# PERFORMANCE MEASUREMENT INFORMATION, ROLE STRESS AND JOB PERFORMANCE: INVESTIGATING IN PUBLIC SECTOR

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## **ABSTRACT**

Budgets in the public sector, especially in local government becomes the starting point for local governments to implement public service. Many strategic decisions relating to the budget that must be taken by public manager for future service improvements.

This study raised the issue that the quality of public manager strategic decisions require performance measurement information, job rotation and role stress in local government. Therefore, the performance of public managers associated with budgeting evaluated in this study.

The study was conducted by using experimental methods to obtain evidence of a causal relationship between performance measurement information, role stress, job rotation and performance of public managers. This study used a Multivariate Analysis of Variance and path analysis as an data analysis.

The results showed that lower role ambiguity on public manager who received non-financial and financial performance information than public manager who received non-financial performance information only. Public manager performance was significantly higher at the time experience low role ambiguity. These results support the role theory and contingency theory. However, no evidence was obtained that public managers who received non-financial and financial performance measurement information experience role conflict is lower than the official who received the non-financial performance measurement information or financial information alone. Similarly, about the job rotation. This study did not obtain evidence that role ambiguity and role conflict were lower in the job rotation with high frequency.

The results also indicate that role ambiguity is fully mediate the effects of performance measurement information on the performance of local government public managers. However, no evidence was obtained that role conflict mediates the influence of performance measurement information on the performance of public managers. Other results showed that role ambiguity and role conflict did not mediate the association with the job rotation and performance .

Keyword: performance measurement, financial and non-financial performance information, job rotation, role stress.

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#### 1. INTRODUCTION

Questions about the performance of local governments after the reform, is still a hot issue to be discussed. Coste and Tudor (2013) suggested that the performance of services in the public sector is a topic of increasing attention today. The performance of an organization is inseparable from the performance of their leaders, who in the so-called government public manager.

Government public manager plays a very important in driving the performance of government (Moynihan and Pandey, 2010; Melkers and Willoughby, 2005; Cavalluzzo and Ittner, 2004).

Stoner (1986) defines performance as the quantity and quality of work completed by an individual, group, or organization. Agency performance is a function of the performance of programs and activities in it, while the performance of the program/activity is achieved through individual performance in it (LGSP, 2008). In essence, the unit only to implement programs and activities that have been decided by public manager in the team budget. Therefore, a team official budget decisions are crucial in creating the performance of local government in the future.

Some previous researchers in the public sector explains that performance measurement is used to improve the quality of decision making (Parker, 1996; Willoughby and Melkers, 2000; Pattison, 2002; Wang, 2002). Acting as an authorized person in the decision-making should desperately need performance measurement information in order to properly carry out its role. The government can use performance measures to improve organizational performance through planning, budgeting, management and better communication (Kreklow, 2005). Conceptually, all system organization achieve its goals through the allocation of resources generated through the process of managerial decision making (Bodnar and Hopwood, 2010).

However, some studies indicate that the use of performance measurement is still little information in the public sector (Swindell and Kelly, 2000; De Lancer Julnes and Holzer, 2001; Andrews, 2004). De Lancer Julnes and Holzer (2001) suggested that performance measures are not used for decision-making, budget allocation, or monitoring programs. Another study showed that nearly 75% of organizations that collect performance data in the United States do not use it in decision making (Swindell and Kelly, 2000). Most governments can result in performance through performance measurement information but few governments use performance information (Andrews, 2004). Though the government has devoted tremendous effort in creating performance data in the hope that this performance information will be used to improve performance (Moynihan and Pandey, 2010). Moynihan and Pandey (2010) showed that the antecedent factors that influence the use of performance information by the manager of the local government is public service motivation, the role of the leader, the availability of information, organizational culture and administrative flexibility.

Hall (2008) provide evidence that a comprehensive performance measurement system has positive influence on managerial performance to be mediated by role clarity and psychological empowerment. Research using contingency theory to explain that the performance measurement system that is part of the management control system needs to be generalized by considering the role of situational factors and psychological empowerment clarity that can be applied effectively. Burney and Widener (2007) show that strategic performance measurement system (SPMS) positively affect the performance of managers through its relationship with job-relevant information and role ambiguity. Research using goal setting theory and organizational theory as a basis for research. Goal setting theory predicts that by having a specific purpose in a

formalized strategic performance measurement system, the workers become clear about what to do.

The fundamental function of the internal control system is to influence human behavior (Carmichael, 1970). The form of the system of internal control in this study include the provision of performance measurement information and job rotation. An employee who is too old to work on a part can lead to moral hazard, so the need for job rotation. When an employee in anticipation of the rotation, the report will be more accurate (Hertzberg et al., 2009).

Chong et al. (2011) provide evidence that the job rotation positively influence the performance of public sector organizations. Phenomena occurring in local government is that there is a high frequency of rotation so that it becomes a question whether high-frequency job rotation is associated with poor performance. Job rotation is done with the correct mechanism will have positive influence on performance (Park, 2010; Giachetti, 2010). However, when the job rotation was short-term, then this can cause problems (Noe et al., 2008).

This research was conducted in the public sector, especially local government for two reasons. First, the previous studies have not been explored conceptual model which shows the antecedent factors of public manager performance in local government. This study proposes Role Theory and Contingency Theory as a relevant perspective to explain the influence of contextual factors on the performance of public manager. Contextual factors refer to changes in the work environment variables, namely: the job rotation, and information technology variables, namely: performance measurement information. Woods (2009) using a contingency theory that the results show that appropriate control dependent on the contextual variables of information and communication technology as well as the size of the organization. Woods (2009) tested the

contingency theory in the public sector because it argues that the contextual variables in different business sectors with the public sector.

Kahn et al (1964) suggested that role ambiguity and role conflict can be predicted by personal factors, interpersonal, and organizational. Performance measurement information and the job rotation is organizational factors. Rogers and Molnar (1976) explains that as a form of intraorganizational factor, accountability. Performance measurement information is a form of accountability. Parasuraman and Alutto (1981) incorporate contextual variables shift work as antecedents of stress factors in the model study. Displacement refers to the context of changes in the work environment due to different locations within the organization. Testing the job rotation as antecedent variables in this study using the arguments developed and Alutto Parasuraman (1981) and Rogers and Molnar (1976).

Second, research on behavioral accounting and managerial accounting has not been done in the public sector. The empirical evidence obtained from studies conducted earlier still showed mixed results. Chong et al (2011) showed that the positive effect of job rotation on the performance of public sector organizations. However, Hill (2009) provide evidence that the change of manager is often a negative influence on the performance of individuals and organizations. This suggests that although the job rotation can provide the knowledge, skills and experience on the individual, when carried too fast (high) it will have negative effect on individual behavior.

Research on the performance measures are also not conclusive. In the business sector, research Patelli (2007), Hall (2008) and Lau (2011) showed conflicting results. Patelli research results (2007) are consistent with the Dynamic Role Theory which suggests that diversity measurement conflicting roles then a negative influence on individual performance. Hall (2008)

using contingency theory provides evidence that a comprehensive performance measurement system has positive influence on managerial performance to be mediated by role ambiguity and psychological empowerment. Lau (2011) showed that the non-financial measures influences managerial performance through role ambiguity.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Effect of Performance Measurement Information on Role Ambiguity and Role Conflict
Application performance measurement is widely used for management decision making in
government who use a lot of information (Melkers and Willoughby, 2005). Performance
information in the public sector is used for management and decision planning, resource
allocation decisions, and the incentive scheme (Andrews, 2004). Public managers in local
government has the task, among others, make decisions and take the budget allocation policies
related to the use and implementation of the budget in the area of authority and responsibility.

Performance measurement information to provide feedback to the public managers that is expected to improve the quality of decision making. One of the public manager's role is to make decisions programs/activities right in the budget. Role ambiguity arises because of lack of information or because of the lack of information at all, or the information is not submitted, giving rise to confusion. Factors related to the ambiguity of the role includes coordinating the flow of work, a breach in the chain of command, job description, and the adequacy of the flow of communication (Bamber et al, 1989).

Burney and Widener (2007) show that strategic performance measurement system that contains financial measures and non-financial closely related to the reduction in role ambiguity. Hall (2008) also showed that a comprehensive performance measurement system (the financial

and non-financial) is significantly associated with role clarity both clarity of purpose and process. Kloot (1999) suggested that the single financial performance measure only limited aspects of the performance of an organization. Therefore it is necessary also non-financial performance measures. Role theory suggests that more complete information received executive role, then the role of the executor will understand the role that should be the implementation of a well. Therefore, the hypothesis in this study are:

H1a: Public managers who receive financial and non-financial performance measurement information will have a lesser role ambiguity than the public managers who received the non-financial performance measurement information only.

H1b: Public managers who receive financial and non-financial performance measurement information will have a lesser role ambiguity than the public managers who received financial performance measurement information only.

The result of Burney and Swanson (2010) research show that non-financial performance measures related to job satisfaction manager. Lau (2011) further sought to assess the influence of the the financial and non-financial measures alone on role clarity. Research results show that the the non-financial measures effect managers performance significantly through role clarity (ambiguity). The results of the study Lau (2011) also indicates that the effect of a non-financial measure is stronger than financial measures.

H1c: Public managers who receive financial performance measurement information will experience role ambiguity higher than the public managers who received the non-financial performance measurement information.

Simon (2000) suggested that the performance measurement system can communicate organizational priorities and performance information for each individual that can help increase

understanding of their job. Patelli (2007) showed that the diversity of measurement experienced subordinates role conflict. This is consistent with the role dynamic theory. When individuals are given a variety of motivational pressure at the same time, then it can lead to role conflict.

Performance measurement information is a portrait of the performance of the organization or unit, should be used by managers to communicate to management at the top level so that managers can understand the above conditions of the unit underneath. It can alert management to organizational goals thereby decreasing conflict manager role for below. Achievement of the objectives of government organizations using non-financial performance measures.

Extensive use of performance indicators to create a situation in which an agent can learn aspects of their work that is important for the principal (Thiel and Leeuw, 2002). Financial measures on local government emphasis on the efficiency of an activity, while the non-financial measures emphasis on effectiveness. By the time given the financial and non-financial measures to a role, a role which means given a complex set of roles, then there is a role conflict.

- H1d: Public managers who receive financial and non-financial performance measurement information will experience role conflict higher than the public managers who received the information of non-financial performance measures alone.
- H1e: Public managers who receive financial and non-financial performance measurement information will experience role conflict higher than the public managers who received financial performance measurement information only.

Several recent studies indicate that non-financial performance measures closely associated with better managerial performance (Burney and Swanson, 2010; Lau, 2011). The non-financial measures more emphasis on the future and long-term goals, while financial measures considered are outdated, too general, lacking focus, historical and incomplete (Lau and Sholihin, 2005).

Therefore, the information of non-financial performance measures are expected to be able to direct the behavior of public managers better.

Person-role conflict occurs when the individual perceives a discrepancy between the needs of the individual needs of his role in running a position (Nelson and Quick, 2003). Information of non-financial performance measurement more emphasis on achieving long-term goals, which is expected to meet the needs of public managers to take a decision in the budget.

H1f: Public managers who receive financial performance measurement information will experience role conflict are higher than the public managers who received the non-financial performance measurement information.

## Effect of Performance Measurement Information to Performance

Kren (1992) showed a positive relationship between work-related information and managerial performance. Performance measurement information in local government contains input, output and outcome of a program/activity in the budget that can be classified by financial and non-financial information. Financial information and non-financial is a form of information that is relevant to the job because it describes the results of past work performance achievement that can be used as a reference for making decisions. Burney and Widener (1997) and Kren (1992) suggested that job-relevant information is information used for decision-making.

Performance measurement information it contains performance indicators. In the preparation phase of the government budget can use performance indicators to show the expected performance level, and at the stage of execution/evaluation of the budget can be used to assure the efficiency and effectiveness of a program (Wang, 2000). Role theory assumes that a person will hold the behavioral expectations for himself and others' expectations of him.

Performance measurement information is a form of a formal set of expectations. The more complete the information obtained, the better a public manager carrying out his role. Single performance measures are not sufficient, because public sector organizations have a variety of stakeholders with different goals and often conflicting (Propper and Wilson, 2003). Criticized financial measures only create short-term perspective as part of the management and the tendency to reject the crucial processes that must be run to ensure the long-term health of the organization (Kaplan and Norton, 1992).

Performance measurement system contains a variety of measures (at least two measures) that convey information, communicate and clarify strategies (Burney and Widener, 2007). The purpose of this performance measurement system is to motivate managers to act consistent with the organization's strategy (Kaplan and Norton, 1996). Kaplan and Norton introduced the multidimentional perspectives of performance measures that are expected to address the weaknesses that exist in a single performance measure. Comprehensive performance measurement information better in improving performance compared to single performance measurement information (Feltham and Xie, 1994; Propper and Wilson, 2003; Ullrich and Tuttle, 2004).

H2a: Performance of public managers who received non-financial and financial performance measurement information are higher than performance of public managers who received only non-financial or financial performance measurement information.

Curristine (2005) explains that the majority of the governments of countries that are members of the Organization for Economic Co-operation and Development (OECD) tried to move the emphasis of budget and management of input to the focus on results, measured in terms of output

and/or outcome. This suggests that the current attention on the local government performance measures has shifted to non-financial performance measures. Research Campbell (2008) showed that the promotion and demotion sensitive to non-financial performance measures of quality of service.

Several recent studies show that non-financial information is more powerful in influencing job-outcomes rather than financial information (Burney and Swanson, 2010; Lau, 2011). Burney and Swanson (2010) provide evidence that non-financial performance measures related to job satisfaction manager. Individual job satisfaction has a strong correlation with the performance of the individual (Petty et al., 1984). Marginson et al (2014) also found that the interactive use of measures of non-financial performance is very important to produce the positive psychological experiences and indirectly improve performance.

H2b: Performance of public managers who received information of non-financial performance measures are higher than the public managers who received financial information only.

# Effect of Job Rotation on Role Ambiguity and Role Conflict

Kahn et al. (1964) suggested that the role stress predictors are personal factors, interpersonal, and organizational. Job rotation is part of the organizational factors, namely changes in the work environment and the application of the principle of control. In the role theory proposed that different groups demanding needs of different roles on the individual (Robbins and Judge, 2011). This means that in the event of job rotation, the role to be played by a manager will be different too. The results of the study Morris (1956) showed that individuals who rotated agrees rotation give them a better understanding of internal and external forces are varied.

Job rotation occurs when an organization deliberately moving employees from one job to another to reduce boredom by giving them assignments that vary (Giachetti, 2010).

Displacement refers to the context of the work environment changes due to a different location within the organization (Parasuraman and Alutto, 1981). In a company that has a turnover rate

(turn-over) need more low occurred job rotation as one way to increase the work productivity of

employees (Park, 2011).

Cooper et al. (2010) explains that the horizontal rotation of the focal person, sensitive to the role that requires the coordination of a set of roles. Knowledge of another job giving personal growth, increase self confidence, getting people fit and job-oriented. Parasuraman and Alutto (1981) incorporate contextual variables job transfer (shift work) as antecedents of stress factors in the model study. Job rotation give knowledge and more experience for individuals in various areas or functions within an organization. Through job rotation program, some knowledge and experience gained from the previous department moved to a new department (Chong et al, 2011). The literature suggests that the rotational executive development related to career development, improving the experience and learning that running a variety of different roles (Champion et al., 1994). Job rotation can clarify the role that can reduce role ambiguity.

H3a: Public managers who have job rotation with high frequency will have a lesser role ambiguity than public managers who have job rotation with low frequency.

Role conflict can occur in three forms, namely person-role conflict, conflict and interrole intrarole conflict (Gibson et al., 2003; Nelson and Quick, 2003). In essence, role conflict occurs when an individual has a condition incongruency or incompatibility with regard to the needs of the individual in their role (Rizzo et al, 1970). Job rotation means redesigning jobs or enrich to develop a number of skills that vary, task identity, task significance, autonomy and feedback,

allows to improve both motivation and job performance and reduce the level of stress (Cooper et al., 2010).

Kaymaz (2010) suggested that work with many people at different periods of time, developing a relationship with humans and support internal and external communication between departments. Rotation gives space for open communication with other people who have the characteristics of different behaviors. Individuals who experience job rotation are perceived to have the ability of adaptability and flexibility (Champion et al, 1994) so as to decrease the role conflict.

H3b: Public managers who have job rotation with high frequency will experience role conflict is lower than public managers that experienced job rotation with low frequency.

#### **Effect of Job Rotation on Performance**

Many companies do the job rotation among them with the aim to prepare lower-level workers for promotion and to reduce the moral hazard problem (Park, 2010). With a job rotation, an individual is expected to gain additional knowledge and experience from other areas so as to enhance its capabilities. Job rotation contributes more effective at all levels of managerial decisions with the knowledge and experience gained from diverse assignments in several departments (Kaymaz, 2010). Research results support the theory that the job rotation practices have a positive effect on motivation. Inheritance boring (monotone), increased knowledge, skills and competencies, as well as the development of social relationships in the practice of rotational position has a positive effect on motivation. Brownell and McInnes (1986) showed that the positive effect of motivation on performance.

Sison (2000) explains that the development planning supervisors and executives are the most common job training and job rotation. This policy is to sharpen the executive managerial skills to produce better work performance and enables managers to overcome obsolescence. Training through the job rotation environment will help managers develop more effective utilization and employee relations.

Job rotation can be done quickly or slowly depends on the characteristics of the organizational environment. In companies that experience rapid technological change such as in Japan, is more suitable to apply a faster job rotation to improve employee productivity. At companies that require in-depth expertise in a field such as in America, more effective use of job rotation is slow. As with the existing characteristics of the public sector organizations. Public sector organizations, especially local governments do not aim for profit and slow adoption of the technology (Zhonghua and Ye, 2012).

Contingency theory explains that there is no management control system design which is universally applicable to all types of organizations. The effectiveness of an organization depends on the control design of the contextual/situational factors. Contextual variables that are often found in previous studies such as the external environment (uncertainty, ambiguity and rapid technological development), technology, organizational structure, organizational size, strategy and organizational culture. A good fit means improved performance, while the match is poor implies a decrease in performance (Chenhall, 2003).

H4: Performance of public managers who have job rotation with a high frequency higher than performance of public managers who have job rotation with a low frequency.

# **Effect of Role Ambiguity and Role Conflict on Performance**

Role stress often constructed with role ambiguity and role conflict. Role ambiguity relates to the perception of information gap that needed to carry out his role with the uncertainty of expectations of different role set members (Saether, 2011). Role ambiguity is founded negatively related to performance (Hamner and Tosi, 1976 in Belkaoui, 1989; Saether, 2011). Role clarity has a positive effect on the achievement of the organization's business plan and the achievement of objectives relating to the provision of services to the community (Greatbanks and Tapp, 2007).

Fisher (2001) provide evidence that the role ambiguity was significantly negative associated with auditor job performance and job satisfaction. High role conflict and role ambiguity give effect to a decrease in job satisfaction resulting in a decrease in performance, which further increases the tendency to leave the organization (Senatra, 1980). Similarly, Fried et al. (1998) who provide evidence that the increased role ambiguity and role conflict simultaneously linked to the level of the lower job performance. Role ambiguity caused improper behavior on the job, so the negative effect on performance (Tubre and Colins, 2000). This is consistent with the role theory.

Bamber et al. (1989) found that role conflict arising will increase anxiety in the line of duty. Feelings of anxiety in the work can degrade the performance of the individual. Therefore, it is necessary to create an environment that can reduce role conflict. Abernethy and Stoelwinder (1995) provide strong support that creates an environment that decreases the role conflict significantly positive effect on job satisfaction and performance of individual subunits as a whole. High role conflict lead to a decrease in performance (Senatra, 1980; Fried et al., 1998).

H5a: Role ambiguity experienced public managers negatively affect the performance of public managers.

H5b: Role conflict experienced by public managers negatively affect the performance of public managers.

# Role Ambiguity and Role Conflict as Intervening Variable between Performance Measurement Information and Job Rotation to Job Performance.

Role theory states that when the expected behaviors of individuals is inconsistent then the individual will lead to stress, dissatisfaction, and poor performance (Rizzo et al., 1970).

Therefore, stress is not expected in the work. Katz and Kahn (1964) and Rizzo et al (1970) suggested that the antecedents of the role stress factors are personal factors, interpersonal, and organizational. Rogers and Molnar (1976) divides into two organizational variables, namely: intraorganizational and interorganizational. One of intraorganizational variable is accountability, while interorganizational variable is resource exchange. Performance measurement information is a form of accountability in local government that contains information the achievement of program/activity is expected to clarify how much effort must be made to achieve the goal.

The results of the study Hall (2008) showed that the role clarity of fully mediate the relationship of comprehensive performance measurement systems and managerial performance. Burney and Widener (2007) also found that strategic performance measurement system is significantly associated with the role clarity/ambiguity, and role clarity is an important intervening variable between strategic performance measurement systems and performance manager.

H6a: performance measurement information affects performance through the reduction of role ambiguity.

Patelli research results (2007) indicate that the diversity measurement causing role conflict experienced by subordinates, which then negatively affect the performance of the individual. This is consistent with the role dynamic theory. The dynamics of the role given to individuals through performance measures of financial and non-financial roles can lead to conflict because it allows the occurrence of difficulties in fulfilling both. An activity in local government performance will be measured by the level of efficiency (financial measures) and effectiveness (non-financial measures). In fact, it would be difficult to optimize both in one fiscal year due to the size of the non-financial long-term oriented.

H6b: performance measurement information affects performance through increased role conflict.

Rizzo et al (1970) describes that the position of role ambiguity and role conflict has been explained as an intervening variable that mediates the effect of diverse organizational practices of the outcome an individual or organization. Exchange of leadership is one of the interorganizational variables (Rogers and Molnar, 1976). Job rotation is a form of exchange of resources in order to improve the ability of adaptability and flexibility of a person (Champion, et al, 1994).

Adaptability and flexibility of these capabilities could be expected to decrease the role conflict they experienced. Role conflict occurs when a manager is not able to meet the expectations of the job due to incompatible demands (Rizzo et al, 1970; Kren, 1992, Fogarty, 1996). Many previous studies agree that the job rotation positively related to performance

(Champion, et al, 1994; Mourdoukoutas and Roy, 1994; Ortega, 2001; Eriksson and Ortega, 2006; Bei, 2009; Kaymaz 2010, and Chong et al, 2011).

H6c: job rotation affect the public manager performance through a reduction in role ambiguity.

H6d: job rotation affect the public manager performance through a reduction in role conflict.

## 3. RESEARCH METHODS

Collecting data in this study using laboratory experiments, carried out in two areas: Yogyakarta and Lampung (Way Kanan regency) in Indonesia. Treatment to the subject of two independent variables were investigated, namely performance measurement information and job rotation.

Control is done on the variables inherent in the subject, such as: age, gender, level of education, by way of random assignment were then tested with the chi-square test.

Between subject 2x3 factorial design used in this experiment to test whether the performance of public managers (dependent variable) is affected by two (2) independent variables, performance measurement information and job rotation through a variable intervening: role ambiguity and role conflict. Performance measurement information manipulated by three (3) levels, namely: non-financial information, financial information, and financial and non-financial information. The job rotation was manipulated with two (2) levels, namely: low frequency and high frequency. Testing hypotheses 1 and 3 are used Manova, while hypotheses 2 and 4 used Anova. For hypothesis 5 used multiple regression, while hypothesis 6 used path analysis.

Table 1. Experimental Design

		Performance Measurement Information			
		Non-Financial	Financial	Financial & Non-	
				financial	
Job	Low Frequency	1	2	3	
Rotation	High Frequency	4	5	6	

#### 4. RESULTS AND DISCUSSION

In experimental studies, randomization is an important thing to do. Tests using the Chi-Square Tests (df = 5, n = 96) showed that there was no significant difference between the experimental conditions for gender (Pearson  $\chi 2 = 2.986$ , p> 0.702), for the experiments place (Pearson  $\chi 2 = 1.415$ , p > 0.923), age (Pearson  $\chi 2 = 154.447$ , p> 0.07), duration of work (Pearson  $\chi 2 = 94.843$ , p> 0.485), and long-serving (Pearson  $\chi 2 = 48.708$ , p> 0.525). Testing for normality using the Kolmogorov-Smirnov test showed that the variables age (p> 0.074) and duration of working (0,138) normally distributed.

Manipulation check done to convince researchers that the participants have understood and felt the action correctly given. The results of the manipulation check for the variable performance measurement information to the subject in Yogyakarta showed 91% passes, while for 92% Lampung subjects who answered correctly.

The results of the manipulation check for the variable rotation of the first questions to the subject position in Yogyakarta and Lampung showed the same figure is 94% of the subjects answered correctly. The second question to the Yogyakarta region showed 100% of the subjects answered correctly, while for Lampung showed 99% of the subjects answered correctly.

Testing hypotheses 1 and 3 using Manova so it is necessary to first test the assumptions that must be met, such as: test for normality, homogeinity of variance and covariance. Test results done by Kolmogorov Smirnov normality that result normally distributed data. Levene's test showed that the variance homogeneous. Similarly, the test of homogeneity of covariance showed that there was no difference between cells covariates.

Table 2. The mean of Role Ambiguity, Role Conflict and Performance

Panel A. Independent Variable I

Performance Measurement Information	Mean Role Ambiguity	Mean Role Conflict	Mean Performance	N	
Non-Financial	4,50	5,03	2,997	30	
Financial	3,97	4,73	3,030	30	
Financial and Non-	3,42	4,28	3,039	36	
Financial					

Panel B. Independent Variable II

Job Rotation	Mean Role	Mean Role	Mean	N
	Ambiguity	Conflict	Performance	
Low Frequency	3,86	4,90	2,935	49
High Frequency	4,00	4,40	3,115	47

Testing H1a, H1b, and H1c done based on the results of Multiple Comparisons Tukey HSD using the results in Table 3. The result indicate that the lower role ambiguity occurs in the public managers who received financial and non-financial information than the public managers who received the non-financial performance measurement information, which means that H1a is supported. Mean difference between the two was 1.08 (p = 0.036, p < 0.05).

Table 3. Mean Differences of Role Ambiguity with Tukey

	PMI (I)	PMI (J)	Mean Differences (I-J)	Sig.	Conclusion
Tukey	F & NF	NF	-1,08**	0,036	H1a supported
	F & NF	F	-0,55	0,284	H1b not supported
	F	NF	-0,53	0,316	H1c not supported

PMI= Performance Measurement Information, NF=Non-financial, F=Financial,

F & NF=Financial dan Non-Financial

<sup>\*\*)</sup> significant at p < 0.05

Table 3 also shows that the H1b and H1c is not supported. These results are not in line with Lau (2011) which shows that the non-financial measures influence managerial performance through role ambiguity.

Supporting H1a means giving support to role stress theory, at which time a person get a complete and clear information relating to the execution of the tasks must be delineated and a clearer direction of what to do. Financial information and non-financial together was the message delivered to the individual organization, which may be pressure for the individual. With supports H1a mean role stress theory also applies to public sector organizations, especially local government.

The mean of role ambiguity in job rotation with a low frequency of 3.90, whereas the mean of role ambiguity in job the rotation with high frequency greater of 4.02. Although there is a mean difference of 0.12 role ambiguity on the second level of treatment, but these results were not statistically different (H3a is not supported). Tests were conducted with Manova produce F count 0,084 with p = 0.772 (p > 0.05), which means that there is no difference in the role ambiguity with low-frequency job rotation and high frequency. Not supporting H3a be caused by the job rotation does not provide additional knowledge and skills related to the job he had to do so does not affect the role ambiguity. These results do not support the role stress theory. The results of this study suggest that environmental changes faced by public managers either fast or slow does not affect the clarity of work implementation.

Testing for H3b performed by generating Manova F count 1,815 with p = 0.181 (p > 0.05), which means that there is no difference in the role conflict with the low-frequency job rotation and high frequency, which means H3b is not supported.

Table 4. Mean Differences of Role Conflict with Tukey

	PMI (I)	PMI (J)	Mean Differences (I-J)	Sig.	Conclusion
Tukey	F & NF	NF	-0,77*	0,096	H1d not supported
	F & NF	F	-0,47	0,308	H1e not supported
	F	NF	-0,30	0,532	H1f not supported

<sup>\*)</sup> significant at p < 0.10

Test results H1d, H1e, H1f shows that there is no difference in the role conflict giving three levels of performance measurement information: non-financial, financial, as well as financial and non-financial. Thus H1d, H1e, H1f not supported.

In role theory, someone who will be fully informed of a job is expected to perform the job better. The results of the ANOVA test resulted in calculated F 0.008 with p = 0.992 (p > 0.05). This means that there is no difference in the performance of the provision of third level performance measurement information (H2a and H2b are not supported). De Lancer Julnes and Holzer (2001) have suggested that the decision-making process at the stage of adoption and implementation of the use of information in the government's performance is influenced by rational and political factors and organizational culture. At the time the dominant political factor, then the public manager is not rational so that performance measurement information is not considered in the decision process.

The results of this study are consistent with Lau and Sholihin (2005) provide evidence that the use of non-financial performance measures alone or partial financial measures alone do not affect the behavior of managers. Kasdin (2010) revealed that the failure of performance measures to motivate public managers in the government is because the performance measures used are numerous and complicated that it becomes difficult to use. Another factor is the lack of incentive when the program is completed successfully (Kasdin, 2010). These results provide direction for

future research to consider the incentive variable as a variable that affects the use of performance measurement information to improve performance.

Testing H4 shows that there is a difference of 0.18, but this result was not statistically significant with a calculated F of 0.328; p = 0.568 (p > 0.05). This means that H4 which states that performance of public managers experience high-frequency job rotation is higher than the public managers who had job rotation with low frequency, are not supported. These results do not lend support to the contingency theory and not in line with previous studies that have been done in the business sector, which indicates that the job rotation practices have a positive effect on employee job outcomes (Kaymaz, 2010). This study suggests that performance measurement information and job rotation is not a contextual factors that affect performance in local government.

Testing H5a stated that role ambiguity experienced public managers negatively affect the performance of public managers. The results showed that the coefficient of -0.276; p = 0.01 (p <0.05). This means H5a is supported. These results are consistent with penelitianYitzhak et al. (1998), Fogarty et al. (2000), Caillier (2010), and Singh and Dubey (2011). Caillier (2010) conducted a study in government. Table 5 further shows that H5b not supported. This result is consistent with the results of the research Burney and Widener (2007).

Table 5. Results of Regression Testing

Dependent Variable	Independent Variable	Coefficient	t-value	p-value	Conclusion
Performance	Role Ambiguity	-0,276	-2,627	0,010	H5a supported
	Role Conflict	0,146	1,394	0,167	H5b not supported

The results of path analysis showed that the effect of performance measurement information is not directly on the performance of the work, through role ambiguity. Coefficients resulting from

the influence test performance measurement information to the role ambiguity -0.217; p <0.05. Similarly, the coefficients generated from testing the effect of role ambiguity on the performance of -0.276; p <0.05. Coefficients are negative in the model indicates that the more complete measurement of performance information (financial and non-financial) causing role ambiguity raises the lower. Furthermore, a low role ambiguity can improve job performance. However, the direct effect of performance measurement information to generate job performance coefficient -0.022; p> 0.05, which means not significant. These results indicate that H6a supported.

This study supports the contingency theory that the ambiguity of the role as one of the situational factors to consider when choosing the type of performance measurement information that can improve performance. These results also provide support to the role stress theory. By the time a person is given adequate information relating to the task he had to do so can reduce role ambiguity which then can improve job performance. Table 6 also shows that role conflict does not become intervening between performance measurement information to the performance of the work. This result means that H6b not supported.

The results of path analysis showed that no evidence was obtained that the job rotation affects job performance, either directly or indirectly through role ambiguity and role conflict.

These results indicate that H6c and H6d not supported. This means that the job rotation is performed in the local government does not have an impact on the psychological aspects of the work and performance of local government public managers.

Table 6. The Results of Path Analysis

Dependent Variable	Independent Variable	Path Coefficient	t-value	p-value	Conclusion
Ambiguity	PMI	-0,217	-2,145	0,035	P<0,05
Performance	PMI	-0,022	-0,212	0,833	p>0,05
Performance	Ambiguity	-0,276	-2,627	0,010	P<0,05
					H6a supported
Conflict	PMI	-0,172	-1,702	0,092	p>0,05
Performance	PMI	-0,022	-0,212	0,833	p>0,05
Performance	Conflict	0,146	1,394	0,167	p>0,05
					H6b not supported
Ambiguity	Job Rotation	0,030	0,292	0,771	p>0,05
Performance	Job Rotation	0,088	0,864	0,390	p>0,05
Performance	Ambiguity	-0,276	-2,627	0,010	P<0,05
					H6c not supported
Conflict	Job Rotation	-0,137	-1,352	0,180	p>0,05
Performance	Job Rotation	0,088	0,864	0,390	p>0,05
Performance	Conflict	0,146	1,394	0,167	p>0,05
					H6d not supported

The results showed that many hypotheses are not supported. Especially for testing related to the job rotation, have not found literature that can explain this. For that conducted in-depth interviews with local government public managers, with the hope of getting answers to not support of this hypothesis. Interviews were conducted by one of the public managers who had experienced high and low rotation.

Interviewee selected with characteristics experienced job rotation with low and high frequency, so that the answer given is not a perception but it is something that is felt. Have attempted to trace the names of officers who rotated through the Regional Employment Agency of Lampung province, but the data are not given for reasons of confidentiality. Then use another way to observe the news in the local paper relating to the job rotation for two years. Observations indicate that the public managers who had experienced rapid and slow rotation of only three people, but only one person who is willing to be interviewed by investigators.

A series of questions posed that essentially seek answers as to why and how the rotation does not affect the performance of official position. The answer given is as follows:

- 1. Job rotation does not affect the performance of public managers because in essence the pattern of employment in the local government system has been formed, meaning that the work or tasks each employee is already well. Therefore, the change of leadership that can occur at any time does not affect the work to be completed. The work becomes duties (duties and functions) of each employee must be completed on time. Leaders in this case only serves as a controller only. Therefore, job rotation experienced public managers also had no effect on role ambiguity and role conflict are perceived as work to be done can be done by a team working beneath it.

  2. After the job rotation, the first thing done is to try to learn the official duties and previous findings related. Especially at this time of each unit of work has been required to establish an
- internal government watchdog unit in charge of guarding the implementation of programs and activities in accordance with the plan. The presence of this unit helps public managers to be able to perform the job better.

## 5. CONCLUSION

This study wanted to test the ability of Role Theory and Contingency Theory in explaining the phenomena that occur in public sector organizations, especially local government. Role theory is used in research to explain the relationship of accounting performance measures of financial and non-financial business sector behavior (Lau, 2011; Patelli, 2007), as well as the application of the tenets of control (Burkert et al, 2011), but no studies that tested this theory in the public sector. Paradigm change (into the New Public Management) that occurs in government in Indonesia since 2000 is seen to bridge the testing of these theories.

Specifically the role theory is divided into three types, namely: the role stress theory, role expansion theory, and the role dynamics theory. In the role dynamics theory, performance measures is a motivational pressure transmitted to individuals in order to influence their role (Patelli, 2007). One of the results of this study indicate that the using of financial performance measurement information and non-financial more can improve the performance of local public managers through decreasing of role ambiguity, compared with the provision of non-financial information or financial information alone. These results support the role dynamics theory, which means that also give theoretical contribution.

In the business sector, research on performance measures have not been conclusive. Patelli Research (2007), Hall (2008) and Lau (2011) showed conflicting results. Patelli research results (2007) are consistent with the Role Dynamic Theory which suggests that diversity measurement conflicting roles then a negative influence on individual performance. Multidimensional performance measures pressure simultaneously sent to a subordinate role, giving rise to conflicts. However, Patelli (2007) showed that diversity does not affect the measurement of role ambiguity, contrary to the results of research Hall (2008). Lau (2011) compared the nonfinancial and financial measures that the results show that non-financial measure is a stronger negative effect on role ambiguity than financial measures. The non-financial measures give clarity of role in achieving organizational goals. The difference in the results of previous studies may be due to differences in methodology and research context. Performance measures are used Patelli (2007) is a measure of organizational performance in the context of establishing an incentive plan, while Lau (2011) using individual performance measures to evaluate the performance of the individual. This dissertation contributes subsequent theoretical context of decision-making by public manager relating to the budget.

Contingency theory is used to investigate the effect of contextual variables in the public sector. Contextual variables in the business sector may differ from those in the public sector (Woods, 2009). Contextual factors refer to changes in the work environment variables, namely: the job rotation, and information technology variables, namely: performance measurement information. Performance measurement information and job rotation is part of the management control system. Testing the effectiveness of performance measurement information and job rotation practices can contribute to the regulator. The issues raised in this study have not been investigated in public sector organizations.

The findings in this study indicate that the performance measurement information to improve performance through the reduction of role ambiguity. These results may encourage the use of performance measurement information, which is not optimal for use in local government. This study implies that role ambiguity may be one factor in contextual variables in local government. Results of other studies indicate that rotation does not affect the performance of public managers either directly or indirectly through role ambiguity and role conflict. These results imply the need to explore other theories that could explain the phenomenon. Franco and Bourne (2003) suggested that the system is applied to the public sector becomes ineffective because of the environment in the public sector and the politics of government agenda that ultimately distort the system.

## LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

This study has limitations primarily on two things, namely: the use of paper and pencil in the implementation of the experiment, and not allow it made the job rotation as experienced real. First, the implementation of experiments using paper and pencil chosen because of technical

carried out, which is the subject of the experiment many local government employees who are not accustomed to using computers so many errors occur on it implementation. It is quite disturbing in the process of implementation of the experiment. However, the use of paper and pencil in this study also raises weakness, related to the work of the many subjects that can not be processed because the variables measured data is not answered.

Second, laboratory experiments were conducted to have a weakness because it is difficult to create the same situation with regard to the actual rotational position in the field. For example: a new working environment (leadership and subordinates relationship) and the complexity of the actual work to be performed. This can cause the subject's responses were less profound.

Future studies are advised to do a different test on the performance of public manager based on job duration duties. Otherwise, future to the duties of his new position with the official duties of work/position the length is not related to the duties of his new position. The results of these tests will be used to enrich and clarify the phenomena that exist in local government.

Specifically, further research is recommended to include variables related to the experience of his new position about the kind of the duties. In additional testing is performed, the variable experience significant effect on the performance of public managers. This can be the basis of methodologically that these variables deserve to be tested in future studies. As theoretically, the experience can be one of the personal factors that will certainly psychologically attached to the individual and will have an impact on its performance in the future.

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