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## “The E-commerce Job Outlook Survey for 2021”

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## **I. INTRODUCTION**

The Philippine government has long since recognized the role of e-Commerce in the country and has supported this with the creation of the Electronic Commerce Act (Republic Act No. 8792) in the year 2000. Since then, efforts have been made to promote electronic transactions and create a safer environment for online consumers and merchants. These were aggressively pursued with the creation of the last e-Commerce roadmap.

With this, the importance of a digital-savvy labor force cannot be overemphasized. Noteworthy are the observations/ recommendations of Google-Temasek-Bain & Company, on the Philippines when it released its 2020 study and underscored its observations that “talent remains a key blocker that all parties will need to keep working on to ensure the momentum gained this year is sustained”. Government is cognizant of the growing skills gap that is prevalent and is a threat to our growing internet economy. Hence, 20 Strategies and 22 Agendas were laid out for the year 2022.

The Department of Trade – Ecommerce Division tasked Tangere Research to conduct a market study that will be in support of #2 in the 20 Strategies: “Make available a talent pool of digitally-skilled workers” and #18 in the 22 Agendas: “Develop a cadre of digitally-skilled workers to support the growing e-Commerce sector”.

## **II. RESEARCH OBJECTIVES**

The market research project shall serve as a baseline study to determine the index of hiring success in the context of the Philippine Digital Labor Force as a metric of the attainment of the Ecommerce Roadmap outcomes. It would also serve to determine Demand Intention and Digital skills requirement (types & levels) of companies, agencies and other businesses aside from checking the availability of different digital skill types & levels with the eventual goal identifying gaps where the government can intervene.

## **III. METHODOLOGY AND SAMPLING DETAILS**

### **PHASE 1: QUALITATIVE PHASE**

For Phase 1, the Qualitative Phase, Tangere conducted 5 to 6 In-Depth Interviews among recruitment heads for each key category stakeholder in the Ecommerce Ecosystem. The stakeholders, and how they are defined, are:

#### **MERCHANTS**

Recruitment Heads of Companies who are E-Commerce practitioners and those planning/preparing to do E-Commerce.

#### **CONSULTING AGENCIES**

Recruitment Heads of Agencies who provide digital-skills related services.

#### **INTERMEDIARIES**



Recruitment Heads of companies in industries that enable ecommerce activities(digital payments, logistics, etc.)

#### TRAINING INSTITUTIONS

Relevant Heads of Learning Institutions that have added digital-skills related courses to their curriculum.

#### PROFESSIONAL ORGANIZATIONS

Relevant Officers of Professional organizations at the forefront of ecommerce and digital capabilities.

#### DIGITALLY-SKILLED HUMAN CAPITAL

Individuals who have been educated and trained, whether formally or self-taught, and have acquired a level of digital skill that is operationally-sufficient.

#### OTHER KEY E-COMMERCE PRACTITIONERS / EXPERTS

Other respondents that may be of relevance during initial desk research.

After identifying these target respondents, the recruitment and in-depth interviews were done from January 10-February 11, 2022 covering key cities nationwide.

#### QUALITATIVE STUDY FINDINGS:

The results of the qualitative findings confirmed assumptions that the country was lacking in both quantity and quality of digital talents but it yielded much more insight as to the behavior of companies and individuals in the ecommerce ecosystem.

#1 The requirement for digital talents will steadily increase in the next 5 years because of adaptive consumer behavior and the need of businesses to keep up or be left out. Supplementary studies from Google-Temasek-Bain&Company showed an additional 13.3% penetration of Digital Consumers from the years 2020 and 2021 compared to the 54% penetration rate before the pandemic. There is still a 32.3% non-user base but this also means that the late majority has already stepped up to the plate.

#2 Smaller companies going into ecommerce are doing it to survive while bigger companies are using it for Omnichannel coverage. Their talent needs are different to a certain extent. Large businesses are looking to scale their business by hiring more digital talents in the strategy and analytics side. Smaller companies starting out in digitalization require talents in software development and digital marketing/advertising.

#3 Philippine companies are competing for talent amongst themselves and with foreign companies at the same time. There is enough supply of Digital Talent for now, especially for those who are willing to pay higher, but there is a concern on talent quality. These e-commerce companies rely on their in-house and outsourced digital talents to achieve their goals. As they expand their business, they require more digital-savvy manpower and seasoned industry veterans. Suppliers of these talents are also on the lookout for capable trainers who can mentor future digital talents.

#4 Because of their Agile nature, Digital Platforms add new features and discard old ones fast, almost every six months. Knowledge in Digital programs and tools need updating at the same, fast pace.

#5 Even if companies have experienced only minor problems in digital talent sourcing, the bigger problems seem to occur after candidates were hired. More than their technical skills, digital talents are also assessed on the soft skills that they possess. Some companies found some talents lacking in soft skills like adaptability and communication. Training institutions must have purposeful training of necessary soft skills that key players look for in digital talents.

With these findings in mind, Tangere then proceeded to conduct the second phase of the study, the Quantitative Phase, to validate the findings and develop a model for scoring the performance of the government in providing the necessary digital labor.

## PHASE 2: QUANTITATIVE PHASE

For Phase 2, the Quantitative Phase, Tangere conducted a survey among 300 Human Resource Heads/ Managers with 240 respondents coming from SMEs and Large Companies who are currently engaged in ecommerce, 30 respondents coming from Digital Agencies who provide support to e-commerce companies and 30 respondents from Ancillary Companies who provide support to both ecommerce companies and agencies.

After the recruitment was concluded, an Online Survey was conducted from March 1-11, 2022 covering key cities nationwide.

## QUANTITATIVE FINDINGS

The quantitative findings provided both the validation and the foundation for two models, the Ecommerce Job Outlook and the Digital Hiring Success Index.

For the initial findings on the E-Commerce Landscape:

Over 3/4 of E-commerce players say that the industry is thriving and need to hire additional digital talents. 76% of B2C firms who have ecommerce transactions are forecasting that they will need digital talents in the coming year while 60% of B2B will likely do the same.

With digital consulting agencies and intermediaries, 90% expressed their intention to scale their business and get more digitally-skilled specialists.

Tangere used this particular result to develop the first-ever Ecommerce Job Outlook Index (EJI). To explain it clearly, a Job Outlook is defined as the Forecast of the rate of employment growth or decline in an occupation. The Ecommerce Job Outlook Index is a diffusion index much like the Purchasing Managers Index (PMI). The PMI itself has been used to predict GDP accurately months before the GDP numbers are released.

Using the same formula and similar questions, it can yield the state of Philippine companies' ecommerce business situation. Answers to the questions will simply be:

- E1: Yes, it is improving
- E2: Not really since No Change as of now
- E3: No intention, because it is Deteriorating



So we asked the respondents during the quantitative survey, the following question: Is your ecommerce business progressing positively that you intend to add more digitally-skilled workforce?

They can choose from the following answers:

- E1: Yes, it is improving
- E2: Not really since No Change as of now
- E3: No intention, because it is Deteriorating

The Diffusion Index will then look this:

ECOMMERCE JOB OUTLOOK INDEX:

$$EJI = (E1*1)+(E2*0.5)+(E3*0)$$

E1, E2, E3 are numerical weights. For a 300-respondent interview, the 300 will be the base 100%.

If we were to do a sample application, it will look this:

Out of 300 respondents, 150 or 50% answered their ecommerce business was improving, 75 or 25% said it stayed the same and another 75 or 25% mentioned it was declining.

ECOMMERCE JOB OUTLOOK INDEX:

$$EJI = (E1*1)+(E2*0.5)+(E3*0)$$

$$EJI = (50\%*1)+(25\%*0.5)+(25\%*0)$$

$$EJI = 50\% + 12.5\% + 0$$

$$EJI = 62.5\%$$

The most important thing to note is that readings above 50% show improvement in JOB OUTLOOK. Below 50% shows deterioration.

THE ACTUAL BASELINE RESULTS OF THE ECOMMERCE JOB OUTLOOK INDEX:

$$EJI = (E1*1)+(E2*0.5)+(E3*0)$$

$$EJI = (75.3\%*1)+(22.7\%*0.5)+(2.0\%*0)$$

$$EJI = 75.3\% + 11.35\% + 0$$

$$EJI = 86.7\% \text{ (IMPROVEMENT)}$$

In a nutshell, an EJI of 86.7% augurs well for the country in terms of ecommerce business outlook. The task now would be to supply these companies with quality digital talent.

### *Most Important Soft Skills for Digital Talents*

It is noteworthy to mention that when it comes to prioritizing job criteria, respondents consider the candidates' soft skills to be the most important factor followed by their digital skills, education and experience, as well as cultural fit.

When it comes to soft skills required for these talents, the Top 5 mentioned are communication, the ability to persuade, thinking critically, stating problems correctly and solving them with efficiency and lastly, being able to adapt to the culture.

### *Profile of Digital Hires*

Majority of the new hires were between 25 to 34 years old. Fresh graduates with no digital experience were accepted by companies primarily because of their affinity to digital. Older candidates were only accepted if they had digital experience.

### *Sourcing Channel for Digital Talents*

Online sites have become the go-to source of digital talents. Online posting on Facebook, Job Posting Websites, and LinkedIn are among the top platforms in looking for digitally-skilled individuals.

### *Establishing DIGITAL TALENT HIRING SUCCESS*

As mentioned earlier, the quantitative findings provided both the validation and the foundation for two models, the Ecommerce Job Outlook and the Digital Hiring Success Index. Establishing the Digital Hiring Success Index was more difficult but was invariably accomplished.

*Hiring Success Index (HSI)* measures the rate of acquiring new hires who have satisfied/fulfilled a defined set of objectives for new hires. In short, HSI gauges the quality of new hires.

Tangere developed an HSI model that combined Pre-Hire Quality and Post-Hire Quality variables because establishing metrics at the Pre-Hire Stage will yield better insights on specific hiring problems before they impact Quality of Hire.

Hiring problems that can be addressed are:

- Candidate quality by sourcing channel
- Sourcing Mix by Job Role
- Number of Candidates per Post
- Passive Candidate conversion rate

Pre-Hire Quality has to look at:

- Candidate Quality (Educational Background & Experience)
- Candidate Assessment Scores (Applied testing)

- Time-to-Fill (Number of Days to fill the role)
- Candidates-per-Hire (Ratio of Candidates for every job opening)

While Post-Hire Quality had to consider the following:

- When does the employee become productive? (Productivity)
- How do they rank among peers? (Leveling Up)
- Are they a good cultural fit? (Adaptability)
- Did they exhibit the critical soft skills needed for their role?
- How engaged is the new hire? (Employee Engagement)
- Did they stay for more than 1 year in the company? (Tenure & ROI)

We then studied the quantitative responses which were possible Predictors to Digital Talent Hiring Success and listed below are some of the key results:

#### *Difficulty in Recruitment*

While almost 4 out of 10 recruiters find recruitment to be shorter and easier, 25% of recruiters still find it hard to fill in a vacancy.

#### *Satisfaction of Overall Background*

21% of companies were not content with the educational background, training and certifications of their new hires.

#### *Satisfaction of Length of Experience*

27% of companies were not that happy with the length of experience of their new hires which is why they usually conduct additional training.

#### *Quality of Digital Talent Hires*

79% of the companies gave applicable exams to the candidates and 77% mentioned that the scores were very to somewhat satisfactory.

#### *Exhibited Critical Soft Skills*

92% of new digital hires possessed the critical soft skills for the role.

#### *Post-hire Cultural Fit*

27% of new hires had trouble adapting to the company's culture.

#### *Skills Ranking vs Current Employees*

39% of new hires were seen to be better than their current set of digital talents.

#### *Length to reach their full productivity*

26% of new hires were seen to be productive in just 15 days. Another 59% were productive in 2 months time.



### *Level of Engagement*

9 out of 10 of new digital hires were highly engaged to somewhat engaged as observed by the HR Heads.

### *At least 1yr length of stay*

94% of new digital hires stayed for more than one year.

## Tangere's Approach in Developing the Digital Hiring Success Index

### Data Cleaning Procedure

- Data cleaning process involves removing irrelevant data (only survey responses pertaining to pre-hire and post-hire quality were extracted from raw data file)
- Checking of outliers and extreme values if applicable.
- Checking of missing values which involves data imputation (though in this case not applicable)

### Descriptive analytics

- Frequency, percentage, mean, standard deviation, median and mode
- Getting initial stats/figures about the characteristics of data prior to employing inferential and other advance statistical tests.

### Correlation Analysis using Pearson Product-Moment Correlation Coefficient

- Initially pre-hire quality variables are believed to significantly contribute to post-hire quality variables, hence, correlation analysis using Pearson product-Moment Correlation was performed to check and validate prior assumptions
- One assumption before running regression is to check linear relationship among variables and this was done using correlation analysis

### Checking other assumptions of Multiple regression

- Normality
- Homoscedasticity
- Multicollinearity

### Running Multiple Regression

- Post-hire quality (dependent variables) and pre-hire-quality (independent variables)
- Each post-hire variables were predicted using pre-hire variables, assumption is that each pre-hire quality contributes to post-hire quality.

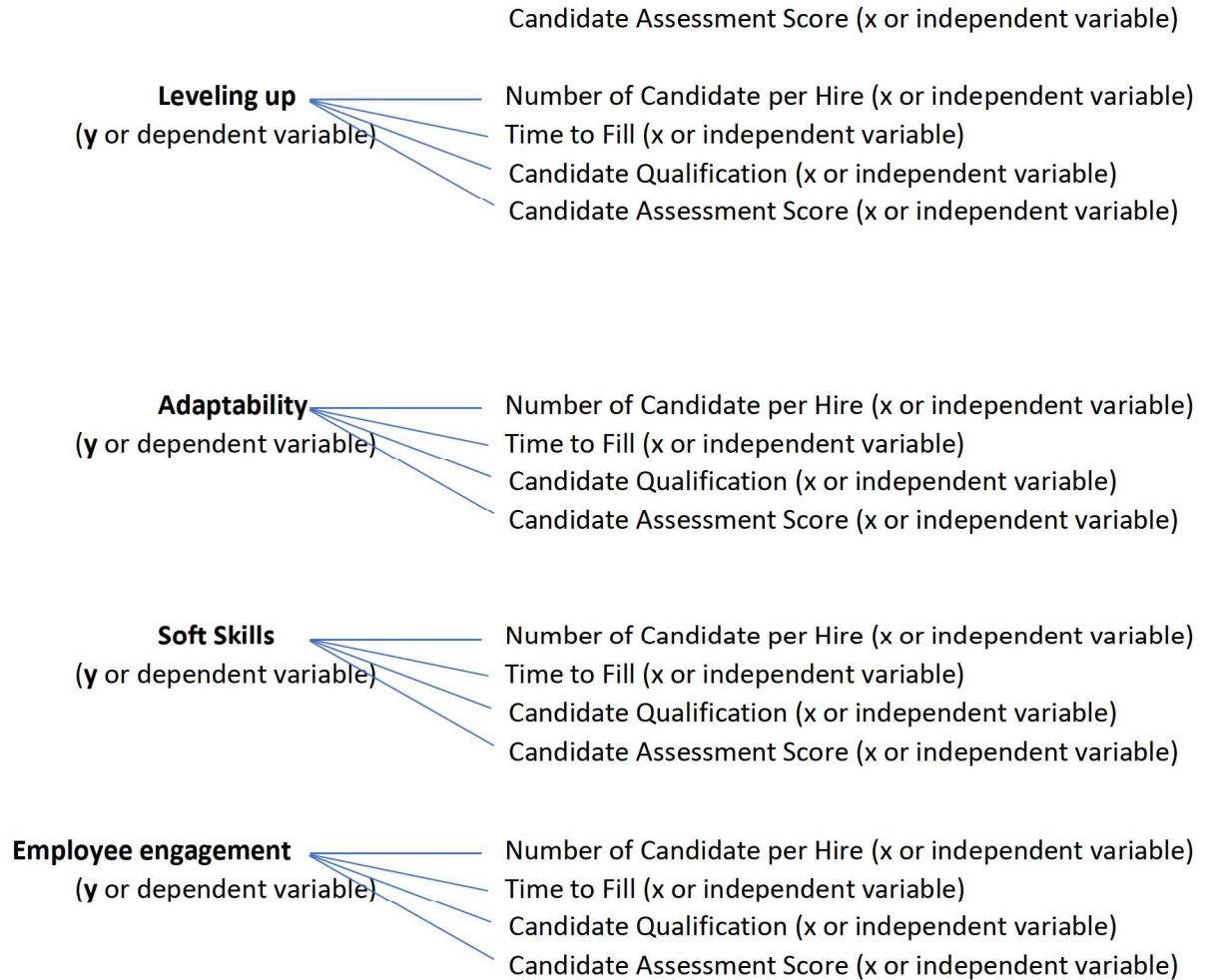
#### **Post-Hire Quality**

**Productivity**  
(y or dependent variable)

#### **Pre-Hire Quality**

Number of Candidate per Hire (x or independent variable)  
Time to Fill (x or independent variable)  
Candidate Qualification (x or independent variable)





R squared and good-ness of fit of each regression model was checked. After series of analysis runs, and checking each model, productivity and employee engagement were observed to have the most significant effect towards the remaining variables.

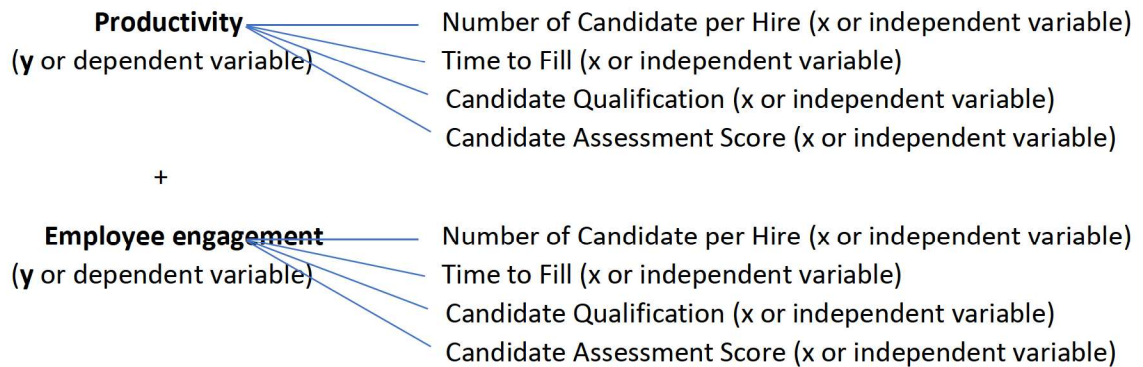
Since it was believed that each variable in the pre-hire and post-hire plays a significant role in modelling hiring success index. Another series of test was performed wherein employee engagement and productivity were heled as the y or dependent variables and the remaining variables at post hire quality plus the pre-hire quality variables were considered as group of independent variables.

From there two separate regression model for employee engagement and the dependent variables and productivity and the dependent variables was performed. R squared and good-ness of fit of the two models were also assessed.

Meanwhile, since there are two dependent variables and a set of independent variables a model developed from the merging of two dependent variables and a set of independent variables needed to be generated. This was performed using Multivariate regression.

## Multivariate Regression

Multivariate regression allows modelling the influence of independent variables to more than one dependent variable.



### The End Result:

Employers in the country gave a passing score of only 75.6% as to the quantity and quality of digital talent in the Philippines. This score is anchored on two coincident indicators, Productivity and Engagement, which predicted the effect of leading indicators in the Pre-Hire and Post-Hire Stage. Given the findings, the client has started crafting developmental plans that draw a straight line to influencing all the leading indicators which have the most impact on the Digital Hiring Success Index and more importantly, employer satisfaction.