

SBM ITB BLEMBA Alumni Readiness as Digital Transformation Leaders

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Abstract - It is widely accepted that pandemic situation has sped up the digital transformation implementation. SBM ITB Blemba alumni are exposed and expected to lead the digital transformation in their organizations. In this matter, change management and people are the key to successful digital transformation.

This research utilized both quantitative by conducting survey and qualitative research to support respondents' responds. Both quantitative and qualitative methods were used to understand more on the meaning of the responds.

Based on the survey, there are competencies required to be more promoted in daily basis. Though SBM ITB has already given the ingredients to become successful leaders through its courses across all competencies, due to current respondents' position level in their current organization, some of these required competencies are less trained.

It is recommended for SBM ITB to reconduct the survey in some period of time to its alumni in order to enable SBM ITB stay relevant with current industry as well as thrive the inevitably changes.

Keywords – change, digital transformation, digital transformation competencies, digital transformation readiness

I. INTRODUCTION

COVID-19 pandemic that has been started from 2019 has driven conventional ways of work to be more collaborative, flexible, and agile in order to keep the business keeps running in excellence. The shift of ways of work are mainly orchestrated by digital technology. Due to pandemic, the rates of adoption to digital channels are years ahead compare to the expectation during pre-pandemic era. This phenomenon does not only apply to technology polar regions, but to all regions, according to McKinsey Survey [1]. With the acceleration of digital transformation across organizations in the world, as stated in Figure 1, all of us need to accept the rapid changes this pandemic has brought, no exception.

Whereas the global growth on digital transformation, Indonesia shows only 43% of firms are on digital transformation journey, and only less than half of them take more mature companywide approach. While most of them are focusing digital transformation in a specific business units, products, or line of service [14].

Figures stated previously were taken from digital transformation in firms. However, digital transformation is also impacting public policies. Organisation for Economic

Co-operation and Development (OECD) describes seven key properties – or “vectors” – that affect the design and efficacy of public policies [15]. This description shows the significant shifts are underway the economy and in society in general. Transformation allows rare opportunities to improve welfare and other social problems in the society. Hence, the transformation in an organization to create or add values impacts wider dimension of market and communities that require public policies to adapt to changes brought by digital transformation.

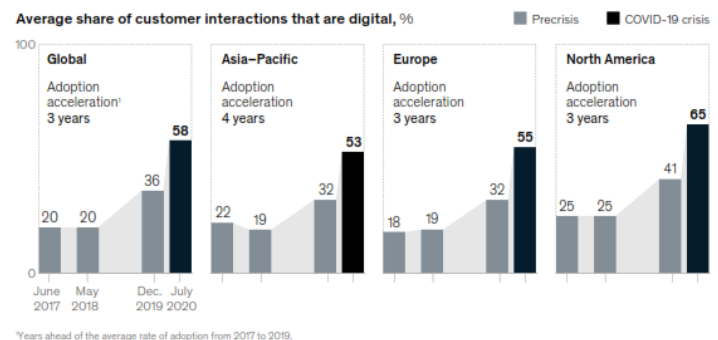


Fig. 1 Digital Adoption Acceleration Rate

SBM ITB as the best business school in Indonesia¹ has stated its mission to educate its students to be innovative leaders who are also actively creating values through entrepreneurship. This pandemic situation indeed is a challenging situation due to its massive uncertainties. However, it also allows organization to pivot towards more sustain business by leveraging digital technology. Thus, as leaders, SBM ITB alumni, regardless their current organization types; government, private sectors, entrepreneurs; are experiencing the excitement of digital transformation.

A. Research Question

There are three questions that will be answered by the result of this paper, they are: (1) Are SBM ITB BLEMBA Alumni well equipped by SBM ITB Blemba Program to lead digital transformation?; (2) How appropriate the SBM ITB Blemba Program Alumni readiness to lead digital transformation implementation in their organizations?; (3) What are the improvements should be taken by SBM ITB

¹ Global Brand Magazines ranking 2017, 2018, 2019

Blemba Program to support its students to succeed leading digital transformation?

B. Research Objectives

The objectives of this research are: (1) To measure Blemba Program involvement preparing new leaders; (2) To quantify alumni readiness to lead digital transformation that SBM ITB BLEmba program alumni are having after graduating the master program from SBM ITB; (3) To provide improvement recommendation based on the findings.

C. Research Limitation

This research includes questionnaire from SBM Blemba alumni who have graduated for the last 3 (three) years and work in various industries. Their names, title and organization may not be shared to respect their privacy. The conducted questionnaire was not measuring the maturity of digital transformation in respondents' organization.

II. METHODOLOGY

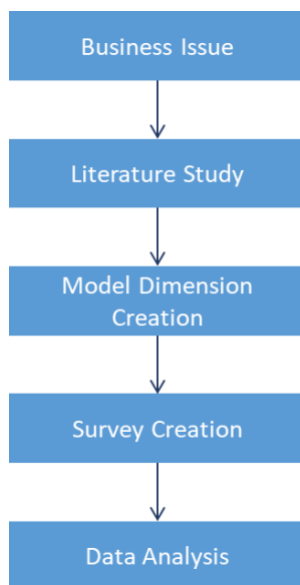


Fig. 2 Research Framework for Business Issue Exploration and Proposed Solution

Figure 2 portrays the research method of this study. The author compiled all necessary information until the author formulate the business issue. The business issue statement is this research will analyze how being SBM ITB Blemba alumni will make them ready to implement or moreover to lead digital transformation. The author did literature study, which are coming from both educational and industry to understand digital transformation and how to measure its readiness. The basis literature study used in this research are Capgemini and MIT Sloan's Digital Transformation Framework [2], McKinsey's 7-s Framework [3], Kotter's 8 Step of Change [4], and McKinsey's Ten Guiding Principles of A Digital Transformation [5]. By using definitions found in literature study, this research will define digital transformation as a journey to achieve

radical improvement through establishment of digital technologies (5G, artificial intelligence, big data, block chain, and many more) that impacting the people within the organization as well as society as external organization element, and also enhance the processes of creating values. After the author settles the definition of digital transformation, key elements derived from findings in literature study are taken as part of dimension of measurements. By creating this dimension, key questions can be generated to measure the SBM ITB Blemba alumni readiness through quantitative research.

Capgemini and MIT Sloan conducted investigation to 157 executive-level interviews in 50 companies in 15 countries [2]. The study result came out with common set of elements. Each element can be used by digital transformation leads as levers to initiate and drive digital transformation in their organization.

The levers consist of the 'what' and the 'how'. The 'what' represents specific set of digital transformation elements implemented by the organization, including the strategic assets and digital investments that are used to create those elements. The 'how' represents the way that transformation leaders drive change throughout the organization, starting from vision definition, communication and engagement, governance and measurement (KPIs), and creating digital culture. Both the 'what' and the 'how' require iterative process to achieve digital future of the organization, top-down approach.

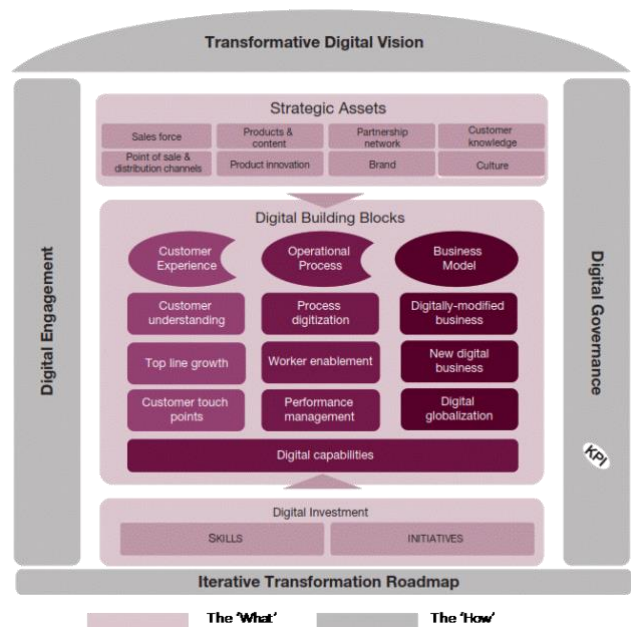


Fig. 3 Digital Transformation Framework

Previous frameworks show digital transformation (Figure 3) is top-down initiatives that requires such strong leadership that coming from leaders who has qualities who can define the strategy as well as deliver the values through change management journey. These qualities will be defined as Digital Transformation Competencies.

Competence means a set of skills, knowledge and attitudes [9]. There are three categories of competency: knowledge, skills and abilities. 'Knowledge' and 'skills' are competencies that employees can acquire through training and/or experience. 'Knowledge' includes both theoretical and practical knowledge of general areas. 'Skills' relate to attributes that promote the acquisition of knowledge and that can be acquired through training. 'Abilities' are attributes that are often innate and that cannot therefore be learned; but they can be developed and refined. 'Abilities' also affect the ability of individuals to acquire knowledge and skills, and so influence performance in their occupations.

The success of digital business transformation is largely determined by the competencies of a digital strategy executor who nurtures a digital culture and which is able to change existing and establish a new business model [10]. Risk-taking becomes a cultural norm as digitally mature companies seek new levels of competitive advantage [11]. By synthesizing digital transformation framework stated in previous sub chapter, as well as SBM ITB's missions, using the structure of competencies defined by Deloitte [12], required competencies in a digital transformation is presented in categories (Knowledge, Skills, and Abilities) and subcategories. In the Digital Transformation Framework, 'the how' part shows change management to enable 'the what' parts in to live. Due to that, change management area will be quite heavy in competency requirement to lead a digital transformation. Mapping of 7-S Framework and Kotter's 8 Steps of Change to each of competency is also important to ensure that changes will be well guided.



Fig. 4 Division of Competencies into Group and Sub-Group

Since the readiness of SBM ITB Blemba alumni towards digital transformation are synthesized into required competencies, as pictured in Figure 4, they will be used as dimensions in this research. To simplify the creation of statements of questionnaire, some of required competencies are grouped into a single dimension of competencies. The research dimension of competencies used for the survey are strategy management; organization knowledge; change management; business acumen; communication skills; digital technology skills; plan, collaboration, and innovation skills; human skills. The target participants are SBM ITB BLE MBA 20-26 Alumni. Using Slovin formula, with total alumni 334 persons, the minimum sample should be 77 respondents.

$$n = \frac{N}{1 + Ne^2} = \frac{334}{1 + 334 \cdot 0.1^2} = 77$$

n = number of samples required

N = number of populations

e = margin of error

The survey was consisted of 65 questions and sent online to all targeted alumni. In this research, the author gathered 80 valid respondents out of 84 gathered respondents. Both positive and negatives questions will be given to test their understanding on digital transformation and the changes cause based on identified dimensions. The author did necessary actions to make the data ready for validity and reliability check. Based on this checking, then the author translates the finding into meaningful information with qualitative study as support to analyze findings.

III. RESULTS

A. Validity and Reliability Test Result

Validity test concerns what an instrument measure, and how well it does so. Reliability concerns the faith that one can have in the data obtained from the use of an instrument, that is, the degree to which any measuring tool controls for random error [6].

Based on validity check, from 80 (eighty) responds for all statement of questionnaires in the survey, there are 3 (three) statements that are considered as 'Invalid'. However, there are 2 out of these statements can be substituted with the same meaning statements available in the survey, as described in Table 1.

TABLE I

Invalid Statement of Questionnaires

Dimension	Statement of Questionnaire	
	Invalid	Substitute
Organization Knowledge	27 - I believe there should be a specific function to oversee overall digital transformation activities	. Statement no 27 has no replacement.
Plan. Collaboration, & Innovation Skill	49 - When new innovation arises, my organization put high commitment to implement it by creating pilot project to test the success rate.	50 (Negative Type) - My organization facilitate many new innovations, but most of them were stopped in planning or piloting phase.
Abilities (Human Skills)	64 - I perceive my leadership needs to dominate other stakeholders to ensure digital transformation journey can be implemented as planned.	54 - I perceive the leadership in my organization positioned themselves as catalysator among different stakeholders to get the best fit innovation for my organization's best interest.

Reliability test taken in this research states a variable is reliable when the coefficient value is more than 0.6 (Cronbach Alpha > 0.6). Based on reliability test, all dimensions or variables in the survey are reliable.

TABLE II

Reliability Test, n = 80

Variable (Dimensions)	Cronbach Alpha Value	Reliability
Strategy Management	0.756	Reliable
Organization Knowledge	0.745	Reliable
Change Management	0.747	Reliable
Digital Technology Knowledge	0.642	Reliable
Plan. Collaboration, & Innovation Skill	0.643	Reliable
Abilities (Human Skills)	0.617	Reliable
Business Acumen	0.732	Reliable
Communication Skills	0.743	Reliable

B. Survey Respondents Profile

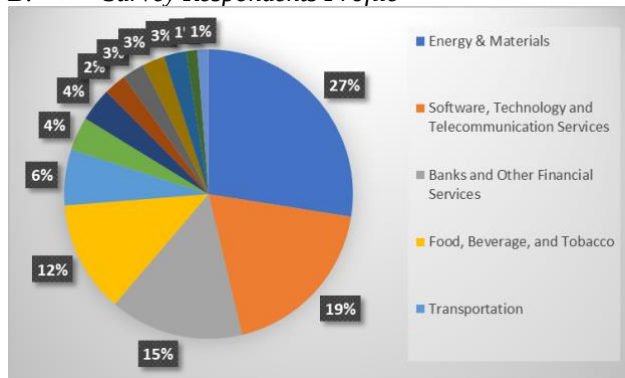


Fig. 5 Respondents' Industry Type

The result of the survey, Figure 5, shows the major industries Blemba alumni is working for, which are: Energy and Materials – 27%; Software, Technology and Telecommunication Services – 19%; Banks and Other Financial Services – 15%; Food, Beverage, and Tobacco – 12%; and Transportation 6%. These 5 (five) industries represent 64 (sixty-four) persons or 80% of all respondents.

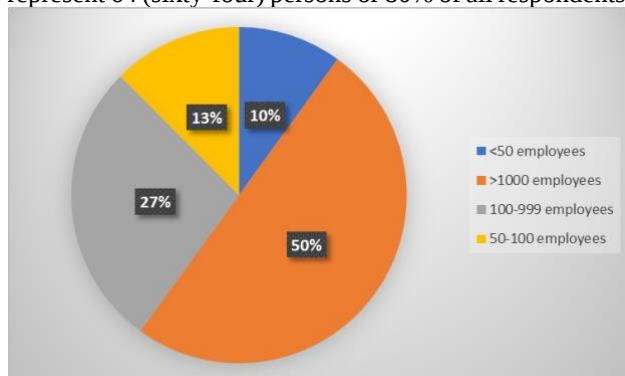


Fig. 6 Respondents' Size of Organization

Majority of respondents are coming from big corporation, with number of employees is exceeding 1000 employees as seen in Figure 6. There is only 10% of respondents coming from small size of organization.

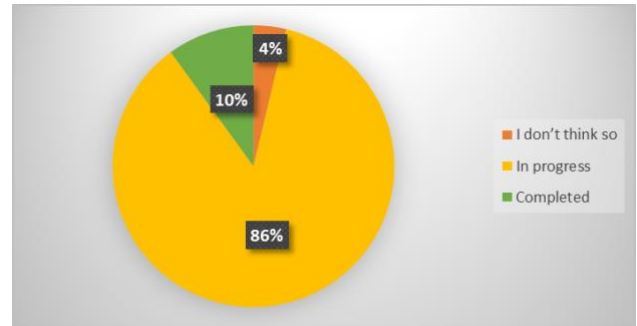


Fig. 7 Digital Transformation Progress

Based on result in Figure 7, there were only 3 persons or 4% of respondents who considered their organization had not done any digital transformation. However, their responses are still included in the analysis since the objective of this survey is also to gather their perception on digital transformation in general.

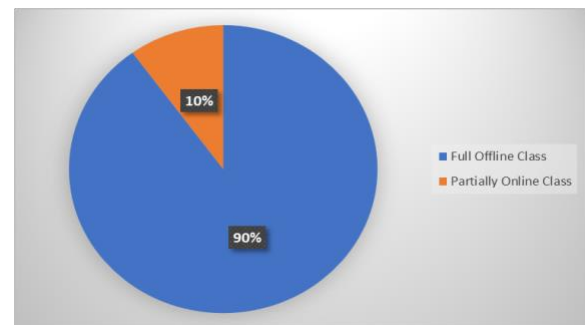


Fig. 8 Teaching Method Experience

By default, SBM ITB Blemba program is an offline class program. Due to COVID-19 pandemic, starting from 16 March 2020, SBM ITB has been conducting online classes for all its programs, including Blemba. Among the respondents, only 10% who have experienced offline class, in particular Blemba 26.

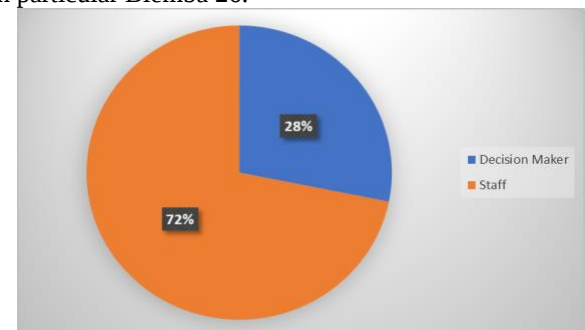


Fig. 9 Level of Involvement in Digital Transformation Visioning

In Figure 9, the majority of survey respondents are not yet the decision makers in their respective organizations. digital transformation is a top-down initiative, that also indicate that most of respondents involve in digital transformation in execution level.

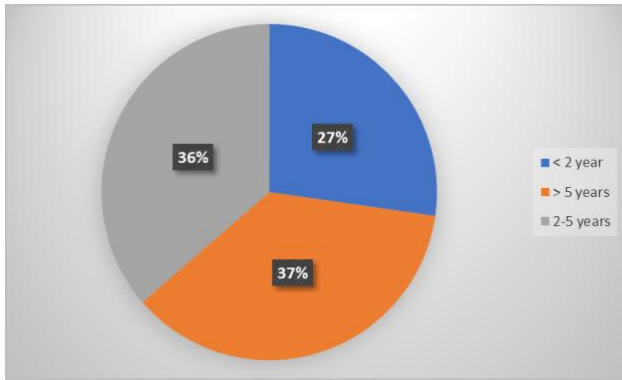


Fig. 10 Period of Working in Current Position

The non-decision makers, or in this report will be labeled as Staff, are classified into their level of experience in their current positions. Majority of the respondents are experienced in their current positions, by having more than 2 (two) years of experience in current position, as seen in Figure 10. This data indicates that the employee movements, both lateral and vertical, within the organization do not dynamically change.

C. Average Dimension of Competencies

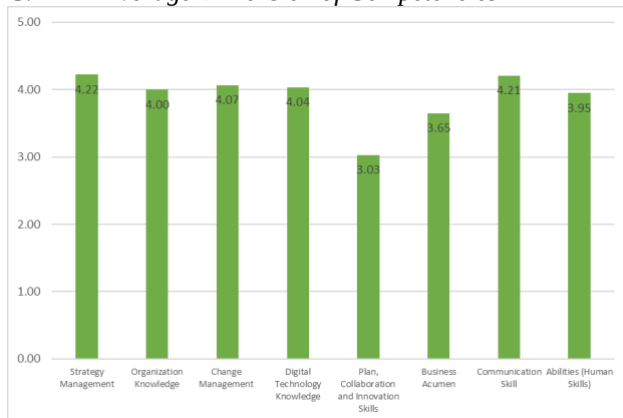


Fig. 11. Average Dimension of Competencies for All Respondents' Industry Type

In average (Figure 11), all competencies are high as shown above, which Strategy Management dimension of competencies is the highest. There are 2 dimensions of competencies ranked in medium; Plan, Collaboration & Innovation Skills and Business Acumen. However, the highest average of statement is statement of questionnaire in Abilities (Human Skills) dimension of competency: I believe as a leader, I need to have a growth mind set because change is inevitable. This indicates that majority of respondents agree that ability to continuously learning, processing positive feedbacks and hard work are important to be ready for the unavoidable changes. The lowest average statement of questionnaire in Plan, Collaboration, and Innovation Skill dimension of competency: I prefer a yearly (or some period of time) rigid objectives from my organization so I can plan my overall work program plan for the entire year.

Digital transformation that has been defined in previous chapter, utilizes digital technology to create values that impacting broad human elements. In addition to that, without knowing the end of pandemic era, digital transformation should be perceived as a part of adaptive strategy the organization should take. Based on BCG's strategy palette [7], adaptive approach works when the work environment is hard to predict and to shape, and when advantage may be short-lived. Adaptive strategy is also encouraging continuous improvement. Being collaborative and innovative are the sum of key ingredients in an adaptive strategy. The overall finding in this dimension shows that plan changes are less embraced. This might happen due to the typical industries SBM ITB Blemba alumni coming from are industries with high capitalization and big size of organization, where high bureaucracy is still deeply implemented/ required in those organizations.

Although the general average for each dimension of competency is considered medium and high, further clarification was taken by conducting 3 (three) interviews to respondents who are part of respondents' majority industry types, which are Energy and Materials, Software, Technology and Telecommunication Services, and Transportation. The interviews were conducted to reconfirm several statements of question, which are:

1. In my opinion, the known business strategy framework I have learned from SBM ITB Blemba Program is not relevant anymore with nowadays condition. Dimension: Business Acumen
2. I prefer a yearly (or some period of time) rigid objectives from my organization so I can plan my overall work program plan for the entire year. Dimension: Plan, Collaboration, and Innovation Skills
3. I am comfortable when everything I need to do with my job is within my function only. Dimension: Plan, Collaboration, and Innovation Skills.
4. Before pandemic, I was comfortable when I could only access my works in the office environment. I wish the same concept will be implemented again after pandemic ends. Dimension: Plan, Collaboration, and Innovation Skills.
5. I perceive the leadership in my organization positioned themselves as catalysator among different stakeholders to get the best fit innovation for my organization's best interest. Dimension: Abilities (Human Skills).
6. I can implement/ maximize the utilization of collaborative tools knowledge into my daily operation based on my learning experience in SBM ITB. Dimension: Digital Technology Skill.

D. Average Competencies per Industry Type

1. Energy and Materials Industry
 Majority respondents are coming from big size of organization that make cross functional collaboration will require more bureaucracy compared with small size organization. This statement is supported with additional

interview with respondent who is coming from energy and material industry type.

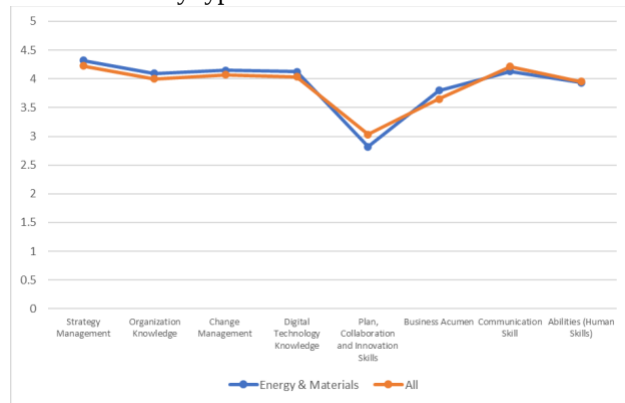


Fig. 12 Energy and Materials Industry Average Dimension of Competencies

Based on the interview, the reason of less support on this dimension is due to the high bureaucracy in the organization. The innovation arises in this industry for sure would not be as rapid as in other industries, for example software industry. The respondent also mentioned though the collaboration is a virtue in the current organization, the spirit of collaboration to achieve higher value is not yet being embedded in all functions. The different working paces among the functions also make the collaboration job become more complex. Though the respondent has been fully aware that collaboration can make the job becomes more efficient.

Communication skill is slightly lower than the general average. In this dimension, excitement and understanding level of digital transformation vision and mission are being assessed. From the responds, it is indicated that respondents believe in the general objectives of digital transformation, though the direction from their current leadership are yet adequately clear.

The survey results also indicated majority respondents were helped by digital platform provided by SBM ITB.

2. Food, Beverage, and Tobacco Industry

In this industry type, respondents show almost consistently below the general average (Figure 13). Though respondents show slightly above the average on business acumen dimension. Food, beverage, and tobacco industry is represented as a common manufacture that perceived adapt to digital is slower. Another indication shows in respondents wish to only able access work related materials only in dedicated environment. They wish the remote working mechanism would not be continued once the pandemic over.

Digitalization enables on-demand mechanism, where digital platform ensure the meet of supply and demand. But on the other hand, manufactures and its production line still has difficulties to face the unpredictable consumer's demand. Besides the economics lifetime of manufacture system and machineries, manufacturer also need

government to enact policies and programs to facilitate manufacturers' digital transformation journey [13].

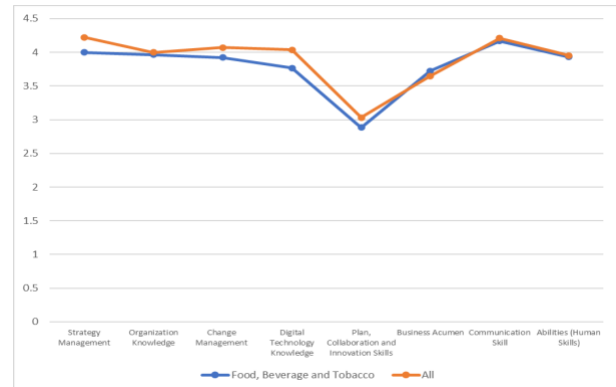


Fig. 13 Food, Beverage, and Tobacco Industry Average Dimension of Competencies

Based on the level of digital transformation vision, most of respondents in this industry type are coming from Staff level, or the non-decision makers. By the understanding how food, beverage and tobacco industry is constantly trying to get customers' attention, the average answer that states their organizations involve external feedbacks less, indicates that the staff level has not been empowered to understand external situation impacts to their internal organization.

3. Software, Technology, and Telecommunication Industry

Software, Technology and Telecommunication Industry is having slightly above the average on all dimensions (Figure 14). However, this type of industry does not have significant higher average on Digital Technology Knowledge. Based on the interview, the finding was the respondent has been exposed with much better digital technology prior joining SBM ITB. So being the student of SBM ITB Blemba program did not affect respondent's ability to implement or maximize collaborative tools in respondent's organization.

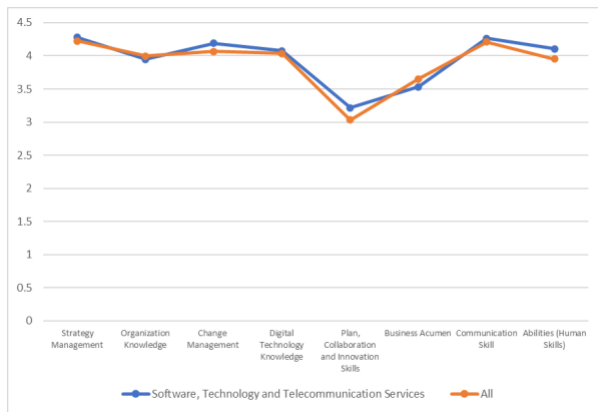


Fig. 14 Software, Technology, and Telecommunication Industry Average Dimension of Competencies

The respondents are also fully aware the people element is the most critical one in digital transformation. Among other major industry types in this survey, software, technology and telecommunication industry respondents are giving the highest score on this statement.

4. Banking and Other Financial Institution Industry

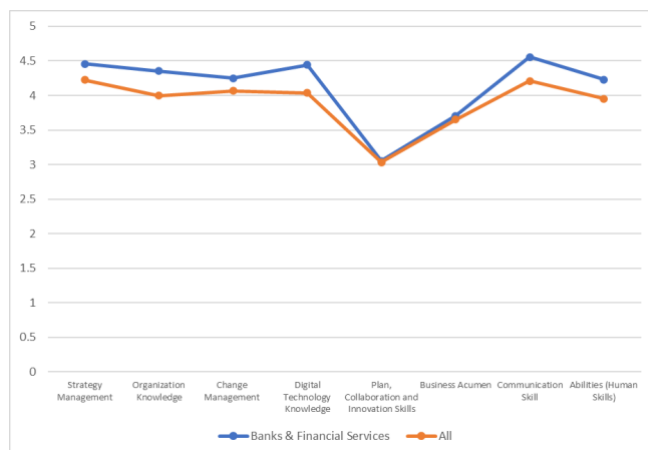


Fig. 15 Banking and Other Financial Institution Industry Average Dimension of Competencies

In Figure 15, Banking and Other Financial industry type shows consistently above the average on all competencies, although Plan, collaboration and innovation skill is having the same average with overall average. Banking industries in general has been disrupted long before pandemic. Respondents from industry type has been familiar with transformation for longer period than other respondents. Though the majority of respondents are not the ultimate decision makers for digital transformation vision in their organization, the value of customer-centric services has been embedded in their ways of work.

The communication dimension shows the most significant average compare with other respondents. This shows the leadership in the banking industries are able to convey clearly the vision of the objectives without giving any space of insecurities within the team.

5. Transportation Industry

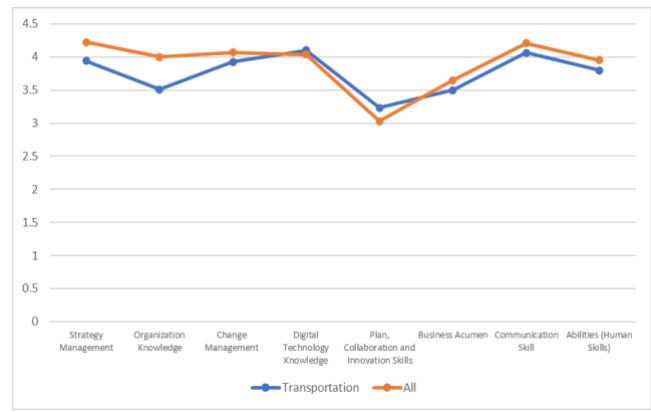


Fig. 15 Transportation Industry Average Dimension of Competencies

In the transportation industry type, all respondents solidly mention that internal process improvement is the main reason of digital transformation in their organization. Since the raise of ride hailing in 2016, transportation industry has been being disrupted. Internal process efficiency as well as continuous improvement are the only choices they need to do. It is also being confirmed from the interview that outside-in ideation and innovation is heavily supported by the management since there is an indicator the knowledge stagnancy within the organization.

Transportation industry survey responds creates a big gap in average of organization knowledge dimension of competency. The finding is the lack of understanding of centralized government in digital transformation. In addition to that, there was only 1 (one) person who has been part of management who can contribute to vision definition for digital transformation in their organizations. This respondent was the only respondent who indicated the adequate level of understanding of centralized government relevancy in a digital transformation.

IV. DISCUSSION

The survey taken by the respondents were meant to get their perception on digital transformation, both on what and how it should be done. Their responds in each stated dimension of competencies are highly related on their industry background, experiences, and also their level in the organization. However, SBM ITB as education institution has a major role to enable its alumni having a standardized understanding and competencies on the emerging transformation, which are reflected in several statement of questionnaires.

V. CONCLUSION AND RECOMMENDATION

Reflecting on the analysis done in this research, several conclusions can be taken:

1. SBM ITB Blemba program has prepared its students with adequate competencies to support them leading digital transformation.

2. From the overall required competencies mentioned in 8 (eight) survey dimension of competencies, SBM ITB Blemba alumni are ready to be digital transformation leaders. Though some rooms of improvements are still required.
3. Agility to changes is still the area that SBM ITB Blemba alumni need to work with.

The recommendation is based on author's research limitation from survey responds conducted in March 2021 and interviews, as well as publicly available material as supporting data. SBM ITB in general has conducted a full online class since early 2020 due to pandemic. The majority of the respondents experienced from offline class method. Thus, this survey should be conducted in another period of time to get the visibility of readiness level changes among its alumni, especially alumni who experienced full online class.

Aside from the recurrent survey, the interview responds indicate that the feeling of well-equipped is not leveraged with the collaboration and innovation skill of SBM ITB Blemba alumni to hands on the digital transformation due to the current organization condition and business acumen. Hence, digital transformation is everybody business and change is inevitable. Thus, it is a good chance that SBM ITB Blemba program consider having more program to promote collaboration and innovation in the organization.

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