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The Influence of Organizational Culture and Competencies Towards the Effectiveness of Information System and The Impact to Employee Performance

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Abstract: Effective Information System is essential for an organisation. The effectiveness of Information Systems is more valuable if its construction is based on stakeholders' points of view, involving the net benefits that are obtained from an information system. The purpose of this study is to examine the influence of organizational culture and competence on the effectiveness of information systems and their impact on employee performance.

This study aimed to investigate the influence of organizational culture and competencies towards the effectiveness of information system and the impact to employee performance. This was a quantitative study with samples of 158 employees in PT. PLN (Persero) Makassar (The State Electricity Company, the Indonesian government-owned corporation, Makassar Area). The technique of data collection was a field survey that was obtained through questionnaires to respondents. The survey contained a set of questions or written statement relating to the purposes of this study.

Based on the analysis and testing results, this study concluded that organizational culture did not affect the effectiveness of information systems in PT. PLN (Persero) Makassar. In particular, a strong organizational culture did not guarantee to maintain more effective information system. However, organizational culture affected the performance of employees in PT. PLN (Persero) Makassar. A strong culture was able to provide a real impact on improving employee performance. Furthermore, employee competency affected affects the effectiveness of information systems at PT. PLN (Persero) Makassar

Keyword: organizational culture, competence, effectiveness of information systems, employee performance

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I. BACKGROUND

Public sector organizations have no differences in forms with private sector organizations. However, the productivity result of an organisation is said as one of measurements that can differentiate between public and private sectors. The productivity level of private sector is generally considered higher rather than the public sector. The Information System (IS) is one of factors that determines the productivity of an organization. In the private sector organisation, higher expenses are provided to implement Information System (IS) in order to increase the productivity on each level of organisation. In contrast, the public sector organisation intends to minimize expenses for Information System (IS) and to use the system only for simple activities (Karwan and Markland, 2005). Notably, Information System (IS) has been more valuable for an organization in conducting regular duties quickly, precisely and accurately. Therefore, the Information System is able to improve employee performance within an organisation.

The effectiveness of Information System is indeed influenced by several factors. One of the factors is in regard with organizational culture (Gupta et al., 2007). Employee competency provides an important role in improving employee performance. Moreover, the improvement of organizational performance should be supported by competent employees. Employees with good competencies play an important role in the implementation of various organizational activities and the achievement of

organizational goals. Such employees who are professional, modern and accountable will lead for effective and efficient information management.

Theoretical Reviews

Information System Success Model

Information System is a primary need of an organisation to fulfil and maintain its organisational existence. Referring to Hall (2001: 215), information system (IS) is defined as a series of formal procedures in which data should be collected and processed into information; and in turn the information is distributed to the users. While the criteria for the system include flexible, effective and efficient information. So the advanced usage of application of Information System (IS) will be more competitive and advantageous for an organisation.

Effective Information System is essential for an organisation. The effectiveness of Information Systems is more valuable if its construction is based on stakeholders' points of view, involving the net benefits that are obtained from an information system. Moreover, the effectiveness is viewed as the relationship between the output and the goals of an organisation so the organisations, programs, and activities will be more effective (Mahmudi, 2005). In short, the effectiveness of Information system depends on the relationship between an organization and its stakeholders.

Organizational Culture

Organizational culture is a part of practical dimension approaches. Hofstede defines it as the values and beliefs of organizational members that are manifested as the norms of individuals and groups (1990). Then, Dubrin (2005: 287) argues that "organizational culture is the system of shared values and beliefs that actively influenced the behavior of organization members".

Organizational culture can be viewed differently Leidner (2006) states that the success in the implementation of Information System is based on the amount of beliefs and values within an organizational culture. Drawing to the measurement organizational culture proposed by Greenberg and Baron (2008: 544), there are four dimensions including attitudes, values, behavioral norms, and expectations shared by organization member. Meanwhile, DuBrin (2005: 288-289) figures out six dimensions that significantly influence the organizational culture. The dimensions are 1) **Values** – Values provide the foundation of any organization culture. The organization's Philosophy expressed through values guide behavior on a day to day basis. Representative values of a firm might include ethical behavior, concern for employee welfare, a belief that the customer is always right, a commitment to quality and the importance of quality and independence. A pervasive is the importance of formality, with a heavily bureaucratic culture believing strongly in formality including following procedures and protocols. 2) **Relative Diversity** – The existence of an organization culture assumes some degree of homogeneity. Nevertheless, organization differs in terms of how much deviation can be tolerated. The diversity of a culture also reflects itself in the dress code. Some organization insists on uniformity of dress, such as wearing a jacket and tie (for men) when interacting with customers or clients. 3) **Resources allocation and rewards** – The allocation on money and other resources exerts a critical influence on culture. 4) **Degree of change** – the culture in a fast paced, dynamic organization differs from that of a slow paced, stable one. A highly competitive environment. 5) **A sense of ownership** – The movement toward employee stock ownership creates ownership culture and inspires worker to think and act like owner. 6) **Strength of the culture** – A strong culture guides employee in everyday actions, it determines (for example) whether an employee will inconvenience himself or herself to satisfy a customer. In summary, organizational culture may include various perspectives as its members' perspectives and norms.

Employee Competencies

Employees play important roles to support working situation within an organization. Haile-Selassie (2009) states that working competencies are necessary to support working motivation. In turn, the competencies are attributed as the employee performance. The employees should not only work hard but also know how to perform their work effectively. The employees should have adequate knowledge and skills to complete their daily jobs. The employees also have to develop their insights, expertise, and attitudes so that they are able to do their duties professionally as required by their

employers. Therefore, appropriate education and trainings are essential to be conducted for employees in the governmental institutions.

Employee Performance

Employee performance is essential for the sustainability of information system in an organization. Performance, in this study, is related to the achievement of a series of tasks by individuals. Goodhue and Thompson (1995) argue that the achievement of individual performance is referred to the capacity in achieving a series of individual tasks with information technology support. The good performance can be achieved when individuals can meet specific needs in implementing and completing tasks (Jin, 2003). Thus, the attribution of high performance includes the combination of efficiency, effectiveness, productivity and quality that an employee can perform in doing the series of duties given in an organisation. Moreover, Davis (1989) states that the use of specific application systems will improve employee performance as well as to find a strong connection between the use of computers and accurate tasks completion. Montazemi (1996) argues that individuals who have high competencies, who are well trained, and who recognize Information System within their companies, will be able to identify, access and interpret the required data accurately. In short, employees who are familiar with computers will easily use existing information system so they are able to provide the required data to complete their duties.

Effect for Organizational Culture on Information System Effectiveness

Previous studies indicated for the impact of organizational culture on the effectiveness of information system. Referring to Pearce and Robinson (2000), organizational culture influences organizational strategy; in turns, the organizational strategy will affect organizational performance. Then, the organizational performance will ultimately affect employees' job satisfaction. One of the indicators for management effectiveness is the high level of job satisfaction for employees. The research result of Al-Gahtani (2004) shows a positive relationship between organizational culture and the use of Information System in which the organization has ability to easily adopt new technology. Furthermore, the organization will tend to have more effective usage of Information System. Such organization will always follow the latest development of Information System in order to improve its organizational performance. Other researches found a positive influence between organizational culture and effectiveness of Information System (Gupta, et al, 2007; Simatupang & Akib, 2007). Accordingly, this study constructed the first hypothesis as follow:

H1: Organizational culture affects the effectiveness of Information Systems at PT. PLN (Persero) Makassar (The State Electricity Company, The Indonesian government-owned corporation, Makassar Area).

The Influence of Organizational Culture on Employee Performance

Organizational culture is considered to influence employee performance in a company. Organizational culture or corporate culture encompasses values, norms, beliefs, attitudes, and assumptions that lead organizers to behave and do what to be done in an organization (Amstrong, 2006). The steady organizational culture can bind people in the organization to work together as well as to construct defensive strategies for improving its employee performance. On the other hand, when an organizational culture is unsteady can influence its employees working individually. Such situation can decline the level of employee performance. As a result, the organizational goals of a company will be difficult to be completed with the low level of employee performance. Therefore, the second hypothesis of this study was confirmed as follow:

H2: Organizational culture affects the performance of employees at PT. PLN (Persero) Makassar (The State Electricity Company, The Indonesian government-owned corporation, Makassar Area).

The Influence of Competencies to Effectiveness of Information System

Employee competencies are required to carry out professional duties. In the governmental institution, each employee needs to have adequate knowledge, skills and attitudes for professionalism. Kustono (2011: 45) identifies that the competencies acquired by the users of Information System (IS) significantly influence the effectiveness of IS usage. In other words, the employees' competencies in

using IS are as important variables to succeed the implementation of IS. Their competencies will also drive the higher level of participation, the satisfaction in using the system, and the downturn of uncertain data. These, of course, will significantly improve the usage performance of Information System. Moreover, Irawati (2014) states that the application of computer-based information stand in needs of employees with high competencies to run the information system. Information that is generated from electronic data processing will not occur if the employees have no competence in running the program. As reported by Susanto (2010: 152), the effectiveness of each computer application is influenced by the involvement of users in the design and development process of Information System as well as by the quality of users. Therefore, the third hypothesis of this study is as follow:

H3: The employee's competencies affect the effectiveness of information systems at PT. PLN (Persero) Makassar (The State Electricity Company, The Indonesian government-owned corporation, Makassar Area).

The Influence of Competencies on Employee Performance

Employee competencies can influence employee performance in doing their duties. Working competence is an individual factor that greatly affects the performance of employees. This relates to how the employees can complete the tasks and responsibilities in the company. In a governmental institution, the works performed by employees are generally routines requiring various skills to complete the duties. The more skillful the employees are able to do their duties, the better performance will be attributed to them. In addition, the employees' abilities to behave and to locate their own dispositions in the company will lead for conducive working situation in which they will be able to work peacefully and comfortably. Such situations will also affect the improvement of their performance. Some previous studies also indicated the significant influence of work competence on employee performance (Hartati, 2005; Widyatmini & Judge, 2008; June & Mahmood, 2011; Widyaningrum, 2012). Furthermore, this study also hypothesize that:

H4: The employees' competencies affect their performance at PT. PLN (Persero) Makassar (The State Electricity Company, The Indonesian government-owned corporation, Makassar Area).

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The Effect of Effectiveness of Information System on Employee Performance

The effectiveness of information system may give impact to employee performance. Effectiveness can be drawn as a measurement to see how far the target can be achieved in both quality and time; and its orientation on the output (Yamin, 1998: 14). The effectiveness is also considered as the utilization of a certain amount of resources, facilities and infrastructure that are consciously established to produce various goods or services that people undertake. Additionally, the effectiveness is confirmed successful when the target has been achieved or not. So the fifth hypothesis refers to:

H5: The effectiveness of information systems affects the performance of employees in PT. PLN (Persero) Makassar (The State Electricity Company, The Indonesian government-owned corporation, Makassar Area).

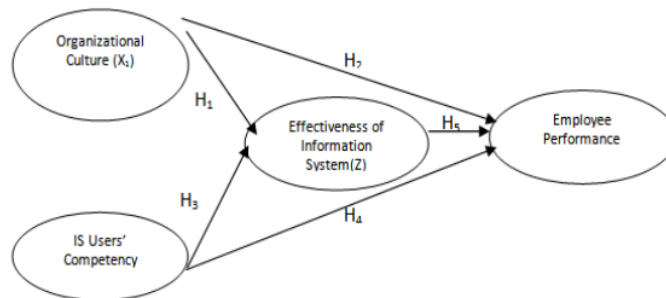


Figure1. Research Conceptual Framework

The above conceptual framework shows the variables of organizational culture, competence, effectiveness of information systems, and employee performance. Each of the variables has numerous indicators that can be used as a tool to measure the definite variables.

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II. RESEARCH METHODS

This study aimed to investigate the influence of organizational culture and competencies towards the effectiveness of information system and the impact to employee performance. This was a quantitative study with samples of 158 employees in PT. PLN (Persero) Makassar (The State Electricity Company, the Indonesian government-owned corporation, Makassar Area). The technique of data collection was a field survey that was obtained through questionnaires to respondents. The survey contained a set of questions or written statement relating to the purposes of this study.

This study focused on the organisational culture involving value system that is held and carried out by members of the organization. Organisational culture can distinguish one organization with other organizations. The indicators used in this study were adopted from Gupta et al. (2007) concerning organizational culture in relation to the use of information systems. The indicators involved (1) the pioneers in using Information System, (2) the permission in using Information System, (3) the award of Information System, (4) the attention to employees who used Information System, (5) the disagreement toward differences, (6) the open attitude with friends and superiors, (7) the optimistic attitude, (8) the warm attitude with co-workers, (9) the different rules between divisions, (10) the certainty of meeting schedules, (11) the short convenience period of new employees, (12) the reliance between employees, (13) the faithful and respected feelings of employees, and (14) the secured feeling of employees.

Moreover, job competence is a necessary dimension to support work motivation in determining the performance of employees. This includes the knowledge and skills possessed by the employees. Therefore, the indicators to measure the competence of users of Information System followed Hailesilasie (2009) that incorporated: (1) Compliance, (2) Knowledge, (3) Thinking Ability, (4) Working, and (5) Human Relations.

The effectiveness of information systems is an effort to exploit the ability and potential of information systems that an organisation has to achieve its goals. So the indicators for measuring the effectiveness of information systems adopted Gupta et al. (2007), such as: a) Improve effectiveness, b) Improve communication, c) Improve decision making, d) Improve organizational responsiveness, and e) IT on whole. Then, performance of employees is the willingness of employees to do organisational activities as their responsibilities. In this study, the indicators of performance were measured using Becker and Klimoski (2003) that included a) Knowledge, b) skills, c) abilities, d) behavior. Furthermore, the analysis of this study used SEM (Structural Equation Modeling) in order to answer the hypothesis of this study.

III. RESEARCH RESULTS

The respondents of this study were employees at PT. PLN (Persero) Makassar (The State Electricity Company, the Indonesian government-owned corporation, Makassar Area). The respondents were majority of men (91 people or 57.6%) and the others were female (17 people or 42.4%). The age composition of respondents in this study were mostly between 31-40 years, with the number of 65 people or 41.1%; while the age category with the least frequency was between 20-30 years, about 12 people or around 7.6%. The education of respondents were generally Bachelor Degree with the number of 88 people or 55.7%; while the least frequency of education was Master Degree, which was only 4 people or about 2.5%. Then, the respondents had specific period of work. About 59 people or 37.3% of respondents had working experience for 11-15 years; and 14 people or by 8.9% of respondents had more than 15 years of working experience.

Conformity Testing Model (Goodness of Fit)

The result of calculating the values of goodness of fit indexes produced by structural model was presented as follows:

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Table 1 The Value of Goodness of Fit dan Cut off Value Structural Model

Criteria	Results of Test Model	Critical Values	Notes
Probabilities X ² Chi square	0,063	≥ 0,05	Fit
Cmin/DF	1,129	≤ 2,00 or 2,00 – 3,00	Fit
RMSEA	0,029	≤ 0,08	Fit
GFI	0,873	≥ 0,90	Marginal fit
AGFI	0,849	≥ 0,90	Marginal fit
TLI	0,972	≥ 0,95	Fit
CFI	0,975	≥ 0,95	Fit

The results showed that all goodness of fit criteria had given a good index (fit), so the next model could be interpreted. Here are the results of SEM testing with SEM or standardized coefficients in each variable:

Table 2. SEM Coefficient Value Influence Between Variables

Causality Relations		Direct effect	Indirect Effect	Total Effect	
Organisational Culture (X ₁)	→	Effectiveness of Information System (Z)	0,129	-	0,129
Organisational Culture (X ₁)	→	Employee Performance (Y)	0,447	0,041	0,488
Competency (X ₂)	→	Effectiveness of Information System (Z)	0,603	-	0,603
Competency (X ₂)		Employee Performance (Y)	0,407	0,190	0,597
Effectiveness of Information System (Z)	→	Employee Performance (Y)	0,315	-	0,315

The most influential variable on the effectiveness of information system was employee competence because it had the largest total of coefficient effect value (0.603), and followed by organizational culture (0.129). The most influential variable on employee performance was competency because it had the largest total of coefficient effect value (0.597), followed by organizational culture (0.488) and effectiveness of information system (0.315). The variables of organizational culture and competence had a positive effect on the effectiveness of information systems because the coefficients were all marked positive. In other words, the better of the organizational culture and the higher competence of employees would increase the effectiveness of information systems. The variables of organizational culture, competence, and effectiveness of information systems had positive effect on employee performance because the coefficients were all positive; meaning the better organizational culture, the higher employee competence, and the more effective of the information system influenced the higher the employee performance.

Hypothesis Testing

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This section discussed the hypothesis testing of this study. To determine whether or not there was an influence of exogenous variables on endogenous variables and endogenous variables on endogenous variables, the comparison of probability values with level of significance $\alpha = 5\%$ was used. If the probability value of 0.05 so there was exogenous variables that influenced endogenous variables. Conversely, if the probability value > 0.05 so there was no influence of exogenous variables on endogenous variables or endogenous variables on endogenous variables. Below was the Regression Weight and Standardized Regression Weight that modified structural equation models:

Table 3 Testing of Causality of Regression Weight

Causality Relations			Std. Estimate	SE	CR	P value
Organizational Culture (X ₁)	→	Effectiveness of Information System (Z)	0,129	0,105	1,509	0,131
Organizational Culture (X ₁)	→	Employee Performance (Y)	0,447	0,130	4,789	0,000
Competency (X ₂)	→	Effectiveness of Information System (Z)	0,603	0,112	5,332	0,000
Competency (X ₂)	→	Employee Performance (Y)	0,407	0,126	3,607	0,000
Effectiveness of Information System (Z)	→	Employee Performance (Y)	0,315	0,130	2,727	0,006

The result of coefficient estimation of the influence of organizational culture on the effectiveness of information system showed insignificant result with the value of probability (p-value) of 0.131 ($p > 0.05$). Thus, the first hypothesis that the organizational culture affected the effectiveness of information systems in PT. PLN (Persero) Makassar was not accepted. The result of estimation of coefficient the influence of organizational culture on employee performance showed significant result with p-value equal to 0.000 ($p \leq 0,05$). Hence, the second hypothesis that organizational culture influenced employee performance in PT. PLN (Persero) Makassar was accepted.

The result of the coefficient of competence to the influence of the effectiveness of information system showed significant result with p-value 0.000 ($p \leq 0,05$). So, the third hypothesis that competence influenced the effectiveness of information system at PT. PLN (Persero) Makassar was accepted. The result of estimation of coefficient to the competence that influenced employee performance showed significant result with p-value equal to 0.000 ($p \leq 0,05$). Thus, the fourth hypothesis indicating the competence influenced employee performance in PT. PLN (Persero) Makassar was accepted. The result of coefficient estimation to the effectiveness effect of information system on employee performance showed significant result with value of probability (p-value) equal to 0,006 ($p \leq 0,05$). Thus, the fifth hypothesis stating the effectiveness of information system influenced employee performance in PT. PLN (Persero) Makassar was accepted.

IV. DISCUSSION

The Influence Of Organizational Culture On The Effectiveness Of Information System

The results of causality testing using SEM method with the help of AMOS 20.0 Software gave evidence that organizational culture had no significant effect on the effectiveness of information systems in PT. PLN (Persero) Makassar. The results of confirmatory factor analysis indicated that strengthening the organizational culture was clearly shaped by an indicator of secured feelings. It meant that organizational culture could be significantly strengthened, especially by improving employees' sense of security in work. Descriptively, this study was also indicated that the indicator of the information system usage, which was inferior to other organizations, had the lowest average in value. In other words, the indicator was perceived lower compared to other indicators.

The result of causality test that was not significant between organizational culture with the effectiveness of information system was shown with p-value equal to 0,131 $> 0,05$. The amount of influence of organizational culture on the effectiveness of information systems was only 0.129. This indicated that the strength of organizational culture gave no real impact on improving the effectiveness of information systems in PT. PLN (Persero) Makassar. In short, the research hypothesis confirming that organizational culture affected the effectiveness of information systems in PT. PLN (Persero) Makassar was unacceptable.

The results of this study were inconsistent with the research result of Soedjono (2005) stating that organizational culture could be the main competitive advantage instrument for an organization. Al-Gahtani's research (2004) also showed different results with this study that proved a relationship between organizational culture and the use of information system. This study argued that an organization with strong organizational culture would have the ability to easily adopt new technologies so the organization was likely to have more effective information systems. This was because the organization always intended to follow the latest developments of information system. In turns, this was able to improve organizational performance. Accordingly, research results by Gupta et

al. (2007) and Simatupang and Akib (2007) also found significant influence between organizational culture and information system effectiveness.

The evidence that organizational culture did not influence the effectiveness of information systems was due to the employees' low understanding and skills on how to utilize an effective information system. Indeed, organizational culture draws an organization values that should be obeyed and practised by employees of a public sector organization such as PT. PLN (Persero) Makassar. The values derive the foundation for how employees think, act, and express opinions during their daily work activities. Nonetheless, the employees in PT. PLN (Persero) Makassar were identified having low understandings on organizational values as well as acquiring inadequate skills on Information System. Consequently, organizational culture gave no impact to most employees' behaviours in pursuing their organisational strategy. The organizational culture was also lesser in pursuing employees to apprehend and practice the Information System (IS) so that that the application of Information System (IS) was ineffective in PT. PLN (Persero) Makassar. Likewise, the state electricity company was insensitive to adopt new technology and to update the latest information system so that the company was not able to improve its organizational performance.

In addition, the high average age of respondents who are mostly over 40 years (as descriptive statistical results, 51.3% of respondents) might be one of the reasons for ineffectiveness in applying IS at PT. PLN (Persero) Makassar. Such employees likely paid less attention on IS update. Thus, the Information System in the state electricity company was not applied immediately and effectively due to the lack of employees' skills on information system. Therefore, this study argues that although the organizational culture has been applied properly, the effectiveness of using information system can be failure if the employees are less responsive in accepting knowledge during in-company trainings or during IS socialization within the company. As a result, this study found that the effectiveness of information systems cannot be quickly improved in the state company.

The influence of organizational culture on employee performance

The results of causality testing using SEM method with the help of AMOS 20.0 Software proved that organizational culture had a significant effect on employee performance in PT. PLN (Persero) Makassar. The results of confirmatory factor analysis indicated that enhancing organizational culture was greatly due to an indicator of secured feeling of employees. This meant that organizational culture can be significantly strengthened by improving employees' sense of security at work. Descriptively, it was known that the indicator of information system usage that were not inferior to other organizations had the lowest average value. In other word, the indicator was perceived the lowest one compared to other indicators.

The causality test results between organizational culture and employee performance was shown significant by p-value of $0.000 < 0.05$. The influential volume of organizational culture on employee performance was 0.447. This indicated that the strength of organizational culture was able to give a real impact on the improvement of employee performance in PT. PLN (Persero) Makassar. With these results, the hypothesis of research confirming organizational culture affected the performance of employees in PT. PLN (Persero) Makassar was acceptable.

The result of this study was in line with previous researches conducted by Handayani (2010), Nugrahanto (2012), Nugroho (2013), and Fajrin (2015). These found that organizational culture significantly affected employee performance. Armstrong (2006) added an argument that organizational culture was able to encourage the performance of employees, depending on the values, beliefs, and norms they adopted. The strong organizational culture was able to unite organizational members to design a preventive strategy that could improve employee performance. Conversely, if the organizational culture was powerless, the employees intended to work individually; this situation decreased the level of employee performance. As a result, the company disabled to achieve its organisational goals.

The implementation of organizational culture at PT. PLN (Persero) Makassar was considered good due to the effect of its employee performance. The company's employees were identified having abilities to express ideas, to make innovation, to be responsive on every problems and to take into account the risks, to concern on the results to be achieved, and to work with colleagues in team. The results of this study convinced that culture played an important role in

achieving corporate targets, a new culture developed PT. PLN (Persero) Makassar through the Code of Conduct. This clearly directed how the relationships between superiors to subordinates, subordinates to superiors and also relationships with colleagues occurred. The development of employee potentiality depended on how a company maintained its career development; and this had a profound effect on company culture. In the code of conduct, it describes the values and fundamentals to form a company culture. The values include mutual trust, integrity, care and learners. If these values can be properly applied in the company, so the potentiality of each employee will be developed better. The value of mutual trust encourages a conducive working atmosphere between superiors and subordinates. The value of integrity will bring cooperation in a good competition. While the value of care will unite all employees, either subordinates or bosses to care for each other. The career development will run well when the subordinates care about the plans and targets directed by the superiors; and when the superiors also care about the needs of subordinates.

The organizational culture in the code of conduct presents a dominant culture of a company that guides employee behaviours to do their daily activities. The dominant culture shows overall organizational personalities that can differentiate the culture of PT. PLN (Persero) Makassar with other companies. The dominant culture is influenced by norms that grow within the organization. This can be specifically grown by geographic differences where the unit of PT. PLN (Persero) is located. The influencing culture constructs a weak culture that redesign a new sub-culture. The influence of sub-cultures is more often influenced by the previous existing cultures within the company units. For example, PT. PLN (Persero) Makassar is also influenced by local culture in which family connections are visible on career recruitment. In particular, the employees who have a closed relationship with high-rank people get more attention than other employees who have no family connections. The formation of these sub-cultures is getting stronger when the top management still uses the local culture in the company.

The effect of competency on the effectiveness of information systems

The results of causality testing using SEM method with the help of AMOS 20.0 Software confirmed that competence had a significant effect on the effectiveness of information systems in PT. PLN (Persero) Makassar. The results of confirmatory factor analysis indicated that the reinforcement of competence was greatly influenced by knowledge indicator. This meant that the employee competence can be developed through knowledge about their work. Descriptively, it was also known that the indicator of thinking ability had the lowest average value, meaning that the indicator was perceived the lowest compared to other indicators. The causality test results between competence and effectiveness of information system was shown significant with p-value of 0.000 < 0.05. The magnitude of the influence of competence on the effectiveness of information systems was 0.603. It showed that the high competence of employees gave a real impact on improving the effectiveness of information systems in PT. PLN (Persero) Makassar. As a result, the research hypothesis stating the competence affected the effectiveness of information systems in PT. PLN (Persero) Makassar was acceptable.

A research of Irawati (2014) also stated that producing computer-based information required adequate competence so the users were able to use the information system well. Information that is generated by using electronic data processing will not occur if the user has no competence in running the program. While Susanto (2010) indicated the effectiveness of each computer application was due to the user involvement in the design and development process of SIA and by the quality of support provided by the user.

Since 2011, the centre of PT. PLN (Persero) has conducted competency test to improve employee competence. All PLN employees will be tested for their level of competence, except employees whose age are 53 years and above. The purpose of this competency test is to map the competency level of PLN employees as the basis for the employee competency and career development. For competent employee will be retested to fulfil the higher level position. For employees with low competence, further actions will be restructured until they acquire relevant competence. Such step needs to be done to obtain the expected vision of PLN as a world-class company. Recently, employment testing is conducted online so all employees throughout Indonesia can take competency tests through computers and internet network from their own branch areas.

The influence of competency on employee performance

The results of causality testing using SEM method with the help of AMOS 20.0 Software proved that competence also had a significant effect on employee performance in PT. PLN (Persero) Makassar. The result of confirmatory factor analysis showed that the reinforcement of competency is derived from knowledge indicator. In other words, employee competency can be positively improved by increasing their knowledge at work. Descriptively, this study found that the indicator of thinking ability had the lowest average value. So the indicator of thinking ability was perceived the lowest compared to other indicators.

The causality test results between competence and employee performance was shown significant with p-value of $0.000 < 0.05$. The magnitude of the influence of competence on employee performance was 0.407. This evidenced that the high competence of employees give a real impact on the improvement of employee performance in PT. PLN (Persero) Makassar. With this result, the research hypothesis that the competency affected the performance of employees in PT. PLN (Persero) Makassar was acceptable.

The results of this study were consistent with the studies of Hartati's (2005), Widyatmini and Hakim (2008), June and Mahmood (2011), and Widyaningrum (2012) that demonstrated competence affecting employee performance. Employee competency influenced a comfortable working atmosphere that affected employees' daily activities. Working competence was considered as an individual factor that greatly affected the performance of employees because it related to how the employee were able to complete the tasks and responsibilities.

The employees should be acknowledged with their daily duties. This condition related to standard operating procedures in completing the given jobs, regulations, and policies. Having inadequate knowledge of the works, the employees were not able to do what jobs were given and expected in the company. Having adequate knowledge of work routines was able to advance employee performance. Skillful employees would concern more on high level of employee performance. In addition, the employees' ability to behave and place themselves in the company environment would lead employees to work peacefully and comfortably. Such situation would also develop employee performance.

In-House Training (IHT) has been conducted in PT. PLN (Persero) Makassar as a preparation for Certification of Service Competence. The training is for all employees. Before getting the Certification of Service Competence, the employees had to attend IHT to improve their service implementation, especially for employees in the information system division. In-House Training (IHT) has been an effort of PT. PLN (Persero) Makassar to improve the competency of employees. As a result, good employee competency is expected to advance the employee performance in providing good services for customers.

The effect of information system effectiveness on employee performance

The results of causality testing using SEM method with the help of AMOS 20.0 Software convinced that the effectiveness of information systems affected the performance of employees in PT. PLN (Persero) Makassar. The results of confirmatory factor analysis indicated that in developing the the effectiveness of information system was due to an indicator of improve effectiveness. This meant that the effectiveness of information system can be significantly improved by increasing the information system qualification as well as advancing the employee productivity. Descriptively, this study indicated that the indicator of IT as a whole had the lowest average value. So the IT indicator was perceived the lowest compared to other indicators.

The causality test results between the effectiveness of information systems with employee performance was shown positive with p-value of $0.006 < 0.05$. The amount of effectiveness of information systems on employee performance was 0.315. This indicated that the high effectiveness of information systems would give a real impact on improving employee performance at PT. PLN (Persero) Makassar. Thus, the hypothesis of research confirming the effectiveness of information systems affected the performance of employees in PT. PLN (Persero) Makassar was acceptable.

The results of this study were similar with Sedarmayanti (2001). She confirmed that the effectiveness was a measurement give a picture of how far the target could be achieved. The effectiveness indicated successfull in terms of whether or not the target was achieved. If the results of

the activities approached the target, so the effectiveness was higher. The result of Christian research (2012) also found that the effectiveness of information system technology significantly influenced employee performance.

The results showed a positive influence between the effectiveness of information systems on employee performance. If the effectiveness of information systems was higher, then the performance of employees was also higher. Jogiyanto (2009: 227) explained that the information system was able to proceed business transaction data into business information as the users' purposes. The effectiveness is generally often associated with efficiency in achieving company goals or objectives that have been achieved in accordance with the plan.

Summary of Findings

This study found that organizational culture directly affected the performance of employees in PT. PLN (Persero) Makassar, without the effective mediation of information systems. A strong organizational culture could directly improve the performance of employees, regardless of the effectiveness of information systems. Strengthening organizational culture could be primarily done by increasing its employees' security awareness in using information system. Moreover, the information system had to follow technology development so the company would not be a loser compared to other companies.

This study also found that employee competency could directly affect the performance of employees in PT. PLN (Persero) Makassar or through the mediation effectiveness of information systems. The higher level of employee competence directly improved the employee performance and influenced effective information system. To improve employee competence could be developed by developing their knowledge and critical thinking. The effectiveness of information system at PT. PLN (Persero) Makassar also played an important role to mediate the employee performance development. This related with the importance of improve effectiveness. Moreover, the employee performance factor at PT. PLN (Persero) Makassar still needs to be carefully examined due to its employees' low skills.

Research Implications

The implication of this study to the development of theory refers to the development of behavioral theory in relation to theories of organizational culture, competence, effectiveness of information systems, and performance. This study added a theoretical implication that organizational culture and competencies affected the effectiveness of information systems and employee performance at PT. PLN (Persero) Makassar.

This study also brought practical implication that the effectiveness of information systems and employee performance could be improved through strong organizational culture and high employee competence. This study argues that a good organizational culture is indeed accompanied by competent employees. So the employees will be more effective in using information systems; and in turns the system will improve the company performance. As a result, PT. PLN (Persero) Makassar needs to redesign a plan to improve the effectiveness of information systems and performance optimally by taking into account of findings described previously. The further steps that need to be done are for example: (1) to strengthen the organizational culture by redesigning a safe information and by accepting the changes for better performance, and always updating the information system with rapid technological developments; (2) to improve the competence of employees through knowledge and thinking ability so the employees are able to undertake current duties and to solve every challenges or obstacles in the company; and (3) to improve the effectiveness of information systems mainly by redesigning effective and productive information system to help employees in solving their duties.

VI. CONCLUSION

Based on the analysis and testing results, this study concluded that organizational culture did not affect the effectiveness of information systems in PT. PLN (Persero) Makassar. In particular, a strong organizational culture did not guarantee to maintain more effective information system. However, organizational culture affected the performance of employees in PT. PLN (Persero)

Makassar. A strong culture was able to provide a real impact on improving employee performance. Furthermore, employee competency affected the effectiveness of information systems at PT. PLN (Persero) Makassar. The high level competence of employees was able to maintain information system become more effective. Then, employee competency affected their performance at PT. PLN (Persero) Makassar. The high level of employee competence greatly improved employee performance. While the effectiveness of information systems affected employee performance in PT. PLN (Persero) Makassar. It meant that effective information systems gave a real impact on improving employee performance. Last, this study provided information that organizational culture had no significant effect on the effectiveness of information systems in PT. PLN (Persero) Makassar.

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