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Development of Managerial Competence Framework for State-Owned Companies in Era 4.0

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Abstract

Challenges in the development of information technology for business competition, encourage companies to make changes in increasing human resource capacity. This is done by the government in Indonesia which is responsible for adjusting managerial competencies in the companies it manages. An overview of applicable managerial competency standards and new policies by the government is a reference in identifying the design of the competency framework in this study. The purpose of this paper is to design a managerial competency framework for Indonesian state-owned companies in the face of era 4.0. This study used two studies, with mixed-methods techniques; questionnaire to post-graduate students in three colleges, interviews with the Human Resources Department and questionnaires to company managers from three sectors; banking, oil and gas and telecommunications. This finding was analyzed by considering a review of documentation and empirical literature from research that could provide a starting point for further research on competency managers in state-owned enterprises in Indonesia. This finding also identifies how the competency framework is used in building culture-fit indicators in the development of human resources. This study complements the new policy in the Indonesian government in formulating new manager competencies, and links strategic thinking with competency development in era 4.0, in identifying opportunities to improve the quality of human resources.

Keywords: competency, managerial competencies, state-owned company, industry 4.0

Introduction

Changes are increasingly rapid, requiring every organization to be able to develop management management capabilities. This aims to anticipate changes that occur. Thus, a development of the human resources sector is needed. Human resources have an important and strategic role in the organization, the human element plays an important role in carrying out activities for achieving goals. Every company needs a productive work function reference that is right for a worker, commonly called, competency. Spencer, McClelland & Spencer (1994) explained that competence is an individual character that can be measured and determined to show work performance in a person. Competence helps each company in describing a person's performance, because it relates to the capacity of knowledge, expertise, and ability to work. On the other hand, competence also represents a working dimension for a person in planning, helping, and developing a person's behavior and performance, in addition to knowing the strengths and weaknesses of the worker (Anderson, Ones, Sinangil & Viswesvaran, 2005).

In recent years, research on competencies has increasingly attracted attention, especially in the face of the current era of industrial revolution 4.0. Various studies have also been conducted by scholars to explore empirical studies of competencies, starting from Boyatzis (1982), McCleland (1973), McLagan (1989), Prahalad and Hamel, (1990), Spencer and Spencer (1993) and Ulrich (1997) The competency model, considered a focal point for planning, organizing and enhancing all aspects of human resource management (McLagan, 1980), is also considered an approach that focuses on improving performance in organizations (Rothwell and Lindholm, 1999). There are several assumptions that effective leadership can be applied to various managerial positions (Bass and Stogdill, 1990). However, on the other hand there are many findings that show that the effectiveness in different positions (work sector) also influences managers' behavior which is also different (Kraut et al., 1989). In addition, the situation and conditions of technological change demand that all work sectors participate in adjusting to the presence of the 4.0 industrial revolution era.

In an era with current global change trends, every company must be able to respond and adapt to recognize the current generation of conditions that are full of changes. The emergence of the industrial revolution 4.0 (also called the disruption era) has driven technological innovations that have disrupted effects on life society. Disruption is a term popularized by Clayton Christensen as a continuation of the tradition of thinking *"must compete, to be able to win"* (for you to win, you've got to make someone lose). This disruption era is a phenomenon when people shift activities that were originally carried out in the real world to switch to cyberspace.There are three key factors for success in the current era; technology, industry and society. From a technological standpoint, a group of technologies is becoming a development of information with high intelligence and also supported by high-quality data infrastructure. With technology, the industry will achieve smart information so that it will change the structure of work. While contributions in the community must contribute to securing the labor market with social security guarantees, harmonizing with the situation, thus competencies and creative talents must be fostered by workers. This applies to all industrial sectors.

Regarding competency, research from Grzybowska (2014) found three main categories to classify managerial competencies: 1) Technical competencies, which include all work-related knowledge and skills, this ability is also obtained by someone through training and learning. (Zwolinska, 2017). 2) Managerial Competence, which includes all skills and abilities for solving common problems and decision making that focus on the ability to make business decisions and lead subordinates in a company, and 3) Social Competence, which includes the individual social values that form the basis of emergence future interactions with others. These social competencies are often also arranged to include additional skills such as social skills, social communication, and interpersonal communication. (Zwolinska, 2017). The concept of industrial revolution 4.0 illustrates the shift and increase of digitalization of the entire business value chain of the company and gives rise to interconnections between people, objects and systems through time data exchange (Spath, et.al, 2013; Dorst, et.al, 2015; Hecklau, et.al , 2016). As a result, the qualifications and skills of the workforce in the company will also experience development (Kowalski, 2014; Hirsch-Kreinsen, 2014; Kłosowski, 2016). The shifting of work habits towards digitalization in the era of 4.0 and disruptive is a form of challenge that needs to be responded by industry and government, especially management in state-owned companies, one of them is by making efforts to develop human resource competencies.

In Indonesia, state-owned companies are one of the economic actors in the national economic system. The state-owned companies come from contributions in the Indonesian economy which play a role in producing various goods and services to realize people's welfare in various sectors including: agriculture, plantation, forestry, finance, manufacturing, transportation, mining, electricity, telecommunications and trade and construction. The managerial competency standards in State-Owned Enterprises compiled in 2014 are a reflection of the value and organizational culture of the Ministry of State-Owned Enterprises that are used as a reference in managing human resource management within the Ministry of State-Owned Enterprises in preparing for changes. It's just that, with its (disruptive) changes that are getting faster, it also helped initiate the birth of many new business models in State-Owned Enterprises with more innovative and creative strategies. In the current era, even state-owned companies must have choices, reshape and / or create new ones. Leaders in State-Owned Enterprises must be able to innovate products or services and dare to have innovations that are in accordance with

the demands of community behavior. Rhenald Kasali suggested that the management of State-Owned Enterprises increase the number of young people to face the challenges of the disruption era. This aims to ensure that the management of State-Owned Enterprises has many talents who better understand the trends of new technologies and generations that are deemed ready in facing disruptive.

Responding to the challenges of the future State-Owned Enterprises, Minister of State-Owned Enterprises Rini Soemarno on July 4, 2018 through her speech at the Executive Center for Global Leadership (ECGL) entitled "Leadership Making a Difference Redefining", explained that it was necessary to emphasize five core competencies as an affirmation that must be owned by a company leader in a State-Owned Enterprise, 1). Ability to build strategic relationships for stakeholders, to achieve and improve optimal results, 2) Sharpness in seeing business opportunities, to gain profits and develop the company's business activities, 3) Can be a change agent in a State-Owned Enterprise and bring significant changes to the growth of a sustainable organization. 4) Can make decisions that are aligned with the organization's strategic goals, based on evaluation and consideration of various aspects, 5). Dare to invest in the long term for the continuity of the company so that it can be sustainable for the next 100 years.

With the emergence of millennial phenomena in State-Owned Enterprises, of course this will change the pattern of capabilities, attitudes and work behavior of Human Resources in State-Owned Enterprises in response to the era of industrial revolution 4.0. In accordance with Kagermann stated that the potential benefits in this era can be better able to meet customer needs individually, business processes that become more dynamic, make decision making more optimal and contribute to new business models and new ways of creating added value. Besides that, with new business models and strategies, this also affects the existence of existing HR competency models, both in terms of structure and definition of competence. In addition, the leadership pattern that is experiencing a current shift towards openness also influences social ethics (integrity) competencies and innovative problem solving when looking at business opportunities. On the other hand, the increasingly competitive wheel of industrial movement demands the alignment of the national education curriculum in accordance with the needs of the industry in the future in accelerating the transfer of HR thinking skills.

In order to respond to situational demands and with the spread of the corporate sector in the current state-owned companies, the competence of Human Resources is also important. Therefore, this study explores competencies that are important for the success of managers in state-owned companies in the era of industrial revolution 4.0. We will start with a brief literature review. Then, report the methodology in two studies and the results. Finally, we conclude with findings and implications for future research and future practice of human resources.

Literature Review

Mc.Clelland (1976) described "competency" as the underlying characteristic of superior performance. He considered competence as a personal trait or set of habits that led to job performance that was considered more effective. Furthermore, Klemp (1980) also defines competence as a characteristic that underlies a person's performance, while Spencer and Spencer (1993) define it as a skill and ability that can be done through work experience, life experience, learning or training. The final understanding of Bartram, Robertson and Callinan (2002) which states a behavior that plays an important role in results.

Competency formulation starts from how we observe the executor of a successful job and determine how this person has different performance from others (less successful). Some researchers such as Sandberg (2000) argue that, the approach to identifying this competency will produce generic competencies, thus will have limitations in its development. He suggested that competencies must be based on one's work, not on attributes. The results of our literature study, for example the Conference Board of Canada (2000) have identified work competencies for leader positions identified in three main categories *a) Fundamental Skills*, *b) Personal Management Skills* and *c) Teamwork Skills.* The same source mentions three other categories of managerial competencies ; a) *Technical competencies*, including media skills, coding skills, knowledge management, and statistics, *b) Managerial*

competencies, including analytical and research skills, conflict and problem solving, creativity, and *c) Social competencies*, including the ability to transfer knowledge, leadership skills, the ability to work in teams.

Traditionally, cognitive competencies in critical thinking, analysis, and problem solving are considered key indicators for success. However, the changing economic, technological and social context in the era of industrial revolution 4.0 means that interpersonal and intrapersonal aspects have become far more important. Many publications that contain references to these trends will affect the business in the future of the organization, which will ultimately affect the function of Human Resources.

Some global trends tend to increase the need for organizational responsiveness, including: Technological changes, Increased globalization, Continuous needs to control costs, Speed of market changes, Importance of capital knowledge, and Increased rates and magnitude of changes (Cummings & Worley, 2009). In China, Wang and Chen (2002) conducted a modeling study of managerial competencies to assess employee selection. They used a strategic hierarchical job analysis and survey of leadership competencies to formulate a model of managerial competency structure. The findings of their study suggest that managerial competencies needed for managers are strategic decision making, relationship coordination, empowerment and facilitation, business monitoring, and innovation.

In 2014, the Indonesia ministry of state-owned companies has developed 11 new managerial competencies for its companies, those competencies are Integrity, Innovation & Creativity, building business partnership, drive for results, know the business, customer focus, strategic thinking, planning & organizing, decision making, leadership and manage execution. The findings of competency research were carried out by human resources consultants on the results of competency tests of leaders in state-owned enterprises (2012-2015), that found four competencies with a large level of inequality, namely competency aligning performance for success (74% gap), visionary competence leadership (72% gap), customer focus competencies (68% gap), and change leadership competencies (68% gap). (BUMN Insight No. 9 Year I June 2015). This has become interesting to explore.

The current era is closely related to the millennial generation, the role of the millennial generation with capabilities in the Internet of Things (IoT) will bring innovation to help companies adapt to the times. Kagermann (2013) considers that the potential benefits in this era can be better able to meet individual customer needs, business processes that become more dynamic, make decision making more optimal and contribute to new business models and new ways of creating added value. The new business model and strategy also influenced the existence of existing human resources competency models, both in terms of structure and definition of competence. In addition, the leadership pattern that is experiencing a current shift towards openness also influences social ethics (integrity) competencies and innovative problem solving when looking at business opportunities. On the other hand, the increasingly competitive wheel of industrial movement demands the alignment of the national education curriculum in accordance with the needs of the industry in the future in accelerating the transfer of human resources thinking skills.

Industry 4.0 is characterized by a new level of social-technical interaction (Kagermann et al., 2013). Different manufacturing resources, such as machinery, robots, and warehousing systems will control themselves and be autonomous. Haddara and Elragal (2015) suggest that the core trends in Industry 4.0 are based on connected systems that create a fully digital and integrated value chain, and that the system will eventually be smart. The aim is to achieve perfect interaction between the engine and the surrounding system. Sensors are the core aspects of a smart factory. Sensors are able to feed data models with more information than humans can, and by having sensor data, data models can monitor and control physical units. Stock and Seliger (2016) present an art review of the concept of Industry 4.0, based on developments in the academic field and also practice. The smart factory is broken down into five different constituents, called the value creation factor.

Stock and Seliger (2016) explain trends and future expectations for each value creation factor : a) Equipment, work equipment will be characterized by high level of automation. Equipment will be very flexible and allow collaboration between humans and machines, b) Humans, human roles will change

in smart factories. Simple and repetitive work tasks will be automatic. Instead, workers will do more knowledge work and tasks that are difficult to plan, c) Organizations, because of the increasing complexity in manufacturing systems, they cannot be controlled from the center. Instead, decisions will be made decentralized by workers or equipment using methods from the field of artificial intelligence, d) Process technology, will help in creating geometries that are more complex, strong and light, and e) Products, future customers will need individual products. There will be a shift towards mass customization where products are produced in size one.

The industrial revolution 4.0 not only provides opportunities, but also challenges for millennial generations. The advancement of science and technology as a trigger for the industrial revolution was also followed by other implications such as unemployment, human vs. machine competition, and increasingly high demands for competence. According to Dwikorita Karnawati, the 4.0 industrial revolution in the next five years will eliminate 35 percent of jobs. And even in the next 10 years the type of work that will be lost will increase to 75 percent. This is because the work played by humans step by step is replaced by the program digitalization technology. As a result, the production process becomes faster and easier to distribute massively with minimal human involvement and change the competence of workers

Many publications that contain trend references are expected to affect the business in the future of the organization, which in turn will affect the function of Human Resources. Some global trends that tend to increase the need for organizational responsiveness, including, 1). Changes in technology, 2). Increased globalization, 3). Continuous need to control costs, 4). Speed of market changes, 5). The importance of capital knowledge, and 6). Increasing the rate and magnitude of change (Cummings & Worley, 2009; Rothwell, Prescott & Taylor, 1998).

The competency model is considered a long-standing solution that is desired to increase the responsiveness of the organization for several reasons. First, competency modeling functions to determine the requirements for success through constellations that provide different benefits because many of the current jobs require complex and collaborative problem solving skills (Sliter, 2015). The competency model also functions to harmonize the needs of current and future positions with the organization's business strategy, enabling management to better anticipate, adapt and manage speed.

The competency-based framework creates awareness and harmonizes the skills, knowledge, behavior, characteristics and motivations associated with the company's strategy, thereby creating a common language to explain work. The company will look for this and its position becomes very valuable considering the needs that always exist in efficiency and cost control. The competency model stems from the need to identify performance behaviors that drive organizational strategies and objectives (Campion et al., 1994) and is focused on improving organizational performance through HR strategies and partnerships.

Perception of information sources in the workplace is often used by researchers when reviewing competency models (van der Velde et al., 1999), this is appropriate, because it is related to practical and critical experience and is considered as one of the main methodologies. Pernick (2001) proposes that competence can be derived from the mission and core values of the organization, while Rothwell and Lindholm (1999) explain that approaches to developing competency models are very important.

Methodology

Based on the above review, we will explore manager competencies using a mixed-method approach. There are two studies conducted separately in an effort to explore important competencies for the success of managers of State-owned companies in this era 4.0. Study 1 will be conducted through a questionnaire survey distributed to graduate management (MM) and business students (MBA) in three universities in Indonesia that aim to examine their perceptions of managerial competencies needed for a manager in a state-owned companies. Study 2 using interviews with the human resource department in three state-owned companies, and was asked to translate the organization's strategy into action and

provide results on competency requirements that are in accordance with the company's vision and mission. Furthermore, together with the group, they conducted discussions to form competency ratings, questionnaires were also given to complete the findings. We do this in accordance with the suggestion of Yin (1994), that differences in methods for the source of evidence can add validity and reliability to the findings.

Study 1

Study 1 aims to explore managerial competencies that are important for the success of work in companies in state-owned companies, by conducting questions that are disseminated through online, such as managerial competencies which are considered important for the success of a manager in a state-owned companies in this era 4.0 and the five rankings of managerial competencies identified are most important.

Samples and instruments

In this first study, questionnaires were distributed to 66 graduate students (32 MM students and 34 MBA students) from three universities, PPM Management (Jakarta), Bandung Institute of Technology (Bandung) and Telkom University (Bandung). All student respondents have work experience (ever and still working) for 3 to 6 years in companies on staff and supervisor positions. Another reason the researchers chose this respondent was also because the graduates from these tertiary institutions had proven that the track record was in the company of state-owned companies, in accordance with the context of this study. The survey questionnaire was developed based on the competency concept formulated by the ministry of state-owned companies. The questionnaire has 11 competency scales. To determine the reliability of the instrument, an instrument trial was conducted.

Instrument testing

Tests on instruments are carried out by providing 11 lists of managerial competencies equipped with their descriptions, for example: *"Strategic thinking, defined as the ability to comprehend comprehensively about various things that affect the organization or strategic direction of the organization"*, *"Decision Making, defined as the ability to make decisions at the right and accurate time"*. Instructions for the first part, respondents were asked to give their perceptions of importance for each of the 11 competencies using a five-point Likert scale (1 ="not important" to 5 =“very important") Demographic data such as age, gender, and position in the work were presented.In the second part, participants were asked to identify the five most important managerial competencies in the current era. Cronbach's alpha coefficient instrument data obtained an internal consistency of 0.856.

Study 2

Study 2 aims to explore findings through an interview approach to managers in the human resource department in three state-owned companies sectors : banking, oil and gas, and telecommunications. This study intends to obtain the core competencies needed for managers in state-owned companies. *The first phase*, the three informants of each company were asked about identification of competencies, with the core question: *"In general, how is the company's vision and mission in developing HR and managerial competencies what is most important for every manager in accordance with the company's vision and mission you?"* (identification phase). In the second phase, it is the continuation of the first phase by holding joint discussions between them to determine what competencies are most important for the manager. Based on the results of the discussion, they were then asked to determine the core competencies and their ranks were important or not important according to the company's vision and mission. The last phase, is the complementary stage, namely by giving questionnaires to each company, to verify the managerial competencies identified. Questionnaires are distributed to three groups of positions, namely managers, supervisors and staff (subordinates). In the questionnaire, all competencies identified in the second stage are listed and respondents are asked to evaluate the relative importance of each competency through seven points on a Likert scale (1 = "the least important" to 7 = "the most important"). Table II is the conclusion of the strategy used in this study.

Results

Study 1

A total of 66 survey questionnaires given to post-graduate students produced findings. The average age of the respondents was 33.4 years (*n* = 66, I = 2.72), Male 34.8%, *n*=23), women (65.2%, *n*=43). In addition to being post-graduate students, they also worked (and still work) at the staff level (42.4%, *n*=28), junior manager level (34.8%, n = 23), manager level (16.7%, *n*=11) and senior manager (6.1%, *n*=4). The findings show that of the 11 competencies considered "not important", important "or" very important ", the five most important competencies for managers are “leadership”, “integrity”, “building partnership”, ”strategic thinking” and “innovation”, with an average value of 4.42. (Table I).

Table I. Top Five Most Frequently Identified Competencies for Manager

Rank	Competency	Average Mean	Total (%)
1	Leadership	4.52	18
2	Integrity	4.38	16
3	Strategic Thinking	4.35	12
4	Building Partnership	4.27	11
5	Innovation	4.23	9

N = 66, The response was 1=not important, 2=slight important, 3=important, 4=very important, 5=extremely important
Percetages represents the percentage of 66 respondent

Table II Competency Modelling Approach in study 2

	Competency modeling approach	Sample
Identification	1. Peer nomination	Manager on HR Directorate
Verfication	2. Competency Verification Questionnaire was distributed among middle manager any field area	Middle Manager, Supervisor

Study 2

This study involved the human resource department in three state-owned enterprises in different sectors (banking, oil and gas, telecommunication), they were asked to submit information about the company's strategy in human resource competency development in era 4.0 and together with their team set core competencies and ratings. if possible. Table III shows the different comparisons in the manager's core competencies. It is known that “integrity” is a competency that is considered very important for all companies, the next important competencies are “building partnership”, “know the bussines” and “customer focus”. While other competencies spread according to the company's focus. There are two competencies that are not considered important for the entire company, “decision making” and “manage execution”.

Table III Weight of Core Managerial Competencies in Owned-State Companies

Rank	Competency	Weight
1	Integrity	***
2	Building Partnersip	**
3	Know The Business	**
4	Customer Focus	**
5	Planning & Organizing	**
6	Innovation	*
7	Drive for Result	*
8	Strategic Thinking	*
9	Leadership	*
10	Decision Making	
11	Manage Execution	

Table III Different Comparison of Core Managerial Competencies - Three Company sector and focus

Rank	Competency	The Core Competency		
		A (Banking)	B (Oil & Gas)	C (Telecom)
1	Integrity	CORE 4	CORE 1	CORE 1
2	Innovation			CORE 3
3	Building Partnership	CORE 3		CORE 4
4	Drive for Result		CORE 5	
5	Know The Business	CORE 2		CORE 2
6	Customer Focus	CORE 1		CORE 5
7	Strategic Thinking		CORE 3	
8	Planning & Organizing	CORE 5	CORE 4	
9	Decision Making			
10	Leadership		CORE 2	
11	Manage Execution			

Data Verification

To verify competency, verification surveys are shared with managers, supervisors and staff from each company sector. There were 30 total respondents consisting of 9 managers, 10 supervisors and 11 staff. The data shows that, although three groups have the same view of certain competencies, there are significant differences between the three positions in terms of perceptions of the importance of managerial competencies. For example in Figure 1, managers have important perceived values for "building partnership" that are not considered as important by their subordinate. Likewise, "leadership" are considered not too important or slight by supervisors, in contrast to staff who consider them very important.

Table V Comparison of Managerial Competencies Identified in Study 1 dan 2

	Study 1 (Survey)	Study 2 (Core Competencies)
1	Leadership	Integrity
2	Integrity	Building Partnership
3	Strategic Thinking	Know the Business
4	Building Partnership	Customer Focus
5	Innovation	Planning & Organizing

More specifically, important assumptions for "innovation" competency in managers, are not as high as important subordinate assumptions, the same thing for "drive for result", "strategic thinking", "planning and organizing", "decision making" and "manage execution". Managerial competencies identified for managers in study 2 are compared with those identified in studies 1 (table V). "Leadership" in study 1 means those who are considered *able to take on the role of leader, by giving direction, can bring change and have vision in achieving goals*, in study 2 it might have become part of the "integrity" intended in study 2.

One interesting thing is that "innovation" (specially in digital technology era) which is considered important in Study 1, in fact does not become a key competency for managers in the company, perhaps more important if the competency applies to supervisors or staff (millennials age). And we can see from the table that the "building partnership", "know the business", "customer focus" and "planning and organizing" are very important for the success of managers of state-owned companies in era 4.0 in Indonesia. In other words, managers in state-owned enterprises are expected to be able to proactively build networks (broadly), conduct services and interaction relationships, while focusing on mastering business and planning assigned by the company.

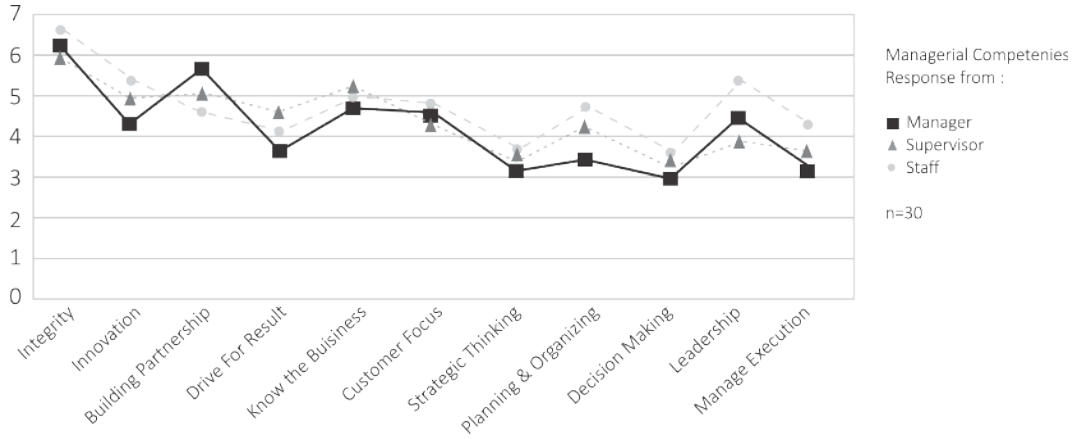

Figure 1 Relative impotance of Managerial Competencies rated by, managers, supervisor and staff (surbordinates)

Conclusion and Discussion

This research seeks to explore and develop a new framework of manager competencies in state-owned companies. From the findings of two studies, managerial competencies including "integrity", "building partnership", "know the business", "customer focus" and "planning and organizing" are core competencies and important for the success of managers in state-owned companies. In addition, this study found that managers have different competency characteristics for the corporate sector, which have a business focus on different things, although not too significant. For example, banking strengthens important competencies in "customer focus", then "strategic thinking" on oil and gas companies and "innovation" in telecommunications companies is the core thing that managers must have not important for two other sector companies. It can be interpreted that the importance of managerial competence (according to the policy of the ministry of state-owned companies) cannot be applied equally and evenly to all state-owned companies, thus giving rise to ideas for further research in leveling for each competency and categorize culture-fit in every state-owned companies.

Managerial competencies also have different perceptions of competencies, both graduate students and subordinate position. For example in Study 1, those competencies that were considered important or not important did not involve strategic focus on the company. Competencies such as "drive for result" or "manage execution" are relatively rarely called important and are obtained by relatively lower average values. We assume that this study is quite consistent with the findings of previous research from Kraut et al. (1989) that different hierarchical positions require different managerial behavior, while the competency ratings identified in this study are quite relevant to their industry sector in the company. Finally, we agree with Farquhar's (1998) idea, that the findings by comparing the assumptions of work position (manager, supervisor and staff level) need to focus more on categorizing as a "building relationship", such as leading groups or leading people, who put them in networks that complex with others. So we assess the competency list issued by the ministry of state-owned companies to overly impose all components of behavior in the same theme as other behaviors, such as "manage execution", which have a *description ability to give responsibility, delegate and encourage others, removing barriers, providing and contributing resources needed, coordinating work efforts when needed and monitoring progress*, there are several key behaviors that can be separated (i.e "delegate and encourage others" in building relations theme or "providing and contributing resources needed", in the another theme.

Finally, when this study found an exploration of manager competencies in state-owned companies, we could see the relationship and focus in "integrity" (including "leadership") and "building business partnership", because currently state-owned companies are progressively creating an ecosystem of collaborative work (collaboration/cooperation). Besides that, "building relationships" is very important in Indonesian company culture. The implication in this study concludes that "integrity" and

establishing "collaborative relationships", in addition to "planning" and "service" is very important for the development of professional competence of managers in state-owned companies in Indonesia.

Implication

There are several implications in this study, namely managers in the state-owned enterprise companies today need to be socialized about the findings of competencies that are important in their success in this organization in era 4.0. They can evaluate their skills related to the five competencies identified from the results of this study, which they hope can improve kemampyan and develop themselves adaptively. Second, for top management, the five competencies identified in this study are descriptions of the assumptions and expectations of managers, expected to be an effort to harmonize the gap in the competence of subordinates through capacity building. Third, differences in the results of assumptions about manager competencies from subordinates, become a challenge for managers to harmonize more dynamic work relations. Therefore, it is very important for managers to see differences and take behavior in fulfilling the expectations of their colleagues (superiors and subordinates). For consultants engaged in the practical world of human resources, this finding can be a reference in development and training programs that focus on competency profiles for managers. This study concludes that managers in state-owned enterprises require the fulfillment of competencies that have changed according to the demands of the conditions.

For professionals in leadership development, can identify training and development management efficiently, development professionals in the field of leadership need to understand competency profiles for managers, because without this understanding, competency development cannot manage development effectively. This study concludes that managers need a different set of competencies and must take the effort to design and develop training programs designed for managers in developing managerial competencies identified in this study. These results also show that leadership competencies identified in State-Owned Enterprises are considered important for middle managers in the current era of 4.0. Therefore, when developing leadership competency models and designing leadership development programs for managers, instruments and programs that have been implemented in other countries can be a reference.

This research is intended to identify the leadership competencies needed for managers in State-Owned Enterprises. Therefore, these findings contribute to the field of Human Resources in two areas, namely providing information about managerial leadership competencies needed for managers and functioning to fill gaps in leadership competencies. Secondly, the findings of this study show that the identified managerial competencies are considered important for all companies in Bada State-Owned Enterprises. Therefore, for professionals in Human Resources in Indonesia, they can develop leadership competency models and design leadership development programs that meet current needs.

Limitations

We acknowledge several limitations in this study, the sample of this study was only represented by three companies, then carried out with only one exploration study with a limited number of samples, the results may not be representative of all state-owned companies. Therefore, further studies are needed to generalize and further explore the findings of this study. We recognize that each company has a different organizational culture, which may have an impact on data collection. So it must be careful in generalizing the findings of this study. However, this finding can contribute to the field of human resources in the effort to develop its employees.

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