Readiness for Measuring the Transformation of Higher Education Status

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Abstract—**Readiness needs tobe measured at Akademi Telkom Jakarta, due to institutional changing to be Institute level. This papers aims to support successful transformation for academic communities of Akademi Telkom Jakarta and Telkom Foundation to implement Jakarta Telkom Instute of Techonolgy in 2020. Method conducted in this paper is Andrea Sodano's readiness best practice, some workshops conducted to evaluate the proceses of implementation, and qualitative research featuring deep interview also conducted to analysis data. Result of the resarch is, readiness level for 50 points. It can be concluded that, Jakarta Telkom Institute of Technology will be transformed well.**

Keywords— Readiness, Andrea Sodanos'best practice, qualitative approach, Akademi Telkom Jakarta

I. INTRODUCTION

Akademi Telkom Jakarta or Akademi Teknik Telekomunikasi Sandhy Putra Jakarta is one of the Universities under Telkom Foundation. This institution was established in 2002 located in west Jakarta, Indonesia. Telecommunication Engineering is just one department that appears in Akademi Telkom Jakarta. Since 2019 up to now, Akademi Telkom Jakarta under Telkom Foundation is transforming to be Jakarta Telkom Institute of Technology. Therefore, the chairmen from Akademi Telkom Jakarta and Telkom Foundation conducted some meetings and workshops since January 2019 up to now. As a matter of fact, Telkom Foundation has four universities such as Telkom University located in Bandung, west Java, Akademi Telkom Jakarta, located in Jakarta, Purwokerto Telkom Institute of Technology, located in Purwokerto, and the last is Surabaya Telkom Isntitute of Technlogy, located in Surabaya (east Java).

Although Akademi Telkom Jakarta has just own one department, that is 'telecomunication engineering' but this department is realy sexiest deparment to get the jobs in Telecomunciation Department, such as at Telkom Indonesia, Indosat, ExcelComindo, BRISat and any other multinational companies. Therefore, many companies not only from communication fields but also other fields (such as banking, data companies, etc) are offering the jobs for Akademi Telkom Jakarta's students. The most infortant reason for Akademi Telkom Jakarta to transform tobe Instiute level, can be examine based on this SWOT analysis bellow:

Strength

Under Telkom Foundation (Yayasan Pendidikan Telkom), Lecturer and employees at Akademi Telkom are best at their field, due to strict examination, Located in Jakarta (Indonesia capital City), Employees of Akademi Telkom has good in salary, based on Telkom Foundation policy (decreasing turn over status) and having some scholarship programs for University Student.

Weakness

Having just one department, fee for studying is expensive enough, and need some effort to increase research.

Oportunities

Having a good change to be accepted at Telkom Indonesia or Telkom group, and any other reputable companies, good in facilities featurirng sophisticated ICT, student can get some International Certification (e.g: Cisco, TOEIC, Oftic, Programaming, etc).

Threat

Loacated in Jakarta, make Akademi Telkom must compete with famous universities such as University of Indonesia and Bina Nusantara University, etc., some foreign universities come to Jakarta, make it be tight to compete.

Let's give more attention to weknesses and threat indicators. it is for the reasons, Akademi Telkom Jakarta is trasnforming to be Institue level. Towards Jakarta Telkom Instute of Technology is going to open new five department such ase Informatics, Information System, Information Technology, Telecomunication Engineering and Comunciation Visual of Design for bachelor degree program. Having just one department and poor of reputable research can be solved by changing it's level to be Telkom Institute of Technolgy. Becoming Jakarta Telkom Institute of

Technology, will improve more accadmic quality, researches, university students, and community services.

II. RELATED MATERIALS AND METHODS

A. Readiness Concept

Digitalization is changing the business environment and companies face chalenges to make progress. A first step to suppport companies is to verify their digital readiness, capabilities, and developing clear plans for improvement [1]. Machado conducted the research for measuring readiness for some manufacturing companies in facing Insudtry 4.0. Marylinne Coopasamy also conducted research for some nurse student in Durban Univeristy of Technology, she stated that e-learning and other innovative open learning multimedia modalities of delivering education are being introduce to enhance elearning opportunities and facilitate student access to and success education [2]. In the previous study, readiness is one of the sussessfull indicator to implement change management for implementing Data warehouse of Hihger Education [3]. This is regard, readiness for change is a mediating variable between change management strategies and the outomes of those strategies (the desire outcome usually being successful implementation). The instument provided for some indicators bellow are adapted version from one designeted by Andrea Sodano as published in Fortune [4].

Based on the previous research conducted, Andrea Sodano's readiness best practice could be implemented to measure the readiness of Data warehouse of Higher Education that scored 41 pointss, it mean, that the readiness for implementing the technology would be implemented well [3]. In line to this reasearch conducted, Andrea Sodano's readiness tools is used to asses scoring data before implementing new Institution status from Telkom Foundation, that is Jakarta Telkom Institute of Technology. Identifying and accessing readiness form iplementing new University or Institute conducted by collecting data from deep interview with some charimen of Telkom foundation and Akademi Telkom Jakarta and Shareholders of Telkom Foundation, also.

Some categories from Andrea Sodano's readiness to access this implementation of new Unviersity are (**Sponshorship**: At this step, shponsor of change is not regurarly its operational principle, he or she is cheerleader and the visionary. Give three points, if change is going tobe easier when sponshorship comes from executives of board (Director of Akademi Telkom, Principles of Telkom Foundation, **Leadership**: It means the operational leadership, the man who set the objectives and call the meetings, and they also can work overtime, if chief of director is in high level, has "ownership", and has a clear business result in mind. **Motivation :** Give high points if senior managements have a strong sense of urgency, that is shared by institution or the rest of the company, otherwise, give the low scoring, if some managers and workers have been in their posisiton more than fifteen years, and they also in conservative culture which discourages risk taking.

Direction : Senior management thinks whether he or she strongly believe that future condition is going to differ from the present, and also asking how clear management's picture of the future is. More over, senior manager assume that manager can conscript all the board of directors, relevant parties, and customers for action? Give three or high points for

positive answers to those questions. **Measurement :** Give three points if there is performance indicator such as using metrics and encouraged by total quality management. The second one is, give two pointss or middle scoring if there are some measures exist but reward system and compensation do not explicitly corraberate them. **Organizational Context :** Manager of change should explore whether effort of change will relate to other major that goings on in the institution? Change manager also must analyze whether it fits with strategic actions or in line with new product (in this research, our product is service from higher education). **Processes / Function :** It must be explored about major changes that almost invariably requires redesigning business processes which cut across functions such as account payable and marketing. You can give high points if they have good encouragement of the group although they think that it would be difficult to implement the change.

Competitor Benchmarking : a principle in your company is a figure head or just follower, give yourself high scores for comparing ojectively about your program to other company's performance. **Customer Focus :** It must be explored, the more employees in the enterprise are brainstormed with knowledge of customers, the more likely that the enterprise can agree to serve them change better. **Rewards :** Change is easier if change managers and workers are rewarded for taking risk, being inovative, and looking for new solutions. Remember that rewarding for team based is better than its individual achievement. **Organizational Structure :** Organization had better have flexible churn, it means that it must be easier to manage well. **Communications :** An Institution is going to adjust to change most attentinly if has many means of two-way communications that attain all the organizations levels and used and understood by employees.

Orgranizational Hieararchy : If your institution is in the fewer degree hierarchy and the fewer staff grade levels, it means the change is more likely tobe success. It must be remembered, if thick of middle management and staff can make block of the change and decision system will be slow. **Prior experience with change :** You can score three points if the institution has successfully implemented big changes in the recent past. **Morale :** Change will not be difficult when employees enjoy working in the institution and the individual grade of responsibility is high. **Innovation :** The best situation is when the entenrprise always try to experiment, new concepts are implemented with little effort and employees work across internal boundaries without much difficulty. **Decision making :** You can rate your high score if spontaneous are made fast, taking into account an extensive variety of suggestions.

B. Change Management

Change management is a complicated feature of requirement engineering process due to difficulty in identifying complete system requirements that reflect contemporary situations and adjust to changing needs [5]. Another research by Chun Mei stated that each organizations need to change his or her system, technology or even culture to get new things for competitive advantage. Several factors such as customer needs, market change, global competitors, and governmnet regulations significantly contribute to the change in system requirements. In this paper we adopt Kotter's model to manage successfully implementation of

change management. Implementation of change plays an important role in health care organizations and impacts the care of patients. For example, more than 500 years ago, the plague epidemic occurred and killed a third of the population of Europe [6]. In line with Chun Mei and Zhang's statement, change management is apllying in this research conducted to transform Jakarta Telkom Insitute of Technology.

These days organizations are experiencing to change their system or technology to gain competitive advantage. As a matter of fact, Implementation of change management and resistance to change has become a recurring topic of discussion during several periods ago, it is normal when management of changes are considered to bring people into new environment, system and culture. Change manager must be able to know some of the causes why people resist to change, what should be done by the supporters of change that reference to a change management model that is used. The paper conducted to measure the readiness scoring before implemented as a change to trasnform new Instutute status of Jakarta Telkom Institute of Technology. Output of the readiness is to define whether the implementation Jakarta Telkom Institute of Technology will be success or some resistancies can block its new institute level.

III. RESULTS AND DISCUSSION

A. Method Research

Method research is need to implement this research implemented sistematically. This research is addopted by collecting data featuring qualitative approach with some chairmen of Akademi Telkom Jakarta and Telkom Foundation. Some workshops also conducted from Telkom foundation and Akademi Telkom to make implementation of Jakarta Telkom Institute of Techonlogy can be established on the tract. Adrea Sodano's readiness best practice, some workshops and deep interview conducted to make the recommendation for this research.
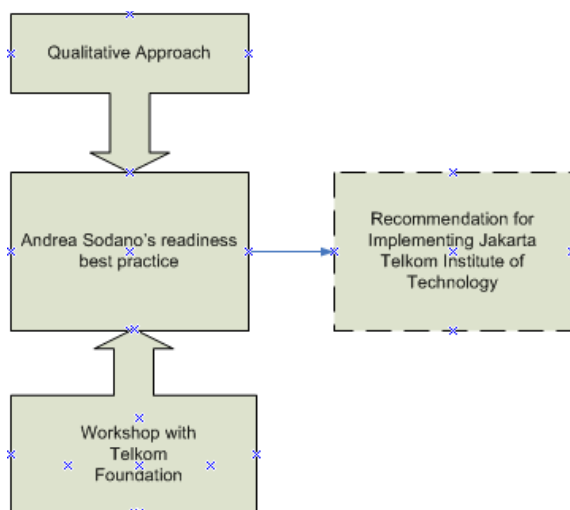

Fig. 1. Method Research 'Readiness for transforming Higher Education'

B. Readiness Featuring Sodano's Result

*Result of the Research for Sponshorship Category :*Based on deep interview with director of Akademi Telkom Jakarta and chairmen of director higher education of Telkom

foundation, it can be concluded to score three (3) points. Implementing new Institute status came from chairmen of Telkom Foundation. *Result of the Research for Leadership Category :*Leadership of principles of Telkom Foundation and Akademi Telkom Jakatrta is very good. At Telkom Group, some chairmen always brush up their leadership regularly. It can be scored three (3) or high. *Result of the Research for Motivation :*Executives level of Telkom Foundation (chairmen of Telkom Foundation, Directors of Akademi Telkom Jakarta) supported the transformation of its as-is status tobe Institute level, give its score three (3). *Result of the Research for Direction :* Give it three (3) score. As a matter of fact, Director of Akademi Telkom Jakarta dan chairmen of Telkom Foudation are arranging that future Institution will be differ from today. Reasearhing would increase fast, university student increase more, and stakeholder will give more credence to the new institution.

*Result of the Research for measurement category:*It can be given three (3) points. There are quality assurance teams who manage those tasks. Based on, last workshop conducted on November 20, 2019, Jakarta Telkom Institute of Technology is almost finish for all the requirements except just waiting for a land certificate from Indonesia land national agency and permanent lecturer recruitments. *Result of the Research for Organizational Context:* Change managers (chairmen of Telkom foundation, Director of Akademi Telkom Jakarta) analyze that this strategic actions will be in line with new product (product means : University Students, stakeholder of Jakarta Telkom Institute of Technology which access a motto called C-D-E (Creative; Digital and Entrepreneurship), give it three (3) points. *Result of the Research for Procesess/functions:*Director of Executive think that it is not easy to implement Jakarta Telkom Institute of Technology. The main problem, since 2016 was the land certificate, althouh, the land is bellong to Telkom Indonesia, but still building permitting has not gotten yet. With big supporting from Board Executive of Telkom Indonesia, Telkom Foundation, and Akademi Telkom Jakarta the problem can be solved for the case, by the end of 2019 the land certificate will be obtained by Telkom foundation, give two (2) points for the effort of Executives of Telkom Group.

Result of the Research for Competitor Benchmarking: Board of directors from Akademi Telkom Jakarta and Telkom foundation have foresight leadership. They increase quality of the university under Telkom foundation to be International Research Universities. Akademi Telkom collaborate with another university especially Telkom Univeristy and Purwokerto Telkom Institute of Technology. Benchmarking regularly conducted to get Akademi Telkom Jakarta become International Institute in the future time, give it score three (3). *Result of the Research for Customer Focus :* Employees at Akademi Telkom Jakarta know their stakeloders (university students, their parents, government, companies, etc), give three (3) points, the scoring came from the observation and interviewed conducted with chairmen and and employees of Akademi Telkom Jakarta. *Result of the Research for Rewards:* Giving rewards in Telkom group is good enough, all the expancements always be rewarded by team and indivual. It can be scored three (3). *Result of the Research for Organizational Structure:* Organizational structure at Akademi Telkom can be changed dynamicaly, it

means, Akademi Telkom give a chance to all employees to improve or gain Objective of Akademi Telkom fairly, give three score (3).

Result for Communication category: Akademi Telkom and Telkom Foundation allow two-way communication for all emploees in transforming Jakarta Telkom Institue of Technology, all the team are given to communicate freely in the workshops or the meetings conducted, give three (3) points. *Result for Organizational Hierarchy*: Akademi Telkom Jakarta, these day has just 35 employees including lecturers and other accademic staff, transforming tobe Jakarta Telkom Institue of Technology is managed easily and controllable. *Result for Prior Experience with Change*: Akademi Telkom changed its business process of Information Technology using i-Gracias (an Information Technology System for all Universities under Telkom Foundation) and make a change in research and development unit to implement some new programs such as building Online Journal, conducting Call for Paper, research and social comunities workshops, give three (3) score. *Result for Morale* : at Akademi Telkom, employees enjoy working for doing their tasks both individual and team work. *Result for Innovation*: Akademi Telkom and Telkom foundation regularly create some innovations for some programs for digitalization programs such as accademic business process, Information technology and other programs, give three (3) points. *Result for Decision making* : there are some variety suggestions spontaneously came not only from director of boards but also from ordinary staff, give it three (3) points.

TABLE I.   READINESS CATEGORY

No.	Category	Readiness result	Type of Readiness
1	Sponsorhsip	3	High
2	Leadership	3	High
3	Motivation	3	High
4	Direction	3	High
5	Measurement	3	High
6	Orgnaizational Context	3	High
7	Processes / functions	2	Middle
8	Competitor Benchmarking	3	High
9	Customer Focus	3	High
10	Rewards	3	High
11	Organizational Structure	3	High
12	Communicatios	3	High
13	Organizational Hierarchy	3	High
14	Prior Experience with Change	3	High
15	Morale	3	High
16	Inovation	3	High
17	Decision Making	3	High

According to Sodano's readiness scoring, if the score between 41 – 51, the readiness of change can be implemented well or the implementation of change will be success, if the score around 28 – 40 : change is posible, but maybe difficult, especially in the first seven categories, and the last, if scoring between 17 – 21: implementation of the change will be complicated to implement [7]. This research is needed tobe explored more featuring Kotter's Model for implementing Change Management and to manage Transition featuring Brideg's Model in the nearest research.

IV. CONCLUSIONS

The research conducted, was measured some categories based on Andrea Sodano's best practice. This research shows 50 points for all average of the seventeen categories based on Sodano's best practice. The first seven indicators such as sponsorship, leadership, motivation, direction, measurement, organizational context show high (3) points, except processes or functions category shows middle (2) points. It is natural, because, getting a land certificate for establishing Jakarta Telkom Isntitute of Technology is in process up to now, but we can conclude, by showing 50 points from the research conducted, readiness for implementing new Institute will be success.

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