

DIGITAL TRANSFORMATION IN BUSINESS SCHOOL: A SELF-ASSESSMENT QUALITATIVE STUDY OF SBM ITB AGILE READINESS

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Abstract

There are a lot of drivers of change for business school around the globe to better suit the renewed demand, style, and characteristics of organization. A lot of business schools have been conducting each and its own digital transformation initiatives by also fulfilling the requirement to have readiness in the agile aspect. The purpose of this research is to acquire, analyze, and discuss self-assessment qualitative data regarding the agile readiness of a business school. The subject of the research is a business school in Bandung city, namely School of Business and Management as one of the school/faculty in Institut Teknologi Bandung (SBM ITB). The data are gathered from nineteen MBA students in SBM ITB – classified into five groups – through the method of Focus Group Discussion (FGD), as well as team and class discussion. By having a self-assessment result on the agile readiness of SBM ITB can help the business school to assess the current standpoint and to adjust and manage the digital transformation initiatives ahead by overcoming current weaknesses as well as seizing future opportunities.

Keywords: Agile, Business School, Digital Transformation, Education Management.

1. Introduction

The way people behave and interact has been changed because of digital transformation in higher university and business school, thanks to so many drivers (Krishnamurthy, 2020) which focus on the transformation of the university, transformation of the business world, and transformation of the student. The transformation conducted consisted of three areas as proposed by Westerman, et al. (2014) in their book “Leading Digital”. The first one is about the element of customer experience, the second one is on operational excellence, and the third one is the potential of the development of the digital business model. In the domain of education, we focus more on the first two areas which translate into students’ satisfaction and teaching excellence.

Within these two areas, there are discrepancies since most research focuses only within one of the two areas – without trying to accommodate the perspective of multi-stakeholders. The first one is the domain of student satisfaction, thus having the student as the main actor (as evident in Corbu and Edelhauser (2021) in Romania, Hasan, et al. (2020) in Oman, or Sokout, Usagawa, and Mukhtar (2020) in Afghanistan). On the other hand, other research focused more on operational or teaching excellence, having lecturers and staff as the main actor (as evident in West et al. (2016) in Australia and Naujokaitiene, et al. (2020) in Lithuania).

There are two major disadvantages identified from previous research when the perspectives of multi-stakeholder are not fulfilled. The first issue is an inaccuracy or mismatch in identifying appropriate needs for each stakeholder. It will also lead to poor decision making. The reason is that when trying to identify the needs or demands of a stakeholder, most of the time the focus is not necessarily on the main actor or stakeholder itself. As evident from Linden (2018), there is a demand from students regarding feedback, but the lack of understanding and readiness from the academic staff hinder the process. On the other hand from the perspectives of the teaching team, Hofer and Naeve (2017) coined the term lean management on education while on previous occasion, Baldeon, Rodriguez, and Puig (2016) offered gamification for students. The mismatch occurred since the idea was brilliant, but lack of involvement from the students themselves made the engagement rate to be low and created discrepancy between what the students really need versus what the teaching team think or assume that the students need. One of the big issues here as an example is regarding ethical and privacy, as indicated in the research of West, et al. (2016), de Oliveira, et al. (2021), and Mago and Khan (2021). The perspective of the teaching team assumes that it is fine to acquire all data from all processes during the teaching and learning session, while students have high concern regarding their consent on the data acquisition. Another two prominent examples were shown from Rets, et al. (2021) in the development of a learning analytics dashboard that did not really consider the learners' need and only created features and mechanisms based on the assumption of what the students might need. West, et al. (2020) had similar experience in Australia a year before that lack of input from students gave consequence in the development of a system or solution that does not really accommodate the needs of the students themselves.

The second major disadvantage from lacking a multi-stakeholder perspective is that the development of the program or solution becomes partial or fragmented. A holistic and comprehensive solution that can satisfy the needs from most involved stakeholders is hard to be developed. West, et al. (2016) shared their findings in the development and usage of learning analytics tools that cannot accommodate most of the needs from both the perspective of students and teachers. Samuelsen, Chen, and Wassen (2019) supported the argument that the lack of data integration between various involved parties and business processes makes the solution become very fragmented.

Thus, learning from previous research, there are several key findings from these phenomena that we can learn upon. First, processes in the organization (university or business school) need to be faster and more flexible (Twidale & Nichols, 2013). Second, to succeed in digital transformation initiatives, both focus on technology and social domain is needed. Collaboration between participating actors in digital transformation is highly required (Benavides, 2020). The example of these first two points is the misinterpretation in receiving students' feedback has been a classic issue and thus, the faculty is not agile enough in responding toward the matter in an effective and efficient way (Meadows, et al., 2015). Finally, Dikova (2020) stated that transparency between stakeholders regarding the whole end-to-end business process in the organization is mandatory.

The purpose of current research is to acquire initial opinions and voices, especially from the main stakeholder in a business school: the students. Through both group and individual approaches, students were asked regarding their opinion for strengths, weaknesses, and future opportunities on the topic of a business school digital transformation initiative, especially in the context of the School of Business and Management in Institut Teknologi Bandung, Indonesia.

2. Literature Review

Technology advancement affects all areas, including the learning and teaching environment in the education domain, as Krishnamurthy (2020) states about the transformation of the university, the business world, and the students themselves. Thus, a transition or transformation is needed. This transformation needs to be conducted with a digital mindset at its core, but it has several prerequisites to be fulfilled in the first place. The readiness for digital transformation is four-fold within the context of a university. The assessment and readiness should be made from the aspect of the university's enterprise architecture, the IT infrastructure, process management, and competence of the university staff. The readiness must also be fulfilled by the tight collaboration between the triple elements of people, process, and technology (Dolganova, 2020).

By fulfilling the readiness in digital transformation, then the process itself can be conducted. Digital transformation (and in later usage might be noted in the abbreviation 'DX') is perceived as an opportunity to professionalize higher education institutes (HEI) and to better satisfy students' needs (Rof, Bikalvi, and Marques, 2020). As the theory implies, DX in HEI affects all areas within the university and involves all stakeholders in three major aspects: the way students learn, the way lecturers and staff conduct the end-to-end teaching process, and the innovation of business models. Benavides et al. (2020) suggests that DX is all about customer experience and business model renewal. It will open up the opportunity for HEI to improve and replace traditional products and services. Rof, Bikalvi, and Marques (2020) also mentions that continuous innovation in the business model by applying digital initiatives is a necessity for HEI to be able to stay competitive. Aside from digital innovation, the digital transformation also revolves around the digitization of processes within HEI, enablement of data-informed decision making, and seamless connectivity (Rof, Bikalvi, and Marques, 2020). The models are represented in the following figure.

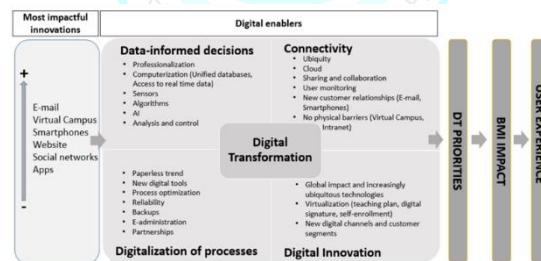


Figure 1: The Digital Transformation Model for Higher Education Institute (Rof, et al., 2020)

As being mentioned that DX involves all stakeholders in the HEI, it is considered that the main actor or the one who takes the central spotlight should be the students themselves (Meum et al., 2021; Sailer, Schultz-Pernice, and Fisher, 2021). A recent model named “C_b Model” (read as C-FLAT: Contextual Facilitators for Learning Activities involving Technology) is introduced by Sailer, Schultz-Pernice, and Fisher (2021).

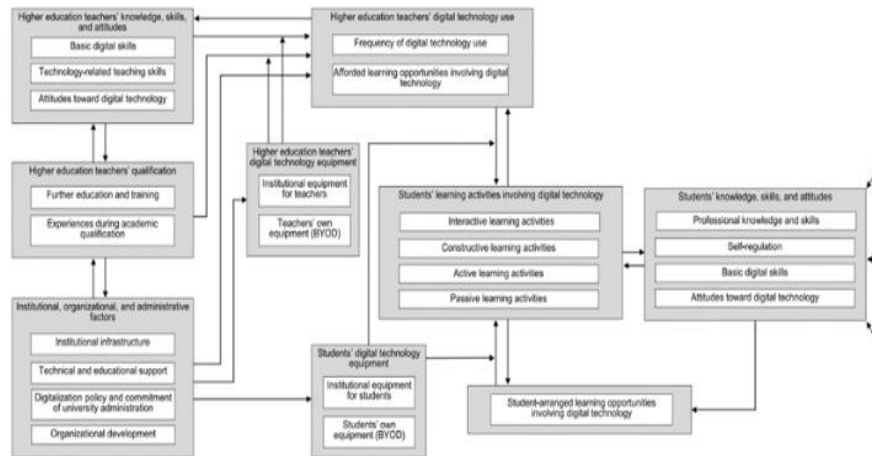


Figure 2: The C-FLAT Model (Sailer, Schultz-Pernice, & Fisher, 2021)

Digital transformation brings changes in all levels, from the personal, group, up until the organizational or institutional level. The benchmark of success now focuses more into the students' learning outcomes, rather than the teachers or lecturers. It was also supported in the previous research by Nathanael (2020) which stated that to conduct digital transformation, should be shaped first by the readiness in the individual level, that can be aggregated later on to the team and organizational level. The readiness covers elements such as digital literacy, digital skills, and digital attitudes, as also aligned with the C-FLAT model by Sailer, Schultz-Pernice, and Fisher (2021).

For a digital transformation in HEI to be successfully conducted, there are at least three pillars as suggested by Brunetti et al. (2020): culture and skills, infrastructure and technologies, as well as the ecosystems. Speaking of ecosystems, a simple yet crucial key for digital transformation lies within a single concept: the collaboration between stakeholders. There are many stakeholders within HEI: the students as the main actors, lecturers and teachers, academic staff, head division or chief, dean, local government, accreditation board, donors and investors, companies and industrial world, and many others. Each and every stakeholder has its own role: each has its needs and demands to be satisfied as well as contribution to be made for HEI. But the underlying principle is the same from all of the research being observed: that the tight, intensive collaboration between all involved stakeholders in HEI to succeed the digital transformation is a must (Iivari, Sharma, and Ventä-Olkkonen, 2020; Liu, Zha, and He, 2019; Brunetti et al., 2020; Rof, Bikalvi, and Marques, 2020). All digital activities of initiatives conducted by the university need to be linked with the overall vision and strategy. Thus, transparency between all stakeholders regarding the process is mandatory (Dikova, 2020).

Thus, it can be summarized that based on these literatures that approximately, the indicator that should be possessed to conduct a successful digital transformation might include:

- (1) Culture, knowledge, skills, and attitudes from stakeholders (especially students and lecturers)
- (2) Digital infrastructures and technologies (equipment, learning processes)
- (3) Institutional, organizational, and administrative factors
- (4) Ecosystem-based partnership with other stakeholders

3. Methodology

The primary methodologies that will be used is the mix of soft systems methodology and action research, or also be called as action research-based soft system methodology. Soft Systems Methodology can be used to structure complex problems and to develop desirable and feasible changes. The methodology was developed through a rigorous action-research program. The models are split between two layers: the real world (the one being used to evaluate the models) and the systems thinking about the real world (the one being used to build the models) (Checkland, 1999).

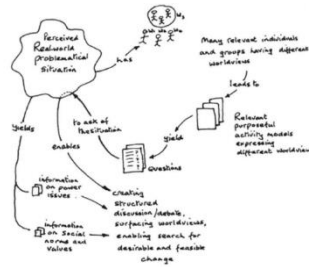


Figure 3: The Big Picture of Soft System Methodology (Checkland, 1999)

The reason for the selection of the soft system methodology is that the issue faced in the context of this research might be considered within the domain of a complex issue. According to Kurtz and Snowden (2003), in a complex situation, cause and effect coherent in retrospect do not repeat. Thus the process that should be done is to do probing first to clarify patterns, then sensing the patterns, and by then finally we can respond by stabilizing desired patterns. This will also align with the action research framework introduced by Lewin (1946) and will be discussed later on.

Since the issues perceived are complex and involve a lot of stakeholders, each stakeholder might possess his or her own worldview. This situation cannot be approached by using the hard system approach. In hard systems approach, the goal is to seek optimization and dealing with 'problem' and 'solution', while in soft system, the goal is to seek learning and dealing with 'issues' and 'accommodations' (Checkland & Poulter, 2006). The advantages of using soft system methodology is that it is available to all stakeholders and puts the role of human content at its center, which will be in-line with the context of this research.

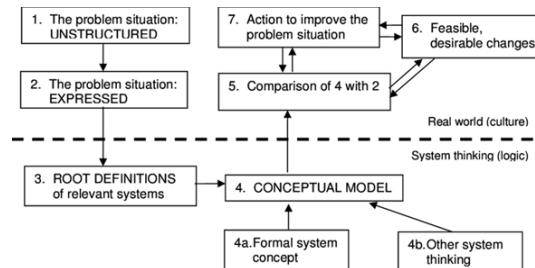


Figure 4: The Steps of Soft Systems Methodology (Checkland, 1999)

In the first book of the SSM (Checkland, 1999), there are seven stages of the methodology. The seven stages are:

1. Enter situation considered problematical;
2. Express the problem situation;
3. Formulate root definitions of relevant systems of purposeful activity;

4. Build conceptual models of the systems named in the root definitions;
5. Compare models with real-world actions;
6. Define possible changes which are both desirable and feasible; and
7. Take action to improve the problem situation

One of the prominent models of Action Research was introduced by Kurt Lewin in 1946.

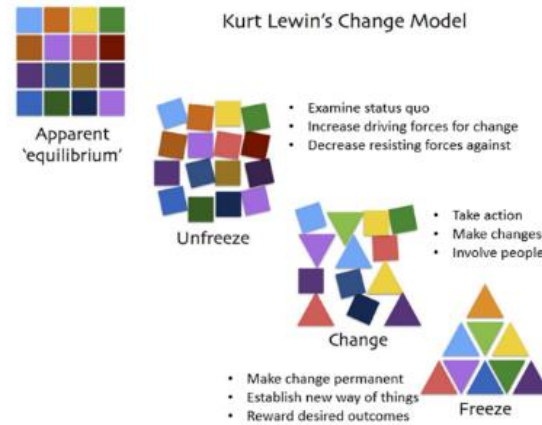


Figure 5: Kurt Lewin's Action Research Change Model (Lewin, 1946)

In this model, it shows the steps from the old condition (the square shape) toward the new, desired state (the triangle shape). It consists of three steps: unfreeze, change, and re-freeze.

In the context of this research, we can see that SBM ITB's current position is at the "apparent equilibrium" state regarding its position toward the implementation of digital transformation. Then, the first step to be taken is to see and carefully identify the status quo. Thus it is important to gather as many perspectives and points of view from all stakeholders involved, in order to know the positive drivers of change and the negative drivers of change. Then we are going to do the changes by improving and strengthening the positive drivers while trying to reduce or minimize the negative factors. After it has been done, this is not done just yet. Sometimes the feeling of complacency brings up a trap here. The last step is to make sure that the changes will stick, thus we need to do the "re-freeze" process. By then we can see that the transformation has been successfully carried on and the rewards are received by the parties involved.

In Action Research, it has no hypothesis; but rather, the main focus is about learning. It states that "lessons can be sought" (McKay & Marshall, 2001). The result of an action research process is not repeatability, but rather, recoverability. It means that the audience would be able to recover and dig more of the content and appraise the judgment made by previous researchers, to be contextualized in a newer, diverse perspective. McKay and Marshall (2001) also highlights the importance of the dual-imperative process of Action Research which consisted of both the element of problem solving as well as theoretical contribution.

In order to do that, in the beginning there are three elements that should be defined. It is known by the abbreviation of F-M-A. The first one is about the framework that will be used. The second one is about methodology. McKay and Marshall (2001) stated that there are two different methodologies. The first one is what we call MR (methodology of the research) and the second one is MPS (methodology of problem solving). It is used to show and strengthen the dual imperative of action research. And finally, the A is about the area of interest, because each specific domain and topic will have its focus and uniqueness too. It is shown in the following figure.

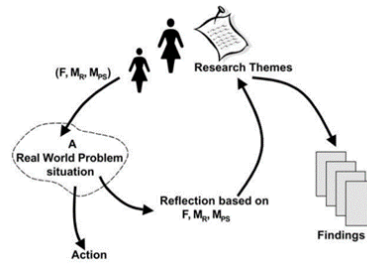


Figure 6: The F-M-A Model (McKay & Marshall, 2001)

In alignment with the previous section which stated that the philosophy of the research is interpretivism, then the selection of action research-based soft system methodology is deemed suitable for the needs. The spirit of action research is interpretivism, since the study of social phenomena should be conducted in its natural environment (Saunders & Lewis, 2019) and that the human being or people is central to the research, emphasizing the focus of people's perspective in this research. According to McCutcheon & Jung (1990), the family of action research methods are also highly used in the education sectors by teachers. It is because oftentimes, teachers need to fulfill the dual-imperative cycle to both promote and balance between theory and practice. Experiences might be different according to different contexts, cultures, and needs.

With the selection of the philosophy and strategy aforementioned in mind, so far the 'go-to' methodological choice is the qualitative method. The author selects multi-method to fulfill the criterion of triangulation or multiple sources of data. Since the data is qualitative and highly subjective, then it will be better to have multiple sources of data to increase the quality of the data. The selected method might be such as direct observation and interview with selected knowledgeable participants. The qualitative method is selected as the primary since one of the purposes of this research is to capture the richness of context that is happening from the phenomena. In this context, it will be regarding the satisfaction and contribution elements from all related stakeholders in the business process of a business school. Most of the time, these qualities will be hard to quantify. It will also be highly dependent and different from one person to the other. Instead of going to have broad, shallow data, the qualitative will enable a more narrow, yet more in-depth exploration.

This current research was conducted with the spirit of action research in mind and focusing on the first step of the soft system methodology: identifying problematic situations. The method used in this identification process is by conducting group discussions as well as individual written interviews prompt by a series of triggers or guidelines. The purpose of this activity is to acquire initial data and opinion regarding the situation happening in SBM ITB regarding digital transformation initiatives.

4. Results

The following part will present the result gathered from two occurrences. The first one is gathered through a group discussion session with the MBA students. The second one is gathered through an individual reflexive writing session, triggered with the prompt of "What will you do if you become the leader of SBM ITB?". We are going to present these results in two parts, the group and the individual result.

4.1. Group Results

The main thing identified from the group discussion in relation to the readiness of digital transformation in SBM ITB is a big question whether SBM ITB has been agile enough to carry on those initiatives or not. Thus, each group identified the readiness of SBM ITB agility.

There are ten characteristics identified by each group. Eight of them are perceived to have full level of readiness, namely quick to mobilize, nimble, collaborative, responsive, free flow of information, empowered to act, resilient, and learning from failures. Thus, there are room for improvement. Two of them are perceived to have partial readiness, namely on characteristics easy to get things done and quick decision making.

There are evident and key findings provided for all characteristics. For quick to mobilize, SBM-ITB is organized in preparation for something. From 2003 – 2021, SBM-ITB succeeded in adapting / improving to the growth of business and management, proven by many programs held by SBM-ITB currently, and the several achievements such as national & international accreditation, good quality management (ISO), etc. as shown previously. SBM ITB also invited many expert to introduce many expert so the student can easy moving talent from role to role.

Regarding nimble, collaborative, and responsive, SBM can be nimble in adapting the actual condition to the education material. SBM ITB does collaboration with local partner to create cooperative class. SBM-ITB also collaborates with other faculty / departments in ITB, collaborates with both national and international universities (e.g., Unpad, University of Queensland, University of Hull, Fordham University, University of Glasgow, Boston University). SBM ITB is capable to adapt and response to dynamic business environment and internalize it to learning curriculum. For example, SBM-ITB does not stay silent regarding international issues. E.g., in 2021, SBM-ITB organized ICMEM aiming at bringing academics, practitioners, and governmental bodies together to discuss economic and management issues relevant to emerging markets. It is also responsive to one of the best issues for professionals that want to continue their education while working by providing online classes. It is also evident that SBM lecturer is able to bring the newest condition in the society for the course materials.

Regarding free flow of information and empowered to act, all information of schedule, material and assignment are very easily to access through Google Classroom, SPACE (SBM ITB internal portal). All information regarding SBM-ITB can be freely accessed through its official website. SBM ITB empower its students through case study or assignment (individual and group) and learning by doing method. Through its research center and publications, SBM-ITB commits to actively disseminate its knowledge through various intellectual contributions to betterment of business, government, and society. Based on these, SBM-ITB hopes that everybody can use its research / publications as a baseline / guideline for their next or ongoing research; Implementing “independent critical thinking” concept for SBM ITB students. Thus, all student need to give their analysis in every course.

SBM ITB is also perceived as having the characteristics of resilient and able to learn from failures. During the pandemic, SBM has managed to survive the harsh academic condition and still able to deliver maximum quality of education to the student. The SBM student already taught to be resilient in facing multiple deadline tasks. As the youngest faculty/school in ITB, SBM learn from past failure and failure of peer faculties in ITB and learn to move forward and become one of the best business school in Indonesia. It can be seen from SBM-ITB achievement, such as national and international accreditations and improvement on its world university rank (e.g., for example in QS World Uni. Rank, the rank of ITB has fallen and then risen again, based on the assessment parameters, ITB has managed to increase its score to achieve an even higher

ranking). SBM always took a review from the student every semester to do the continuous improvement.

4.2. Individual Results

After the group discussion session, each student as the research participant was given the time of one week for the individual reflection session. Participants were asked to write in 2-4 pages regarding their opinion and reflection, if they were to become the leader of SBM ITB, in relation to the readiness of SBM ITB agility, especially to conduct the digital transformation.

Based on the results of these individual reflection session, we acquire a total of 67 key findings or key points gathered from all the students. We get four themes which are also consistent to the one already addressed in the literature review part. From 67 key findings, more than half of them, exactly 53.73%, focus on the institutional, organizational, and administrative factors. By having these elements, students argue that the school will be more agile, capable to do an effective and efficient business processes, and thus, be able to smoothly conduct the digital transformation. Some interesting key points on this area include the passion to break the traditional, hierarchical, and bureaucratic leadership and to pursue more on the organizational flexibility side. It should promote participative leadership and voices from all stakeholders should be heard and considered. It is also a dream to have a curriculum that can be developed by tailoring it to each student's needs and talent. There is also a demand to create a conducive learning environment which promotes the balance of study and life. The biggest challenge in this area is how to create a stable (resilient, reliable, and efficient) yet dynamic (fast, nimble, and adaptive) organization.

Following it, the next two are about culture, knowledge, skills, and attitudes from stakeholders (25.37%) and building ecosystem-based partnership with other stakeholders (14.93%). Most of the key findings in these areas focus on how to infuse an agile mindset to all faculty members and students. Business school - SBM ITB in this context - is aspired to be more relevant to current and future issues and trends in the real business world. Even so, it is also a hope that the school can be less stressful for the students. To be able to reach that, of course the business school cannot do it alone, and need to collaborate with a lot of stakeholders. But it is not enough to do just a simple collaboration. The collaboration needs to be built under the mindset that it will develop an ecosystem for business and have a tight relationship with all involved stakeholders. There are two purposes for this ecosystem mindset. The first one is to have a better and closer relationship, in which all processes can be conducted more efficiently in an agile manner. The second one is to be able to have real collaboration, to identify real issues, and to offer real, significant solutions to those issues.

Last, it is quite interesting that the theme of digital infrastructure and technologies only served in 4 out of the aforementioned 67 key findings (5.97%). While it is important to do investment and innovation on the side of technology to have a more efficient business process and rich information systems, these findings also emphasize that digital transformation is not necessarily always about the technology itself; rather, it can begin - and it should begin - from the perspectives of the people and the organization before we can move on toward the other areas.

5. Discussion

Based on the result of both group and individual result, it means that it opens up room for improvement for two characteristics, which are how easy to get things done as well as quick decision making. Students cited that sometimes, bureaucratic policy hinders the ease of

administrative staff. It was also worsened by testimonies stating that at times, administration staff at the school was rather reluctant to give optimal help and work half-heartedly. Lack of transparency also contributed to the case, as well as lack of a single, integrated portal that can be used to complete all the administrative tasks and to collaborate with all important stakeholders. While all of these occurrences happened from the students perspective, these lack of stuff also happened to the faculty members and important top level management. With all of these situations, it makes the decision making process to be rather slow, too bureaucratic, and it takes so much time to even get the proper data and information as the foundation of the decision making. Thus, the readiness in these two areas are still on the partial side.

Thus, as a positive reminder, SBM ITB should not be trapped into complacency. Based on the discussion that occurred during the group session, there are several aspirations from the students regarding SBM ITB readiness to be agile enough to conduct the digital transformation. There are three major topics: developing proper mindset, executing agile business processes (including the use of digital infrastructures and technologies), as well as doing active networking and partnership.

First and foremost is the development of a proper mindset for all people in SBM ITB regarding agility and digital transformation. SBM ITB should focus on delivering the best quality to its stakeholders, especially towards its students as the main 'customer' of the business. By orienting on the quality of the service and business value, all stakeholders will be more responsive and helpful toward each other in order to generate a better environment for teaching and learning with the spirit of value co-creation; in order to do things that are impossible to be done without proper mindset. SBM ITB should also pay attention to the business side by considering the abundance of opportunities to generate income, such as by developing a full-online course and other business based on the digital business model. SBM ITB should be more courageous to do exploration and regularly innovate to keep on its competitive advantage. Consequently, it has to be supported by regulation and guidelines on how to do innovation that has breakthrough outcomes but also still following the law and corridor on how to do a proper process in a business school.

Second is about the internal business process and how to execute it in an agile way. First, SBM ITB needs to do better promotion to attract - not only students - but also potential faculty members from all around the world. The more international exposure SBM ITB has, it will increase the whole knowledge as well as experiences. There should be more international students as well as more faculty members who have international exposure, such as from formal studies, joint research, seminars, and many more. Even so, by potentially adding the number of the students, SBM ITB should also pay attention to its ratio of students/staff. Currently, it is too high. Consequently, students cannot be serviced optimally since one staff has to handle so many students' needs at the same time. The quality of the service is also in jeopardy. When SBM ITB commits to enlarge its students number, then it has to be followed by also increment in the number of staff, as well as increase in capability such as in digital mindset and readiness. Lastly regarding business processes, is the use of technology. SBM ITB should consider using the latest technology for more immersive learning experiences and smart customer care that is centralized to fulfill students' needs. Implementing technology should no longer be considered as simply just an investment on the goods or services, but rather, should be seen as an effort to raise the holistic quality of the teaching and learning processes in SBM ITB as a whole.

Third, is to actively build networks and partnerships with as many stakeholders as possible. The main idea over here is to be able to collaborate with business institutions - both practitioners and researchers - to get real business issue updates and to propose meaningful alternatives of

solutions. Oftentimes, study and research in a business school is so detached to the real world and the materials are obsolete to the development of the agile and dynamic real business world. By having tight relationships with real stakeholders outside of the school, it will keep the business school to be relevant, meaningful, and impactful with its study and research. Practically, there can be more guest lecturers from other institutions. It should also cover both the side of the scholar and practitioner.

Conclusion

The current research has successfully fulfilled its objective as the first step in the whole framework of soft system methodology to identify the problematic situation faced by SBM ITB regarding the readiness on digital transformation and the agility of the business school. As the main stakeholders, the voices from students were aimed first and have been acquired and discussed through two programs. The first one is through a group discussion, and the second one is through an individual reflective writing session. Both resulted in the assessment of SBM ITB's current position on the agility level to be ready to conduct digital transformation, pluses and minuses, as well as plenty of aspirations from the students on what the ideal should be. From the four major themes or areas of these aspirations, it is quite interesting to see that opinions directly related to the use of digital infrastructures and technologies take a rather small part. The largest part is regarding institutional, organizational, and administrative factors - by focusing and transforming the organizational level. It is supported by the development of culture and mindset for internal stakeholders as well as active development of ecosystem-based partnership with external stakeholders.

With the current result, it opens up potential for further development such as to move on further into the steps of soft system methodology as well as to embrace more perspectives and point of views from other stakeholders as well. By having multiple perspectives from multiple stakeholders, the point of view will be more holistic and it can offer greater depth into the research as a whole.

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