

# **Analysis of the Drivers and Obstacles to Changes in Management Accounting at Regional General Hospital in West Surabaya**

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## **ABSTRACT**

The impact of technological developments and globalization is also felt in the hospital industry. The tight competition in the hospital industry requires hospital managers to be more careful in carrying out hospital management. Inaccurate management can cause low quality of service, inefficiency of the organization, low welfare of employees, and can even cause chaos in hospital organizations. Although the characteristics of a hospital organization are not the same as the characteristics of a business organization, business management principles can be adopted in hospital organizations. This is supported by the government through Law No.1 / 2004 concerning the State Treasury. This study analyzes the role of the design of existing management accounting systems. Furthermore, this study will examine whether triggers and obstacles can affect changes in management accounting. Because changes in management accounting policies can affect how the performance and service of the hospital. The research method used in this study is a quantitative method. To analyze data Structural Equation Modeling (SEM) analysis of the PLS statistical software package is used in the model and hypothesis testing. The results of this study are factors that strengthen or support attitudes towards changes in management accounting implemented by management are staffing factors, transparency, board expectations, agency problems, IT, and data quality. Factors that inhibit or do not support the attitude towards management accounting changes applied by management are the factors of cost, profitability, incentives, organizational change, behavioral control and environmental factors.

**Keywords:** Management Accounting, Hospital Accounting Policies

## **INTRODUCTION**

The development of economy and technology is pushing the world increasingly to become global. Competition in the business world feels increasingly tight. The tight competition in the hospital industry requires hospital managers to be more careful in carrying out hospital management. Inaccurate management can cause low quality of service, inefficiency of the organization, low welfare of employees, and can even cause chaos in hospital organizations. Although the characteristics of a hospital organization are not the same as the characteristics of a business organization, business management principles can be adopted in hospital organizations. This is supported by the government through Law No.1 / 2004 concerning the State Treasury. In the Act stated that the Public service Agency, as a government agency that provides services to the community and does not prioritize seeking profit can be managed autonomously with the principles of efficiency and productivity a la corporate (Mranani & Lastianti, 2019)

Referring to the study of Burns and Scapens (2000) which concluded that the whole process of management accounting change was strengthened by a random combination of systematic and

internal factors. Scwharze, et.al (2007) research examined 13 factors that were previously thought to be factors that could increase or become obstacles in the use and development of management accounting, namely: staff, costs, transparency, profitability, board expectations, incentives, agency problems, support for implementing IT, data quality, organizational change, environment, behavior and attitude control

This study is a replication of the study of Scwharze, et.al (2007). The importance of Scwharze, et.al (2007) research to be replicated in this study are: 1) Because there are still few studies that raise themes about management accounting changes, 2) There are results that have not gotten a uniform picture from some previous studies, and 3) The importance the application of the use of performance measures in terms of management accounting. The purpose of this study is to analyze what factors are driving and hindering changes in management accounting at the Regional General Hospital in West Surabaya.

Management accounting is identifying, collecting, measuring, classifying, and reporting information that is useful for internal users in planning, controlling, and making decisions (Hansen & Mowen, 2009). According to Hongren on Rudianto (2013: 9) the definition of management accounting is defined as the process of identifying, measuring, accumulating, analyzing, preparing, interpreting, and communicating about information that helps each executive to meet organizational goals.

Research conducted by Hariadi (2005) states that the development of management accounting practices undergoes 4 stages of development, namely: Cost Determination and Financial Control (CDFC), Information for Management Planning, Reduction of Resource Waste in Business Processes (RWR), and Creation of Value Through Effective Resources Use.

According to Sucipto (2004) the types of management accounting information are as follows:

1. Full cost accounting
2. Differential cost accounting
3. Responsibility accounting

### **Changes in Management Accounting**

Williams and Seaman (2001) find that the determinants of changes in management accounting cannot be generalized from around manufacturing and industry to the service sector. Based on research by Alleyne and Marshall (2011) there are 5 factors that influence the choice of management accounting practices, namely timeliness, technological development, effectiveness, information needs, and adoption of best practices. These 5 factors are the factors that underlie management to apply management accounting practices that enable management to obtain relevant information for decision making

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**Reasoned Action Theory**

Predictions of human attitudes and behavior are the most complex and difficult to do. Reasoned Action Theory states that attitude tendencies refer to specific behaviors (individual proses) and subjective norms (social processes) that interact to influence desires for behavior.

Individual attitudes towards management accounting changes play a major role in the analysis of the controllers and barriers to these changes. Even if the attitude does not directly require results. There is a huge impact on individual behavior during the decision making process. Thus a closer view exists on the antecedents (effect) of the required attitude.

**Framework**

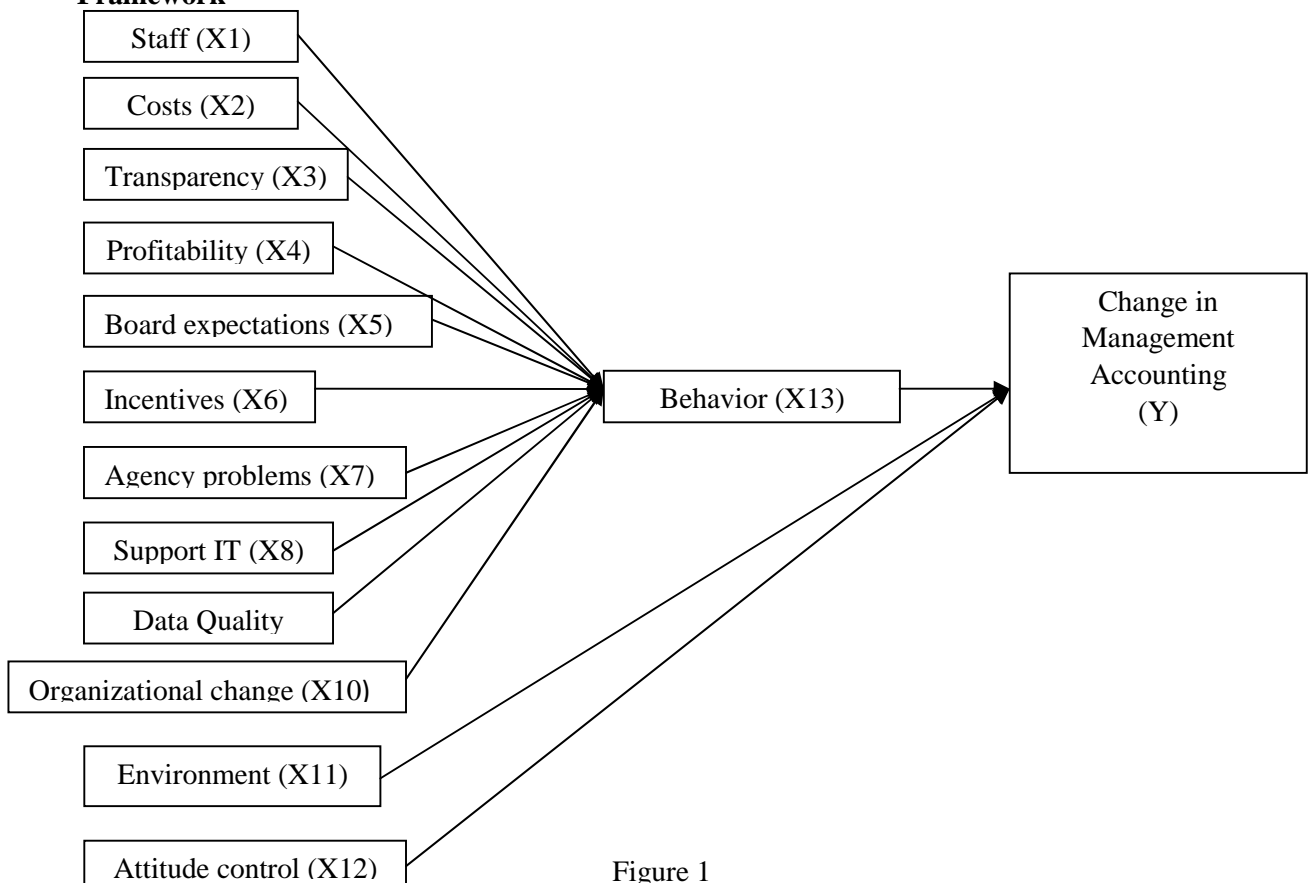


Figure 1  
Theoretical Framework

#### 1. Staff

Staff are people who work in a particular division. In the field study, the role of accounting staff is tested as a factor determining accounting changes (Laitinen, 2001; Luther and Longden, 2001).

#### 2. Costs

Costs are all sacrifices that need to be made for a production process, expressed in units of money according to the prevailing market prices, both those that have occurred and will occur. Costs are divided into two, namely explicit costs and implicit costs. Laitinen (2001) also identifies a group of companies with low management accounting budget changes and very no desire to change

#### 3. Transparency

Al-Omiri and Drury (2007) find a relationship between a higher percentage of indirect costs and a sophisticated financing system.

#### 4. Profitability

Profitability is the company's ability to generate profits and support growth in both the short and long term. Tuomela (2005) found that profitability growth goals led to the use of new non-financial measures (eg measures relating to employees and consumers) because employees and consumers were an instrument that could create value for stakeholders. Waweru et.al (2004) provides evidence that companies with declining financial performance will tend to change their management accounting practices.

#### 5. Board Expectations

Council expectations are something that is expected in the future. Luther and Longden (2001) explicitly state that individual change is a significant change factor. A change in information needs regarding management changes in leadership was identified by Laitinen (2001) as one of the accelerating factors for the company, which can cause changes in management accounting quickly.

#### 6. Incentives

Incentives are any compensation system where the amount given depends on the results achieved which means offering an incentive to workers to achieve better results. Agency theory predicts that incentives can influence managers' attitudes (Ewert and Wagenhofer, 2003).

#### 7. Agency Problems

Agency problems are problems about people acting on behalf of others. (Fields et.al, 2001) Agency problems can arise because of changes in management accounting that includes the

measurements of business units. As a result, conflicts in interpreting these measures arise between business unit managers and accountants

#### 8. Information Technology Support

Information Technology is the result of human engineering on the process of delivering information from the sender to the recipient so that the information will be sent faster, wider distribution, and longer storage. Several previous studies have shown that the application of IT can be seen as one of these resources (Barney et.al, 2001; Bharadwaj, 2001; Tallon et.al, 2000). Luther and Longden (2001) show a denial in the application of information technology as a factor with a very high value can cause changes in management accounting

#### 9. Data Quality

Data quality is the level of good or bad or the level or degree of data. Helliari et al (2002) argue that data quality can make banks obtain better analyzes of financing, performance measures and controls.

#### 10. Organizational change

Organizational change is both planned and unplanned changes that are basically done to "preserve the life" of the organization concerned. Because changes in organizational structure require management capacity and are also followed by changing priorities, it can change from obstacles to changes in management accounting (Scwharze et.al, 2007). The existing management accounting system must be adapted to a new organizational form and the development of methods or technology will be hampered

#### 11. Environment

The environment is a combination of physical conditions including the state of natural resources. Burns and Scapens (2000) illustrate how external changes can cause revolutionary changes in management accounting. Several studies have shown that competition and large uncertainties in the economic environment are important causes of management accounting changes (Helliari et.al, 2001; Hussain and Hoque, 2002; Luther and Longden, 2001; Waweru et.al, 2004).

#### 12. Behavioral Control

Behavioral Control is a control to monitor or limit behavior. Behavioral control can measure a person's perception of the ease or difficulty required to show a reaction in a certain way. This reflects aspects of a person, such as the level of specifications and aspects of behavior, the need to get cooperation from other parties to solve them (Cardano and Freize, 2000). The power of the individual person can accelerate changes in management accounting (Burns and Scapens, 2000).

### 13. Attitude

Attitude is an evaluative statement about a person's object or event. Several studies have shown that attitude is a reliable predictor of intentions (Agaswal and Prasad, 1991; Cohen et.al, 1994; Hartwick and Barki, 1994; Sheila, 2014).

#### **Study Hypotheses**

H1: The more availability of qualified staff, the more positive attitude to develop management accounting.

H2: The lower the cost of expected changes, the more positive attitude to develop management accounting.

H3: The higher the chance of increasing transparency, the more positive attitude to develop management accounting.

H4: The better the increase in profitability, the more positive attitude to develop management accounting.

H5: The higher the board of directors' expectations, the more positive attitude is to develop management accounting.

H6: The stronger personal incentives for managers to develop management accounting, the more positive attitude to develop management accounting.

H7: The greater awareness of agency problems, the more positive attitude to develop management accounting.

H8: The better IT support, the more positive attitude to develop management accounting.

H9: The better the quality of the data, the more positive attitude to develop management accounting.

H10: The greater the organizational change, the more positive the attitude to develop management accounting.

H11: The higher the environmental pressure, the stronger the intention to develop management accounting.

H12: The better appreciation of behavioral control, the stronger the intention to develop management accounting.

H13: The more positive attitude towards the development of management accounting, the stronger the intention to develop management accounting

## **RESEARCH METHOD**

### **Population and Sample**

This research was conducted at the Regional General Hospital in West Surabaya, namely Bhakti Dharma Husada Hospital. The population in this study were all managers at the Bhakti Dharma

Husada Regional Hospital. The sample of this study was obtained by involving all middle managers and top managers starting from the Directors, Division Heads, Section Heads, and Committees.

### Data analysis method

In this study, researchers used a questionnaire as a tool to measure respondents' perceptions. Before analyzing the questionnaire, the validity and reliability must be tested first. To analyze data Structural Equation Modeling (SEM) analysis of the PLS statistical software package is used in the model and hypothesis testing. The structural equation model, Structural Equation Modeling (SEM) is a collection of statistical techniques that enable the testing of a series of relatively "complicated" relationships simultaneously (Ferdinand, 2000, 5)

## RESEARCH RESULT

### Overview of Respondents

Research respondents were middle managers and top managers at Bhakti Dharma Husada Regional Hospital in Surabaya. A total of 32 respondents participated in this study. Respondents who participated in this study consisted of 15 men and 17 women, for respondents aged 30-45 years as many as 17 people, aged over 45 years as many as 15 people. Most respondents education is Bachelor education (S1) as many as 22 people followed by S2 education of 10 people. The positions of the Respondents are 3 Division Heads, 1 Division Head, 3 Sub Division Heads, 6 Section Heads, and 19 others consisting of Committees, Middle Managers / related section staff

### Data Analysis Results

The analytical method used is SEM with the Warp Partial Least Square (Warp PLS) approach using WarpPLS 5.0 software.

Table 1  
Test Research Model (Goodness of Fit Model)

Keterangan	Nilai	Ideal
Average path coefficient (APC)	(APC)=0.0183	$P \leq 0.055$
Average R-squared (ARS)	(ARS)=0.0454,	$P \leq 0.055$
Average adjusted R-squared (AARS)	(AARS)=0.0396,	$P \leq 0.055$
verage block VIF (AVIF)	(AVIF)=1.855,	acceptable if $\leq 5$ , ideally $\leq 3.3$
Average full collinearity VIF (AFVIF)	(AFVIF)=3.562	acceptable if $\leq 5$ , ideally $\leq 3.3$
Sympson's paradox ratio (SPR)	(SPR)=0.846	acceptable if $\geq 0.7$ , ideally = 1
Tenenhaus GoF (GoF)	(GoF)=0.379	small $\geq 0.1$ , medium $\geq 0.25$ , large

		$\geq 0.36$
R-squared contribution ratio (RSCR)	(RSCR)=0.947	acceptable if $\geq 0.9$ , ideally = 1
Statistical suppression ratio (SSR)	(SSR)=1.000	acceptable if $\geq 0.7$
Nonlinear bivariate causality direction ratio (NLBCDR)	(NLBCDR)=0.692	acceptable if $\geq 0.7$

From Table 1 above it can be seen that each value in APC, ARS, AARS, AVIF, AFVIF, SPR, RSCR, SSR, NLBCDR in the study has met the ideal criteria. APC, ARS, and AVIF values that meet the ideal criteria show that the overall model of this study is good (appropriate)

### Reliability Test Results

Reliability testing is carried out with the aim of ensuring that research instruments are used can present the measurement of the concept consistently without any bias. The results of WarpPLS 5.0 data processing are as follows:

Table 2  
Reliability Test

Keterangan	Composite reliability coefficients ( $> 0,7$ )	Cronbach's alpha coefficients ( $>0,6$ )	Hasil
Staf	0,704	0,634	Reliabel
Costs	0,870	0,610	Reliabel
Transp	0,813	1,620	Reliabel
Profit	0,834	0,687	Reliabel
Ekspek	0,774	0,659	Reliabel
Incentives	0,718	0,788	Reliabel
Agensi	0,716	0,770	Reliabel
IT	0,831	0,632	Reliabel
Data	0,724	1,46	Reliabel
OrgChng	0,815	0,762	Reliabel
Environt	0,769	0,622	Reliabel
BehCont	0,737	0,627	Reliabel
Attitude	0,728	0,626	Reliabel
MnAcChng	0,894	0,720	Reliabel

The basis used in the reliability test is the Composite reliability coefficient above 0.7 and Cronbach's alpha coefficients above 0.6. The results in table 4 show that the questionnaire instruments in this study had fulfilled the reliability test requirements

### Validity Test Results

The calculation result of WarpPLS 5.0 shows that each value on the cross-loadings factor has reached a value above 0.5 with a p value below 0.001. Thus the convergent validity test criteria have been met.

**Hypothesis Test Results**

The level of trust used in this study was 5%. The hypothesis will be accepted if the value of p < 0.05. The results of the calculation of WarpPLS 5.0 are as follows:

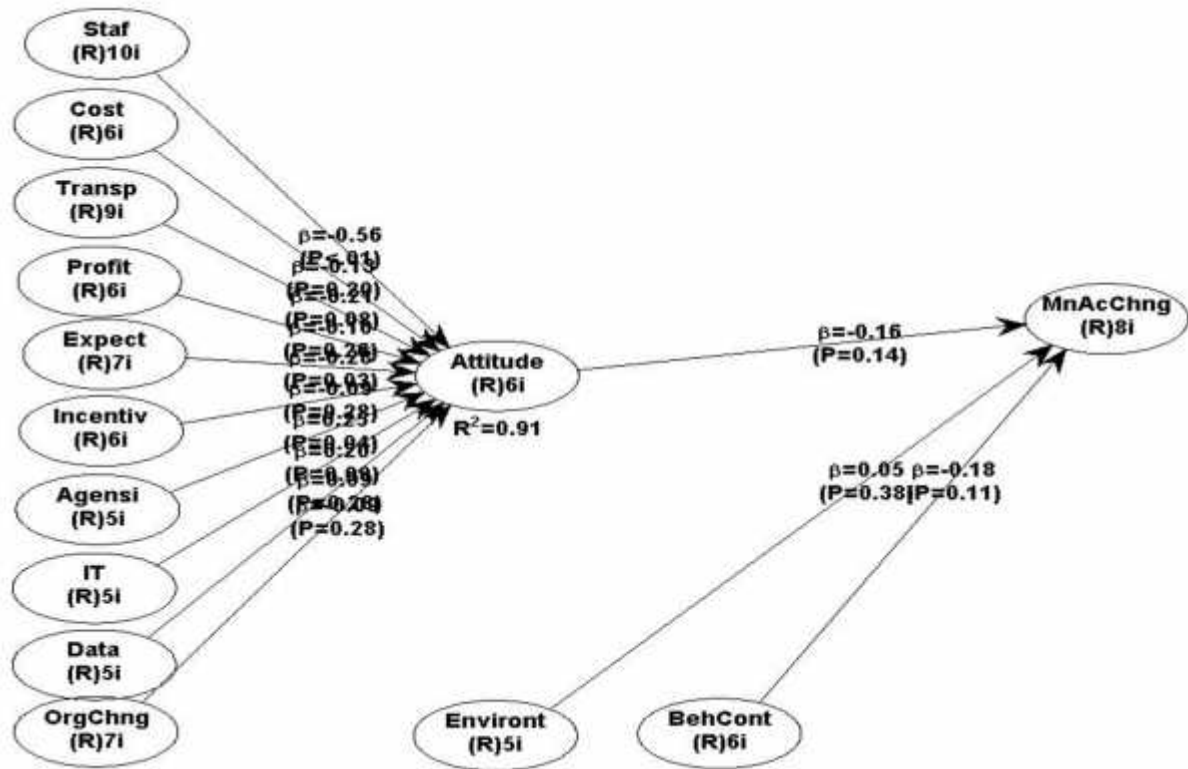


Figure 2  
 Out Put WarpPls Model 5.0

**Out Put WarpPls Model 5.0 Outcome**

From the results of WarpPls 5.0 above can be briefly seen in the results of the research hypothesis test in Table 3

Table 3  
 Summary of Research Results

Hypotheses	Koefisien	Coefisien	P	Ideal	Results
H1	STAF - ATTITUDE	-0,56	0,01	<0,05	Supported
H2	COSTS - ATTITUDE	-0,13	0,20	<0,05	Not Supported
H3	TRANSP-ATTITUDE	-0,21	0,08	<0,05	Supported
H4	PROFIT-ATTITUDE	-0,10	0,26	<0,05	Not Supported
H5	EKSPEK-ATTITUDE	-0,20	0,03	<0,05	Supported
H6	INCENTIVES-ATTITUDE	-0,09	0,28	<0,05	Not Supported
H7	AGENSI-ATTITUDE	0,29	0,04	<0,05	Supported
H8	IT-ATTITUDE	0,20	0,09	<0,05	Supported
H9	DATA-ATTITUDE	0,09	0,09	<0,05	Supported
H10	ORGCHNG-ATTITUDE	0,20	0,28	<0,05	Not Supported
H11	ENVIRONT-	0,05	0,31	<0,05	Not Supported

	MNACCHNG				
H12	BEHCONT- MNACCHNG	-0,18	0,11	<0,05	Not Supported
H13	ATTITUDE- MNACCHNG	-0,16	0,14	<0,05	Not Supported

From the summary of research results in table 3 it can be seen that six hypotheses have been supported and seven hypotheses that are not supported. The seven unsupported hypotheses have shown the appropriate coefficient direction, but the P value on the seven hypotheses above the hypothesis criterion value is accepted, namely below 0.05.

## DISCUSSION

1. The coefficient scores for the Staff (STAF), Transparency (TRANSP), and Board Expansion (EXPECT) variables are -0.56, -0.21, and -0.20. This means that, although the hypothesis is supported, these variables can only explain the relationship of Staff, Transparency, and Expectations to Attitudes of -56%, -21%, -20%. High Staff Competency, Transparency, and Board Expectations can prevent changes in attitude in the face of changes in management accounting. This is indicated by the negative value on the coefficient between Staff, Transparency, and Board Expectations with Attitude
2. Agency Problem Coefficient (AGENCY), Information Technology (IT), and Data Quality (DATA) are 0.29, 0.20, and 0.09. This means that, although the hypothesis is supported, these variables can only explain the relationship between Agency Problems, Information Technology, and Data Quality to Attitudes by 29%, 20%, 9%. The low coefficient value, under 50%, shows that there are still other factors that can influence attitudes towards changes in management accounting
3. The coefficient values for the Cost (COST), Profitability (PROFIT), and Incentive (INCENTIVE) variables are -0.13, --0.10, and -0.09 with a P value of 0.20; 0.26; and 0.28 or more than standardized at 0.05. This shows that the Cost, Profitability, and Incentive factors do not support the attitude factor. So even though costs, company profitability, and employee incentives are created even greater, it will not make employees change attitudes in the face of changes in management accounting. This is because the company's cost and profitability factors do not have a direct effect on employees in responding to changes in management accounting, as well as incentives because the provision of incentives is still not clearly felt by employees.
4. The coefficient value for the variable of organizational change (ORGCHNG), environment (ENVIRONT), and behavioral control (BEHCONT) is 0.20; 0.05; and -0.18 with a P value of

0.28; 0.31; and 0.11 or more than the standardized 0.05. This shows that the organizational change factor does not support the attitude factor in dealing with changes in management accounting. Likewise for environmental factors and behavioral control do not support changes in management accounting itself. Organizational change does not support changes in employee attitudes because there is a clear division of tasks for employees or staff, besides because the object of this study is the Regional Government Hospital, the organizational change will not change too drastically because there is still interference from the government. This can be different if the object of research is private. Besides the environment and control of behavior also does not affect changes in management accounting.

## CONCLUSIONS AND SUGGESTIONS

Based on the results of research conducted, the following conclusions can be obtained:

1. Factors that strengthen or support the attitude towards management accounting changes adopted by management are staffing factors, transparency, board expectations, agency problems, IT, and data quality
2. Factors that inhibit or do not support attitudes towards changes in management accounting applied by management are cost factors, profitability, incentives, organizational change, behavioral control and environmental factors

### Suggestion

1. For Agencies / Hospitals should increase expectations or motivate the Board to go down more often to form a positive influence / trust in the attitude of employees or staff
2. Agency transparency and problems can be reduced by providing means of communication and exchanging opinions between top management and staff / employees so that the common goals of agencies can be realized more easily
3. Tightening the supervision of behavior and performance appraisal for management to minimize changes in management accounting that are too extreme

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