

Health Service Innovation in Local Government : Analyzing the effect of organizational culture and knowledge management on the Health Service Innovation and Performance

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Abstract- Organizational culture and knowledge management become the prominent dimensions in developing the health service innovation into achieve the high performance of the health service institution in the era of decentralization and competitiveness for local government. Organizational culture has benefits to improve the condition of performance and innovation, and also knowledge management can help to make the organization stability and organization performance. Surprisingly, there is little research conducted to measure the organizational culture and knowledge management by using the health service innovation as a moderating variable toward the performance of health service institution. The primary purpose of this article is to examine the effect of organizational culture and knowledge management on the health service innovation and performance of the health service institution at Sinjai Regency, South Sulawesi Province. This research is a quantitative approach and the type of research was surveyed exploratory. The population of research was 420 those who work at the Local Hospital and Central Health Service in Sinjai Regency. The research sample was 201 participants that are gained through Krejcie table in the margin of error 95%. The data were gathered through questionnaires which used Likert scale. In analyzing the data, we used structural equation modelling through AMOS software version 24. The research findings showed that five proposed hypotheses were supported respectively. Therefore, local governments and the health service institution should be strengthening organizational culture and knowledge management in improving health service innovation and performance in local government.

Index Terms- health service innovation, knowledge management, organizational culture, performance

I. INTRODUCTION

This article seeks to analysis the organizational culture and knowledge management effect on the health service

innovation and performance of health care institution performance in local government. Nowadays, they have become prominent dimensions which play a key role in implementation of innovation in public service and performance, especially the health service at local government. Organizational culture is a critical factor in building and reinforcing knowledge management in organizations[1]–[4]. Consequently, better understanding of cultural diversity in the public organization can help to integrate cultural realities in order to use their advantages to overcome paralyzing cultural limitations and compensate for the limits of organizational culture to enhance creativity, innovation, and entrepreneurship in the increasingly globalized social, economic, and business environments [5]. There are some empirical researchers found that there were relationship between organizational culture and organizational innovation in nonprofit human service organizations [6]–[8]. Developing an organizational culture that emerges and promotes creativity and innovation is an imperative for organizations [9].

Knowledge management in the competitive era seemed necessary to be studied during the term of developing the health service innovation, and there was a relationship between organizational culture and knowledge management to improve the organizational innovation and performance[2], [5], [6], [8], [10]–[14]. Knowledge management in the competitive era seemed necessary to be studied in the term of developing the health service innovation. Actually, organizational culture and knowledge management have a close relationship to improve the organizational innovation and performance [6], [8], [10], [12]–[16]. We then argue that knowledge management in public service should be maintained and developed because it's important to motivate and supported the leader and employee in the public organization in achieving the organizational innovation and highest performance in the local government. It is also relevant with the spirit of public service innovation and service reform for local government. According to literature review shows that there is a relationship between organizational culture and knowledge management [17].

Based on those empirical research, the researchers argued that investigate the organizational culture and knowledge management toward public service innovation and performance is necessary to be studied, because it can give the worthiness for local government to improve the health service system for the citizen. Unfortunately, there was very seldom the research conducted to examine the effect of organizational culture and knowledge management on the health service innovation and performance, meanwhile they seemed necessary to improve and need to be implemented in local government. So then, in this article, we try to examine those dimensions in the termination of health service innovation especially in local government in Sinjai Regency.

Today, Sinjai Regency Government has been being paid careful attention to develop the health service innovation in the last three years. Based on the innovation in health service of Sinjai Regency, the Ministry of National Apparatus Empowerment and Bureaucratic Reform Republic of Indonesia has chosen Sinjai Regency as the Top 99 and Top 40 award in health innovation in the 2017. Based on the Regulation of the Minister of Health of Indonesia Number 75 of 2015 about Public Health Center, Sinjai Regency Government conducted the health service innovation programs in the whole of local hospitals and the public health center (PUSKESMAS). Based on the secondary data showed that in the last three years, the condition of health service in Sinjai Regency gets more benefits and the satisfaction of the society concerning to the health service innovation.

The availability of good health service facilities and human resources determine the success in the health sector. Over the past three years the number of public hospitals in Sinjai has not increased, there is only one hospital. However, maternity homes have increased with the construction of only one maternity hospital in 2015. Sinjai Government has provided the best service innovation for the pregnant women in order to give birth with the help of health workers who have been distributed to various regions including remote areas, namely rural areas. This effort paid off with a decrease in the percentage of births assisted by non-medical personnel. The health service facilities and infrastructure of Sinjai Regency can be seen in the following table:

Table 1: Health service statistical facilities

Facilities	Years		
	2015	2016	2017
Hospitals	1	1	2
Public Health Center	16	16	16
Subsidiary of public health service (Puskemas Pembantu)	62	62	62
Mobile Public Health Center Units (Puskemas Keliling)	15	15	15
Maternal & Child Health Center (Posyandu)	325	325	324
Maternity House (Rumah Bersalin)	1	1	1
Total	420	420	420

Source: Secondary data, 2019

II. LITERATURE REVIEW

A. Organizational Culture

Literature on organizational culture and innovation reveals that researchers largely have focused on the strength of organizational culture and sought to identify organizational values, norms, beliefs, and assumptions characterizing innovative organizations [6]. Organizational culture may enhance the whole of national culture towards quality management dissemination both in public organization or profit organization [18]. Organizational culture also can develop the organizational performance and effectiveness, and the organizational culture assessment instrument (OCAI) is a variety of indicators of organizational effectiveness, including four factors such as; dominant characteristics, organizational leadership, organization glue, strategic emphases, and criteria of success. Cameron and Quinn then classified into four types of organizational cultures for critical managerial competencies including; clan, adhocracy, markets, and hierarchy [1]. Meanwhile, the culture typologies in the public sector organization can be classified into four types such as; *macro cultures* include nations, ethnic and religious groups, occupations that exist globally; *organizational cultures* involved private, public, nonprofit, government organizations); *subcultures* consist of occupational groups within organizations, and *micro cultures* involved microsystems within or outside organization [[19]. In this study, the researchers will examine on those dimensions to examine the organizational culture in the health service innovation and performance in Sinjai Regency. There are some researches have been conducted to prove the effect of the organizational culture in public service organization and they found that organizational culture and innovation have a positive effect on business performance in the healthcare industry [20]. There is a role of organizational culture in the knowledge management process and performance whether in the profit or non profit organization found that organizational culture that consists of results-oriented, tightly control, job-oriented, sociability, solidarity, need for achievement and democracy, and the effectiveness of the knowledge management process will also have influenced to increase employees' satisfaction and willingness to have conscious of organizational objectives and performance [21]. Based on the literature review, we then proposes the hypothesis as follows:

Hypothesis 1a: The organizational culture will have an effect toward the health service innovation in local government.

Hypothesis 1b: The organizational culture will have an effect toward the health service performance in local government.

B. Knowledge Management

In the development of organizational performance, there is a relationship between knowledge management on organizational learning culture in the context of organizational performance [22]. The benefit of knowledge management in a public organization can enhance the organizational elements and the performance of knowledge transfer [23], and also organizational commitment and knowledge-worker performance [24]. Beside that, it has been useful for developing the organizational capabilities [25], and organizational innovation [26].

Accordingly, knowledge management have become the interesting issues to be studied in the public sector organizations. Knowledge Management and Innovation have benefits to interact between collaboration and openness [27]. It also has an effect on the

organizational performance [28]. Basically, knowledge management in a public organization has a relationship between organizational elements and the performance of knowledge transfer [23]. In this study to test the knowledge management, we used the knowledge management in the organizational perspective namely the Wiig KM Cycle that used to develop the quality of knowledge in achieving high performance [29] which is consisted of four major including; (a) *Building knowledge* (BK) refers to an effort to learn from personal experience, formal education and training, intelligence source, media, books, and peers. (b) *Hold knowledge* (HK) refers to the employee or people in tangible forms used books to learn by reading and applied. (c) *Pool knowledge* (PK) refers to knowledge management systems from intranet, dbase, groups of people brainstorming, and (d) *Use knowledge* (UK) means that in the work context the knowledge to be used and embedded in work processes. Based on the four constructs, then the Wiig KM cycle approach can be involved into seven indicators as the key of knowledge management cycle; *creation, sourcing, compilation, transformation, dissemination, application, and value realization* [11]. Actually, the purpose of knowledge management in an organization is to create a wide opportunity and space for individual to communicate and interact with each other for exchanging and creating knowledge [30]. Many organizations, whether in public or private sectors have been trying to invest more heavily in technologies to provide and support knowledge management process in order to leverage the knowledge resource [31]. However, it needs the organizational contextual factors that affect knowledge management success, because without those factors the knowledge management will be useless and failed. The contextual factors that can influence knowledge management success include: top management and leadership support, organizational culture, strategy, organizational structure, process, technology infrastructure, and training and education [30], [32], [33]. Therefore, in this study, we focused on the Wiig KM Cycle approach to examine the knowledge management effect on the health service innovation and performance. Based on the literature review, we propose the hypothesis as follows:

Hypothesis 1c: The knowledge management will have an effect on the health service innovation in local government.

Hypothesis 1d: The knowledge management will have an effect on the health service performance in local government.

C. Health Service Innovation and Performance of Health Service System

The need for make the health service innovation in Indonesia has been rapidly engaged by the Indonesia Government, since the Minister of Health of Indonesia issued the Minister of Health Regulation Number 75 of 2015 about Public Health Center. All of the region in Indonesia should provide the best service innovation for the citizen in order to reduce the chronic disease or stunting all over the region in Indonesia. According to the review of literature showed that health service innovation is the innovation involves the development, introduction and mainstreaming of new technologies, which traditionally have had a high failure rate in the health care sector [34]. The Advisory Committee on Measuring Innovation in the 21st Century Economy (2007) defines

innovation as —the design, invention, development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers...[35].

Actually, there are many factors to maintain the health service innovation include; (1) leadership and management that are supportive and committed to change, including the articulation of a clear and compelling vision; (2) early and widespread stakeholder involvement, including staff and service users; (3) dedicated and ongoing resources, including funding, (4) staff, infrastructure and time; (5) effective communication across the organization; (6) ongoing adaptation of the innovation to the local context; (7) ongoing monitoring and timely feedback about progress; and (8) evaluation and demonstration of the cost effectiveness of the innovation being introduced, including assessment of health benefits [34].

Innovation is the implementation of a new or significantly improved product (goods or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations [36]. OECD made the distinction among the four types of innovation, namely: (a) product innovation: the way to prepare a new or significantly improved those products with respect to its characteristics or intended uses. It needs significant improvements in technical specifications, elements and materials, technology, internets or other functional characteristics. (b) process innovation: the effort to apply a new or significantly production improvement or delivery system. (c) marketing innovation: it used a new marketing method involving significant changes in product design. (d) organizational innovation: an effort to conduct and produce a new organizational system or method in the workplace organization and building the supports from external relations [36].

In building the organizational innovation and performance in the health care system, we argue that the role of the external environmental dimensions include physician acceptance, organizational culture, regulatory acceptance, and partnerships and collaborations. However, the operational dimensions of healthcare contributed significantly on the health care system innovation service that may influence the performance of health systems included; patient satisfaction, profitability, effectiveness, efficiency, patient safety, aging population, productivity, cost containment, labor shortage, clinical outcomes, and quality [36]–[39].

The literature review showed that innovation may influence the performance of health care organization [40]. Another research also suggest that to examine the possibility that innovations change during their implementation and that multiple forms of implementation outcomes can results, and they suggested to use four dimension of innovation to develop the performance of health care system such as; innovation characteristics, social factors, organizational factors, and individual factors [2]. There was a systematic methods can be based directly on scientific evidence by combining available evidence with expert opinion, or they can be based on clinical guidelines, and basically, the characteristic of quality or the performance of quality health care consisted of five dimensions,

included; acceptability, feasibility, reliability, sensitivity to change, and validity [41], [42].

However, based on the empirically research to evidence the performance indicators of health system in the eight countries found that there were four indicators to measuring the performance of health service, such as; effectiveness, access, safety, and efficient. Those four indicators have a high rank based on the study in eight countries included Australia, Canada, Denmark, England, the Netherlands, New Zealand, Scotland and the United States [43]. Likewise, other researchers divide three indicators to examine the performance of health care institution such as; effectiveness, equity, and efficiency [44]. In this study, the researcher try to combine those indicators to measure the performance of health service institution, because its indicators have relevance with the efforts of the government of Sinjai Regency as a local government that supported and motivated all of the health care institution to establish the innovation of health service and promoting the bureaucratic reform in health system through innovation in health service system. The innovation in health service of Sinjai Regency is built a new system of maternity hospital. In the new system of health service innovation, the Sinjai Regency has been establishing community health centers for childbirth and breastfeeding mothers. The aim is to reduce the mortality of mothers who give birth, especially those who live in the island region. Based on the literature review, we then proposed the hypothesis as follows:

Hypothesis 1e: The health service innovation will have an effect on the health service performance in local government.

D. Conceptual Framework

The conceptual framework in this study, the researchers intended to give the summarizing idea in order to contribute the development of theories of organizational culture [1], [5], [19] and knowledge management [11], [27], [29], [45] toward the health service innovation [34], [46]–[48]] and performance of health care institution [40]–[42]. Local government health service innovation seemed very necessary to be maintained and strengthening in order to achieve the citizen satisfaction and stakeholders. According to Farazmand do rightly pay close attention to how important the role of local government as the energizer and key implementation of policy decision and creating the outcomes of the governance process in the competitive era and decentralization [49]. Therefore, in this study health service innovation and performance of health care institution could be examined and analyzed through organizational culture and knowledge management at the local level of government as shown in Figure 1.

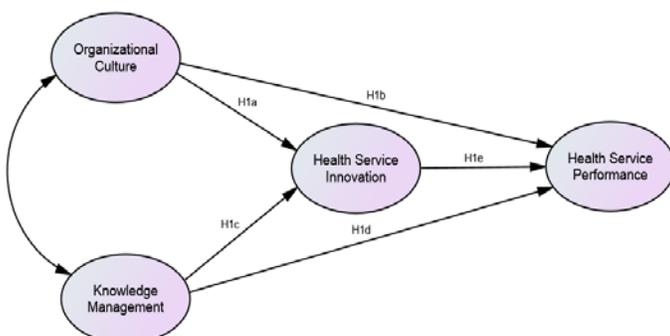


Figure 1. Research model

III. METHODS

Measuring the hypotheses proposed, we applied a quantitative methodology, and the type of research was surveyed exploratory to the public health center in the whole of district and village of Sinjai Regency. The population of research 420 people, which consist of doctors in the public health centers, nurses in subsidiary of public health service and mobile service of public health center units, and also the maternal and child health center. In this study, we used the Krejcie table to determine the research sample in the margin of error $\alpha = 0.05$ or the level of significance was 95 percent. It was used to make the simple technique to determine of the participants in the need for an efficient method of the sample size needed to be representative of a given population [50]. All of the sample involved in this study, so consequently 201 questionnaires were distributed to all respondents.

Before applying the actual survey research on the sample research, a pilot study was undertaken to test the reliability and validity of the questionnaire and need to assess the respondents' feedback from the completing survey exploratory. We used 120 participants in this study as the pilot study, and after collecting the previous data, so that the researchers used basic statistical by using SPSS version 22 in order to analysis the exploratory factor analysis (EFA). We have wasted time approximately four weeks to collecting data and analysis of the pilot data. After conducting and analyzing the data from the pilot study, so that we have found the EFA data analysis results. The researchers then distributed the instruments to 201 participants and took approximately 8 weeks started from 5th October to the end of November 2018. The questionnaires were designed by using 6-point Likert scale which ranged from strongly disagree to strongly agree. Whereas, the organizational culture was examined by four dimensions of organizational culture that include 12 questions, knowledge management includes fourteen questions, health service innovation involves 13 items, and the health service performance involves 13 questionnaires. The measurements of the independent and dependent variables were adapted with modification from [1], [27]–[29], [33], [34], [36], [40], [41], [43], [44]. The researchers used the collected data analysis through SPSS software version 22 and structural equation modeling (SEM) through the analysis of structures (AMOS). Table 2 shows the dimensions and indicators based on the CFA analysis namely; (a) clan culture consists of two indicators such as; managing teams and managing the development of others; (b) adhocracy culture involved two indicators such as; managing innovation and managing continues improvement; (c) market involves two indicators such as; managing competitiveness and managing customers service; (d) hierarchy involves one indicators namely; managing coordination. Meanwhile, knowledge management variable

involve five indicators such as; creation, Top management and leadership support, technology infrastructure; and training and education. Next, the health service innovation variable involve six indicators include resources, funding, staf, effective communication , evaluation, monitoring. Finally, the health service performance involved four indicators namely; standard operating procedures, unit cost of health service provision, outcomes, and effectiveness.

Table 2: Dimensions and indicators exogenous and endogen variables

Variables	Dimensions	Indicators	Code	Questionnaires
Organizational Cultures (Cameron and Quinn 2011)	Clan	<i>Managing teams</i>	OC1	The teams need to facilitate effective, cohesive, smooth functioning, high performance teamwork.
		<i>Managing the development of others</i>	OC2	The team should be helping individuals improve their performance, expand their competencies, and obtain personal development opportunities.
	Adhocracy	<i>Managing innovation</i>	OC 3	Managing innovation is needed to encourage individuals to innovate, expand alternatives, become more creative, and facilitate the new idea generation.
		<i>Managing continuous improvement</i>	OC4	In building sustainability of culture, it needs to be fostered an orientation toward continuous improvement, flexibility, and productive change among individuals in their work life.
	Market	<i>Managing competitiveness</i>	OC6	Managing competitiveness should develop the spirit of competitiveness through fostering competitive capabilities and an aggressive orientation toward exceeding competitors' performance.
		<i>Managing customer service</i>	OC8	In developing the innovation and performance of the health service, it needs to be speeded up an orientation toward serving customers, involving them, and exceeding their expectations.
Hierarchy	<i>Managing coordination</i>	OC12	In developing the culture of coordination and collaboration, it needs to enhance coordination within the organization as well as with external units and managers and sharing information across boundaries.	
Knowledge Management (Barbaroux, Attour, and Schenk, 2016; McKeen, Zack, and Singh, 2009; K. M. Wiig 1993; M. Alazmi and M. Zairi, 2003)	Public knowledge	<i>Creation</i>	KM1	Staff need to create the factual knowledge through measurement and reading a book to make innovation in the health service.
	Organizational Contextual	<i>Top management and leadership support</i>	KM9	Top management and leadership support out program to develop our knowledge for making the health service innovation.
		<i>Organizational structure</i>	KM11	In developing knowledge management of staff, The top management needs to make a simple structure to maintain the innovation.
		<i>Technology infrastructure</i>	KM12	Knowledge management of personnel and health service innovation must be fully supporting by technology infrastructure and ability to innovate.
		<i>Training and education</i>	KM13	In developing the knowledge management and innovation, all personnel of the health service should be educated and trained.
Health Service Innovation (Nolte, 2018; OECD 2015; Moreira, Gherman, and Sousa, 2017; Campbell, et al. 2002)	Stakeholder involvement	<i>Resources</i>	IN4	Stakeholders in the public health institution provide their resources to help the health service institution to be innovated in the health service.
	Dedication and Funding	<i>Funding</i>	IN6	Local government and all of the stakeholders and local government have committed to funding the health service innovation.
	Staf and infrastructure	<i>Staff</i>	IN7	All staff in the health service institution has perceived and skill for the development of health service innovation.
	Communication	<i>Effective communication</i>	IN11	All of the health service institution needs to make an effective to communication whether to the leader of local government and community group or stakeholders to enhance the innovative programs in health services.
	Evaluation, monitoring and ability to innovate	<i>Evaluation</i>	IN12	In order to know the achievement of health service innovation, the local government should make an evaluation intensively.
<i>Ability to innovate</i>		IN14	The staff of the health service institution has ability to innovate by empowering their knowledge and skill in the health service innovation programs.	
Health Service Performance (Campbell, et al. 2002; Jolley 1999; Braithwaite et al. 2017)	Procedure and mechanisme	<i>Standard Operating Procedure</i>	SP5	The health service institution should increase the safety data of patients regularly and appropriately
	Efficient and effective	<i>Unit cost of health service provision</i>	SP9	The health service institution needs to consider the unit of cost per occasion of health service.
		<i>Outcomes</i>	SP10	All of the personnel of the health service institution have proportion to work fully for getting the highest rate performance and cost effectiveness.
		<i>Effectiveness</i>	SP11	The health service should provide the effectiveness of tasks and functions of institution.

A. Statistical Results

Before describe the statistical results analysis using SPSS and structural equation modelling (SEM) through AMOS software version 24, we describe firstly about the characteristics of respondents based on demographic statistics. According to the secondary data analysis showed that the total of males respondents 52,2% or 105 participants, and females 47.8% or 96 participants. In this study, the participants predominantly are above 35 years old that are 65% aged 35-50 years old. Looking at the higher educational level based on the secondary data analysis reported approximately 51% were university graduates, and 30% were a master's degree, and the rest of them was undergraduate educational level. Finally, the highest 85% of respondents reported being a civil servant and the 15% was a contract employee status. Based on the demographic of the respondents and the educational status seemed that the respondents' characteristics were highly representative. Beside that, all of the participants are professionals and they were free from the political affiliation and self interest.

Likewise, according to the descriptive statistics of the research variables indicated that the health service innovation and performance and also organizational culture and knowledge management based on the respondents of the health service systems in Sinjai Regency perceived showed that all variables have the average mean were above 3.5 included OC: 3.69; KM: 3.88; IN: 4.03; SP: 3.95. The research data were carefully screened for several characteristics of prerequisite using SEM such like in term of multivariate normality, multicollinearity, and homoscedasticity, and the results indicated there were no violation of assumptions in each variable. According to the EFA analysis by using SPSS version 22 showed the convergent, discriminate and nomological validity as shown in the Table 3.

Table 3: Results analysis of convergent, discriminate and nomological validity

	OC	KM	IN	SP
AVE	0.390	0.393	0.434	0.509
CR	0.814	0.758	0.820	0.805

Note: AVE: average variance extracted; CR: Composite reliability

As shown in Table 3 the convergent, discriminate and nomological of each variable were confirmed that by using EFA measured has fully supported based on the prerequisite thresholds. It means that the all variables have no violation of assumptions of nomological validity. Beside that, the results also showed that the reliability was also above 0.80 that means all construct have good internal reliability.

The hypothesized model of this study has shown in Figure 2 has indicated that the standardized value of the goodness of fit as shown in the Table 4 has been relevance and suitable based on [45], [46] suggestions. The standardized values of the hypothesized measurement and structural model as indicated in the following Figure 3.

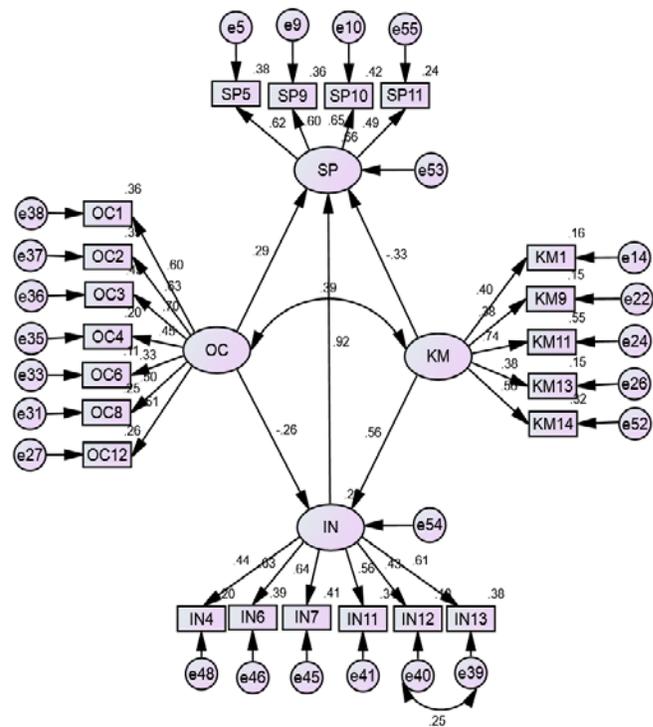


Figure 3: Standardized values of the hypothesis measurement

Based on the Figure 3 can be described that the results of structural equation modelling provides the goodness of fit model to the data research. The Goodness of fit statistics for the hypothesized testing show in the following table:

Table 4: The resulting analysis for Goodness of fit hypothesized measurements and structural model

Criteria	Absolute fit measures				Incremental fit Measures		Parsimony fit measure
	χ^2	CMIN/DF	GFI	RMSEA	NFI	CFI	AGFI
	>.05	<5	≥ 0.90	<0.05	≥ 0.90	≥ 0.90	≥ 0.90
Obtained	0.001	1.391	0.901	0.042	0.901	0.903	0.901

Note: χ^2 : Chi-square; DF: degree of freedom; GFI: Goodness of fit index; RMSEA: Root mean square error of approximation; NFI: Normated fit index; CFI: Comparative fit index; AGFI: Adjusted goodness of fit index

Table 4 shows that the fit indices indicate that the hypothesized structural equation modelling presented the good fit measures to the data. Although the absolute fit measures the likelihood ratio chi square ($\chi^2=281.015$; $DF=202$; $p = .001$) was significant at the level of $p < .05$; and also other fit measures showed that the model was adequate fit to the research data. Meanwhile, the absolute fit measures such as; GFI and RMSEA were fit enough respectively as shown 0.901 and 0.042 mean that the model was a good fit. The incremental fit measures, namely NFI and CFI were achieved 0.901 and 0.903 that indicating the adequate fit model and the parsimony fit measures showed above minimum prerequisite indicating adequate fit i.e. AGFI was 0.901 also achieved the cut off point ≥ 0.90 .

A. Hypotheses Measuring

In this study, the researchers have been proposed five hypotheses and they have examined carefully with SEM model using AMOS version 24 for the significance tests that give the basis for taking the conclusion either accepting or rejecting the proposed association between exogenous variables, moderating, and endogenous one. The whole of the results of the hypotheses measurements for the five hypotheses were statistically significant.

Based on Fig. 1, it was predicted that organizational culture will have an effect on the health service innovation in local government. According to the hypothesis testing found that organizational culture has an effect negative and significant of the health service innovation ($\beta = -.257$; $p = < .020$) in the level $\alpha = 0.05$. Therefore, the proposed hypothesis was supported that organizational culture did have an effect negative and significant of the health service innovation in local government. And also the organizational culture has an effect on the health service performance in the local government. And finding the results also showed that organizational culture has a positive and significant effect on the health service performance in local government with the path coefficient was achieved ($\beta = .287$; $p = < .015$) at the level of $\alpha = 0.05$ in the two tailed measurements. It means that the organizational culture has a positive and significant effect on the health service performance in local government.

Furthermore, it was predicted in this study that knowledge management will effect on the health service innovation in local government. The research findings showed that knowledge management has a positive and significant effect on the health service innovation in the local government with the path coefficient indicate to be achieved ($\beta = .556$, $p = < .000$). It means the regression weight for knowledge management in the prediction of health service innovation was significantly different from zero at the 0.001 level (two-tailed). The result indicated that the hypothesis was supported that knowledge management has a positive and significant effect on the health service innovation in local government. The next proposed hypothesis that the knowledge management will have an effect on the health service performance in local government also can be supported based on the hypothesis testing showed the path coefficient achieved ($\beta = -.334$; $p = < .035$) at the level of $\alpha = 0.05$ in the two tailed measurements.

Moreover, the hypotheses proposed that health service innovation will have an effect on the health service performance in local government. The results found the health service innovation to have positive and significant effect on the health service performance ($\beta = .917$, $p = < .000$). The result confirmed that the hypothesis was supported was significantly different from zero at the 0.001 level (two-tailed).

Based on the whole of the regression estimate of organizational culture and knowledge management have an effect on the health service innovation significantly as a moderating variable, and also they have an effect significantly either direct or indirect effect. The direct effect showed organizational culture and knowledge management have a direct effect on the health service were -0.257 and 0.556. Meanwhile, the indirect effect of organizational culture and knowledge

management on the health service performance were -0.236 and 0.510. The regression estimates of each variable will show in the following table.

Table 5: Regression estimates of each constructs

	Estimate	S.E.	C.R.	P
IN <--- OC	-.257	.082	-2.326	.020
IN <--- KM	.556	.222	3.427	***
SP <--- IN	.917	.196	5.170	***
SP <--- OC	.287	.097	2.438	.015
SP <--- KM	-.334	.239	-2.105	.035

Note: OC : Organizational Culture; KM: Knowledge Management; IN: Health Service Innovation; SP: Health Service Performance

Table 5 shows that the structural model results the health service innovation has had the strongest effect on the health service performance ($\beta = .917$), and followed by the knowledge management effects on the health service innovation ($\beta = .556$), and organizational culture effects on the health service performance ($\beta = .287$). Next, the organizational culture effects on the health service innovation ($\beta = -.257$), and the knowledge management regression estimate to health service performance ($\beta = -.334$). Based on the above regression estimates of latent constructs, so the summary of the hypothesis testing results based on the results of structural analysis describe in the next table:

Table 6: Hypotheses measurements results

Hypotheses	β	P	Label
H1a: OC → Health Service Innovation	-.257	$P = < .005$	Supported
H1b: OC → Health Service Performance	.287	$P = < .001$	Supported
H1c: KM → Health Service Innovation	.556	$P = < .001$	Supported
H1d: KM → Health Service Performance	-.334	$P = < .005$	Supported
H1e: IN → Health Service Performance	.917	$P = < .005$	Supported

β = Standardized regression weight, p = Significant level (two tailed)

Table 6 showed that the standardized regression estimates results analysis of constructs indicate that the organizational culture as an exogenous variable have a negative and significant effect toward the health service innovation ($\beta = -.257$), meanwhile it has a positive and significant effect on the health service performance in local government ($\beta = .287$) in the level of probability $p = < .005$ and $p = < .001$ in the two tailed testing. The result also showed that knowledge management has a positive and significant effect on the health service innovation ($\beta = .556$) and it has a negative and significant effect on the health service performance ($\beta = -.334$). It means that if the health service innovation is decreased one point, it will have an effect to decrease the health service performance approximately 33.4%. The standardized regression estimates also revealed that health service innovation has a positive and significant effect on the health service performance ($\beta = .917$). Based on the Table 6 showed that all of the hypotheses in this study were supported

respectively. This study also indicated that the organizational cultures and knowledge management have a high correlation 39.5%.

IV. DISCUSSION

Public organization service innovation has been studied by many researchers and proved that building organizational culture can improve the public service innovation [1], [4], [6], [51], especially in innovative health care system [38], [39]. Beside that, service innovation in public sectors may improve through developing knowledge management [26], [52]–[54]. Moreover, the public service innovation have benefit to enhance the organizational performance [2], [55], [56].

A. Organizational Culture effects on Health Service Innovation and Performance

Basically, health service organization has pursued to give the highest service to the customers by improving their routines performance initiative. So then in order to creating service innovation in the health system and performance need organizational culture [57], organizational culture can reduce the adverse event in the healthcare services [58]. Organizational culture has become the core influencing factors in developing the healthcare system innovation [39]. In this study, we found that the organizational culture has a negative and significant effect on the health service innovation. As clearly shown in this research that the structural model and path coefficient of organizational culture has had an effect negative significantly toward the health service innovation ($\beta = -.257$; $p = <.005$). Beside that, organizational culture has positive and significant effect on the performance of health care services in local government ($\beta = .287$; $p = <.001$).

The results finding confirmed that organization culture effects negatively and significant on the health service innovation, means that when the organization is decrease one point, it may be caused the reduce the health service innovation. This finding is also supported by many researchers [6], [43], [48], [59]–[63].

In addition to speeding the improvement of performance of healthcare organization, the organizational culture has play an important role in helping the organization in public sector develop their service performance [4], [7], [58]. In this research found that the healthcare system and hospital will have a significant opportunity for building performance of care service to make the patient satisfaction [64]. Moreover, organizational culture does so reliable that the aspects of culture being testing have related to organizational performance [1]. This research finding is also confirmed by some researchers, for example [1], [10], [60], [65], [66] showed that organizational culture can enhance the health service performance.

B. Knowledge Management on Health Service Innovation and Performance

Knowledge management provides benefits to individual employees, communities, and the organization itself, it also becomes the focus of study for more that a few decades [11]. Knowledge management refers to learning organization should become a central element of achievement to get the innovative production [67]. In profit organization, many researchers have

found that knowledge management and organizational culture have relationship in developing the organization service innovation [26], [63]. In this study, we have proposed the hypothesis that knowledge management will have an effect on the health service innovation, and according to the regression estimate based on the SEM analysis, we found the result of path coefficient was $\beta = .556$. It proved that the hypothesis was supported based on the level of $p = <.001$ or $p = <.005$. In this research, we proposed the next hypothesis that the knowledge management will have an effect on the health service performance. And based on the regression estimates through structural analysis indicated knowledge management has a negative and significant effect on the health service performance ($\beta = -.334$).

Those above findings reveal that the knowledge management have a positive and significant effect on the health service innovation in local government. In this context confirms that the knowledge management should be provided predominantly in developing the health service innovation. This result also supported by some researchers that have been conducted the study to prove the effect of knowledge management on the health service innovation, for example [9], [36], [59], [68]–[72]. Concretely, knowledge management viewed as a strategy enables an organization to act proactively. In other word, the organization will be acting before the problem occurs) than reactively that acting after a crisis has arisen in the organization [23].

Likewise, knowledge management can be facilitated to develop service innovation and performance within the organization [52], and it becomes the strategy to improve the innovative management into hospital management [71]. Meanwhile, the knowledge management should not be obeyed in maintaining the knowledge worker performance and organizational commitment [24]. In the efforts in promoting and nurturing the organizational capability and performance should provide the knowledge management and learning process within the organization [73]. The findings have been supported by empirically research which have done by some researchers that found the knowledge management has benefits and close relationship with the organizational service performance [3], [26], [28], [29], [45], [72], [73].

C. Health Service Innovation effects on Performance

Organizational innovation becomes the most interesting being studied by many researchers because it can endorse and supporting the organization to achieve higher performance. A qualitative study has been conducted to analyze the organizational innovation in private organization and they found based on systematic analysis showed that it involves some renewal combination dimensions such as willingness to innovate, ability to innovate, and possibility of innovation [74]. Organizational effectiveness is also determined by the leadership role and organizational culture [75]. Therefore, The implementation of innovation in rapid and competitive environment is needed to find the outcomes through technology and process, service and product, and administrative innovation [2]. In this research, we have proposed the fifth hypothesis that the health service innovation will have an effect on the health

service performance in local government. After conducting the statistical analysis by using structural model, we found that the path coefficient was $\beta = .917$. According to the standardized regression estimate revealed that the health service innovation has a positive and significant effect on the health service performance in local government at Sinjai Regency, Central Sulawesi Province. Based on the above finding, we argue that the health service innovation should provide by the local government and the whole staff of the Health Institution in the Sinjai Regency to adapt continuously the innovation health services in the health care system. The results of the results above also supported by some researchers [34], [46], [47], [59], [76]. Others empirically researchers have focused on the health service innovation for examples [34], [40], [41], [65] and they that the innovation in the health service closely indicated to improve the healthcare performance system.

V. CONCLUSION

Developing of the health service innovation and performance of health care institution is very crucial in the era of decentralization, because the citizen needs that local government should provide the best service of healthcare system. In the providing the best health service performance, absolutely the local government should pay more attention to the critical role of health service organization such as improving organizational culture of health system involving managing teams, managing the development of others, managing innovation, managing the future, managing competitiveness, managing customer service, and managing the control health care system. Moreover, knowledge management seemed necessary to develop the health service innovation and performance. Knowledge management becomes the main prominent to improve the health service. There are five dimensions should be paid careful attention to the local government and the health service organization such as; creation of the staff health institution toward the public health knowledge, the role of top management and leadership support, organizational structure, training and education of the staff of the health service institution continuously, and making the whole process of knowledge management to be higher based on the procedure and synergize routine.

In this research, we found that there are five hypotheses proposed, and the findings reveals that all of the hypotheses were supported respective. The organizational culture affect the health service innovation ($\beta = -.257$; $p = < .020$) in the level $\alpha=0.05$), and organizational culture affect positive and significant toward the performance of health service system in local government ($\beta = .287$; $p = < .015$) at the level of $\alpha=0.05$). Likewise, knowledge management affect the health service innovation ($\beta = .556$, $p = < .000$) at the 0.001 level (two-tailed). And also, knowledge management affect the health service institution showed the path coefficient achieved ($\beta = -.334$; $p = < .035$) at the level of $\alpha=0.05$. Finally, the health service innovation to have positive and significant effect on the health service performance ($\beta = .917$, $p = < .000$).

Based on those findings, we recommend that developing the health service innovation is the core aspect of speeding to achieve the health service performance. According to the results finding, we suggest that it is important to focus on restoring the health service innovation and performance in local

government, because the organizational culture and knowledge management of health system were predominantly dimension to improve the health care system innovation and performance for local government.

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