

Strategy for IT-Business Alignment in a Higher Education Institution Using Initial Fit-HR Model

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Abstract—IT-business alignment (ITBA) is the development of a Strategic Alignment Model (SAM), which was introduced some decades ago, and is still the most critical issue for top management. This study proposes the Initial FIT-HR model in mapping specific components indicators that align HR in carrying out business processes for higher education institutions (HEI) in Indonesia. Previously, research had studied the alignment of HR management with IT to suit the Tri Dharma of Higher Education towards World-Class University. Meanwhile, the methodology used a mixed-method (with interview techniques, questionnaires, and focus group discussion FGD), which went through 3 phases: identification and determination of indicators, the initial design phase of the model, and validation. The results after the FGD process showed that four indicators (out of 40 based on 20 papers) were invalid in mapping specific components due to the different opinions of the participants. Therefore, in future work, the Islamic concepts to the proposed modeling. In addition, this study produced an initial model that collaborated the BITA concept with tree science as an approach to be applied by the higher education industry.

Keywords—initial model, IT, ITBA, higher education.

I. INTRODUCTION

IT-business alignment (ITBA) is currently a top and important issue for top management companies according to a study of 2019 IT trends and issues by the Society for Information Management [1]. According to [2] based on a Gartner study, there are currently, 20% of companies that have used IT as a tool for monitoring their business metrics, and it is possible to reach 60% by 2021. Therefore, it is not surprising

that many companies still have trouble implementing IT. Some factors in ITBA management, namely the application of infrastructure, human resources [3], [4] strategies in improving performance [5], as well as competency assessment and mapping have an important role in HR management [6].

The application of ITBA has been studied in various fields a long time ago (around ± 30 years ago), starting from research on HR strategies for the company's benefit [7], the hospitality sector [8], the field of university libraries [9], pharmaceutical companies [10], Islamic banking [11], transportation [12], and others. Furthermore, the alignment of business strategies in ITBA which collaborates IT with HR is also an important issue, where organizational performance can be achieved [13]–[15].

The utilization of IT function in company's business strategy is still quite new, therefore ITBA implementation is difficult for some sectors, including higher education. This is because there are still many industrial sectors that have difficulty in determining the initial and subsequent stages in details as a ITBA approach that can be implemented in accordance with the available management conditions. Meanwhile, HR as an element that drives ITBA implementation basically has different thoughts and characters, hence different approaches are needed according to the conditions of each HR. Based on the latest trend of IT Governance issues by Own Desk Research, an IT consulting company, it was stated that the adaptation of change management, lack of skills and knowledge related to the notion of IT Governance, and communication between IT and business are still the top problems in various industrial sectors. Therefore, to align HR with IT in the application of ITBA, the higher education industry (as well as other industrial sectors) needs to identify important indicators [16], [17] as an approach to be implemented and facilitate understanding of a model framework [18]. This implements ITBA as a challenge in synchronizing HR with IT as the right solution following the goals of higher education industry.

Based on these problems, this study aimed to propose an initial model of strategic alignment between HR and IT which consists of indicators collection in the initial components of the model. Meanwhile, the concept of the approach combines ITBA with tree science to be applied by the higher education industry in realizing its goals.

In the next chapter, the foundations that support this research

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with related works is discussed, then run through several research phases described in the initial Fit-HR model chapter using a mixed-method, and the obtained results are explained further in the results and discussion chapter.

II. RELATED WORK

A. IT-Business Alignment (ITBA)

Business Alignment (ITBA) is the development of Strategic Alignment Model (SAM) since 1993 by Venkatraman et al [19] as the beginning of a study on the alignment between business and IT strategy by paying attention to internal and external domains. Meanwhile, the current application of ITBA has its uniqueness, such as the ease of adaptation along with the development of increasingly sophisticated information technology [13], [14]. There are many choices of previous models in implementing ITBA to the alignment of HR with IT as a determinant of a company's performance [20]. However, with the advantages that ITBA has in its current application, it tends not to ascertain the root of the problem, which can lead to new issues. Also, the application of ITBA is not the same between the educational industry and others, therefore the existing concept cannot be equated. The differences can be seen from the company's goals, human resources, and available IT. In this regard, this research was conducted to create an initial model of alignment between HR and IT based on the needs and challenges faced in implementing ITBA.

B. The Application of ITBA in The Higher Education Industry

IT as a conceptual foundation in implementing ITBA has now been applied to various types of corporate industries according to their respective fields. Based on the SAM model [21], flexibility in the application of IT in achieving business goals in various companies (large companies and Small and Medium Enterprises/SMEs) is only divided based on criteria such as communication, competence measurement, governance, partnerships, skills, scope and architecture. Meanwhile, the application of IT to higher education has a more complex structure than other public companies, because there are two operating principles, (structural and philosophical) and the conflict uniqueness of the two organizational structures (university administration and faculty administration) in Higher Institution [22].

Currently, there are still many education industries that do not know the right position or action, and these institutions play an important role in providing human resources with a good competitive advantage [23]. Also, the Higher Education industry in Indonesia has directed several universities to become World-Class (WCU) in facing AFTA (ASEAN Free Trade Area) and MEA (ASEAN Economic Community) [24]. Therefore, this study produced initial models of alignment between HR and IT to implement ITBA in the higher education sector.

C. Tree Model

Organizations generally operate with a system that adopts an IPO (input-process-output) framework to convert input into output through a process [25], including the production of quality human resources that have competitive advantage.

Therefore, alignment is certainly necessary for management to achieve good results in both profit and non-profit organizations. A company that has natural resources (human resources, facilities and infrastructure, policies) that are well managed will produce something good. However, when there is a bad component, it will have an impact on the results as well. In this application, the component consists of several indicators that are grouped according to the criteria as a technical approach to implement the description of a model, and convey meaning that can facilitate understanding [18].

Several previous studies used the analogy of living things, such as the ant-colony optimization method for decision making by [26], the algorithm of bee colony behavior for the search of shortest path by [27], and the honey bee hive theory in the form of mathematical geometry by [28]. Meanwhile, the concept of good and bad components can also be adopted from tree science, where a good tree has good roots, trunks, and fruit according to the description in Islam which is contained in the Koran in surah. Ibrahim (14): 24 for a good tree and Surah Ibrahim (14): 26 for a bad tree. Also, several previous studies used the concept, such as twigs with a decision tree for the classification method as a decision-making tool [29], and more.

Based on the description above, this study aimed to create an initial model that describes the alignment of HR and IT in higher education with the help of NVivo 12 Plus as a tool in the initial analysis, and a combination of ITBA with tree science as the concept [30], [31].

III. INITIAL FIT-HR MODEL

A mixed-method between qualitative (use of NVivo 12 Plus and implementation of Focus Group Discussion or FGD) and quantitative (use of questionnaires) was adopted as the design of this study in evaluating the alignment of HR strategy with IT currently applied. It also described the indicator approach to the initials of the proposed model to support higher education industry in achieving its goals. From the indicators and theories obtained, theory-based testing was carried out [32] and [33] through 3 phases of research to determine the right indicators. The phases include identification and indicator determination, the initial model design, and the initial model validation phase (can be seen in Fig. 1).

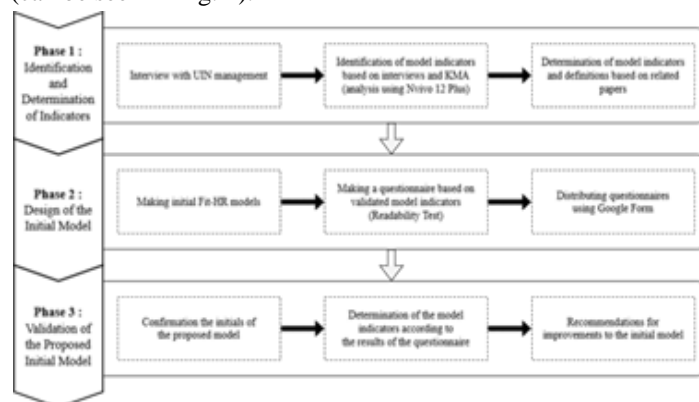


Fig. 1. Research Design Overview

As for the stages of each phase will be explained as follows:

A. The First Phase

This study used a mixed-method to get a better understanding of producing the initial model because it requires knowledge from related experts for the research objectives to be achieved. This first phase began with data mining methods and techniques in analyzing the results of previous research. Furthermore, the researchers collected papers with related concepts to obtain Critical Success Factors (CSF) which allowed them to be included as an approach in implementing the proposed model initials. A review of the 57 papers that were collected was conducted to identify indicators that affect HR alignment strategies with IT and the current implementation of ITBA in companies.

Interviews in this phase were used as a medium to explore further data in the case study research. The interview was conducted with the Chancellor of UIN Syarif Hidayatullah, Jakarta on September 2, 2019, regarding their purpose as a higher institution. Also, further discussion was held on November 20, 2019, regarding the conditions of HR alignment strategy with IT implemented by UIN. Furthermore, interviews and discussions were conducted with the staffing department on September 4, 2019, regarding the implementation of HR and IT strategies in supporting their goals for the future. The results of the interviews and discussions were then analyzed using the Nvivo 12 Plus as a tool (Fig. 2). Fig. 2 and Fig.3 are the results of the analysis of the results of interviews with the laws that are used as references in this study.

The picture of the Cluster Analysis results above showed that between the transcripts of the interviews conducted with [34] as an integration zone policy and [35] as a bureaucratic reform policy, a link was found between them. The HR and IT strategy planning implemented by UIN Syarif Hidayatullah is to realize the aspirations towards a World-Class University. As a follow-up to these policies, this institution is currently planning the implementation (discourse) of several programs related to HR strategic plans in utilizing available IT, including:

1. Impassing administrative into executive positions, where each one has job specifications according to competence.
2. Preparation of the Job Descriptions of each title.
3. Workload Analysis.
4. Position Analysis.
5. Identification and Assignment of Class Position.

However, this institution is currently having difficulties in implementing the planned programs, therefore it needs the concept of an appropriate approach. As for the results of extracting the data, this question arises "What is the right approach for HR and IT if UIN Syarif Hidayatullah has aspirations towards WCU?". The results of the problem identified by the researcher showed there are several indicators for the alignment of HR and IT strategies in higher education industry. Also, there were 40 indicators obtained from 21 related papers (can be seen in Table 1).

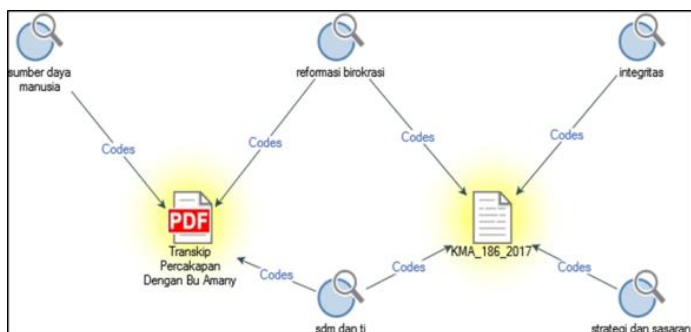


Fig. 2. Results of the Cluster Analysis between the interview transcripts and KMA 186.

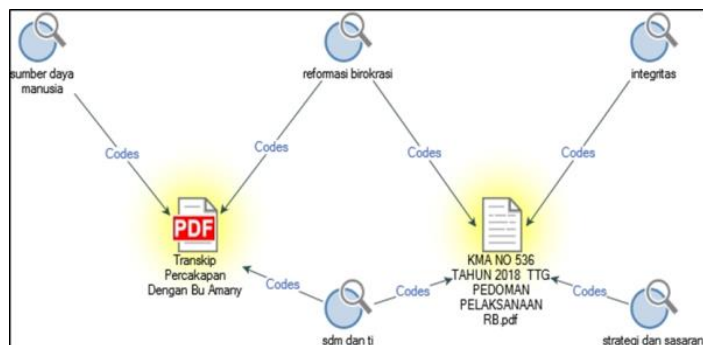


Fig. 3. Results of the Cluster Analysis between the interview transcripts and KMA 536.

Table 1. Reference Indicators Considered

Indicator	Reference
1. Business Strategy	Venkatraman, Henderson, & Oldach [19]; Seman & Salim [22]; El-Telbany & Elragal [36]
2. IS/IT strategy	Venkatraman, Henderson, & Oldach [19]; Silva & Reinhart [37]; El-Telbany & Elragal [36]
3. IT Infrastructure and Processes	Venkatraman, Henderson, & Oldach [19]; Seman & Salim [22]; Mao et al. [3]
4. Governance Process	Venkatraman, Henderson, & Oldach [19]; Heracleous & Werres [38]
5. Technology Capability	Venkatraman, Henderson, & Oldach [19]
6. HR capabilities	Venkatraman, Henderson, & Oldach [19]; Silva & Reinhart [37]; Buller & McEvoy [17]; Zehir, Üzmez, & Yıldız [11]; Mao et al. [3]
7. Value Management	Venkatraman, Henderson, & Oldach [19]; Nankervis & Debrah [39]; Avison et al. [40]; Jansson et al. [41]; Sánchez, Marín, & Morales [4]; Mao et al. [3]
8. Job Analysis	Soltani & Wilkinson [42]
9. Performance Appraisal	Soltani & Wilkinson [42]; Sánchez, Marín, & Morales [4]; Olson et al. [43]
10. HR Selection	Soltani & Wilkinson [42]; Olson et al. [43]
11. HR compensation	Soltani & Wilkinson [42]; Sánchez, Marín, & Morales [4]; Olson et al. [43]
12. Campus Environment	Nankervis & Debrah [39]; Heracleous & Werres [38]
13. Culture	Nankervis & Debrah [39]; Buller & McEvoy [17]
14. Social	Nankervis & Debrah [39]; Alaceva & Rusu [20]
15. Quantity and Quality of	Nankervis & Debrah [39]

Labor	
16. Rapid technological development	Mao et al. [3]
17. The development of globalization	Zehir, Üzmez, & Yıldız [11]
18. Organizational Success	Silva & Reinhart [37]; Heracleous & Werres [38]; Buller & McEvoy [17]
19. Creative Ideas	Mumford [44]
20. Critical Thinking	Silva & Reinhart [37]
21. Lecture development	Uysal [45]
22. Efficiency of resources	Harley et al. [46]
23. Effectiveness of resources	Sánchez, Marín, & Morales [4]
24. Building a campus image	Uysal [45]
25. Tactics to carry out the vision and mission	Jansson et al. [41]
26. Work Process	Jansson et al. [41]
27. Work Plan	Jansson et al. [41]
28. Competence	Jansson et al. [41]; Buller & McEvoy [17]; Heracleous & Werres [38]
29. Skills	Jansson et al. [41]
30. Knowledge	Mohammadian et al. [47]
31. Accuracy of payroll	Sánchez, Marín, & Morales [4]
32. Work Experience	Mohammadian et al. [47]
33. Work Motivation	Mohammadian et al. [47]
34. Discipline at work	Mohammadian et al. [47]
35. Participation among HR	Mohammadian et al. [47]; Sánchez, Marín, & Morales [4]
36. Evaluation of HR	Mohammadian et al. [47]
37. Good relations between superiors and subordinates	Zehir, Üzmez, & Yıldız [11]; Mohammadian et al. [47]
38. Work Safety Guarantee	Mohammadian et al. [47]
39. Independence of HR	Mohammadian et al. [47]
40. Campus Partnerships	Alaceva & Rusu [20]

The combination of indicators is taken from related papers and will be used as a reference to determine the indicators needed in this research.

B. The Second Phase

For forming an initial proposed model, the research adopted ITBA as a reference in the frame of this study. An initial description of the strategy model was then produced for aligning HR with IT towards higher education which consists of four components, namely Goal, Strategy, Process, and Infrastructure.

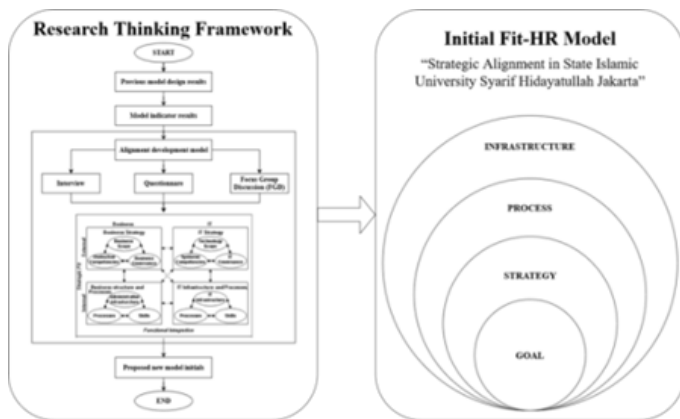


Fig. 4. Initial Model Design Making Process.

The model initials in this study are referred to as Initial

Fit-HR Model “Strategic Alignment in State Islamic University Syarif Hidayatullah Jakarta”. The initials of this model were adopted from The Strategic Alignment framework by [19] which was analyzed and interpreted based on the results of interviews and observations at UIN Syarif Hidayatullah. However, the Strategic Alignment framework model by [19] turns out not to follow the conditions at UIN Syarif, because:

1. The model is still compartmentalized, which means that the relationship of each unit is separated and needs to be integrated with one another.
2. The condition of the model is not in accordance with UIN Syarif which aspires to implement single data according to [48].
3. The existence of IT in the model is not part of the system but only as a support, therefore it can be said that IT position is not integrated with the management of Syarif Hidayatullah State Islamic University.

The above interpretation supports the researcher to propose the initial model in the form of a circle, which means that each component is included in one unit to achieve the goals and strategies of the company simultaneously. Also, the model was initiated by the circular concept, which means the core is the goals. The initials of this model illustrated that goals can be achieved with the right strategy and then carry out processes with the support of the available infrastructure.

- Goals are a big dream that needs to be achieved in various ways, both short and long term through the company's vision and mission. The goals of UIN Syarif Hidayatullah are contained in the RIPKA (Campus Development Master Plan), which are towards World-Class University (WCU).
- Strategy is a guide to the goals of a company. The strategy of UIN Syarif in achieving its objectives is formed in several stages (milestones), which are expected to lead this institution to become one of the World-Class Universities (WCU) in 2036. This development strategy is prepared based on objective conditions, and the results of the SWOT analysis were then compiled into 4 categories and milestones as a framework for the long-term development.

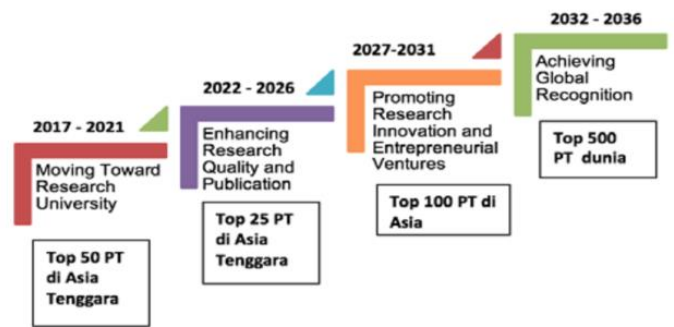


Fig. 5. Achievements Planning of UIN Syarif Hidayatullah Jakarta in the next 20 years.

- Process is an activity that reflects the direction of the goals by providing procedures and mechanisms for the activities to be systematically carried out. The processes that have been established by UIN Syarif Hidayatullah are clearly stated in

[49].

- Infrastructure is supporting facilities to achieve organizational goals. The policy for the development of quality facilities adopted by UIN Syarif Hidayatullah is to take over the assets of institutions that are legally controlled by other parties, optimize non-functioning assets to support the needs of the campus in research activities, cooperation, and community service. It also includes the optimization of human resources for lecturers and staffs to have the spirit of excellent service to partners, clients, and other parties.

The indicators that are validated in the previous paper are then used as a basis in making a questionnaire to obtain an overview of the strategy of aligning HR with IT. Furthermore, the readability test was conducted to ensure the questionnaire was distributed to respondents using Google Form (on the link <http://bit.ly/KuesionerFitroh>). The respondents were 11 stakeholders consisting of 10 experts from UIN Syarif and a consultant from UI or Perbanas Institute. These respondents discussed the grouping of indicators into the four components of appropriate initial models and validated them in the implementation of FGD (Focus Group Discussion) in the next phase.

C. The Third Phase

The initials of the proposed model and the objective results need to be validated by the stakeholders in the form of FGD (Focus Group Discussion) implementation on October 15, 2019, at the Main Room, 2nd Floor of the Rectorate. This meeting was attended by the Chancellor, central personnel, head of Pustipanda, staff, dean, lecturer, and student representatives, as well as consultant from UI or Perbanas Institute, and research the team.

Table 2.
List of FGD Participants

Name	Position
1 st Participant	Chancellor
2 nd Participant	Head of Sub Division of Organization and Administration
3 rd Participant	Head of Pustipanda
4 th Participant	Representative of the Sub Division of Administration
5 th Participant	Head of the Information Systems Study Program
6 th Participant	Head of the Center for Integrated Laboratory
7 th Participant	Lecturer Representative
8 th Participant	Lecturer Representative
9 th Participant	Research Consultant of UI or Perbanas Institute
10 th Participant	Representative of BEM-U
11 th Participant	Representative of BEM-F

These stakeholders were also respondents to the previously distributed questionnaires. The purpose of the FGD implementation here was to obtain validation on the initial model and what components are following the determined indicators based on reference paper in the previous phase. However, from the FGD process which discussed the results of the questionnaire, it was found that several indicators received a bias score and several others were rejected.

The results of the questionnaire on the Google Form were collected and discussed further in the FGD process, namely the mapping of 40 available indicators according to criteria definition for each component. The following is an explanation of the criteria for each component:

- Goal (matters related to goals, objectives, targets, objectives, dreams, aspirations, intentions, directions, aims, achievements, and others).
- Strategy (matters relating to planning, governance, investigation, tricks, intelligence, reason, being influenced by the environment, and others).
- Process (matters relating to procedures, processing, completing, preparing, action, activity flow, and others).
- Infrastructure (matters relating to infrastructure, basic framework, supported by resources, equipment, efforts, actions, etc.).

The results of the FGD process related to mapping of 40 indicators into 4 components in the Fit-HR initial model stated that there are 4 indicators (namely HR compensation, globalization development, knowledge, and HR evaluation) which still need more detailed discussion in the future. Finally, the researcher decided to eliminate the four indicators because of limited time for implementing the FGD. Therefore, the final result of the process validated 36 indicators to be included in the grouping according to the criteria for each component of the initial Fit-HR model (Fig. 6).

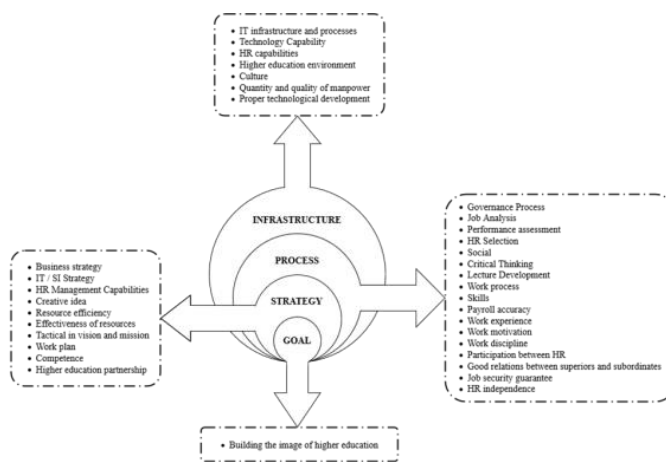


Fig. 6. The results of the FGD validation were divided according to the component criteria.

The results of the FGD are used as a reference in proposing the initial model concept in aligning HR with business management at UIN Syarif Hidayatullah Jakarta.

IV. RESULT AND DISCUSSION

Previously, researchers had conducted studies relating to the importance of harmonious HR management (especially for lecturers) [50]. Therefore, this study aimed to ascertain the needs of every lecturer in higher institution in order to improve performance and achieve educational goals. The results showed that HR management currently has several indicators in the

implementation of tri dharma of higher education (basic mindset). This have been successfully applied by lecturers to improve their performance towards WCU, such as TOEFL/TOAFL and TPA training, research, and journal writing. Currently, the aspiration to be a WCU has not yet been achieved due to internal and external factors that have caused HR management failure. These factors include less comprehensive information dissemination routines, less structured and communicative HR management systems, as well as difficulty in improving lecturer.

The researchers then continued the study in 2019 by exploring the development of HR management strategies that utilize IT to support the success of business goals. Meanwhile, an increasingly sophisticated technology and high demands make IT an important element that needs to be employed by every industrial sector to automate their business activities. In the world of business management, ITBA has become the focus of every top IT management unit in aligning strategies through its utilization to achieve company goals. In this study, the researcher intends to confirm to the stakeholders of UIN Syarif Hidayatullah, regarding the implementation of ITBA in the alignment of HR and IT strategies. This makes this study get a further picture regarding the strategy of aligning HR with IT that can be implemented based on an initial model. Furthermore, this study aimed to map a set of indicators into components in order to adopt ITBA as a concept that has been applied for decades. Until now, ITBA is still a major challenge for many companies in various sectors (including the higher education industry) due to difficulties in implementing it. Therefore, the researcher aimed to find a solution to cover this gap, which they started by taking UIN Syarif Hidayatullah as a case study, in line with previous research.

This study was designed to use a mixed-method because it went through several quantitative and qualitative processes in order to gain better understanding. This collection of processes consists of three phases (can be seen in Fig. 1). Starting from the identification and determination of indicators, namely interviews with the management of UIN Syarif (Chancellor on September 20, 2019 and staffing staff on November 20, 2019). It was found that this institution has planned the implementation of HR and IT strategies into several programs under [34] and [35] towards World-Class University. However, the program is still just a discourse because they do not know the right approach in implementing it. It was then analyzed with NVivo 12 Plus (Fig. 2 and 3) to identify appropriate indicators in their approach, and are determined based on their respective definitions by examining several related papers, to obtain 40 indicators (shown in Table 1) for further consideration by experts.

The next phase is the initial design of the model based on research thinking that adopts ITBA as its concept (can be seen in Fig. 4). It was found that the modeling form of ITBA is not suitable because the conditions between units are contrary to the UIN Syarif Hidayatullah strategic plan which aims to create single data according to directions [36]. The researcher then proposed the initials of the model in the form of a stacked circle

unit (stacked Venn), which means that the starting point is the core of the goals and can be achieved with a precise strategy consisting of several processes with the support of available infrastructure. Meanwhile, the initial is called the Initial Fit-HR Model "Strategic Alignment in State Islamic University Syarif Hidayatullah Jakarta" which consists of four components (goal, strategy, process, and infrastructure). Questionnaires were distributed based on 40 indicators previously obtained and grouped into four components to 11 stakeholders from UIN Syarif Hidayatullah with Google Form. The indicators in the model initials here are approaches that can be applied in synchronizing HR management with IT as an appropriate solution following the ideals of UIN.

The last phase is the initial validation of the proposed model through a Focus Group Discussion (FGD) process, which was attended by 11 stakeholders as participants (and who have filled in the previous questionnaire) on October 15, 2019, (can be seen in Table 2). Based on the implementation of FGD, the obtained results (can be seen in Table 3) showed that the initials of the proposed Fit-HR model cannot be accounted for because they still use assumptions from researchers, and do not have strong references. Furthermore, the components and indicators proposed in making an initial model trigger the FGD participants and suggest researchers to carry out further identification related to their basis and boundaries. Some discussions and directions from the 3rd and 5th participants emphasized the scope of the boundaries, 6th emphasized more on the technical implementation, 7th emphasized the science concept of thinking, and the 9th participant emphasized the theoretical justification in making the initial model. The criticisms and suggestions proposed by the FGD (Table 3) participants which the researchers need to pay attention to are as follows:

- Researchers are advised to look for references to the model, such as why it is round and not another shape.
- Respondents stated that the indicators given in this study are not appropriate when categorized into one component only.
- The need for scientific integration, religious moderation, and ascertaining its use in the higher education industry which can be used as a policy, considering that UIN Syarif Hidayatullah is an Islamic university which is rahmatan lil 'alamin.
- The concept of making a model also needs to be studied more deeply, both in general theory and Islamic studies as a scientific integration concept.

Table 3.
The Results of FGD

Subject of debate	Point of view	Suggestion	Participant
The shape of the model	The circle shape in the initials of the proposed model is not yet valid.	It is necessary to do a more in-depth study regarding the appropriate form of modeling for the higher education industry.	3 rd Participant (Head of Pustipanda) 5 th Participant (Head of the SI Study Program)

Model implementation	Mapping indicators into each component as an approach in implementing the initial model proposal is still not a valid success rate.	It is necessary to test the application of each initial indicator of the proposed model, in which the technical definition of its implementation is adjusted to the conditions of a higher education industry to obtain more valid and reliable results.	6 th Participant (Head of Integrated Laboratory Center)	case study involved UIN Syarif Hidayatullah as a higher education industry in Indonesia which adopts Islamic sciences in every lesson and activity. In Islam, there is also a parable of good and bad with the concept of a tree. Then the 7th participant and other experts added that it would be better when a model is adaptive to the development and changes that occur around it, like a living thing (such as humans, animals, and plants). This is in line with the management development strategy of UIN Syarif Hidayatullah to achieve WCU which is arranged in 4 milestones (can be seen in Fig. 5) with different goals. Therefore, according to the input received and further research carried out, the researcher decided to adopt tree science into the initials of the proposed model and collaborate with the ITBA concept. Based on a study of IT trends [1], it was stated that the implementation of ITBA is currently the most important issue for top management because there are still many companies that have difficulty in its implementation. This is what makes tree science here to support the ITBA concept which focused on aligning HR and IT strategies to achieve business goals. Meanwhile, HR is an element that has its art that cannot be equated with others, therefore it requires a flexible concept for its management. Researchers believe in the use of the tree science concept as an accurate approach, and can keep up with the times and adapt to the surrounding environment. For example, increasing rice plantation in lowland areas with warmer temperatures, while wheat can be grown in moderate to high land areas with lower temperatures.
The concept of the model	ITBA and the circle shape used as a reference do not have a strong foundation because they are still based on the assumptions of the researcher.	It is necessary to conduct further research related to the philosophy of modeling concepts (such as collaborating with Islamic science) to gain a more precise and appropriate understanding.	7 th Participant (Lecturer Representative) 9 th Participant (Research Consultant)	

These things make the questionnaire related to mapping of indicators to be debatable during the FGD process, therefore those that obtain bias value in the questionnaire will undergo further confirmation in the future. Meanwhile, indicators that obtain clear value were included in the component with the largest value (mapping results can be seen in Fig. 6). The four indicators that have bias values are as follows:

- HR compensation is debated because of the perspective of the scope to determine the Goal. This indicator needs to be considered from the HR perspective, while for the Process towards Goal, it needs to be considered in terms of performance.
- The development of globalization is debated because it can be included in all components (Goal, Strategy, Process, and Infrastructure). In fact, each component needs to have this indicator in order to bring UIN Syarif Hidayatullah closer to reaching WCU. Knowledge is debated because this indicator needs to be included in the Strategy, Process, and Infrastructure components as the strength of the human resource foundation. This will help to improve their capabilities and competencies in utilizing available IT.
- Human resource evaluation is debatable because it is needed to plan a strategy to improve HR performance. Meanwhile, in each process, it is necessary to know the conditions and problems faced by human resources, and provide appropriate solutions in handling them.

From the results of the FGD activities, the researcher discussed and re-consulted with several experts to improve the initials of the proposed model. The statement from the first participant suggested the involvement of Islamic concept in making the initial model because all knowledge originated from the Al-Quran according to Muslim beliefs. Moreover, this

case study involved UIN Syarif Hidayatullah as a higher education industry in Indonesia which adopts Islamic sciences in every lesson and activity. In Islam, there is also a parable of good and bad with the concept of a tree. Then the 7th participant and other experts added that it would be better when a model is adaptive to the development and changes that occur around it, like a living thing (such as humans, animals, and plants). This is in line with the management development strategy of UIN Syarif Hidayatullah to achieve WCU which is arranged in 4 milestones (can be seen in Fig. 5) with different goals. Therefore, according to the input received and further research carried out, the researcher decided to adopt tree science into the initials of the proposed model and collaborate with the ITBA concept. Based on a study of IT trends [1], it was stated that the implementation of ITBA is currently the most important issue for top management because there are still many companies that have difficulty in its implementation. This is what makes tree science here to support the ITBA concept which focused on aligning HR and IT strategies to achieve business goals. Meanwhile, HR is an element that has its art that cannot be equated with others, therefore it requires a flexible concept for its management. Researchers believe in the use of the tree science concept as an accurate approach, and can keep up with the times and adapt to the surrounding environment. For example, increasing rice plantation in lowland areas with warmer temperatures, while wheat can be grown in moderate to high land areas with lower temperatures.

The concept of tree science was taken because, in previous research, the theory of the scientific tree was presented by [51] which defined its application in everyday life based on an Islamic point of view. In addition, the concept of tree quality is also contained in the Qur'an in surah Ibrahim (14) verses 24-26 regarding the discussion of the creation of good and bad trees, as follows:

أَلَمْ تَرَ كَيْفَ ضَرَبَ اللَّهُ مَثَلًا كَلِمَةً طَيِّبَةً كَشَجَرَةٍ طَيِّبَةٍ أَصْلُهَا ثَابِتٌ وَفَرْعُهَا فِي السَّمَاءِ

Translate:

"Don't you pay attention to how Allah has made a parable of a good sentence like a good tree, its roots are strong and its branches (towering) into the sky" (Q.S 14:24).

تُؤْتِي أَكْلَهَا كُلَّ حِينٍ بِإِذْنِ رَبِّهَا وَيَضْرِبُ اللَّهُ الْأَمْثَالَ لِلنَّاسِ لَعَلَّهُمْ يَتَذَكَّرُونَ

Translate:

"(The tree) bears its fruit all the time with the permission of its Lord. And Allah made the parable for humans so that they will always remember. " (Q.S 14:25).

وَمَثَلُ كَلِمَةٍ خَبِيثَةٍ كَشَجَرَةٍ خَبِيثَةٍ اجْتُثَّتْ مِنْ فَوْقِ الْأَرْضِ مَا لَهَا مِنْ قَرَارٍ

Translate:

"And the parable of a bad sentence is like a bad tree, which has been uprooted from the surface of the earth; can't stay (upright) one bit. " (Q.S 14:26).

Based on the verses of the al-Qur'an, it was found that in essence, every tree has roots, branches (which can be

interpreted as trunks or twigs), and fruit as components. It is the same as the system concept in modeling that converts input into output by going through several processes. Meanwhile, the FGD participants conveyed a statement that the proposed indicators in this study would not be appropriate when categorized into only one component. Therefore, it is necessary to study further regarding context adjustments to each component in making the initials of the proposed Fit-HR model. Also, a search for articles that discuss trends in implementing IT alignment strategies with business stated that there are still many companies that separate IT strategy from business due to a lack of literacy understanding of technology, unclear business strategy, and lack of strategic agility [52]. This can be used as the basis for the components of the tree (roots, stems, and fruit) which are interpreted as proposed indicators at the initials of the Fit-HR model. This was operated in an integrated manner such as the concept of IPO (Input-Process-Output) system and make it an approach to be implemented in achieving the expected goals.

In line with the results of the FGD and further discussion, the researcher processed the initials of the model by adjusting the concept based on tree science, and adopting a strategy alignment model [19], which resulted in a conceptual description as shown in the figure below:

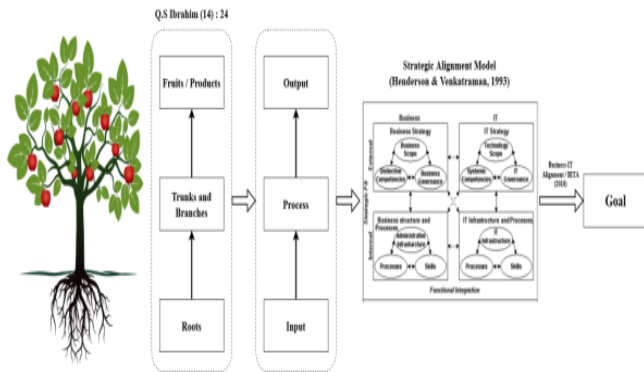


Fig. 7. Advanced Model Initial Concept (adopted from the collaboration of tree science and ITBA).

There are several interpretations for the reasons why the researcher proposed an approach with tree concept, as follows:

Tabel 4. Interpretation Comparison of The Tree Concept

	The good tree	The bad tree
1) Based on Q.S Ibrahim (14): 24-26	<ul style="list-style-type: none"> Has strong roots Has branches that rise to the sky Have fruit all the time 	<ul style="list-style-type: none"> Roots uprooted from the earth's surface Trees that cannot stand at all
2) Analogy	A living tree that grows and develops.	An ornamental tree made of plastic and cannot grow or develop.
3) In its maintenance	Adjusted to the type of tree.	Simply cleaned.
4) Tree yield	Adjusted to the type of tree seeds planted.	Adjusted to the creativity and desire of the maker.
5) Troubleshooting/problem solving	Viewed and followed up based on the root of the problem.	There is no serious handling.
6) Consultants	Needs to understand	Anyone can handle it.

the handling of these trees.

By the concept of good tree science, when a specie whose maintenance is adjusted to the growing conditions, the tree will produce better fruit quality. For example, cherry trees can only be planted in areas with cold temperatures (around 20-26°C) and will only flower once a year. It also applies to the application of a concept by the industrial sector that aims to achieve its goals and obtain the desired results. Therefore, the consistency of these goals is very necessary in any business process strategy. It is also in line with this research which produced an initial model that contributed by implementing an appropriate approach in aligning HR and IT strategies.

Also, the units in an industry will generally be separated according to the focus of their duties scope. With the use of IT in carrying out every task, it is possible for each HR from different units to work together in order to obtain a unified understanding of the business process strategy. Based on a survey by [53], collaboration process can be the key to success in aligning various human resources in each unit by utilizing available IT to achieve business goals. Therefore, with HR and IT strategy alignment model that collaborates ITBA and tree science, it is hoped that the initials of this model can be used as a solution and appropriate approach to follow up on improvements.

V. CONCLUSION

This study discusses further research to propose the concept of strategic alignment so that organizational goals are met, considering that many information system project failures are not due to technical issues but management that has not been aligned. The research roadmap that has been carried out is shown in Fig. 8.

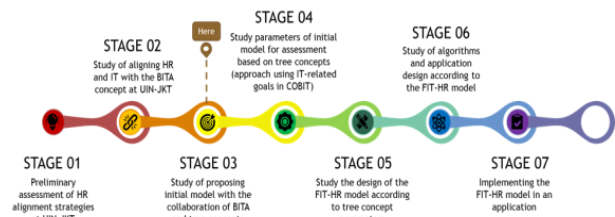


Fig. 8. Planning of Future Works

This study is a follow-up research conducted in 2018 regarding the alignment of HR management with IT at UIN Syarif Hidayatullah in improving performance towards a World-Class University. Meanwhile, ITBA is the development of SAM by [19] and until now, it is still an important issue for top management. Therefore, it was adopted as a conceptual basis in this study. After a review and confirmation of the management of UIN Syarif Hidayatullah, it was found that ITBA modeling which was still separated between units was not following the applicable single data policy. Therefore, this study aimed to produce an initial strategic alignment model between HR and IT that adopts some of the ITBA concept. This is referred to as the Initial Fit-HR Model "Strategic Alignment

in State Islamic University Syarif Hidayatullah" in the form of a structured circle. Meanwhile, the initial model in this study used a mixed-method in mapping 40 indicators (as a key approach) into 4 components (goals, strategy, process, and infrastructure). Furthermore, it was divided into 3 phases, namely the identification and determination (with a review paper, related and interview), initial design of the model (by distributing questionnaires), and the initial validation phase (with FGD).

The final result of the three phases (after the FGD) showed that 36 indicators were accepted and included in the 4 components according to the definition of their respective criteria. However, due to the limitations of the processing method, it resulted in an approach with an uncertain scope and caused the mapping of several indicators into one component. Therefore, the FGD participants advised researchers to further study and develop concepts understanding of the proposed model in this study. Based on the results and input obtained, further research was conducted by discussing with experts and reviewing related references. Then from the various directions and knowledge obtained, the researchers were encouraged to adopt tree science into the concept, which was collaborated with ITBA.

The latest issues in IT stated that there are still many industrial sectors that have difficulties in aligning HR management with the use of available IT. Therefore, this research provides an overview of the initial model as a form of effective approach which can be easily implemented by higher education. Furthermore, the information and feedback from this research as future work (Fig. 8) in order to test the initials of the proposed model.

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