INTERNAL FACTOR ANALYSIS IN MANAGEMENT CONTROL SYSTEM DESIGN WITH ORGANIZATIONAL OBJECTIVES AS INTERVENING VARIABLES IN BLOOD TRANSFUSION UNIT PMJ JEMBER

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ABSTRACT

This study aims to analyze the structure of the organization, program structure, information structure, administrative factors, behavioral factors and cultural factors in the design of control system management with organizational goals as an intervening variable. Data is taken from questionnaires that have been filled out by several respondents. Determination of the sample is done using the Slovin formula. The overall sample consisted of 30 respondents who were employees of UTD PMI Jember Branch in 2018. The results showed that the organizational structure showed a significant influence on organizational goals. While the variable program structure, information structure, administrative factors, behavioral factors and cultural factors do not show a significant effect on organizational goals. Variable organizational structure, program structure, information structure, administrative factors, behavioral factors and cultural factors show no significant effect on partial. Management control system design but simultaneously influenced. Organizational goals can be intervening variables between program structure, information structure, behavioral factors and cultural factors in the design of management control systems. Whereas organizational goals cannot be intervening variables between organizational structure and administrative factors in the management control system design.

Keywords: Information Structure, Management Control System Design, Organizational Objectives

I. INTRODUCTION

Every public or private organization has a goal to be achieved. To achieve the goals of the organization requires a qualified management control system. Management control system focuses on how to implement strategies effectively and efficiently so that organizational goals can be achieved.

According to Simons (1987) SPM is seen as a formal procedure and system that uses information to achieve or change various patterns in an organization's activities. Related to this definition, Simons (1987) says that SPM includes planning systems, reporting systems, and monitoring procedures based on the use of information. Meanwhile, according to Flamholtz, et al. (1985), SPM is a process for influencing organizations. The purpose of SPM is to provide useful information in decision making, planning, controlling, and evaluating (Widener, 2007).

Therefore, SPM is basically a system composed of complementary components (Widener, 2007). This means that the use of each SPM element must be used together in order to have strength in its implementation. The management control system can run optimally if it is run together. This is in accordance with the statement of Otley (1980) SPM basically consists of various control systems that work together. On the other hand Simons (1995) also asserts that the control system will have power if the control is carried out together.
Regarding internal factors in the organization there are several opinions about it. One of them is Bastian (2013: 12) said, internal factors that affect the public sector organizational system, namely: organizational structure, program structure, information structure, administrative factors, behavioral factors and cultural factors.

Government organizations have a goal to meet the needs and rights of the public. The entire development process and the services provided are aimed at realizing prosperity for the community. Therefore, public sector management control is focused on achieving community welfare. Management control systems have an important role in the success of achieving organizational goals (Bastian, 2014). As stated by Anthony and Young (2003) management control accepts the goals and strategies decided upon by the previous process, and will focus on implementing the strategies and achieving those goals.

The structure and process of management control must be designed to facilitate strategic planning and implementation to motivate managers to achieve organizational goals and to develop information to evaluate performance in achieving goals.

Based on the background outlined above can formulate the problem to be examined as follows: 1. Does the internal factors of the organization (organizational structure, program structure, information structure, administrative factors, behavioral factors, and cultural factors) directly influence the management control system design at UTD PMI Jember Branch; 2. Does the internal factors of the organization (organizational structure, program structure, information structure, administrative factors, behavioral factors, and cultural factors) directly influence the organizational goals of the UTD PMI Jember Branch; 3. Does the purpose of the organization directly influence the design of the management control system UTD PMI Jember Branch through organizational goals?

II. RESEARCH METHODS

Population and Samples

The population in this study were all employees who worked UTD PMI Jember Branch totaling 42 people in 2018. The sample in this study was determined randomly using the Slovin sampling method (Sujarweni, 2014: 16). Where to use the error tolerance level (e) as much as 0.1 or 10%.

Data Collection Method

Type of data used in this study is primary data. Primary data is data obtained directly from respondents and obtained through survey respondents to answer questions in research. The survey method itself is a questionnaire technique, where the questionnaire is submitted and collected directly by researchers to respondents (Indriantoro and Supomo, 1999). This study uses primary data from the collection of questionnaires that have been filled out by respondents from UTD PMI Branch Jember.

Definition of Operational Variables

Independent (Exogenous) (X) Exogenous variables are influencing variables (Arikunto, 2002 in Dimyati 2009: 78) or variables that are not predicted by other variables in the model (Ferdinand, 2002 in Looked at 2009: 78). This variable is also called an independent variable or an independent variable. In this research, exogenous variables are the organizational structure (X1), information structure (X2), program structure (X3), administrative factors (X4), behavior factors (X5), and cultural factors (X6).

Organizational Structure (X1)

According to Prajudi Atmostiridjo in Adam (2000: 4) argues that, “The organization is the structure of the division of labor and the structure of work relations between groups of position holders who work together to achieve a certain goal”.

According to Koontz & Donnel in Malayu SP (2010: 25) argues that, “The organization is fostering the relationship of authority and is intended to achieve structural coordination, both vertically, and horizontally between positions that have been assigned specific tasks needed to achieve common goals. So the organization is a structural relationship that binds / unifies the company and the basic framework in which individuals try, coordinated. “ The items used
in the measurement of organizational structure were adopted from Stephen Robbins (2007), namely:
1. Specialization of work.
2. Departmentalization.
3. Command chain.
4. Control range.
5. Centralized and Decentralized.
6. Formalization.

Program Structure (X2)
Saifutdin Anshari (1978), according to him, the program is a detailed list of events and businesses to be carried out. Sunarto (2006) said that the Program is a set of instructions which is realized in the form of language, schema code, or other forms, which when combined with media that can be read by a computer will be able to make the computer work to perform special functions, including preparation in designing these instructions. According to Wirjanto Dewobroto, the program is the result of compiling detailed steps of the solution (algorithm) of the problem. The items used in measuring the structure of the program were adopted from (Bastian, 2013), namely:
1. Type of program
2. Mission support program
3. Administration
4. Development
5. Program elements

Information Structure (X3)
This information needs to be related to the program structure and organizational structure of the public sector. The program structure is designed to meet the needs of planners and analysts, as well as emphasizing overall program costs (Bastian, 2013). The items used in the measurement of this information structure were adopted from Gordon B. Davis in Bob Widyahartono (1991: 60), namely:
1. Hardware (Hardware).
2. Software (Software).
3. Database / File.
4. Procedure.
5. Brain ware (Operating Personnel).

Administration Factor (X4)
Items used in the measurement of administrative factors are adopted from (Pepak, 2002), namely:
1. Planning / Work Plan / Program
2. Organization for Organizations
3. Delegating
4. Personnel / Staff
5. Coordinating.
6. Reporting the
7. Budget

Behavior Factor (X5)
The items used in the measurement of these behavioral factors were adopted from according to Thoha (2010: 36), namely:
1. Humans differ in their behavior, because their abilities are not the same.
2. Humans have different needs.
3. People think about the future, and make choices about how to act.
4. Someone understands their environment in relation to past experiences and needs.
5. A person has happy or unhappy reactions
6. Many factors determine a person’s attitude and behavior.

Cultural Factors (X6)
Organizational culture is a cognitive framework that includes attitudes, values, norms and expectations possessed by members of the organization (Greenberg & Baron, 2000) in (Kusumawati, 2008). Another opinion proposed by (Furnham & Gunter, 1993) in (Sunarto, 2005), organizational culture is defined as beliefs, attitudes and general values. Items used in measuring cultural factors are adopted from by Desmond Graves (1986: 126):
1. Guarantee yourself (Self-assurance)
2. Firmness in the act (decisiveness)
3. Ability to control (Supervisory ability)
4. Emotional intelligence (Intelligence)
5. Initiative (Initiative)
6. The need for achievement (Needforachievement)
7. The need for self-actualization (Needforself-actualization)
8. Need for position / positions (Needforpower)
9. The need for appreciation (Needfor reward)
10. Need for security.

Dependent Variables (Endogenous) (Y)
Endogenous variables are variables that are predicted by one or several other variables in the model (Ferdinand, 2002 in Dimyati 2009: 78). This variable is an effect variable called an independent variable or a dependent variable or dependent variable (Arikunto, 2002 in Dimyati 2009: 78). In this research, an endogenous variable is the design of management control systems. The items used in the measurement of the management control system design were adopted
from Thomas Sumarsan (2010: 7), namely:
1. Obtained reliability and integration of information
2. Compliance with policies, plans, procedures, regulations, and applicable provisions
3. Protect company assets
4. Achievement of economical and efficient activities.

There are 4 items used to measure the measurement system of management control system design by using 4 (four) scale points adopted from the Likert scale, where point 1 (one) shows very inappropriate, 2 (two) shows less suitable, 3 (three) shows appropriate, and 4 (four) shows very appropriate.

Intervening Variable (Z)

Intervening Variable is a variable that has a strong contingent influence on the relationship of dependent and independent variables into direct and indirect relationships that can be observed and measured (Now, 2003 in Dimyati 2009: 78). In this study the intervening variable is the organization’s goals.

According to Suraja (2011) Organizational goals are needs that need to be met within a certain period. Vision is a long-term desire, which is realized through efforts to achieve short-term goals / mission (annual). This goal is to be achieved by the people who make up the organization.

The items used in measuring organizational goals are

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-19.99%</td>
<td>Strongly (disagree, bad or very poor)</td>
</tr>
<tr>
<td>20% -39.99%</td>
<td>Disagree Or Not Good</td>
</tr>
<tr>
<td>40% - 59.9%</td>
<td>Sufficient or Neutral</td>
</tr>
<tr>
<td>60% - 79.9%</td>
<td>Agree, Good or Like</td>
</tr>
<tr>
<td>80% - 100%</td>
<td>Very (Agree, Good, or Like)</td>
</tr>
</tbody>
</table>

Source: http://naufansapoetra.blogspot.co.id/2015/11/

2. Good communication between members of the organization
3. Good performance
4. Alignment of goals among members of the organization

**Data Analysis Method**

Path Analysis is used to testing the effect of intervening variables. Path analysis is an extension of multiple linear regression analysis, or path analysis is used to analyze the pattern of relationships between variables in order to determine the direct or indirect influence of a set of independent (exogenous) variables on the dependent variable (endogenous) (Ghozali, 2005: 160). The analysis activities were carried out using the help of the SPSS program20.0 for windows. The regression equation can be formulated as follows (Ghozali, 2007: 150):

\[ Z = \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \epsilon_1 \text{equation}............1) \]

\[ Y = \beta_6X_1 + \beta_7X_2 + \beta_8X_3 + \beta_9X_4 + \beta_10X_5 + \beta_11X_6 + \beta_12Z + \epsilon_2 \text{ equation} \quad (2) \]

**III. RESULT AND DISCUSSION**

Based on a questionnaire that has been distributed by researchers, each statement stated will be described in advance which will then be assessed on the quality of each item as a whole by making a rating category. Calculation of the score of each component studied is to multiply all data frequencies with their weight values, then look for a scale range. From the results of these calculations the rating scale can be made with the category of very inappropriate, less appropriate, appropriate and very appropriate. The rating scale of this category is:

Table 1

| Rating Scale |

Figure 1. Path Analysis Results Diagram
Based on the path analysis model as in Figure 1 there are two paths formed, namely:

1. Z with variable paths X1, X2, X3, X4, X5, and X6, with the path equation
   \[ Z = \rho_{ZX1} + \rho_{ZX2} + \rho_{ZX3} + \rho_{ZX4} + \rho_{ZX5} + \rho_{ZX6} + e_1 \] (subs rural path 1)

2. Y with variable paths X1, X2, X3, X4, X5, X6, and Z, with the path equation
   \[ Y = \rho_{YX1} + \rho_{YX2} + \rho_{YX3} + \rho_{YX4} + \rho_{YX5} + \rho_{YX6} + \rho_{YZ} + e_2 \] (subs rural path 2)

Description:
- X1 = organizational structure variable
- X2 = program structure variable
- X3 = information structure variable
- X4 = administrative factor variable
- X5 = behavior factor variable
- X6 = cultural factor variable
- Z = organizational objective variable
- Y = SPM design variable.
- \( \rho \) = magnitude of the influence of variables in the causal path model
- e = influence of variables outside the model

**TABLE 2**
Calculation of Direct and Indirect Effects

In the Correlations table, the variable Z has to do with X1, X2, X3, X4, X5, and X6 indicating the existence of the relationship is indicated by a probability (sig) that is smaller than \( \alpha \) (0.05 or 0.10). Likewise with the Y variable, it also shows a significant relationship with the variables X1, X2, X3, X4, X5, and X6, and Z. Furthermore, calculate the subs rural path 1 and subs rural 2 pathways.

**Effect of Organizational Structure on Organizational Goals**

Testing the effect of organizational structure on organizational goals on the t test results, which shows that the count is 2,207 with a significance level of 0.054 < 0.10. That means that the organizational structure has a positive relationship and has a significant effect on organizational goals. So the hypothesis which states the organizational structure affects the organizational goals is accepted. This result is supported by the theory of Kusdi (2009: 176) which states that the organizational structure is essentially a way to organize the elements in the organization as well as possible in order to achieve various goals that have been set.

**The Effect of Program Structure on Organizational Goals**

Testing the analysis of the effect of program structure on organizational goals is seen in the results of the t test, which shows that the t count is -1.332 with a significance level of 0.196 > 0.10. This means that the program structure has a negative relationship and does not have a significant effect on organizational goals. So for the hypothesis which states that the structure of the program affect the objectives of the organization is rejected. This result is supported by the acquisition of questionnaire results where many score of indicator items below the average number of scores proves that many elements of the program structure have not been supported to achieve organizational goals. Sunarto (2006) said that the Program is a set of instructions which is realized in the form of language, schema code, or other forms, which when combined with media that can be read by a computer will be able to make the computer work to perform special functions, including preparation in designing these instructions. The program structure has a negative and not significant relationship to organizational goals, because the Program Structure is run by HR in the organization, if the HR does not have sufficient ability to operate the program structure, then any sophisticated program structure owned by an organization, will not help it in achieve the goals of the organization.
Effect of Information Structure on Organizational Goals.

Testing the analysis of the influence of information structure on organizational goals seen in the results of the t test, which shows that the t-value is 0.597 with a significance level of 0.556 > 0.10. This means that the information structure has a positive relationship and does not have a significant effect on organizational goals. So for the hypothesis which states that the information structure affects the organizational goals is rejected. This is supported by the results of the questionnaire items which state that the part of the organization members that processes the information is not appropriate and it hinders the achievement of organizational goals. Obtained information reliability and integration in this era of globalization, information systems are very important for organizations in order to respond to changes that are fast paced to changes in existing conditions and the environment and the increasing sophistication of information technology facilities to make decisions (Sumarsan, 2010).

Effect of Administrative Factors on Organizational Goals.

Testing analysis of influence of administrative factors to organizational goals seen on t test results, which showed that value of 0.137 with a significance level of 0.892 > 0.10. This means that administrative factors have a positive relationship and do not have a significant effect on organizational goals. So for the hypothesis which states that administrative factors influencing organizational goals is rejected. This is supported by the results of a questionnaire where the administrative factors indicate that the budget owned is unable to run the existing administrative system so that it can slow down the achievement of organizational goals.

Effect of Behavior Factors on Organizational Goals.

Testing the analysis of the influence of cultural factors on organizational goals seen in the results of the t test, which shows that the t-count is -0.092 with a significance level of 0.927 > 0.10. This means that cultural factors have a negative relationship and do not have a significant effect on organizational goals. So that the hypothesis stating that cultural factors influence organizational goals is rejected. This is supported by the results of a questionnaire in which items from cultural factors indicate that the sense of security and welfare of members of the organization in terms of financial are not yet fulfilled even though that is one of the reasons for the formation of the organization.

Effect of Organizational Structure on Control System Design Management

Testing the analysis of the effect of organizational structure on the design of management control systems is seen in the results of the t test, which shows that the t-count is 0.402 with a significance level of 0.691 > 0.10. This means that the organizational structure has a positive relationship and does not significantly influence the design of management control systems. So for the hypothesis which states that the organizational structure influences the design of management control systems is rejected. This is supported by the results of the questionnaire items which state that the existing organizational structure design is not appropriate if based on the ability of each member and the lack of staff below each staff level. The two items show the inaccurate SPM design in the organization.
sults of a questionnaire stating indicator items where the program is not in accordance with the design of the existing management control system.

**Effect of Information Structure on Control System Design**

Testing the analysis of the influence of information structure on the design of management control systems is seen in the results of the t test, which shows that the t-count is -0.834 with a significance level of 0.413 > 0.10. This means that the information structure has a positive relationship and does not significantly influence the design of management control systems. So for the hypothesis which states that the information structure influences the design of the management control system is rejected. This is supported by the results of the questionnaire items which state there is a mismatch between the work systems desired by members of the organization against the existing work systems which will negatively affect the organization's management control system.

**Effect of Administrative Factors on Control System Design**

Testing the analysis of the influence of administrative factors on the design of management control systems is seen in the results of the t test, which shows that the t-count is -0.943 with a significance level of 0.356 > 0.10. This means that administrative factors have a positive relationship and do not significantly influence the management control system design. So for the hypothesis which states that administrative factors influence the design of management control systems is rejected. This is supported by the results of the questionnaire item which states that there are still many rules that are violated and leaders who do not act decisively in carrying out their duties.

**Effect of Behavior Factors on Management Control System Design.**

Testing the analysis of the effect of behavioral factors on management control system design seen in the results of the t test, which showed that the t-count was 0.975 with a significance level of 0.340 > 0.10. This means that behavioral factors have a positive relationship and do not have a significant effect on the design of management control systems. So for the hypothesis which states that behavioral factors affect the design of management control systems is rejected. This is supported by the results of questionnaire items which state that there is a mismatch between the work systems desired by members of the organization against the existing work systems which will negatively affect the organization's management control system.

**Effect of Cultural Factors on Control System Design**

Testing the analysis of the influence of cultural factors on the management control system design seen in the results of the t test, which showed that the t-count was 0.818 with a significance level of 0.422 > 0.10. This means that cultural factors have a positive relationship and do not significantly influence the management control system design. So for the hypothesis that the organizational structure influences the design of the management control system is rejected. This is supported by the results of the questionnaire item which states that there are still many rules that are violated and leaders who do not act decisively in carrying out their duties.

**Effect of Organizational Goals on Control System Design**

Testing the analysis of the influence of organizational objectives on the design of management control systems seen in the results of the t test, which shows that the t-count is 2.734 with a significance level of 0.012 > 0.10. This means that organizational goals have a positive relationship and have a significant influence on the design of management control systems. So for the hypothesis which states that organizational goals influence the management control system design is rejected. Therefore, organizations that have good organizational goals help an organization in designing management control systems that are suitable for an organization.

**Effect of Organizational Structure on Control System Design and Organizational Goals as Intervening Variables.**

From the calculation of direct influence (direct) and indirect (indirect) in Table 4:38, show that the value of indirect < direct. So it can be interpreted that organizational goals are not able to become
a mediating variable (intervening) on the influence of organizational structure on the design of management control systems. In table 4.38, it can be seen the value direct of 0.637 and indirect value of 0.514 so that the indirect < direct, which means that the goals of the organization are not able to meet the requirements to be intervening variables.

Effect of Program Structure on Control System Design Management and Organizational Goals as Intervening Variables.

From the calculation of direct influence (direct) and indirect (indirect) at 4.38 table shows that the value of indirect > direct. So it can be interpreted that organizational goals are able to become a mediating variable (intervening) of the influence of program structures on the design of management control systems. In table 4.38, it can be seen the value direct of -0.501 and indirect value of 0.514 so that indirect > direct, which means that organizational goals are not able to meet the requirements to be intervening variables.

Effect of Information Structure on Control System Design Management and Organizational Goals as Intervening Variables.

From the calculation of direct influence (direct) and indirect (indirect) in Table 4:38, show that the value of indirect > direct. So it can be interpreted that organizational goals are able to become a mediating variable (intervening) on the influence of information structure on the design of management control systems. In table 4.38, it can be seen the value direct of -0.417 and indirect value of 0.514 so that indirect > direct, which means that organizational goals are not able to meet the requirements to be intervening variables.

Effect of Administrative Factors on Control System Design Management and Organizational Goals as Intervening Variables.

From the calculation of direct influence (direct) and indirect (indirect) in Table 4.37, show that the value of indirect > direct. So it can be interpreted that organizational goals are able to become a mediating variable (intervening) on the influence of administrative factors on the design of management control systems. In table 4.37, it can be seen the value direct of 0.048 and indirect value of 0.514 so that indirect > direct, which means that the goals of the organization are able to meet the requirements to be intervening variables.

Effect of Behavior Factors on Control System Design Management and Organizational Goals as Intervening Variables.

From the calculation of direct influence (direct) and indirect (indirect) in Table 4.38, show that the value of indirect < direct. So it can be interpreted that the purpose of the organization is not able to be a mediating variable (intervening) on the influence of behavioral factors on the design of management control systems. On table 4.38, it can be seen that the direct value is 0.603 and indirect is 0.514 so that it is indirect < direct, which means that the organizational goals are not able to meet the requirements to be intervening variables.

Effect of Cultural Factors on Control System Design and Organizational Objectives as Intervening Variables.

From the calculation of direct and indirect effects in Table 4.38, it shows that the value of indirect > direct. So it can be interpreted that organizational goals are able to become a mediating variable (intervening) on the influence of organizational goals on the design of management control systems. In table 4.38, it can be seen the direct value of -0.019 and indirect value of 0.514 so that indirect > direct, which means that organizational goals are able to meet the requirements to be intervening variables.

IV. CONCLUSION

This research was conducted to determine the effect of organizational structure (X1), program structure (X2), information structure (X3), performance of administrative factors (X4), behavior factors (X5) and cultural factors (X6) on the design of management control systems (Y) with organizational goals (Z) as intervening variables in the UTD PMI Jember organization. Below this is the conclusion of the results of this study:

1. Variable organizational structure, program structure, information structure, administrative factors, behavioral factors and cultural factors show no significant effect on the design of management control systems seen in the results of the t test but simultaneously affect the F test
2. Organizational Structure and behavioral factors show a significant direct effect on organizational goals. While the variable program structure, inform-
motion structure, administrative factors, and cultural factors show no significant direct effect on organizational goals. This can be seen in the results of the t test.
3. The variable organizational goals show a significant influence on the design of management control systems seen partially.
4. Organizational goals can be intervening variables between program structure, information structure, behavioral factors and cultural factors on the design of management control systems. While organizational goals are not able to be an intervening variable between organizational structure and administrative factors on the design of management control systems.

SUGGESTION
1. Trying other exogenous variables in subsequent studies.
2. Looking for Research Objects that have a greater level of respondents.
3. Comparing between influence partially and simultaneously more specifically.

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