technology Outsourcing subsector did not answer. Multiple responses were allowed.

4.5 Green Jobs and the IT-BPM Sector

Table 53 shows that the majority of sites have not created or changed jobs yet that will contribute to decarbonization, protecting the ecosystem and biodiversity, reducing energy, materials and water consumption and in minimizing waste and pollution, although some of the sites have plans already.

For all aspects of green jobs, majority of the sites in the Animation and Game Development, Contact Center and BPO, and Health and Information Management subsectors have not taken any action so far and have no plans to do so in the near future. Meanwhile, in the Information Technology Outsourcing subsector, only in contributing to decarbonization are where the majority of sites have not taken any action so far and no plans to do so in the near future. In the Global In-House Center subsector, sites are distributed across different extents of implementation. Only two companies in the Global In-House Center, two companies in the Information Technology Outsourcing, and one company in the Contact Center and BPO subsectors have already created/changed some jobs as required in the Green Jobs.

Looking at the characteristics of the sites, 100% of the sites who have taken no action so far for all aspects of green jobs and no plan to do so in the near future are large companies. These sites are also part of a larger multinational organization. Majority of them were not able to identify emerging skills associated with the fourth industrial revolution.

⁹ Ten sites across all subsectors were able to identify emerging skills in fourth industrial revolution. However, one site, from the Information Technology Outsourcing subsector, did not answer when asked about preparations on human resource.

Table 53. *Distribution of the Sites by Extent of Implementation of Different Aspects of Green Jobs*

Aspect of Green Jobs	Extent of Implementation			TOTAL (%)
	No action so far and no plan in the near future (%)	No action so far but planning to act (%)	Have created/changed some jobs as described (%)	
Contribute to decarbonization	50.0	40.9	9.1	100.0
Contribute to protecting the ecosystem and biodiversity	45.5	45.5	9.1	100.0
Contribute to reducing energy, materials, and water consumption	45.5	36.4	18.9	100.0
Contribute to minimizing waste and pollution	40.9	36.4	22.7	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer about all the aspects of green jobs, while one from the Global In-House Center subsector did not answer about the fourth aspect of green job in the table.

The list of organizational provisions identified by respondent sites who have taken action or have plans to create green jobs is shown in Table 54. Provision for paperless documentation was identified for both Contact Center and BPO and Global In-House Center.

Table 54. *Examples of Organizational Provisions from any Aspects of Green Jobs*

Subsector	Provisions
Contact Center and BPO	<ul style="list-style-type: none"> • Recycling • Paperless documentations • Value for spend project • Process optimization • Tree planting CSR • Proper waste disposal • Waste management plan
Information Technology Outsourcing	<ul style="list-style-type: none"> • Clean Desk Policy • Purchasing high efficiency laptop batteries and disposing them properly • Establishing a safety and facilities officer
Global In-House Center	<ul style="list-style-type: none"> • Developing infrastructure that is safe and healthy for employees • Going paperless • Reducing energy consumption and implementing efficient operations

Note: One respondent from the Animation and Game Development, and four from the Contact Center and BPO subsector did not answer.

Considering only those sites with plans or have taken action in the creation of green jobs, shown in Table 53 is the percentage of sites which made use of tax incentives and/or import duties exemption programs. Among the subsectors, only Contact Center and BPO has sites who have made use of the tax incentives or import duties exemption programs, at 33.3%.

Table 55. *Percentage of Sites with Plans and Acts on Aspects of Green Jobs that Have Made Use of the Tax Incentives/Import Duties Exemption Programs by Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	33.3
Information Technology Outsourcing	0.0
Global In-House Center	0.0

Note: Two respondents from the Contact Center and BPO, and one from the Information Technology Outsourcing subsector did not answer.

No other subsector has sites claiming to have received support or is seeking support from any government agency aside from the Contact Center and BPO. Further, 33.3% of sites from the Contact Center and BPO, as shown in Table 54, have received support or is seeking support from the Department of Environment and Natural Resources (DENR) and the Department of Labor and Employment (DOLE).

Table 43. *Percentage of Sites with Plans and Acts on Aspects of Green Jobs that Have Received Support or are Seeking Support from any Government Agency by Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	33.3
Health Information Management	0.0
Information Technology Outsourcing	0.0
Global In-House Center	0.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Only 18.2% of the respondents know and have identified emerging skills relative to green jobs. Table 57 shows the percentage of these sites per subsector and Table 58 lists the said skills.

Table 57. *Percentage of Sites with Identified Emerging Skills as a Result of Green Jobs by Subsector*

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	18.2
Health Information Management	0.0
Information Technology Outsourcing	25.0
Global In-House Center	20.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Table 58. *Identified Emerging Skills as a Result of Green Jobs by Subsector*

Subsector	Identified Emerging Skills
Contact Center and BPO	<ul style="list-style-type: none"> • Building Performance Analysis • Occupational Health and Safety Officer • Sustainability Analysis • Environmental Analysis • Conservation Management • Infrastructure Specialist

Subsector	Identified Emerging Skills
Information Technology Outsourcing	<ul style="list-style-type: none"> Energy Management Compliance and Regulatory
Global In-House Center	<ul style="list-style-type: none"> Sustainability Officer

Note: Two respondents from the Contact Center and BPO subsector did not answer.

4.6 Learning and Development

On the average, 9.1% of the payroll expenditure is allotted for training. Table 59 presents the average percentage per subsector.

Table 59. Average Percentage of Payroll Expenditure Allotted for Training by Subsector

Subsector	%
Animation and Game Development	15.0
Contact Center and BPO	9.1
Health Information Management	15.0
Information Technology Outsourcing	5.8
Global In-House Center	8.3

Note: Two respondents from the Contact Center and BPO, one from the Information Technology Outsourcing, and one from the Global In-House Center subsector did not answer.

Respondents were asked regarding their rating for various statements related to learning and development. As shown in Table 60, most of the sites (30.4%) are neutral when it comes to supporting non job-related training.

In addition, 82.6% (43.5% and 39.1%) of the respondents agree that employees have a say in their own training needs and that their training covers future skills needs. Although half of the sites agree that they provide training only that is required by the job, half also disagreed.

Out of the 17 sites who agreed that their training covers future skills needs, 41.2% were able to identify emerging skills associated with the fourth industrial revolution while 23.5% stated that they are ready for the fourth industrial revolution given their identified emerging skills. Only one site was able to identify emerging skills associated with green jobs.

Table 60. Distribution of Sites by Rating Scale of Various Statements

Statements	Rating Scale					TOTAL (%)
	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	
We support non job-related training	0.0	21.7	30.4	21.7	26.1	100.0
Employees have a say in their own training needs	4.3	4.3	8.7	43.5	39.1	100.0
We provide training only that is required by the job	26.1	13.0	21.7	26.1	13.0	100.0

Statements	Rating Scale					
	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	TOTAL (%)
Our training covers future skills needs	0.0	8.7	17.4	43.5	30.4	100.0

Note: One respondent from the Contact Center and BPO subsector did not answer.

Based on the responses from the sites in Table 58, a People Focus Index has been generated. This index reflects the extent to which a site is paying attention to its human resources. A higher score reflects that a site tends to be more able to leverage on the workers' skills and willingness to provide discretionary effort. The discretionary effort indicates the basis for a worker's high performance, problem solving, innovation and commitment. It was found in this survey that people focus has a high positive correlation with value-add (0.858), employee participation (0.791), discretionary effort (0.710), and skills content (0.53) indices. Sites that have high people focus index scores have employees who are highly skilled, are well-informed about their respective sites' business situation, and contribute to good work performance and providing value-add to their products and services.

The site with the highest People Focus Index score is a site from the Information Technology Outsourcing subsector. The site with the second highest score is a site from the Contact Center and BPO subsector. The sites with the third highest score are two sites from the Global In-House Center, and one site each from the Contact Center & BPO and Information Technology Outsourcing subsectors.

Table 61. *People Focus Index Scores by Site*

Respondent No.	Subsector	People Focus Index
16	Information Technology Outsourcing	20
7	Contact Center and BPO	17
6	Contact Center and BPO	16
8	Global In-House Center	16
9	Global In-House Center	16
11	Information Technology Outsourcing	16
5	Contact Center and BPO	15
14	Information Technology Outsourcing	15
19	Contact Center and BPO	15
20	Contact Center and BPO	15
23	Contact Center and BPO	15
3	Contact Center and BPO	14

Respondent No.	Subsector	People Focus Index
17	Information Technology Outsourcing	14
18	Health Information Management	14
21	Global In-House Center	14
22	Contact Center and BPO	14
1	Animation and Game Development	13
4	Contact Center and BPO	13
10	Global In-House Center	13
13	Global In-House Center	13
15	Contact Center and BPO	12
2	Contact Center and BPO	11
24	Contact Center and BPO	11

As to the average People Focus Index score, the Information Technology Outsourcing subsector has the highest average People Focus Index score.

Table 62. *Average People Focus Index Score by Subsector*

Subsector	Average People Focus Index
Information Technology Outsourcing	16.25
Global In-House Center	14.4
Contact Center and BPO	14
Health Information Management	14
Animation and Game Development	13

Table 63 shows that majority of the interviewed sites have policies covering all documents consist of business plan, training plan, training budget, staff development policy/plan, and development program for high potential staff.

Table 44. *Percentage of Sites with Policies Covering Various Documents*

Documents	%
Business Plan	95.5
Training Plan	100.0
Training Budget	90.9

Documents	%
Staff Development Policy/Plan	95.5
Development for High Potential Staff	72.7

Note: Two respondents from the Contact Center and BPO subsector did not answer. Multiple responses were allowed.

In addition, Table 64 shows that all sites in the Global In-house Center sector have all of the abovementioned documented policies.

Table 64. Percentage of Sites with Policies Covering Various Documents by Subsector

Subsector	Documents				
	Business Plan (%)	Training Plan (%)	Training Budget (%)	Staff Development Policy/Plan (%)	Development for High Potential Staff (%)
Animation and Game Development	100.0	100.0	100.0	100.0	0.0
Contact Center and BPO	90.9	100.0	90.9	90.9	72.7
Health Information Management	100.0	100.0	100.0	100.0	100.0
Information Technology Outsourcing	100.0	100.0	75.0	100.0	50.0
Global In-House Center	100.0	100.0	100.0	100.0	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer. Multiple responses were allowed.

As shown in Table 65, more than 90% of fulltime employees receive non-pay benefits. For the pay-related benefits, more than 84% of employees receive overtime pay, 66% receive bonuses based on organizational performance, and 61% receive individual performance related pay. Table 65 also shows that more than 50% of employees are eligible for internal promotion.

Table 65. Percentage of Full-Time Employees in the Sites Entitled to Various Rewards or Opportunities

Rewards or Opportunities	%
Individual performance related pay	61.21
Bonuses based on overall organizational performance	66.17
Share options for employees	11.96
Eligible for internal promotion	54.39
Non-pay benefits (e.g. childcare, health insurance, travel allowance, study leave, food subsidies, etc.)	90.84
Opportunities for job rotation at other locations (including overseas)	22.25
Overtime pay	84.11

Note: Three respondents from the Contact Center and BPO subsector did not answer.

Based on the responses from the sites in Table 65, a Mutual Gains Index has been generated. The Mutual Gains index reflects the site's provision of pay and non-pay benefits to entice the commitment of the workers, and influences the workers' 'discretionary effort'. In addition, it was found in this survey that Mutual Gains has a positive correlation with skills content (0.563) and

employee participation (0.531). Sites with high mutual gains index score have employees who are highly skilled, and are well-informed of their sites' business situation.

The top 3 sites with the highest Mutual Gains Index score are in the Global In-House Center subsector. The subsector also has the highest average Mutual Gains Index score.

Table 66. *Mutual Gains Index Score by Site*

Respondent No.	Subsector	Mutual Gains Index
13	Global In-House Center	689.48
9	Global In-House Center	661
8	Global In-House Center	591
14	Information Technology Outsourcing	577
18	Health Information Management	505
6	Contact Center and BPO	480
21	Global In-House Center	470
19	Contact Center and BPO	464
11	Information Technology Outsourcing	415
10	Global In-House Center	392
3	Contact Center and BPO	380
23	Contact Center and BPO	350.55
17	Information Technology Outsourcing	330
5	Contact Center and BPO	325
20	Contact Center and BPO	322
24	Contact Center and BPO	283.6
22	Contact Center and BPO	205
1	Animation and Game Development	125
2	Contact Center and BPO	100
4	Contact Center and BPO	100
7	Contact Center and BPO	100

Respondent No.	Subsector	Mutual Gains Index
15	Contact Center and BPO	100
16	Information Technology Outsourcing	100
12	Contact Center and BPO	0

Table 67. Average Mutual Gains Index Score by Subsector

Subsector	Average Mutual Gains Index Score
Global In-House Center	560.70
Health Information Management	505.00
Information Technology Outsourcing	355.50
Contact Center and BPO	246.93
Animation and Game Development	125.00

When it comes to information sharing, results in Table 68 show that most of the sites share financial information, business plans, and market analysis only to some employees. Operational challenges, however, are shared to all employees by majority of the sites. As more information about the sites are shared with the employees, the sites create more opportunities for employee participation.

Table 68. Distribution of the Sites by Extent of Sharing of Various Information

Information	Extent of Sharing			
	Not generally shared (%)	Only with some employees (%)	Shared with all employees (%)	TOTAL (%)
Financial Information	28.6	42.9	28.6	100.0
Business plans	0.0	57.1	42.9	100.0
Operational challenges	4.8	42.9	52.4	100.0
Market Analysis	19.0	71.4	9.5	100.0

Note: Three respondents from the Contact Center and BPO subsector did not answer.

Based on the responses from the sites in Table 68, an Employee Participation Index has been generated. The Employee Participation Index measures the extent to which workers are participating in the various aspects of the business, such as financial information, business plans, operational challenges and market analysis. Employee participation has a high positive

correlation with other variables such as value-add (0.797), people focus (0.791), skills content (0.688), discretionary effort (0.64) and mutual gains (0.531). Employees who are well-informed of their sites' business situation are highly skilled and are able to leverage them perform well in their work, are compensated well, and are likely to offer innovative products and services.

Two sites in the Information Technology Outsourcing and 1 site in the Global In-House Center garnered the highest score in the Employee Participation Index. Both subsectors also scored highest in the average Employee Participation Index score.

Table 69. *Employee Participation Index Score by Site*

Respondent No.	Subsector	Employee Participation Index
11	Information Technology Outsourcing	12
14	Information Technology Outsourcing	12
9	Global In-House Center	11
3	Contact Center and BPO	10
6	Contact Center and BPO	10
7	Contact Center and BPO	10
10	Global In-House Center	10
21	Global In-House Center	10
4	Contact Center and BPO	9
8	Global In-House Center	9
16	Information Technology Outsourcing	9
18	Health Information Management	9
1	Animation and Game Development	8
5	Contact Center and BPO	8
13	Global In-House Center	8
19	Contact Center and BPO	8
20	Contact Center and BPO	8
22	Contact Center and BPO	8

Respondent No.	Subsector	Employee Participation Index
15	Contact Center and BPO	7
17	Information Technology Outsourcing	7
2	Contact Center and BPO	6
23	Contact Center and BPO	6
24	Contact Center and BPO	6
12	Contact Center and BPO	0

Table 70. Average Employee Participation Index Score by Subsector

Subsector	Average Employee Participation Index Score
Information Technology Outsourcing	10.00
Global In-House Center	9.60
Health Information Management	9.00
Animation and Game Development	8.00
Contact Center and BPO	7.38

4.7 Business Strategy

As shown in Table 71, most of the sites agree that compared to other enterprises in the IT-BPM, there is a more-than-average amount of customization in their products and services, their business mostly competes in a market of premium quality products and services, and their products and services rely on developing unique or innovative products or services. However, most of the sites are neutral on the statement “compared to other enterprises in the IT-BPM, the competitive success of our products and services is dependent on price in the vast majority of cases”. These advantages have resulted to the following: 1) expansion in the number and changes in some jobs relative to the finance and accounting support services, as well as in the human resource business processes (see Table 74); and 2) increase in total sales/revenue for 50% of the sites, and increase in market share for 47% of the sites (see Table 79).

Table 71. *Distribution of the Sites by Rating Scale of Various Approaches to Business*

Approach to Business	Rating Scale					
	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	TOTAL (%)
Compared to other enterprises in the IT-BPM, there is a more-than-average amount of customization in our products and services	0.0	8.7	30.4	34.8	26.1	100.0
Compared to other enterprises in the IT-BPM, the competitive success of our products and services is dependent on price in the vast majority of cases	0.0	8.7	47.8	30.4	13.0	100.0
Our business mostly competes in a market of premium quality products and services	0.0	0.0	26.1	39.1	34.8	100.0
Our products and services rely on developing unique or innovative products or services	0.0	0.0	17.4	47.8	34.8	100.0

Note: Three respondents from the Contact Center and BPO subsector did not answer.

Based on the responses from the sites in Table 71, a Value-Add (VA) Index has been generated. The VA Index measures where the site is located along a value chain. Hence, the site can be engaging a 'low' VA segment by selling services or products that are cheaper/lower-priced, or the high segment that provides more bespoke/customized/innovative services or products. Relatably, a site with a high VA score requires more skills from its workers. In this survey, it was found that VA has high positive correlation with people focus (0.858), employee participation (0.797), skills content (0.677) and discretionary effort (0.648). Employees in a site with high VA are highly skilled, well-informed of their sites' business situation, highly encouraged to contribute their ideas and suggestions, and perform well so they continue to provide high-value products and services.

One site in the Contact Center and BPO and one site in the Global In-House Center received the highest and second highest VA index scores, respectively.

Table 72. *VA Index Score by Site*

Respondent No.	Subsector	VA Index Score
6	Contact Center and BPO	19
10	Global In-House Center	17
8	Global In-House Center	16

Respondent No.	Subsector	VA Index Score
9	Global In-House Center	16
11	Information Technology Outsourcing	16
18	Health Information Management	16
20	Contact Center and BPO	16
5	Contact Center and BPO	15
16	Information Technology Outsourcing	15
2	Contact Center and BPO	14
3	Contact Center and BPO	14
4	Contact Center and BPO	14
7	Contact Center and BPO	14
14	Information Technology Outsourcing	14
17	Information Technology Outsourcing	14
19	Contact Center and BPO	14
21	Global In-House Center	14
22	Contact Center and BPO	14
23	Contact Center and BPO	14
1	Animation and Game Development	13
13	Global In-House Center	12
15	Contact Center and BPO	12
24	Contact Center and BPO	12
12	Contact Center and BPO	0

In addition, the Health Information Management subsector has the highest average VA Index score. It is to be noted that there is only 1 respondent to the survey from this subsector.

Table 73. Average VA Index Score by Subsector

Subsector	Average VA Index Score
Health Information Management	16
Global In-House Center	15
Information Technology Outsourcing	14.75
Contact Center and BPO	13.23
Animation and Game Development	13

As shown in Table 74, majority of the sites have created or changed some jobs as described for expansion into the finance and accounting support services as well as expansion into the human resource business processes, both at 52.2%. For expansion into the corporate services segments (CSS) and collaborating with the academe and the education agencies of the government for future skills supply, most of the sites have performed no action so far but are planning to act.

Table 74. Distribution of the Sites by Extent of Implementation on Different Areas of Business Development

Business Development	Extent of Implementation			
	No action so far and no plan in the near future (%)	No action so far but planning to act (%)	Have created/changed some jobs as described (%)	TOTAL (%)
Expansion into the Corporate Services Segments (CSS)	31.8	36.4	31.8	100.0
Expansion into the finance and accounting support services	21.7	26.1	52.2	100.0
Expansion into the human resource business processes	17.4	30.4	52.2	100.0
Collaborating with the academe and the education agencies of the government for future skills supply	21.7	43.5	34.8	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer about the first aspect of business development, while one respondent did not answer for each of the remaining aspects of business development indicated in the table.

Sites from the Contact Center and BPO (33.3%), Information Technology Outsourcing (66.7%), and Global In-House Center (40.0%) subsectors have plans for expansion in other areas of

development as can be seen in Table 65. Shown in Table 66 are the areas which these sites plan to expand on.

Table 75. Percentage of Sites with Plans to Expand on Other Areas of Development by Subsector

Subsector	%
Animation and Game Development	0.0
Contact Center and BPO	33.3
Health Information Management	0.0
Information Technology Outsourcing	66.7
Global In-House Center	40.0

Note: One respondent from the Contact Center and BPO, and one from the Information Technology Outsourcing did not answer.

Table 76. Areas of Development for Expansion by Subsector

Subsector	Areas of Development for Expansion
Contact Center and BPO	<ul style="list-style-type: none"> • Finance and accounting support services • Human resource business processes • Additional seats for new logos/clients of same location or site • Healthcare • E-commerce/retail • Travel services
Information Technology Outsourcing	<ul style="list-style-type: none"> • ISO Certifications • Contact Center • Back office • Digital
Global In-House Center	<ul style="list-style-type: none"> • Pharmacy • Financial shared services • Human Resource services • Procurement, Sales, and Technology

4.8 Work Processes and Technology

Compared with those in the country and with those in the overseas, the core equipment of majority of the sites are up to date.

Table 77. *Distribution of the Sites by Core Equipment Condition as Compared with the Best Commonly Available Technology*

Comparison	Equipment Condition			
	Up to Date (%)	1 to 5 years behind (%)	More than 5 years behind (%)	TOTAL (%)
Compared with those in the country	63.6	31.8	4.6	100.0
Compared with those in the overseas	54.6	36.4	9.1	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Table 78 shows the distribution of the sites by subsector based on the core equipment condition as compared to the best available technology in the country and in the overseas.

Compared to those in the country, majority of the subsectors have sites with up to date core equipment except for the Animation and Game Development subsector wherein the site has a core equipment that is more than 5 years behind its counterparts in the country.

Compared to those in the overseas, majority of the sites in the Contact Center and BPO, Health Information Management, and Global In-House Center centers have up to date core equipment. The site in the Animation and Game Development have core equipment that is 5 years behind when compared to others. In the Information Technology Outsourcing subsector, majority of the sites have core equipment that is 1 to 5 years behind in condition compared to others.

Table 78. *Distribution of the Sites by Core Equipment Condition as Compared with the Best Commonly Available Technology by Subsector*

Subsector	Compared with those in the country			
	Up to Date (%)	1 to 5 years behind (%)	More than 5 years behind (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	63.6	36.4	0.0	100.0
Health Information Management	100.0	0.0	0.0	100.0
Information Technology Outsourcing	75.0	25.0	0.0	100.0
Global In-House Center	60.0	40.0	0.0	100.0
Subsector	Compared with those in the overseas			
	Up to Date (%)	1 to 5 years behind (%)	More than 5 years behind (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	63.6	27.3	9.1	100.0
Health Information Management	100.0	0.0	0.0	100.0
Information Technology Outsourcing	25.0	75.0	0.0	100.0
Global In-House Center	60.0	40.0	0.0	100.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

4.9 Organizational Performance

Table 79 shows that half of the sites report that their total sales/revenue increased, while half of them said that profitability stayed the same. Among the likely contributing factors to these findings are the support and high regard for training, most employees are able to perform their jobs, and that the core equipment condition in the sites are up-to-date.

Table 79. *Distribution of the Participating Sites by Rating of Different Outcomes from 2018 to 2019*

Outcome	Rating			
	Decrease (%)	Stay the same (%)	Increase (%)	TOTAL (%)
Profitability ^a	5.6	50.0	44.4	100.0
Total sales/revenue ^b	11.1	38.9	50.0	100.0
Market share ^c	5.9	47.1	47.1	100.0

^aFour respondents from the Contact Center and BPO, one from the Information Technology Outsourcing, and one from the Global In-House Center subsector did not answer.

^bFive respondents from the Contact Center and BPO and one from the Global In-House Center subsector did not answer.

^cFive respondents from the Contact Center and BPO, one from the Information Technology Outsourcing, and one from the Global In-House Center subsector did not answer.

Table 80 shows that for the Animation and Game Development site, profitability, total sales or revenue, and market share increased. Meanwhile, majority of companies in the Contact Center and BPO subsector has the same profitability, total sales/revenue, and market share in 2019 as in 2018. Further, majority of the sites from the Health Information Management subsector enjoyed an increase in the total sales or revenue and market share for the given period, but profitability remained the same. On the other hand, profitability, total sales or revenue, and market share remained the same for majority of the sites in the Information Technology subsector. Lastly, for those in the Global In-House Center subsector, majority have experienced increase in profitability, total sales or revenue, and market share.

Table 80. *Distribution of the Sites by Subsector and Rating of Different Outcomes from 2018 to 2019*

Subsector	Rating of Profitability ^a			
	Decrease (%)	Stay the same (%)	Increase (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	0.0	55.6	44.4	100.0
Health Information Management	0.0	100.0	0.0	100.0
Information Technology Outsourcing	0.0	66.7	33.3	100.0
Global In-House Center	25.0	25.0	50.0	100.0
Subsector	Rating of Total sales/Revenue ^b			
	Decrease (%)	Stay the same (%)	Increase (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	12.5	50.0	37.5	100.0
Health Information Management	0.0	0.0	100.0	100.0
Information Technology Outsourcing	0.0	50.0	50.0	100.0
Global In-House Center	25.0	25.0	50.0	100.0

Subsector	Rating of Profitability ^a			
	Decrease (%)	Stay the same (%)	Increase (%)	TOTAL (%)
Animation and Game Development	0.0	0.0	100.0	100.0
Contact Center and BPO	0.0	62.5	37.5	100.0
Health Information Management	0.0	0.0	100.0	100.0
Information Technology Outsourcing	0.0	66.7	33.3	100.0
Global In-House Center	25.0	25.0	50.0	100.0

^aFour respondents from the Contact Center and BPO subsector, one respondent from the Information Technology Outsourcing, and one respondent from the Global In-house Center did not answer.

^bFive respondents from the Contact Center and BPO subsector and one respondent from the Global In-house Center did not answer.

^cFive respondents from the Contact Center and BPO subsector, one respondent from the Information Technology Outsourcing, and one respondent from the Global In-house Center did not answer.

As shown in Table 81, the highest percentage (39.1%) of sites have 10% to 25% of the employees who goes above and beyond the call of duty and takes up the duties of a colleague without being asked.

Moreover, 26% to 50% of the employees in 34.8% of the sites regularly put in more hours than contractually expected into their jobs. Further, more than 50% of the employees in 43.5% of the sites make helpful suggestions for improving the operation within the organization.

For employees to be able to perform above and beyond the call of duty, they should be able to possess the relevant technical and cognitive skills to achieve such performance. Such skills are usually acquired through training, and that employees who are able to perform above and beyond the call of duty have high regard to training.

Tables 51 and 60 present findings where training is highly supported, and even cover training support for future skills needs. However, the findings in this table does not reflect high discretionary effort as majority of the sites (39.1%) report that about 10-25% of employees go above and beyond the call of duty without being asked. Perhaps there are other factors outside of training which play a part why relatively few employees cannot perform more than what is expected of them.

Table 81. *Distribution of the Sites by Percentage of Employees Exhibiting Various Behavior at Work*

Behavior at Work	Percentage of Employees					TOTAL (%)
	None (%)	<10% (%)	10-25% (%)	26-50% (%)	>50% (%)	
Go above and beyond the call of duty without being asked	4.4	17.4	39.1	8.7	30.4	100.0
Take up the duties of a colleague without being asked	4.4	21.7	30.4	17.4	26.1	100.0
Regularly put in more hours than contractually expected into their jobs	0.0	17.4	26.1	34.8	21.7	100.0
Make helpful suggestions for improving the operation within the organization	0.0	21.7	26.1	8.7	43.5	100.0

Note: One respondent from the Contact Center and BPO subsector did not answer.

Based on the responses from the sites in Table 81, a Discretionary Effort Index has been generated. As explained earlier, the discretionary effort indicates the employee's involvement and commitment to their work and to the business. It was found in the survey that discretionary effort is positively correlated to people focus (0.71) and value-add (0.648) and employee participation (0.64). Of the sites surveyed, two sites from the Global In-House Center, one site from the Contact Center and BPO, and one site from the Information Technology Outsourcing subsectors scored highest in discretionary effort.

Table 82. *Discretionary Effort Index Score by Site*

Respondent No.	Subsector	Discretionary Effort Index Score
3	Contact Center and BPO	20
8	Global In-House Center	20
9	Global In-House Center	20
11	Information Technology Outsourcing	20
16	Information Technology Outsourcing	19
4	Contact Center and BPO	18
1	Animation and Game Development	16
6	Contact Center and BPO	16
7	Contact Center and BPO	16
17	Information Technology Outsourcing	16
20	Contact Center and BPO	14
2	Contact Center and BPO	13
13	Global In-House Center	13
23	Contact Center and BPO	13
5	Contact Center and BPO	12
10	Global In-House Center	12
22	Contact Center and BPO	12
15	Contact Center and BPO	11
14	Information Technology Outsourcing	10
21	Global In-House Center	10
18	Health Information Management	9
19	Contact Center and BPO	8
24	Contact Center and BPO	8

As to the Discretionary Effort Index Average by subsector, the Information Technology Outsourcing and the Animation and Game Development subsectors obtained the highest average score. However, it is to be noted that there is only one respondent from the Animation and Game Development subsector.

Table 83. Average Discretionary Effort Index Score by Subsector

Subsector	Average Discretionary Effort Index Score
Information Technology Outsourcing	16
Animation and Game Development	16
Global In-House Center	15
Contact Center and BPO	13
Health Information Management	9

In Table 84, Health Information Management and Global In-House Center are the only subsectors with no TVET graduate employees. Table 72 and Table 73 show that the ratings of sites on the work and performance of TVET employees are either satisfied or very satisfied. The results show that 83.0% of the sites are satisfied with the performance of the TVET graduate while 17.0% are very satisfied. Moreover, all of the sites are satisfied with the work and performance of TVET Certified Employees.

Table 84. Percentage of TVET Graduate Employees by Subsector

Subsector	%
Animation and Game Development	20.0
Contact Center and BPO	13.3
Health Information Management	0.0
Information Technology Outsourcing	0.2
Global In-House Center	0.0

Note: Two respondents from the Contact Center and BPO subsector did not answer.

Table 85. Distribution of Sites with TVET-Graduate Employees by Satisfaction Rating on their Work and Performance

Satisfaction Rating	%
Very Dissatisfied	0.0
Dissatisfied	0.0
Neutral	0.0
Satisfied	83.0
Very Satisfied	17.0
TOTAL	100.0

Note: One respondent from the Contact Center and BPO subsector did not answer.

Table 86. Distribution of Sites with TVET-Certified Employees by Satisfaction Rating on their Work and Performance

Satisfaction Rating	%
Very Dissatisfied	0.0
Dissatisfied	0.0
Neutral	0.0

Satisfaction Rating	%
Satisfied	100.0
Very Satisfied	0.0
TOTAL	100.0

Note: One respondent from the Contact Center and BPO subsector did not answer.

4.10 Workforce Characteristics in the IT-BPM Sector

In summary, the following were the highlighted characteristics of the IT-BPM employees based on the results of the survey.

Six out of ten workers in the IT-BPM sector are employed full-time and four out of ten workers are outsourced, mostly those employed in the Information Technology Outsourcing and Global In-House Center subsectors. Further, 83.2% of the total workforce are in the technical rank and file positions. This large percentage of technical workers in the IT-BPM sector may be considered by TESDA as the size of the labor market that will benefit from their programs and policies relative to upgrading the IT and business process technical skills in the country.

In addition, the IT-BPM sector has a relatively young workforce as 77.9% of the employees fall under the age group of 18 to 34 years old and there is a balanced distribution of females and males. These findings are consistent with the results of the 2016 survey conducted by Frost and Sullivan for the IT-BPM Roadmap 2022.

Finally, in terms of educational characteristics of the employees, majority of the employees have finished tertiary education (76.4%), particularly college education (70%) and only 14% of the employees are high school graduates. It should also be noted that Animation and Game Development and Contact Center and BPO are the only subsectors with employees who have taken TechVoc programs (9.4% of the total number of employees).

4.11 Recruitment in the IT-BPM sector

On the average, around 75% of the vacancies in the IT-BPM sector require college degree at the minimum and currently, there is a low demand for applicants who have undergone TechVoc programs. Only 1.5% of the vacancies are requiring TechVoc undergraduate or graduate applicants, found only in the Contact Center and BPO and Information Technology Outsourcing subsectors. Other sites, also in the Contact Center and BPO and Information Technology Outsourcing subsectors, employ high school graduates for 12.7% of the vacancies. Moreover, there is 4.3% vacancies that do not require any educational attainment at all, existing in the Global In-House Center subsector. Overall, applicants who have undergone TechVoc programs may be considered in only 17% of the total vacancies.

Looking at policy-specified requirements in positions, majority (60% on the average) require a college degree which is consistent with the above discussion on vacancies. A larger percentage of the positions, at 74% on the average, require induction training of more than two (2) weeks while 80% require continuous development. By policy, only 14.3% of the positions require Technical Vocational Certificate or National Certificate to do the job.

Similar to the findings of the Study on Employment of TVET Graduates (SETG), a survey regularly conducted by TESDA in order to monitor and assess the effectiveness and relevance of TVET programs, low recognition of the National Certificate is apparent in the results. The

possibility of other existing industry certification which is more recognized must be checked. Moreover, with this small percentage of positions requiring TechVoc or National Certificate relative to those needing college degree, the possibility that the certificate programs of TESDA may only be needed for upskilling but not as a requirement to enter an IT-BPM company must be investigated in order for TESDA to determine the actual demand for graduates of their technical programs.

Likewise, the high percentage of positions requiring induction training of more than two (2) weeks opens the possibility that lack of relevant technical skills may not be an issue in the sector. That is, for those college degree holders who may not be equipped with technical expertise, induction training is used to address lack in technical competency. Further, this requirement for induction training partnered with the high demand for college graduates may also mean that a college applicant who can be trained is preferred in the industry over a TechVoc graduate.

Given that college graduates may be not necessarily equipped with technical abilities, the Tulong-Trabaho program, a program in accordance with the Republic Act No. 12230 which grants free access to Technical-Vocational Education and Training (TVET) for Filipinos who wish to improve their skills set, may help capacitate existing employees in the industry.

Given these, TESDA has to look into the changing perspective of the industries in terms of TVET programs as well as the evolving landscape of the Philippine education system, particularly on how TVET is being placed in the Philippine Qualification Framework. In addition, fostering partnerships with the academe, the industry, and the government should not be overlooked during these times in order to discuss and synchronize their existing programs and policies.

4.12 Attrition in the IT-BPM Sector

Two (2) of the key human resource challenges in the IT-BPM sector mentioned in the IT-BPM road map are attrition and job mismatch (IBPAP, 2017). Summary of results related to these topics are as follows.

Majority of the employees who left their jobs departed due to resignation. Moreover, half of the respondents have claimed that there is fast turnover in their sites. This result is consistent with the IT-BPM Roadmap 2022 wherein it is stated that the IT-BPM sector is commonly seen as having higher turnover compared to other industries (IBPAP, 2017).

The top reason identified is the relatively low wage compared with other companies. It is also important to note that many of the sites (36.4%) have also selected lack of career prospect as a reason which may be related to the low percentage (1.39%) of employees who are promoted to the managerial and supervisory positions.

As high attrition rate is not economical for the companies, industry associations should look into the possibility of creating strategies and policies to address this.

4.13 Projections on Skills Demand in the IT-BPM Sector

Majority of the sites have increased in terms of employee size from 2018 to 2019. This is true for all sites except in the Information Technology Outsourcing subsector where three out of four sites decreased in employee size for the given period. In the future, majority of the sites are still expecting increase in employee size. Further, relative to the current number of employees, there

is a projected need of 20.7% employees. All these point to the projected increasing employee size in the IT-BPM sector, which is in line with the projection of the industry as stated IT-BPM Roadmap 2022.

Based on the data, the IT-BPM sector, particularly in the Contact Center and BPO and Health Information Management subsectors, has positions which have been unfilled in the last six months making these positions hard to fill. Moreover, in terms of skills, almost all subsectors have also declared hard-to-fill skills in the IT-BPM sector.

Opinions of sites regarding what skills will have shortage in the future are varying and thus, no definite skill shortage was identified in the Animation and Game Development, Information Technology Outsourcing, and Global In-House Center subsectors. Only Health Information Management and Contact Center and BPO subsectors have skills shortages which majority of the sites agree of.

Although TESDA has related trainings or programs for some of the identified skills which will be hard-to-fill skills or for which there will be a shortage, some of these are not yet supported by TESDA.

For the identified hard-to-fill and skills with shortage, TESDA has related training programs in some of the skills requirements that can be used to train individuals who can fill-up the existing needs. However, it is necessary for TESDA to ensure that related training programs are responsive to the current and future requirements of the industry. The registered programs, assessment centers, assessors and as well as facilities of the TVET program must be assessed in terms of availability and sufficiency. In case of gaps in the implementation, it is crucial for TESDA to undertake the necessary interventions.

On the other hand, for those identified skills wherein TESDA has no related training programs, TESDA has to consider developing corresponding training programs. Developing programs for higher level skills should likewise be considered including those that are in the emerging skills requirements described in the IT-BPM roadmap as high level skills.

4.14 Fourth Industrial Revolution and the IT-BPM Sector

Looking at the current spread of roles across the IT-BPM sector as classified by skill level, majority of the sites are in transition from low to mid and mid to high skills requirement. On the other hand, 14.3% the sites, coming from the Information Technology Outsourcing subsector, have already transitioned fully from low to mid skills requirement. This may be attributed to the sites being part of a multinational organization.

Further, the result that majority of sites from the Contact Center and BPO and Global In-House Center subsectors are still in transition from low to mid must be investigated further as it was observed that some of these sites have already declared readiness for the Fourth Industrial Revolution despite their transitioning status.

Only half of the sites were able to identify emerging skills. It was also observed during the pre-test and interview that many of the respondents do not have sufficient knowledge on the emerging skills related to the fourth industrial revolution. TESDA could look into the possibility that the firms do not have sufficient appreciation of and lack of foresight on the change in the labor landscape brought by said industrial revolution. Nevertheless, similar characteristics were

observed among those who were able to identify emerging skills: majority are multinational (80%) and have large employee size (90%).

Three (3) types of emerging skills were identified: IT-related skills, soft skills, and health-related skills. IT-related skills include artificial intelligence (AI), robotics, programming, and virtual reality. Soft skills consist of emotional intelligence, people management, and complex problem solving. Health-related skills are medical coder of all specialties, behavioral health professionals, and genetic counselling professionals.

Relative to the soft skills demand, it was cited in TVETPh4.0 Fourth Industrial Revolution Framework (2020) of TESDA that Undersecretary Rafaelita Aldaba of the Department of Trade and Industry (DTI) stated that the Filipino workforce must have new skills to adapt with technological changes such as “analytical thinking and innovation, creativity, originality and initiative, complex problem solving, leadership and social influence, and emotional intelligence”. According to this framework, these are the skills that 7% of the workforce do not possess making them the most vulnerable to the adverse effects of technological changes brought by the fourth industrial revolution. Based on the survey results and the said framework, it appears that the demand for non-technical skills should not be overlooked.

Hard-to-fill emerging skills relative to the fourth industrial revolution were likewise identified. These are data analytics, legal process outsourcing, automation enablement, internet of things (IoT), artificial intelligence (AI), and machine learning.

The identified emerging skills relative to the fourth industrial revolution may be given priority of the agency. TESDA could determine if there are existing programs that can address these skills or if there is a need to develop new programs. It is a challenge for TESDA to make sure that these competencies are present in the TVET programs and are also evaluated accordingly through the assessment and certification.

Furthermore, TESDA has to consider the identified skills requirements in the provision for scholarship allocation. The Training for Work Scholarship (TWSP), a program which addresses the shortage of critical skills in priority sectors including IT-BPM sector, and Tulong-Trabaho Program can allocate budget for the conduct of related training programs. Likewise, TESDA can collaborate with the industry to discuss and create innovative ways to address these future skills needs. This could be facilitated through the Technical Working Group (TWG) of TESDA and IBPAP has to converse on this and come-up with applicable actions.

4.15 Green Jobs and Emerging Skills

Majority of the sites have not yet taken actions relative to green jobs. Those who did have done so to create provisions in their sites relative to preserving the environment but not to modify or create green jobs and positions. Moreover, only Contact Center and BPO sites have made use of tax incentives or import exemption programs and have sought or received support from government agencies, specifically DENR and DOLE. Finally, only 18% of the sites have identified emerging skills related to green jobs.

The lack of sufficient knowledge of the IT-BPM companies on green jobs and related provisions may serve as a call for the concerned agencies including the DOLE and DTI, among others; to take corresponding actions to make the subsectors informed of the Green Jobs Act and its programs.

4.16 Employee Performance in the IT-BPM Sector

Around 61% of the employees are able to perform the job and three (3) out of ten workers have the potential to perform more demanding duties than they currently have, most coming from the Global In-House Center subsector. It may be important to know that Global In-House Center has the highest percentage of employees who are outsourced and 30% of its workforce have high salaries (Php 70,000 or more).

Considering the percentage of underperforming employees at 8.5%, their low performance is mostly due to lack of behavioral skills, soft skills, and socio-economic skills, as identified by the sites.

This and the findings in Section 4.14 show that one of the major gaps in terms of the competency of the workforce, other than the identified technical skills demand in 4.13, are the skills related to soft skills and behavioral skills. TVET programs may address these critical competencies.

4.17 Performance of TVET Graduates and Certified Employees

All of the three (3) subsectors (Animation and Game Development, Contact Center and BPO, and Information Technology Outsourcing) with sites employing TVET graduates and/or certified employees have satisfactory rating on the work and performance, at the very least. This indicates that although TVET graduates and/or certified employees occupy a small percentage of the total workforce in the IT-BPM sector, their work and performance are at least satisfactory to the standards of the industry.

4.18 Policies/Practices/Programs for Employees

Around half of the IT-BPM workforce are supported by career or succession planning and practices, notably in the Global In-House Center subsector where in 99% of the employees are supported by career or succession planning and practices. This could be related to the result that Global In-House Center has the highest percentage of employees with the potential to perform more demanding duties than they currently have.

Policies, programs, and practices are also applied for workers with low performance or those who are unable to do their job. Regular actions taken by most sites include reviewing appraisals or performance, mentoring, implementing disciplinary procedures, and creating performance improvement. It is interesting to note that intensifying training comes as a second solution and not as a primary intervention for low performing employees. Given this and the average percentage of payroll expenditure spent for training at only 9.05%, the Tulong-Trabaho Act may be a timely policy as it institutes a Philippine labor force competencies competitiveness program and free access to Technical-Vocational Education and Training (TVET).

For workers with high performance or those who have the potential to perform more demanding duties than they currently have, policies, programs, and practices are implemented as well. In particular, 70% of the sites have structured programs for such employees and 90% of the sites have done action to utilize their potential. Training programs such as leadership and development trainings, on-the-job trainings, client relationship management trainings, and other

external trainings were provided. Workers were also upskilled and assigned to special projects that will allow them to demonstrate their skills and potentials.

For learning and development, majority of the sites agree that they support non-job-related training, their employees have a say in their own training needs, they provide training only that is required by the job, and that their training covers future skills needs. Also, almost all the sites have corresponding documents on business plan, training plan, training budget, staff development policy or plan, and development program for high potential staff.

4.19 Future Development Plans of IT-BPM Companies

The results show that the participating sites are planning to expand to finance and accounting support services, human resource business processes, additional seats for new clients in the same location, healthcare, e-commerce or retail, travel services, financial shared services, human resource services, procurement, and sales technology. On top of the projected increase in the employment size of the participating sites, these future plans, when acted upon, will also lead to increase in labour and economic opportunities in the country, which is a possibility that TESDA and its partners should be prepared for.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The survey collected data on various topics, which will serve, as an important input to the skills needs anticipation study of TESDA. Information on employee demographics, skills gaps and demand, employment size projection as well as development plans of the sites, and on existing TVET graduates were gathered.

In summary, among the participating sites, the employees are relatively young, most are college graduates, and gender distribution is balanced among employees. The sites have increased in employee size from 2018 to 2019 and are still expecting an upward projection. Further, problems exist in the sector such as existence of skill shortages, hard-to-fill jobs and fast turnover. Emerging skills related to the fourth industrial revolution and green jobs have been observed, although low awareness of the sites on these themes was noticed. Demand for and importance of soft and behavioral skills were particularly noted.

Most of the sites require college graduates and new recruits undergo induction training and continuous development programs along the way. Policies and practices on managing low performing and high potential exist in the sector. It was noted though that for low performing employees, intensifying training is not the first priority intervention. Furthermore, sites in the IT-BPM sector have plans to venture in various areas such as human resource business processes, finance and accounting services.

For ease of comparison and profiling, indices on Skills Content, People Focus, Mutual Gains, Value-Add, Discretionary Effort and Employee Participation, were generated and correlations were ran. The correlations show that the indices related to training such as skills content and people focus contributes to good work performance, gainful employment and value-add of products and services.

Lastly, the presence of and demand for TVET graduates or TVET certified individuals in the sector is quite low. Nonetheless, the sites are at least satisfied with the performance of the TVET employees they have.

Training programs and regulations are vital tools in making sure that the future workers of the IT-BPM sector are properly equipped with the right skills and competencies. While there are existing training programs and regulations offered by TESDA, the challenge is to make sure that the skills and competencies produced are suitable and sufficient to the needs of the industry.

1. The need to amend existing programs or develop new ones to fit in the requirements of the IT-BPM sector must be taken into account.
 - 1.1. In particular, TVET programs must be made more responsive and flexible for the industry.
 - 1.2. A market of competencies which the IT-BPM companies can refer to when developing their own programs must be established.
2. In the advent of fourth industrial revolution, emerging skills, and green jobs, re-assessment of training programs and regulations must be considered.
 - 2.1. The changing skills requirement in the IT-BPM sector may require TESDA to enhance its current programs and regulations, update its existing facilities, and re-assess its trainers and assessors.

- 2.2. Development of training programs and regulations for the emerging skills associated with the fourth industrial revolution and green jobs may likewise be given attention to ensure that there will be available workforce with such skills in the near future.
 - 2.3. Focus must be given to the need for soft and essential skills such as analytical and critical thinking, emotional intelligence, and complex problem solving in the conduct of training programs, assessment and certification.
3. In addition, awareness of the companies on fourth industrial revolution and green jobs must be looked into to ensure preparedness on the expected changes that this age of globalization is bringing to the labor market and to encourage compliance of the sector to the Green Jobs Act.
 - 3.1. TESDA may actively coordinate with concerned government agencies (i.e., Department of Labor and Employment and Department of Trade and Industry) in promoting awareness on fourth industrial revolution and green jobs in the sector.
 - 3.2. Further, TESDA may consider including in the development of training programs a module to orient industry experts on the green competencies that should be embedded in the training programs.
 4. Quality performance, especially from low performing employees and workers with potential to perform more demanding duties, must be ensured by providing continuous training programs and learning and developmental activities.
 - 4.1. Focus must not only be on technical skills but also on the soft and essential skills, as recommended above.
 - 4.2. If the non-priority for conduct of training as intervention for underperforming employees is due to budget limitations, TESDA may consider filling in the gap in terms of training support for existing workers of the industry.
 - 4.3. Further, the prioritization of scholarship provision under the Tulong-Trabaho program and the Training for Work Scholarship program may be reviewed and improved to address performance gaps among employees in the sector.
 5. Given the low demand of TVET employees, discussion with the IT-BPM sector must be conducted regarding the industry's perspective on TVET programs as well as the evolving landscape of the Philippine education system.
 - 5.1. TESDA is recommended to initiate particularly the review of the placement of TVET in the Philippine Qualification Framework, the institutionalization of requiring National Certificate in hiring employees, the conduct of industry-led assessment and certification, among others.
 - 5.2. The possible impact of imbalance between the supply and demand of TVET graduates and certified individuals must also be included in the discussion, ideally in the context of decent work.
 6. The projected increase in labor and skills demand, together with the plans of the sites to venture in various areas, will have an impact on the country, particularly on economic and labour opportunities. With this, continued dialogue between the academe, the industries, the concerned government agencies, and key private institutions is vital to ensure that programs and policies addressing these are cohesive.

With open discussions on how to synchronize labor demand and supply and on securing sustainable growth of the IT-BPM sector and with the continued support of the government, the

IT-BPM sector will continue to thrive and generate employment opportunities for Filipinos in the future.

Recommendations on the Conduct of the Survey

1. On the survey operations, as establishment surveys are highly dependent on the sampling frame, partnerships and data sharing agreements must be strengthened to be able to have a more comprehensive list of sites which enhances the survey design.
2. Innovative data collection techniques must also be explored and considered to increase the participation rate of the IT-BPM companies. Also, as much as possible, the survey should be conducted during the first three quarters of the year to improve the response rate.
3. It is also recommended that further research involving qualitative methodologies on IT-BPM industry's skills requirements may be conducted to strengthen the results of this survey.
4. Finally, it is suggested that the Workplace Skills Survey be conducted regularly to ensure that policy makers, including TESDA and its stakeholders, are abreast of the skills demand and the changing skills requirement of the industry to be able to correctly address the needs of the IT-BPM sector and its labor force.

CHAPTER 6 REFERENCES

- International Labour Office (ILO). (2017). *Skills Needs Anticipation: System and Approaches*.
- International Labour Office (ILO). (2016). Using Labour Market Information, Guide to Anticipating and Matching Skills and Jobs. 1.
- International Labour Office (ILO). (2015). Anticipating and Matching Skills and Jobs.
- European Centre for the Development of Vocational Training (CEDEFOP). (2013). User Guide to Developing an Employer Survey on Skill Needs.
- European Centre for the Development of Vocational Training (CEDEFOP). (2013). Piloting a European Employer Survey on Skills Needs.
- International Labour Office (ILO). (2013). Skills Shortages and Skills Gaps in the Cambodian Labour Market: Evidence from Employer Skills Needs Survey.
- Department of Education of United Kingdom. (2018). Employer Skills Survey 2017.
- IT & Business Process Association of the Philippines (IBPAP). (2017). Accelerate PH: Future Ready Roadmap 2022 The Philippine IT-BPM Sector.
- Republic Act No. 11230*. (n.d.). Retrieved from The LAWPHiL Project: https://lawphil.net/statutes/repacts/ra2019/ra_11230_2019.html
- Mane, F., & Corbella, T. (2017). Developing and Running an Establishment Survey. *European Training Foundation/European Centre for the Development of Vocational Training/International Labour Office*.
- World Bank. (2018). STEP Employer Survey 2016 to 2017.
- Technical Education and Development Authority (TESDA). (2020). *TVETPH 4.0 Fourth Industrial Revolution Framework*.
- Technical Education and Development Authority. (n.d.). *Training for Work Scholarship Program (TWSP)*. Retrieved from tesdar6.ph: <http://tesdar6.ph/programs-and-services/scholarship-program/training-for-work-scholarship-program-twsp/>
- Tan, J., Freebody, S., Chia, Y., & Sung, J. (2018). *Business Performance and Skills Survey: final report*. Singapore: Institute for Adult Learning.



**Philippine Statistical Research and Training Institute
(PSRTI)**
Research Division
7th Floor, South Insula Condominium, Brgy. South Triangle
Quezon City, 1103, Metro Manila
Tel. No. (+632) 8426 0620
www.psrty.gov.ph

Research Team:
Josefina V. Almeda, Ph.D.
Jessa S. Lopez
Sabrina O. Romasoc
Dannela Jann B. Galias

Photo Credits: <https://rawpixel.com>