

# Digital Talent Availability on Small Medium Enterprises in Bandung City, Indonesia

Ratri Wahyuningtyas<sup>1\*</sup>, Ganjar Mohamad Disastra<sup>2</sup>

<sup>1</sup>School of Economics and Business, Telkom University, Indonesia

<sup>2</sup>School of Applied Science, Telkom University, Indonesia

\*<sup>1</sup>syafaq\_ratri@yahoo.com

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## Abstract

Creating and maintaining organizational excellence through proactive Talent Management is one of the important factors that must be implemented by organizations in facing global competition. The development of the internet, cellular technology, CDN business models and cloud computing, the role of application and marketing strategies, as well as communication and trade in the SMART economy in various respects, has driven the talent needs of experts in digital literacy. This also applies to the scope of SMEs in Indonesia and throughout the world. The existence of SMEs is a focus both by the central government and regional governments. Special attention to SMEs is inseparable from its role in developing the economy, employment and community welfare, the existence of SMEs has proven to be resistant to the crisis, both in the economic crisis that plagued Indonesia in 1998 and the global crisis in 2008. This research is intended to map Digital Talent in Small and Medium Enterprises in the City of Bandung based on their competence. The results of the mapping will be the basis for analyzing the availability of digital talent and formulating strategies for fulfilling talent in the SME scope. In addition, this research is useful to provide input for industry players and the city government of Bandung. Data collection techniques in the study used surveys and interviews with SME employees, business people and the city of Bandung.

**Keywords:** Talent, Digital, SME.

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## 1. Introduction

Economic growth in the province of West Java, Indonesia, is inseparable from the role of SMEs. SMEs have a very important role in the economy in the region and nationally, both in terms of business units, labor, and their contribution to Gross Domestic Product (GDP). Economic growth in West Java is also inseparable from the contribution of SMEs in Bandung City. At present, Bandung has 30 active SME centers (SentraindustriBandung.com). Some of the centers are large and become one of the tourist destinations in the city of Bandung (sentraindustriBandung.com).

Examples of these centers are the Center for Binong Jati Knitting Industry which is able to generate average income per day 600-800 million rupiah, Sacred T-Shirt and Silk Screen Centers that have a wide market reach

and are known to almost all cities in Indonesia, Cihampelas Jeans Trading Center, which famous for its always up-to-date models and the Cigondewah Textile Center which has an appeal to the relatively cheap selling price (ditjenpdn.kemendag.go.id).

In the era of the digital market, businesses began to carry out digital transformation, rethinking the added value offered to customers and creating operational models that benefit new things as competitive advantages. With the rapid development of information technology and Internet of Thing (IoT) for several years, business networks have become the main platform for companies. Moreover, many consumers choose to obtain different information from business networks (Dlodlo et al., 2012; Winter, 2014; Xu et al, 2016). The accumulation of information in the digital ecosystem has created unlimited

opportunities for companies when they are able to support employees through access flexibility, cost-effectiveness, knowledge sharing and talent development (Garavan et al., 2012; Wang, 2011). Because the challenges faced and then become the attention of organizational executives at this time and the next 10 years are how to obtain, develop and maintain superior talents with competencies and potential oriented to digital creativity.

Within the scope of SMEs in the city of Bandung itself, the availability of superior talents in the digital field also needs attention from various parties. One of the skills that talent needs in the digital age today is related to media use and mastery of information systems. Based on interviews with business people in industrial centers in the city of Bandung (in research Wahyuningtyas et al, 2016) there are several conditions related to the use of media and information systems, namely:

- i. In the Sukamulya Dolls Industry Center, computer usage is not optimal for all employees
- ii. At the Cihampelas Jeans Industry Center, the using of computers is not maximal and has not utilized internet technology
- iii. In the Holy Screen Printing Industry Center, e-mail has been used to order products but promotion through the internet has not been optimally implemented
- iv. At the Binong Jati Knitting Industry Center, it has maximized the use of laptops, smartphones, internet and special software like Myob
- v. In the Cibaduyut Shoe Industry Center, it has used e-mail, internet and computers but does not use special software
- vi. At the Tahu Cibuntu Industrial Center, they are just starting to get to know technology by making an order through online
- vii. At the Cigondewah Textile Industry Center, there is no use of computers and the application of the internet to support business processes.

Then related to the process of innovation and production tools, most of the SME Industry Centers in Bandung stated that they began to move from the manual process to the computerized system (wahyuningtyas, 2016).

Based on the background stated, this study sets out the formulation of the problem as follows:

- a. How is the availability of digital talent in Bandung city SMEs based on their competence?
- b. How is the mapping of digital talent in Bandung city SMEs?
- c. What strategies need to be formulated as input for SMEs and Bandung City government to ensure the availability of digital talents in SMEs?

The purposes of this research are to:

- a. Know the availability of digital talent in Bandung city SMEs

- b. Know the mapping of digital talent in Bandung city SMEs.

- c. Formulate relevant strategies as recommendations for the SMEs and the Bandung City government to ensure the availability of digital talents in SMEs.

## 2. Literature Review

### Digital Economy

The digital economy is defined as the process of exchange or transactions that occur on the internet. More specifically according to Hartman (2000), Digital Economy is defined as a virtual arena where business is run, values are created and exchanged, the emergence of transactions and the establishment of relations between parties is created by using all forms of initiatives through the internet as a medium of exchange. Whereas in the opinion of other experts, digital economics is explained as a sociopolitical and economic system that has the characteristics of an intelligence space, including information, various access to information instruments and information processing, and communication capacity (Tapscott, 2006). The increasing number of business companies that utilize internet technology for communication and collaboration media will mark the growing development of the digital economy. The digital economy is based on the production of goods and services through electronic devices and then traded through electronic media as well. This business is related to production and managerial processes that utilize internet transactions with website technology.

According to a digital economy study in Indonesia conducted by a research team of the Ministry of Communication and Informatics, digital economics comes with a sloping top, inclusive, and spreads the equality of opportunities. This characteristic has the concept of competition which is an industrial spirit that is easily lifted by startups who prioritize collaboration and synergy. Because of that, the digital economy is a sharing economy that lifts many small and medium businesses to enter business globally.

### Digital Talent

In the era of the digital market, businesses began to carry out digital transformation, rethinking the added value offered to customers and creating operational models that benefit new things as competitive advantages. With the rapid development of information technology and Internet of Thing (IoT) for several years, business networks have become the main platform for companies. Moreover, many consumers choose to obtain different information from business networks (Dlodlo et al., 2012; Winter, 2014; Xu et al, 2016). The accumulation of information in the digital ecosystem has created unlimited opportunities for companies when they are able to support employees through access flexibility, cost effectiveness, knowledge sharing and talent development (Garavan et al., 2012; Wang, 2011).

The current competitive environment has driven business transformation in several areas such as (Karakas and Manisalgil, 2012):

**i. Virtual Collaboration**

Virtual collaboration is a new art and science in collaborating where billions of interrelated people around the world collaborate and participate in innovation, wealth creation and social development on virtual platforms globally from the internet (Tapscott and Williams, 2006; Karakas and Manisalgil, 2012)

**ii. Technology convergence**

This is the principle that various kinds of media such as radio, TV, magazines, telephones, mobile devices and the internet form a global information network

**iii. Global Connectivity**

The ability to connect global thinking through the internet, providing access to online information resources around the world using only mobile devices. Today the internet is the largest ecosystem with a wider power of thought and connectedness

**iv. Online Community**

It is the use of the internet and new media platforms in social change and benefits for the community. In this case social media has been used extensively in social movements such as to educate, communicate, criticize, raise funds and increase social awareness

**v. Creative Digital**

Increasing the role of creativity and innovation in digital platforms and business models in the future.

Berman (2012) describes the main capabilities needed by organizations to compete in the digital era, namely:

**i. Ability to create business model innovations**

Organizations must continuously explore the best ways to bring in revenue, structure the company's activities, strengthen the position in the current industry and in the future.

**ii. Encourage customers and community collaboration.** Another key competency is finding new ways to bind customers and communities. This requires interaction with customers in each phase of business activity, not only about sales, marketing and service but also product design, supply chain management, human resources, IT and finance. Customer interactions in these areas often encourage open collaboration that drives innovation through online communities.

**iii. Cross channel integration**

The ability to integrate all customers is very important for managing digital operations. Customers will return to the use of social networks. The experience of using one channel will increase the expectation to use another channel. Continuity and context provide experience in customer contact.

**iv. Obtain insights from analytic activities**

The creation of a customer-centered organization has changed the basis of decisions within the organization and among its partners. Analytical insight brings

predictive capabilities to all functions so that all channels can be aligned between customer needs and desires.

**v. Digital supply chain optimization**

The ability to manage costs dynamically to serve all segments in their market and flexibility in determining the best inventory digitally based on supply and prediction of needs.

**vi. Creating a network of labor**

All of the above capabilities require people with the right skills. The work environment must encourage the creation of social networks between employees as well as customers and partners, requiring guidelines about values instead of rigid rules.

To fulfill those demands, it is necessary to have the following competencies and potential talents (Wahyuningtyas, 2018):

**i. Expertise related to mobile devices** such as design platforms, user interfaces, gamification, application development, cloud services, mobile device management and security.

**ii. Big data analytics**, namely the ability to see a set of data consisting of various types of data to reveal hidden patterns, correlations, market trends, customer preferences and other business information that is useful in making a decision. These analytical findings will enhance more effective marketing, new revenue opportunities, better customer service, operational efficiency and other business benefits.

**iii. Expertise related to social media platforms** such as front-end engagement, building a brand, community participation and virtual facilitation.

**iv. Adequate knowledge** relates to the complexity of a business

**v. Positive attitude** in every situation

The current condition of the business environment has demanded an understanding of information technology that is not only in the IT department but also binds all components and functions within the organization. And superior talent is a talent that is able to combine digital expertise, deep functional business knowledge and a positive attitude in looking at complex problems.

Vieru (2015) proposed the dimensions of digital competence as follows:

**i. Technological Dimension**

The technological dimension relates to the ability to perform work tasks effectively and efficiently by utilizing the latest information technology

**ii. Cognitive dimension**

Cognitive dimensions relate to the ability to read, select, interpret and evaluate information to explain the accuracy and reliability of work

**iii. Organizational culture dimension**

The dimensions of organizational culture are related to the ability to interact and collaborate with other individuals by using available information technology in line with organizational norms and values.

### 3. Methodology

In this study, the analysis was carried out using descriptive exploratory methods. Understanding of descriptive methods is a method carried out to find out and be able to explain the characteristics of the variables under study in a situation (Sekaran, 2006: 158). In this study, it is intended to describe in advance the analysis of digital talent in SMEs. After that, the researcher will map and formulate strategies that are input for SMEs in the city of Bandung.

The population in this study were SME business people in 30 leading SMEs in the city of Bandung. The sampling technique used was purposive sampling, which is a sampling technique based on certain criteria. Each center will be represented by 2 business people so that a total sample of 60 respondents. In this study, primary sources were obtained through distribution of questionnaires to SME owners and employees. The responses obtained from each respondent will be processed and the results then used to answer the formulation of the problem under study. Alternative answers to the questionnaire consist of 5 alternative answers, one to five, where the meanings of each alternative answer are very low, low, moderate, high and very high.

The data analysis technique used in this study are divided into 3 aspects, according to the formulation of the problem proposed, which are:

i. To find out the availability of digital talents in SMEs in Bandung, questionnaires were distributed to employees and SME owners. The distributed questionnaire contains statements about the level of availability of digital talents in their environment, which consists of technological dimensions, cognitive dimensions, and organizational culture dimensions. The completed questionnaires were then processed and analyzed using the rank order mean statistical method, so that the level of talent availability was obtained according to the following criteria:

- If the average answers obtained from respondents are in the range of 1.00 to 1.80, then the level of availability of talents is in the Very Low category.
- If the average answers obtained from respondents are in the range of 1.81 to 2.60, then the level of availability of talents is in the Low category.
- If the average answers obtained from respondents are in the range of 2.61 to 3.40, then the level of availability of talents is included in the Enough category.
- If the average answers obtained from respondents are in the range of 3.41 to 4.20, then the level of availability of talents is included in the High category.
- If the average answer obtained from the respondents is in the range of 4.21 to 5.00, then the level of talent availability is included in the Very High category.

ii. To find out the map of digital talent competency mastery based on the level of importance and availability of SMEs in Bandung, mapping was carried out by

applying the Importance Performance Analysis (IPA) approach from Martila and James (Lupiyoadi & Ikhsan, 2015). Procedures and mapping measurements are carried out in the following stages:

(1). Calculating the suitability value to determine the priority of improvement in improving competence with the formula:

$$T_{ki} = \frac{X_i}{Y_i} \times 100\%$$

Which are:

$T_{ki}$  = Level of conformity

$x_i$  = Scale of competency mastery assessment

$y_i$  = Scale of competency rating

Interpretation of the degree of conformity between 95% - 100%, it is said to be very good. The level of suitability is 85% - 94%, it is said to be good. The level of compatibility between 70% - 84%, it is said to be quite good, and the level of conformity below 70% is said to be not good.

(2). Measuring the level of mastery of competency and the level of importance of competency over digital talent variables. To describe the Cartesian diagram, the level of mastery of competence is represented by  $U_f x$ , while the level of importance of competence is denoted by  $y$ . The formula used is as follows:

$$\bar{X} = \frac{\sum X_i}{n} \quad \bar{Y} = \frac{\sum Y_i}{n}$$

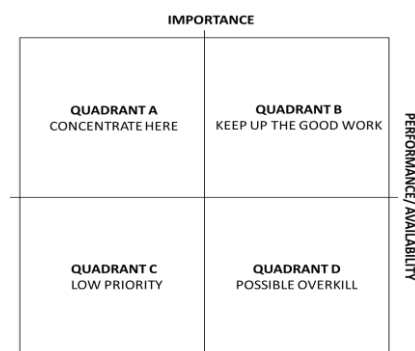
Where:

$x$  = Scale of average level of mastery of competence

$y$  = Scale of average level of interest

$n$  = Number of respondents

(3). Divide the Cartesian diagram into four quadrants by calculating the average of the scale of performance (availability) and importance. In the quadrant analysis there is a diagonal line that intersects the quadrant into 2 parts, upper quadrant and lower quadrant.





The Cartesian diagram above can be presented as follows:

Quadrant A shows competencies that are considered important by the respondents but have a low level of availability. Therefore, the company must give priority to developing competencies that lies in this quadrant.

Quadrant B shows competencies that are considered important by the respondents and have a high level of availability. These competencies therefore must be maintained to be mastered by the employee.

Quadrant C shows competencies that are considered not important and have a low level of availability. Even though competencies in this quadrant have low availability, the company does not need to give priority to improve it, because according to respondents these competencies are not important.

Quadrant D shows competencies that are considered not important but have high level of availability.

#### 4. Results

##### Characteristics of Respondents

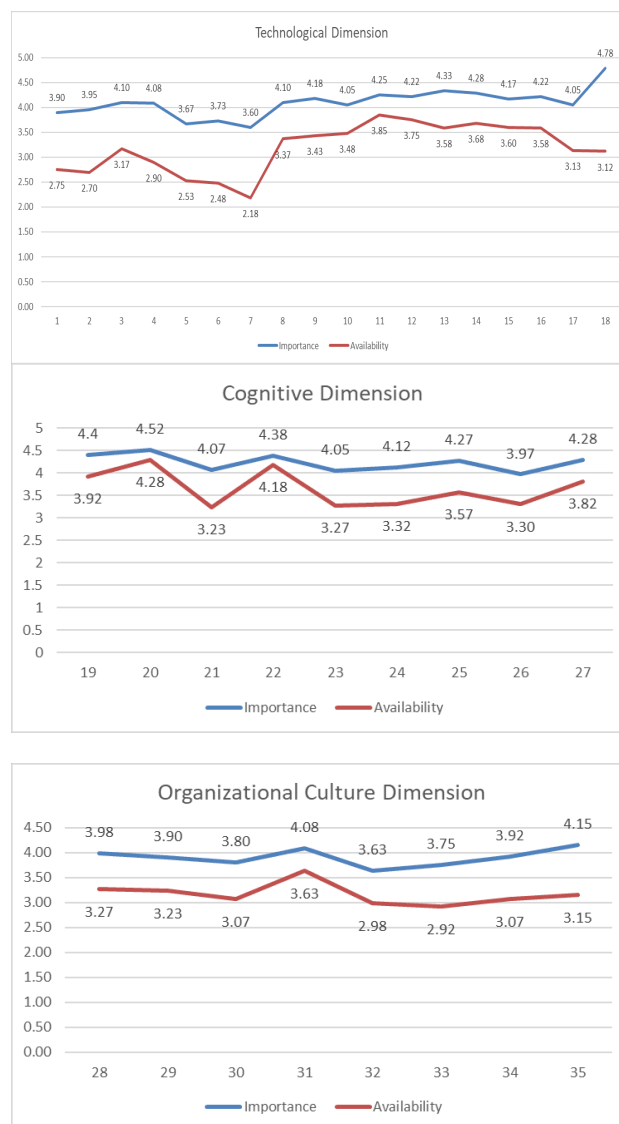
Based on the questionnaire that has been distributed to the respondents, it is known that the characteristics of respondents by gender are divided into 70% men and 30% women. This shows that small and medium businesses in the city of Bandung are dominated by men. Whereas based on age, 52% of respondents were over 45 years old, 20% of respondents aged 39 to 44 years, 12% of respondents aged 33 to 38 years, 3% of respondents aged 27-32, and 13% of respondents aged under 27 years. This shows that small and medium businesses in the city of Bandung are dominated by age over 45 years. Based on the length of business, 55% of respondents have been in business for more than 12 years, 20% of respondents have been in business for 9 to 11 years, 10% of respondents have been in business for 6 to 8 years, 13% of respondents have been in business for 2 to 5 year, and 5% of respondents have been running their business for under 2 years.

##### The Importance and the Availability of Digital Talents in Bandung City SMEs

Based on the tabulation of questionnaire data using rank order mean, the results obtained that the availability of digital talents in SMEs in Bandung is at the "Moderate" level. In a specific dimension of digital talent, the results are 3.18 (Moderate) for Technological Dimension, 3.65 (High) for the Cognitive Dimension, and 3.17 (Moderate) for the Organizational Culture Dimension.

When compared with the level of importance of mastering digital competencies by employees, it turns out the availability level is still lower. The average importance of each dimension are 4.09 (High) for Technological Dimension, 4.2 (High) for Cognitive Dimension and 3.9 (High) for Organizational Culture Dimension. If displayed in a graph, the comparison of

questionnaire data on the level of importance and availability will look like in the following picture:



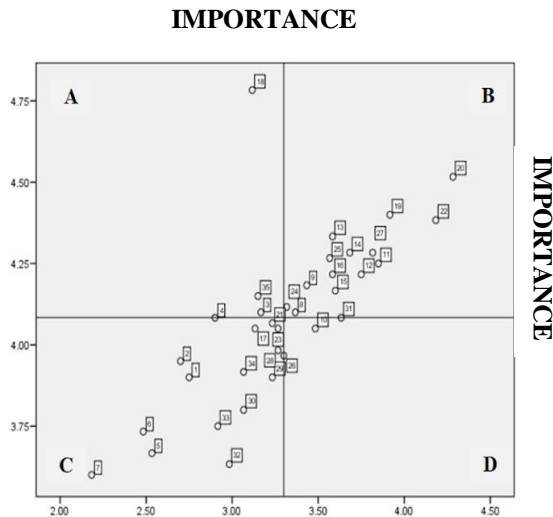
This shows that the level of availability or mastery of digital competencies in SME employees in the city of Bandung still needs to be improved. Even more, it should be noted that in the digital talent indicator, there are still indicators that have low levels, namely the following abilities:

- The ability to use social media (internet, social media) to manage costs efficiently
- The ability to use social media (internet, social media) to establish communication with the community, and
- Actively participate in activities held by the community online

##### Digital Talents Mapping in Bandung City SMEs

Based on questionnaire data, the importance and availability of digital talents on each indicator can be

presented in Appendix 1. Referring to the Importance Performance Analysis (IPA) approach of Martila and James (Lupiyoadi & Ikhsan, 2015), the data can be mapped on the Cartesian diagram as follows:



The criteria for each quadrant in the Cartesian program are as follows:

- i. Quadrant A shows the competence of digital talent that is considered important by SME business people in Bandung but has a low level of competency mastery. These competencies include competencies 3, 4, 18, and 35
- ii. Quadrant B shows the competence of digital talent that is considered important by SME business people in the city of Bandung and has a high level of competence mastery. These competencies include competencies 24, 8, 9, 15, 16, 25, 12, 13, 14, 11, 27, 19, 20 and 22
- iii. Quadrant C shows the competence of digital talent that is considered insignificant by SME business people in the city of Bandung but has a high level of mastery of competence. These competencies include competencies 10, 26 and 31.
- iv. Quadrant D shows the competence of digital talent that is considered insignificant by SME business people in the city of Bandung but has a low level of competency mastery. These competencies include competencies 5, 6, 7, 1, 2, 30, 32, 33, 34, 17, 23, 28, and 29.

## 5. Discussion

Based on the mapping in the Importance Performance Analysis (IPA) diagram, there are digital competencies with a low level of mastery and thus become a priority for improvement. Digital competencies that need to be improved include the ability to collaborate virtually with various parties, the ability to utilize various kinds of digital media to build an adaptive culture and the ability to use social media to communicate with customers and build a corporate brand. Some improvement programs that can be implemented are as follows:

i. Include potential employees in training on the use of social media to support their work. Employees who have attended training are given the obligation to share knowledge with other employees. This is so that all employees understand about the use of social media on work which is an important part of the efficiency and effectiveness of work completion.

ii. Include talented employees in a certification program to build the company's brand through the use of social media

iii. To create virtual collaboration capabilities, leaders can make policies that allow the coordination of internal work teams using online media. This process can be started from coordination between internal teams first. One example is utilizing the employee intranet portal which is a place for team members to share, manage information, and work on shared files. The software used can at least contain simple features such as managing the time and place of meetings, assignment lists, activity schedules, company documents and others. By mastering the technical implementation of coordination in a virtual way, the next process is to encourage employees to collaborate with external parties such as customers, suppliers, distributors and others.

iv. The company leader can appoint Person in Charge to become a public relations officer, who is in charge of exposing the company's advantages on a regular basis. This is expected to increase the company's brand image.

v. Business people need to reevaluate the suitability of the current corporate culture with the demands of the external environment

vi. Conduct socialization to internalize the values of corporate culture to all employees on a regular basis in every activity and company event such as routine meetings, special activities, coffee morning and others

vii. Create and provide company websites that contain the latest company content, for example about company products, activities, exhibitions, innovation processes and more

viii. Collaborate with the industry and academics to formulate a talent competency development program on an ongoing basis as part of the Corporate Social Responsibility program

## 6. Conclusion and Implications

The conclusions that can be taken in this study are as follows:

i. The level of availability of digital talents in SMEs is in the moderate category

ii. The level of importance of digital talents in SMEs is in the moderate category according to business perceptions is in the "Important" category

iii. Based on the results of mapping on the Cartesian diagram, there are several digital talent competency indicators that must be prioritized in developing HR in Bandung, namely in competencies 3, 4, 18 and 35. This is

because these indicators are in quadrant A, namely has a high level of importance to be mastered but in reality, the availability of these competencies is still considered low.

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