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Original Research

Competency model for the work force of head of the District Health Office (DHO) in north Sumatra province-Indonesia

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ABSTRACT:

The greatest challenge constrains the achievement of the objectives of the Sustainable Development Goals (SDGs), particularly with regard to health to the human resource competency gaps. Uneven Head of District Health Office (DHO) competencies caused a disparity success between districts. The purpose of this research is to identify the competence of heads of DHO that can be used as a minimum reference to recruit someone in that position. This research is cross-sectional, qualitative and quantitative research methods. Data were collected using interview guides and questionnaires distributed to 150 respondents at 50% of districts in the North Sumatra province consisting of heads of the district or head of the district office, DHO, chief of division at DHO, and head of Primary Health Centre (PHC). In addition the respondents of this study also the head of district personnel agency, head of district supervision, and head of district development planning board have participated in the survey. Data analysis was done by using Confirmatory Factor Analysis (CFA) approach. The results indicated that the competence of the head of DHO consists of achievements and actions (achievement orientation, concern to order, initiative, information seeking, planning, budgeting, organizing, quality oriented and initiative), helping and human services (interpersonal understanding, customer service orientation, and responsiveness), leadership (impact and influence, organizational awareness, and relationship building), managerial (developing others, directiveness, team work, and team leadership), cognitive (analytical thinking, conceptual thinking, and expertise), personal effectiveness (integrity, self-control, self -confidence, flexibility, and organizational commitment), local specific leadership (understanding of main value of the local cultural understanding values and local customs understanding).

Keywords:

Competence indicator, Head of district health office.

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INTRODUCTION

Indonesia, like many other developing countries, is committed to realizing the goals of Sustainable Development (SDGs) by 2030. However, serious challenges are an obstacle to the achievement of goals, especially health-related SDGs. The main challenge related to human resources for health. Indonesia's health system has been decentralized by the end of the second millennium, but the competence of head of District Health Office (DHO) is uneven, causing gaps in inter-district development. Spencer and Spencer (1993) wrote that competence is an underlying characteristic of an individual which is causally related to the criterion-referenced effective and or superior performance in the job or situation. Manley and Garbett (2000) provided a definition from the nursing management literature: 'Competency is a person's underlying characteristics and qualities that lead to an effective and/or superior performance in a job'. Similarly, Wright (1998) viewed competency as the minimum standard necessary to perform a job; knowledge, skills and abilities. In contrast, Goldstein (1995) defined competency as those skills, abilities and knowledge that contribute to over average or minimum performance. According to McLagan and Suhadolnick (1989), competency is 'an area of knowledge or skill that is critical for producing key outputs'. In addition, Hudak *et al*. (2000) believed that skills, knowledge and abilities were required to support the achievement of competencies.

Large number of studies were conducted with the intention of examining and establishing a list of reliable competencies or a competency assessment approach. Although sharing some similarities, the lists of competencies in these studies are diverse, not only in the number of competencies developed or identified, but also in the content of each competency. Although the interpretations of competency are diverse, list of competencies for head of DHO in this study are achievement and action (achievement orientation, concern for order, initiative, information seeking, planning, budgeting, organizing, quality oriented and innovation), helping and human service (interpersonal understanding, customer service orientation, and responsiveness), leadership (impact and influence, organizational awareness, and relationship building), managerial (developing others, directiveness, teamwork, and team leadership), cognitive (analytical thinking, conceptual thinking, and expertise), personal effectiveness (integrity, self control, self confidence, flexibility, and organizational commitment), and local specific leadership (major cultural values understanding, local customs understanding, and local language understanding).

The purpose of this study is to identify the competence of the head of DHO which can be used as a standard for recruitment and also to evaluate the official of the head of DHO to minimize the success gap of community development between districts. Public Health Development Index (PHDI) in North Sumatra Province as shown in Table 1. The data as in Table 1 shows the national rankings and the gap between public health developments in the districts of North Sumatra Province. Nationally, the districts of North Sumatra Province was ranked 12 to 486 of the 497 districts in Indonesia, a great range that is indicative of the gap. The success of health development is strongly influenced by the health leadership. The gap between the public health development in the districts of North Sumatra Province is an indication of competency gaps.

Spencer and Spencer (1993) wrote that the term 'competence' in the field of employment for the first appeared in the early 1970s when US scientists published an article entitled "Testing for competence rather than intelligence". The first competency testing by the Ministry of Foreign Affairs of the United States in selecting prospective employees on the part of Foreign Service Information Officer (FSIO). The previous selection method based on the testing of intelligence and academic achievement was not able to give a precise

Table 1. PHDI ranked districts in north Sumatra province by the national ranking

S. No	Districts	Rank
1	Pematang Siantar	12
2	Medan	34
3	Toba Samosir	42
4	Sibolga	46
5	Tebing Tinggi	64
6	Binjai	80
7	Simalungun	88
8	Samosir	96
9	Tanjung Balai	110
10	Batubara	114
11	Serdang Bedagai	118
12	Karo	120
13	Humbang Hasundutan	121
14	Labuhan Batu	139
15	Asahan	160
16	Pakpak Bharat	193
17	Dairi	194
18	Labuhan Batu Utara	205
19	Tapanuli Utara	214
20	Langkat	216
21	Deli Serdang	236
22	Labuhan Batu Selatan	307
23	Tapanuli Selatan	328
24	Padang Sidempuan	334
25	Mandailing Natal	427
26	Padang Lawas Utara	430
27	Nias Utara	443
28	Nias Selatan	466
29	Gunungsitoli	470
30	Padang Lawas	472
31	Nias	473
32	Tapanuli Tengah	475
33	Nias Barat	486

Source: MHRI (2016)

estimate of the FSIO success at work and eventually changed to test competence.

Analysis of the competency for the head of DHO is the competence requirements that must be owned by a person in performing basic tasks and functions of the position as the head of DHO. Identification of job competency for the head of DHO is informing all stakeholders to guide its efforts 'on the right man on the right place' and on the right job. In addition, the identification for the head of DHO competence is useful to assist in the evaluation and development of the performance for the head of DHO, the reference in recruiting candidates for the head of DHO, as well as in-service training programs to support the needs of the DHO. Robbins and Judge (2013) found that the assessment of competence is able to predict performance in office or profession in the future.

The fact is that since the implementation of decentralization or district autonomy, there is no standard that can be used for the selection of the job for the head of DHO. The head of the DHO Placement is often done without competency analysis. The mechanism of appointment of a person by open recruitment and competitive positions has been implemented in several countries including South Korea and Australia. The Senior Executive Service (SES) has a standard for charging position, the measurement of performance, competency development, and compensation granted. Harris and Bleakley (1991) showed that leadership, decision-making and communication competencies are required for an SES. The results also demonstrated the achievement of the performance differences between the various groups of managers who were significantly associated with the levels of management, length of work in the field of management, discipline, size, and type of organization. Griffith (1997) also reported that the SES competencies include technical competence, interpersonal competence and strategic competence. Likewise, Zhanming and Howard (2010) showed that the competency has a causal relationship with the level of management, different health service and health care context.

Spenser's theory classified domain competencies in six groups: achievement and action, helping and human service, leadership, managerial, cognitive, and personal effectiveness. Then he limited the domains in several indicators. Achievement and action consist of achievement orientation, concern for order, initiative, and information seeking; helping and human service consist of interpersonal understanding, and customer

Table 2. Participant's opinion

S. No	Variable	Very important		Important	
		N	%	N	%
	Achievement and Action				
1	Achievement orientation	113	75.3	37	24.7
2	Concern for order	103	68.7	47	31.3
3	Initiative	107	71.3	43	28.7
4	Information seeking	106	7.7	44	29.3
5	Planning	105	70.0	45	30.0
6	Budgeting	107	71.3	43	28.7
7	Organizing	119	79.3	31	2.7
8	Quality oriented	110	73.3	40	26.7
9	Innovation	102	68.0	48	32.0
	Helping and Human Service				
10	Interpersonal understanding	106	7.7	44	29.3
11	Customer service orientation	108	72.0	42	28.0
12	Responsiveness	108	72.0	42	28.0
	Leadership				
13	Impact and influence	107	71.3	43	28.7
14	Organizational awareness	106	7.7	44	29.3
15	Relationship building	105	70.0	45	30.0
	Managerial				
16	Developing others	108	72.0	42	28.0
17	Directiveness	109	72.7	41	27.3
18	Teamwork	111	74.0	39	26.0
19	Team leadership	106	7.7	44	29.3
	Cognitive				
20	Analytical thinking	111	74.0	39	26.0
21	Conceptual thinking	109	72.7	41	27.3
22	Expertise	107	71.3	43	28.7
	Personal effectiveness				
23	Integrity	108	72.0	42	28.0
24	Self control	107	71.3	43	28.7
25	Self confidence	106	7.7	44	29.3
26	Flexibility	108	72.0	42	28.0
27	Organizational commitment	108	72.0	42	28.0
	Local specific leadership				
28	Main values of local culture	107	71.3	43	28.7
29	Understanding local customs	110	73.3	40	26.7
30	Understanding local language	81	54.0	69	46.0

service orientation; leadership consist of impact and influence, organizational awareness, and relationship building; managerial consist of developing others, directive, team work, and team leadership; cognitive consist of analytical thinking, conceptual thinking, expertise, and personal effectiveness consist of self control, self confidence, flexibility, and organizational commitment.

When examined more deeply, the various indicators of competence mentioned above have limitations given that the job for the head of DHO is a district office, so that the necessary additional competence in the form of local leadership competencies. Local leaders should pay attention, utilize and develop local wisdom in achieving the vision, mission and objectives of decentralization. Through creativity, leaders think of the district's development by utilizing local knowledge to be able to build a competitive advantage of the district. Leadership based on local wisdom in Indonesia includes an understanding of the value of the main culture, customs and language that can be used as local wisdom, and human capital.

Based on the research motivations above, the purposes in this study are: to identify the major and minor competences for the head of DHO competences, and to propose the core competence of the contents in the fit and proper test of the job competence for the head of DHO.

METHODS

This study is a cross-sectional, qualitative and quantitative research (mix method). Data collection was conducted on 150 respondents spread in 15 districts. Sampling is done by purposive sampling which is 50% of the total population area with reference to PHDI achievement set by the Ministry of Health of the Republic of Indonesia which refers to the development of Newberry and Taylor (2005) theory. Province of North Sumatra consists of 33 districts. The sample area consisting of six districts with the highest PHDI level, six districts with the highest PHDI level and five districts with median PHDI. So, the sample research area is: Siantar, Medan, Toba Samosir, Sibolga, Tebing Tinggi, Binjai, Asahan, Pakpak Bharat, Dairi, Labuhan Batu Utara, North Tapanuli, South Nias, Gunungsitoli, Padang Lawas, Nias, Tapanuli Tengah and Nias Barat. Informants for each district are head of the district, head of DHO, chief of division at DHO, and head of Public Health Centre (PHC). Data analysis was performed using Confirmatory Factors Analysis (CFA). conceptual study frame is given in the Figure 1.

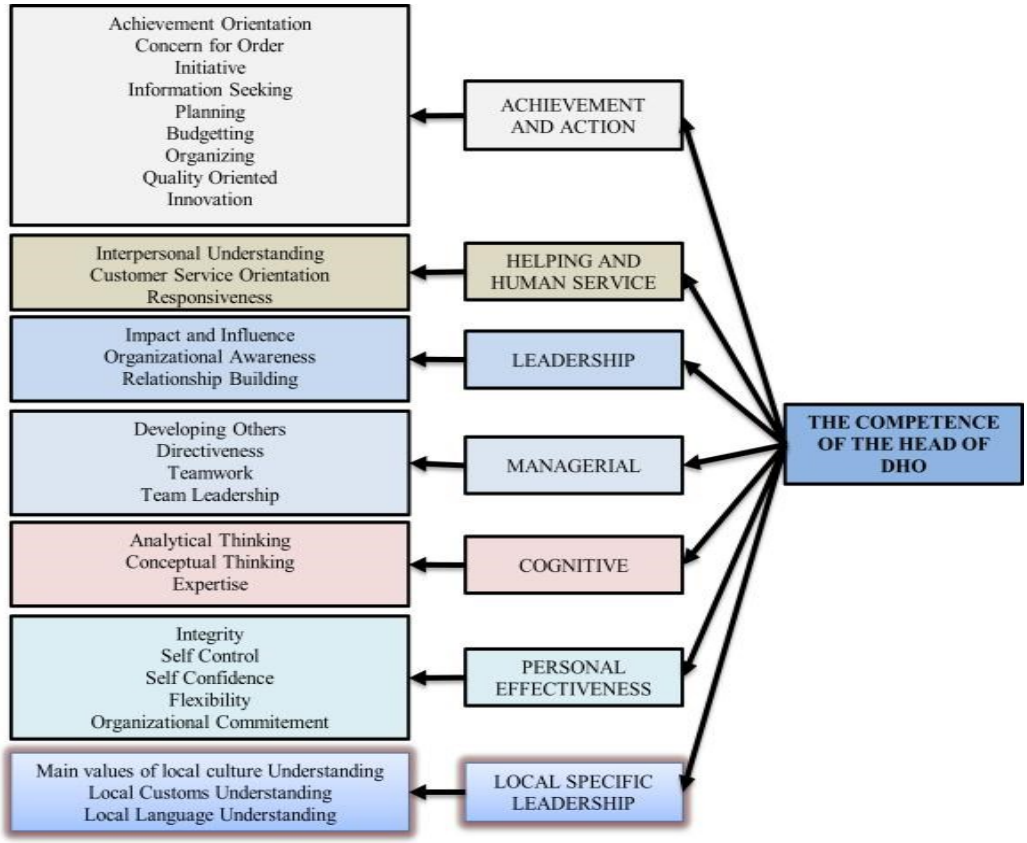

Figure 1. Conceptual study frame

Hypothesis

- Achievement and action, concern for order, initiative, information seeking, planning, budgeting, organizing, quality oriented and innovation are valid and reliable variables for measuring constructive achievement orientation on the competency model head of DHO.
- Interpersonal understanding, customer service orientation, and responsiveness are valid and reliable variables for measuring constructive helping and human service on the competency model head of DHO.
- Impact and influence, organizational awareness, and relationship building are valid and reliable variables for measuring constructive leadership on the competency model head of DHO.
- Developing others, directiveness, teamwork, and team leadership are valid and reliable variables for measuring constructive managerial on the competency model head of DHO.
- Analytical thinking, conceptual thinking, and expertise are valid and reliable variables for measuring constructive cognitive on the competency model head of DHO.
- Integrity, self control, self confidence, flexibility, and organizational commitment are valid and reliable variables for measuring constructive personal effectiveness on the competency model head of DHO.
- Major cultural values understanding, local customs understanding, and local language understanding are valid and reliable variables for measuring constructive local specific leadership on the competency model head of DHO.

Participants

Participants in Delphi techniques from practitioners related to the development and utilization of

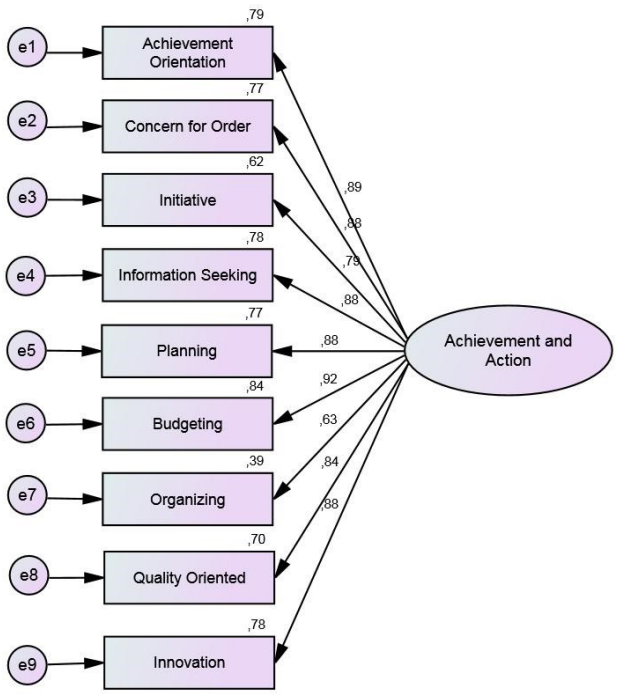

Figure 2. Achievement and action's competence

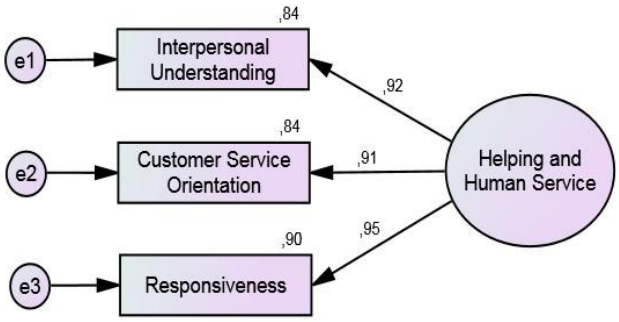

Figure 3. Helping and human service's competence

health personnel. Each district elected five participants consisting of head of human resources, head of district, district secretary, head of DHO, chief of division at DHO, and head of public health center. A total of 150 research samples were selected. The expert panel is an expert on human resource management, health regulations, and health administration from the faculty of public health, university of North Sumatra. The principle of sample selection is: 1) willing to be a participant; 2) who have performed professional work for more than two years; and 3) who are willing to attend meetings and fill out questionnaires.

Data analysis

To achieve the research objectives, the test used

Table 3. Result of fit model construct variable of the achievement and action competence

S. No	Parameter	Result	Threshold value	Category
1	GFI	0.976	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	1.000	> .90	Good
4	AGFI	0.940	≥ .90	Good
5	NFI	0.960	≥ .95	Good

consisted of the Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Adjusted Goodness Fit of Index (AGFI), and Normed Fit Index (NFI), validity test (Loading factor) and reliability test (Construct Reliability (CR) and Variance Extracted (VE)). (Browne and Cudeck, 1993; Hooper *et al*., 2008; Joreskog and Sorbom, 1993; Schumacker and Lomax, 2010)

RESULTS

Opinion of the participant

The results of this study indicated that based on the choices already provided in the questionnaire (very important, important, not important and very unimportant), the all respondents only decide on very important and important as in Table 2. Table 2 shows that 68.0% -79.3% chose very important on achievement orientation competency indicators, while the rest chose important. Percentages for other competency indicators can be seen in the same table. Overall the respondents' choice for these indicators ranged from 54.0%-79.3% to very important and 2.7% - 46.0% to important.

Hypothesis testing

Result of hypothesis test for achievement and action competence was obtained as in Figure 2 and Ta-

Table 4. Result of fit model construct variable of the helping and human service

S. No	Parameter	Result	Threshold value	Category
1	GFI	0.976	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	1.000	> .90	Good
4	AGFI	0.942	≥ .90	Good
5	NFI	0.957	≥ .95	Good

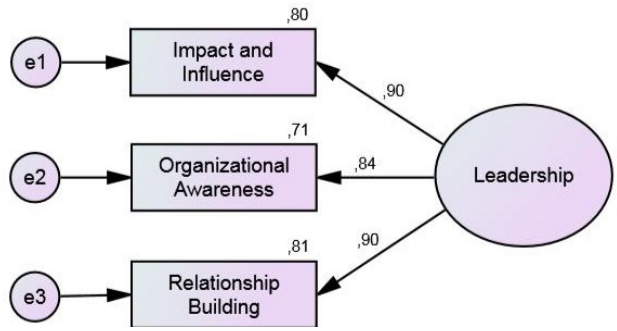

Figure 4. Leadership's competence

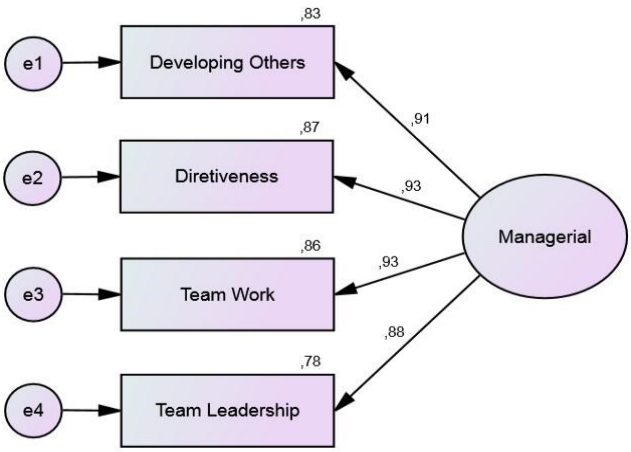

Figure 5. Managerial Competence

ble 3. Figure 2 showed that all observed variables have an absolute value of Standardized Loading Factor (SLF) >.5, meaning that all observed variables is valid variables for latent variables. Table 3 shows that all variables have met the predetermined criteria of goodness of fit, meaning that the fit model is estimated with the observed values already qualified. The calculations performed on Construct Reliability (CR) and Variance Extracted (VE) are CR = 0.91 (>0.7) and VE = 0.96 (>0.5). These CR and VE values shows that all observed variables are within the threshold values, meaning that all observed variables are reliable variables for latent variables. So it can be concluded that the achievement orientation, concern for order, initiative, information seeking, planning, budgeting, organizing, quality oriented and innovation are a valid and reliable variable for achievement and action competence.

Table 5. Result of fit model construct variable of the leadership

S. No	Parameter	Result	Threshold value	Category
1	GFI	0.960	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	1.000	> .90	Good
4	AGFI	0.925	≥ .90	Good
5	NFI	0.956	≥ .95	Good

Result of hypothesis test for helping and human service as in Figure 3 and Table 4. Figure 3 showed that all observed variables have an absolute value of SLF >0.5, meaning that all observed variables are valid variables for latent variables. Table 4 shows that all variables have met the predetermined criteria of goodness of fit, meaning that the fit model is estimated with the observed values already qualified. The calculations performed on CR and VE are CR = 0.90 (>0.7) and VE = 0.95 (>0.5). These CR and VE values shows that all observed variables are within the threshold values, meaning all observed variables are reliable variables for latent variables. So it can be concluded that the variables interpersonal understanding, customer service orientation, and responsiveness are a valid and reliable variable for helping and human service competence.

Result of hypothesis test for leadership are given in Figure 4 and Table 5. Figure 4 showed that all observed variables have an absolute value of SLF>0.5, meaning that all observed variables are valid for latent variables. Table 5 shows that all variables have met the predetermined criteria of goodness of fit, meaning that the fit model is estimated with the observed values already qualified. The calculations performed on CR and VE are CR = 0.81 (>0.7) and VE = 0.91 (>0.5). These

Table 6. Result of fit model construct variable of the managerial

S. No	Parameter	Result	Threshold value	Category
1	GFI	1.000	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	1.000	> .90	Good
4	AGFI	1.000	≥ .90	Good
5	NFI	0.960	≥ .95	Good

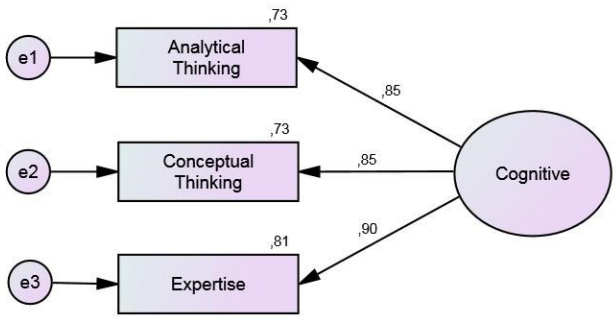

Figure 6. Cognitive competence

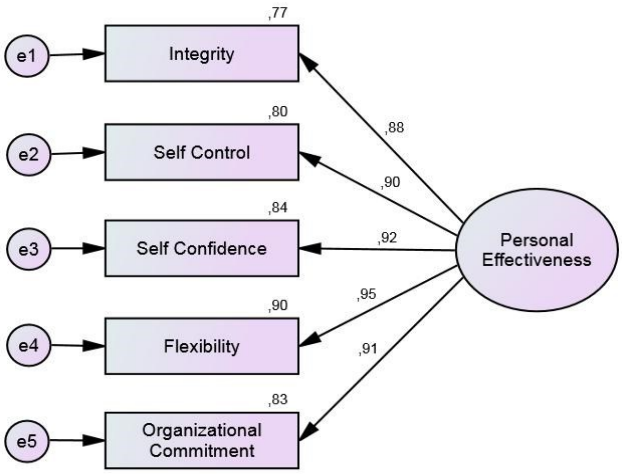

Figure 7. Personal Effectiveness's Competence

CR and VE values showed that all observed variables are within the threshold values, meaning all observed variables are reliable variables for latent variables. So it can be concluded that the variables impact and influence, organizational awareness, and relationship building are a valid and reliable variable for Leadership Competence.

Result of hypothesis test for managerial as in Figure 5 and Table 6. Figure 5 showed that all observed variables have an absolute value of SLF >0.5, meaning that all observed variables are valid variables for latent variables. Table 6 shows that all variables have met the predetermined criteria of goodness of fit, meaning that the fit model is estimated with the observed values already qualified. The calculations performed on CR and VE are CR = 0.90 (>0.7) and VE = 0.95 (>0.5). These CR and VE values showed that all observed variables were within the threshold values, meaning all observed

Table 7. Result of fit model construct variable of the cognitive

S. No	Parameter	Result	Threshold value	Category
1	GFI	1.000	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	1.000	> .90	Good
4	AGFI	0.947	≥ .90	Good
5	NFI	0.961	≥ .95	Good

variables are reliable variables for latent variables. So it can be concluded that the variables developing others, directiveness, teamwork and team leadership are a valid and reliable variable for managerial competence.

Result of hypothesis test for cognitive as in Figure 6 and Table 7. Figure 6 showed that all observed variables have an absolute value of SLF >0.5, meaning that all observed variables are valid variables for latent variables. Table 7 shows that all variables have met the predetermined criteria of goodness of fit, meaning that the fit model is estimated with the observed values already qualified. The calculations performed on CR and VE are CR = 0.80 (>0.7) and VE = 0.90 (>0.5). These CR and VE values showed that all observed variables were within the threshold values, meaning all observed variables are reliable variables for latent variables. So it can be concluded that the variables analytical thinking, conceptual thinking and expertise are a valid and reliable variable for cognitive competence.

Result of hypothesis test for personal effectiveness as in Figure 7 Table 8. Figure 7 showed that all observed variables have an absolute value of SLF >0.5, meaning that all observed variables is valid variables for latent variables. Table 8 shows that all variables have met the predetermined criteria of goodness of fit, mean-

Table 8. Result of fit model construct variable of the personal effectiveness

S. No	Parameter	Result	Threshold value	Category
1	GFI	1.000	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	0.000	> .90	Good
4	AGFI	0.000	≥ .90	Good
5	NFI	0.000	≥ .95	Good

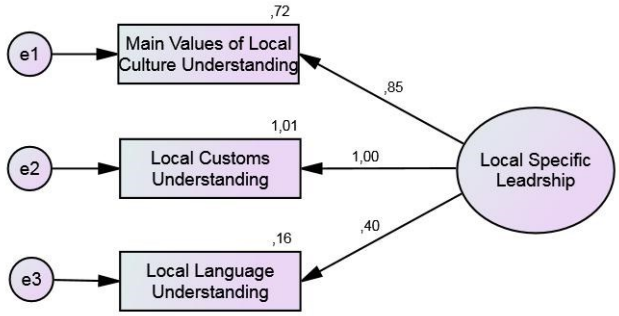

Figure 8. Local Specific Leadership's Competence

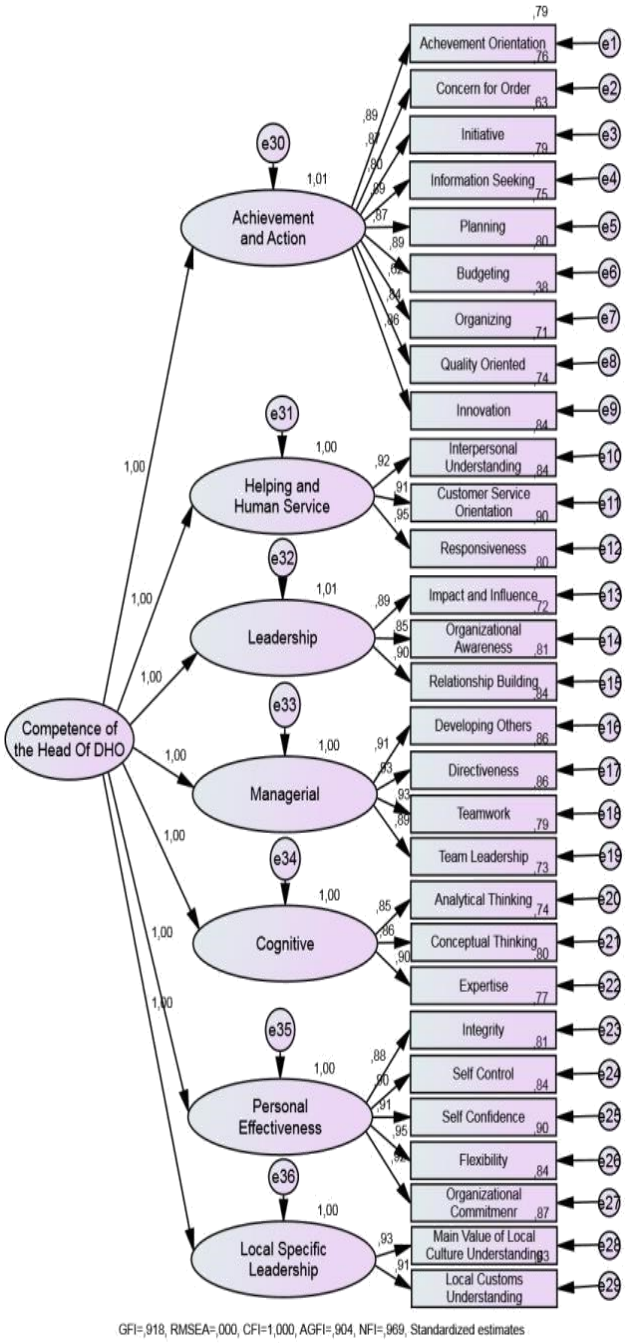

Figure 9. Path diagram of initial estimate of model

Table 9. Result of fit model construct variable of the local specific leadership

S. No	Parameter	Result	Threshold value	Category
1	GFI	0.921	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	0.931	> .90	Good
4	AGFI	0.925	≥ .90	Good
5	NFI	0.954	≥ .95	Good

ing that the fit model is estimated with the observed values already qualified. The calculations performed on CR and VE are CR = 0.92 (>0.7) and VE = 0.96 (>0.5). These CR and VE values showed that all observed variables are within the threshold values, meaning all observed variables are reliable variables for latent variables. So it can be concluded that the variables integrity, self control, self confidence, flexibility and organizational commitment are a valid and reliable variable for personal effectiveness competence.

Result of hypothesis test for local specific leadership as in Figure 8 and Table 9. Figure 8 showed that all observed variables have an absolute value of SLF >0.5, meaning that all observed variables are valid variables for latent variables. Table 9 shows that all variables have met the predetermined criteria of goodness of fit, meaning that the fit model is estimated with the observed values already qualified. The calculations performed on CR and VE are CR = 0.71 (>0.7) and VE = 0.82 (>0.5). These CR and VE values showed that all observed variables were within the threshold values, meaning all observed variables are reliable variables for latent variables. So it can be concluded that the variables main values of local culture understanding, local customs understanding and local language understand-

Table 10. Result of fit model construct variable of the competence of the head of DHO

S. No	Parameter	Result	Threshold value	Category
1	GFI	0.918	≥ .90	Good
2	RMSEA	0.000	≤ .05	Good
3	CFI	1.000	> .90	Good
4	AGFI	0.904	≥ .90	Good
5	NFI	0.969	≥ .95	Good

Table 11. Regression weight of the competence the head of DHO

S. No			Estimate	S.E	C.R.	P
1	Achievement and action	<--- DHO's competence	0.995	0.061	16.336	***
2	Helping and human service	<--- DHO's competence	1.059	0.048	21.927	***
3	Leadership	<--- DHO's competence	1.027	0.055	18.623	***
4	Managerial	<--- DHO's competence	1.002	0.057	17.686	***
5	Cognitive	<--- DHO's competence	1.007	0.055	18.261	***
6	Personal effectiveness	<--- DHO's competence	1.024	0.052	19.594	***
7	Specific of local leadership	<--- DHO's competence	1.000			
8	Achievement orientation	<- Achievement and action	0.961	0.062	15.506	***
9	Concern for order	<- Achievement and action	1.010	0.068	14.801	***
10	Initiative	<- Achievement and action	0.900	0.071	12.596	***
11	Information seeking	<- Achievement and action	1.013	0.066	15.443	***
12	Planning	<- Achievement and action	0.993	0.068	14.659	***
13	Budgeting	<- Achievement and action	1.010	0.065	15563	***
14	Organizing	<- Achievement and action	0.628	0.072	8.709	***
15	Quality oriented	<- Achievement and action	0.930	0.067	13.868	***
16	Innovation	<- Achievement and action	1.000			
17	Interpersonal understanding	<- Helping and human service	0.978	0.044	22.198	***
18	Customer service orientation	<- Helping and human service	0.963	0.044	22.039	***
19	Responsiveness	<- Helping and human service	1.000			
20	Impact and influence	<- Leadership	0.980	0.056	17.572	***
21	Organizational awareness	<- Leadership	0.934	0.061	15.413	***
22	Relationship building	<- Leadership	1.000			
23	Developing others	<- Managerial	1.017	0.057	17.776	***
24	Directiveness	<- Managerial	1.024	0.055	18.482	***
25	Team work	<- Managerial	1.008	0.055	18.470	***
26	Team leadership	<- Managerial	1.000			
27	Analytical thinking	<- Cognitive	0.923	0.060	15.472	***
28	Conceptual thinking	<- Cognitive	0.944	0.060	15.677	***
29	Expertise	<- Cognitive	1.000			
30	Integrity	<- Personal effectiveness	0.957	0.055	17.513	***
31	Self control	<- Personal effectiveness	0.985	0.053	18.641	***
32	Self confidence	<- Personal effectiveness	1.010	0.051	19.651	***
33	Flexibility	<- Personal effectiveness	1.032	0.046	22.211	***
34	Organizational commit	<- Personal effectiveness	1.000			
35	Main values of culture understanding	<- Specific of local leadership	1.044	0.051	20.521	***
36	Local customs understanding	<- Specific of local leadership	1.000			

ing are a valid and reliable variable for local specific leadership competence.

Model analysis

The estimate of the study model as the path diagram as in Figure 9. Figure 9 shows that the all variables of the Standardized Loading Factor (SLF) value is 1.00 (>0.5). Therefore it can be concluded that achievement and action competence, helping and human service competence, leadership competence, managerial competence, cognitive competence, personal effectiveness competence, and local specific leadership competence are valid variables to measure the competence of the head of DHO.

In addition, the confirmatory factor analysis test results are shown in Table 10. Table 10 shows that the variable of the model meets the established goodness of fit criteria. Other model feasibility measures fall into either category. Therefore, the suitability of the model that is predicted with observation values on all variables is eligible. The significance test of extracted indicators in forming latent variables can be obtained from the standardized loading factor of each indicator, as in Table 11. The results of confirmatory factor analysis on

Table 12. Normality of construct data of head of DHO

S. No	Variable	Skew	c.r.	Kurtosis	c.r.
1	Achievement orientation	-1.175	-5.877	-0.619	-1.546
2	Concern for order	-0.805	-4.024	-1.352	-3.380
3	Initiative	-0.944	-4.718	-1.110	-2.744
4	Information seeking	-0.908	-4.539	-1.176	-2.940
5	Planning	-0.873	-4.364	-1.238	-3.095
6	Budgeting	-0.944	-4.718	-1.110	-2.774
7	Organizing	-1.449	-7.244	0.099	0.348
8	Quality oriented	-1.055	-5.276	-0.886	-2.216
9	Innovation	-0.772	-3.859	-1.404	-3.511
10	Interpersonal understanding	-0.908	-4.539	-1.176	-2.940
11	Customer service orientation	-0.980	-4.900	-1.040	-2.599
12	Responsiveness	-0.980	-4.900	-1.040	-2.599
13	Impact and influence	-0.944	-4.718	-1.110	-2.774
14	Organizational awareness	-0.908	-4.539	-1.176	-2.940
15	Relationship building	-0.873	-4.364	-1.238	-3.095
16	Developing others	0.980	-4.900	-1.040	-2.599
17	Directiveness	-1.017	-5.086	-0.965	-2.413
18	Team work	-1.094	-5.472	-0.802	-2.006
19	Team leadership	-0.908	-4.539	-1.176	-2.940
20	Analytical thinking	-1.094	-5.472	-0.802	2.006
21	Conceptual thinking	-1.017	-5.086	-0.965	-2.413
22	Expertise	-0.944	-4.718	-1.110	-2.774
23	Integrity	-0.980	-4.900	-1.040	-2.599
24	Self control	-0.944	-4.718	-1.110	-2.774
25	Self confidence	-0.908	-4.539	-1.176	-2.940
26	Flexibility	-0.980	-4.900	-1.040	-2.599
27	Organizational commitment	-0.980	-4.900	-1.040	-2.599
28	Main values of local culture	-0.944	-4.718	-1.110	-2.774
29	Local customs	-1.055	-5.276	-0.886	-2.216
30	Multivariate	-	-	119.001	17.186

the competence of the head of DHO indicated that each indicator or dimension of each latent variable represents a high significance, that is, CR value is well above 1.96. These results indicated that the latent variables forming indicators are good indicators or dimensions as measuring instruments. Furthermore, based on the confirmatory factor analysis, the research model for the competence variable of the head of DHO can be used for further analysis.

The next test is to analyze the level of data normality used in this study. The assumption of data normality must be met so that data can be further processed for the model. The normality of the data used in this analysis can be tested for normality, as in Table 12. Normality testing is done through the skew indicator. If the value of CR in the skew of data is between of the ± 2.58, then the research data used can be said to be normal. Normality testing is performed based on skew value of data used with CR threshold value is ± 2.58**.**

Table 12 shows that all data are at a threshold or no value is beyond ± 2.58. Thus, all data proves to be normally distributed. The results of validity and reliability test of the research model are shown in Table 13. Table 13 shows that all observed variables from the 1stCFA study model are valid because they have an absolute value of SLF>0.5. When viewed from the values of CR and VE, Table 20 shows that the value of VR>0.7 and the value of VE>0.5. Therefore it can be concluded that the reliability of measurement model of latent variable achievement and action competence, helping and human service competence, leadership competence, managerial competence, cognitive competence, personal effectiveness competence, and local specific leadership competence are reliable.

Similarly, for the 2nd CFA research model, the achievement and action competence, helping and human service competence, leadership competence, managerial competence, cognitive competence, personal effectiveness competence and local specific leadership competence variables are valid because they have an absolute value of SLF>0.5. When viewed from the value of CR and VE, it can be seen that the value of CR>0.7 and the

Table 13. Validity and reliability of research model

S. No	Variable	SLF>0.5	CR>0.7	VE>0.5	Conclusion
		1st CFA			
1	Achievement and action competence		0.90	0.96	Reliable
2	Achievement orientation	0.89			Valid
3	Concern for order	0.87			Valid
4	Initiative	0.80			Valid
5	Information seeking	0.89			Valid
6	Planning	0.87			Valid
7	Budgeting	0.89			Valid
8	Organizing	0.62			Valid
9	Quality oriented	0.84			Valid
10	Innovation	0.86			Valid
11	Helping and human service		0.90	0.95	Reliable
12	Interpersonal understanding	0.92			Valid
13	Customer service orientation	0.91			Valid
14	Responsiveness	0.95			Valid
15	Leadership		0.82	0.91	Reliable
16	Impact and influence	0.89			Valid
17	Organizational awareness	0.85			Valid
18	Relationship building	0.90			Valid
19	Managerial		0.90	0.95	Reliable
20	Developing others	0.91			Valid
21	Directiveness	0.93			Valid
22	Team work	0.93			Valid
23	Team leadership	0.89			Valid
24	Cognitive		0.80	0.90	Reliable
25	Analytical thinking	0.85			Valid
26	Conceptual thinking	0.86			Valid
27	Expertise	0.90			Valid
28	Personal effectiveness		0.92	0.96	Reliable
29	Integrity	0.88			Valid
30	Self control	0.90			Valid
31	Self confidence	0.91			Valid
32	Flexibility	0.95			Valid
33	Organizational commitment	0.92			Valid
34	Local specific leadership		0.84	0.92	Reliable
35	Main values of local culture	0.93			Valid
36	Local customs	0.91			Valid
		2nd CFA			
37	Competence of the head of DHO		1.00	1.00	Reliable
28	Achievement orientation	1.00			Valid
29	Helping and human service	1.00			Valid
40	Leadership	1.00			Valid
41	Managerial	1.00			Valid
42	Cognitive	1.00			Valid
43	Personal effectiveness	1.00			Valid
44	Local specific leadership	1.00			Valid

value of VE>0.5. This can be concluded that the reliability of the research model (the competence of head of DHO) is good.

Based on the description, achievement and action competence, helping and human service competence, leadership competence, managerial competence, cognitive competence, personal effectiveness competence, and local specific leadership competence, is the formation of head of DHO competence.

CONCLUSION

The competency indicator of the head of DHO

consists of five domains, including achievement and action competence, helping and human service competence, leadership competence, managerial competence, cognitive competence, personal effectiveness competence and local specific leadership competence. The competency indicator of the head of DHO consists of 29 competency indicators or minor competencies namely achievement orientation, concern for order, initiative, information seeking, planning, budgeting, organizing, quality oriented, innovation, interpersonal understanding, customer service orientation, responsiveness, impact and influence, organizational awareness, relationship building, developing others, directiveness, teamwork, team leadership, analytical thinking, conceptual thinking, and expertise, integrity, self control, self confidence, flexibility, organizational commitment, main values of local culture understanding, and local customs understanding.

Given the possible frameworks discussed here, we recommend a broad-based international educational agenda in "ecological leadership" in other disciplines, through which experience-based, cross-cultural, interdisciplinary learning of real-world problem solving and theoretical discussions with the aim of encouraging ecological thinking depth in all disciplines as a step forward enlightening our world view of system relationships.

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