

# Supply Chain Strategy in Public Budgeting Process: System-Efficacy as Intervening Variable

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**Abstract**— Rapid challenges and changes that are an integral part of the business environment require companies to plan their business carefully, as well as to assess the probability of future events occurring and resulting from them. Supply chain strategy research in budgeting in the public sector is interesting to study. The main target of the current paper is to analyze the impact of the participatory budgeting on the dysfunctional supply chain strategy mediated by self-efficacy in the public sector. The population was executive officers in the regional government of the province of East Java, Indonesia. Quota sampling is used to determine unit samples. Data obtained from 130 respondents. Three hypotheses were tested using Partial Least Square Analysis. Participative budgeting has been proven to increase self-efficacy. Self-efficacy has also been proven to be an intervening variable, by being able to reduce dysfunctional supply chain strategy with involvement in budgeting. On the other hand, participative budgeting influences dysfunctional supply chain strategy in a positive direction. The practical implications of this study are used as a basis for decision making for local governments in designing management control systems, especially in the budgeting process and paying attention to the character of personal self-efficacy.

**Keywords**— *Dysfunctional Behavior, Participatory Budgeting, System-Efficacy, Supply Chain Strategy*

## 1. Introduction

Budgets are part of management control aimed at promoting the effective use of resources and supporting other key functions. The degree to which any budget is effective depends very much on its acceptance and the attitudes of employees towards it. The budgeting process is a very important management control system. For this reason, the topic of budgeting in the public sector is very interesting to study. This is because it involves public services broadly and in the process of drafting has an impact on changing unethical supply chain strategy if dysfunctional supply chain strategy occurs. This study will examine the consequences of the budgeting process that have an impact on the emergence of the dysfunctional supply chain strategy mediated by the psychological aspects of self-efficacy. Self-efficacy Theory (SET) is a subset

of the social cognitive theory of Bandura. According to this strategy, perceived self-efficacy and outcome expectations are the two key determinants of behaviour. The latter concept relates to the perceived positive and negative effects of conducting the conduct. In [1] shows that participatory budgeting creates supply chain strategy problems, as well as [2] state that the influence of budgeting plays an important role in the supply chain strategy of the individuals involved and an accountant cannot neglect supply chain strategy sciences such as psychology, social psychology, and sociology, because the decision-making function of accounting is a function of supply chain strategy. For this reason, this topic is very important to study.

This phenomenon shows that there is a deviation in the performance of the budget in the Health Office SKPD in East Java. In [3] stated that a number of hospitals had to play acrobatics with the budget because there were allegedly still arrears of debt from the JAMKESMAS (Community Health Insurance) program of more than 2 trillion and while the hospitals relied on income from BPJS participant premiums (the Social Security Administering Agency), public patients and government subsidies. This has an impact on the low performance of the SKPD (Regional Work Unit). This has an impact on services to the community, as stated [4] that the health service system run by the government is still in shambles and BPJS services are still widely complained by the public. In addition, [5] shows that there are problems in local budgeting, which is seen when the budget proposer and the approver of the budget proposal have their own interests which are then accommodated in the budget.

Previous studies have shown inconsistent results, such as [6]–[10] found that high participatory budgeting can reduce budgetary slack supply chain strategy. In [11] proves that management control systems can reduce dysfunctional supply chain strategy Budgetary slack supply chain strategy is an indication of dysfunctional supply chain strategy, in line with Husain's opinion [12] Budgetary slack is an unethical dysfunctional supply chain strategy. However, it is different from [13] that participatory budgeting cannot improve perceptions of slack control, whereas [14], [15] found evidence that budgetary slack supply chain strategy can improve managerial performance, meaning that budgetary slack is not always negative, as Otley's statement in [16] states that the concept of budgetary slack is positive and negative. This is done to protect from environmental uncertainty. In [17] state that slack can result in a waste

of resources even though it provides protection from unexpected economic changes.

Budgeting research in the public sector has been studied, and the results are inconsistent, such as [18]–[21] prove that participatory budgeting triggers budgetary slack, on the contrary [22], [23] states that participatory budgeting can reduce budgetary slack. Some results showed that participative budgeting had a substantially negative effect on budgetary slack and that participative budgeting had a substantially positive effect on job satisfaction. The substantially negative effect of job satisfaction as a mediating factor on budgetary slack was confirmed by this result. Public officials slack because there are internal interests, in line with the opinion of [24] that slack is done as an effort to anticipate public budgeting uncertainty, such as tightness of budget, the budget is prepared based on the law, revision is only possible after the legalization process of Regional Regulation (Perda). This process is time-consuming and very bureaucratic, so officials will submit more budgets to cope with non-programmed activities, such as funds for sick employees, holiday benefits, and natural disasters.

Differences in research results can be triggered by the influence of individual psychology involved in the budgeting process. To that end, it will include self-efficacy as a mediating variable that connects participatory budgeting with information dysfunctional supply chain strategy-manipulation and dysfunctional-gaming supply chain strategy. The motivation of research uses self-efficacy because this variable can measure the extent to which individuals have confidence and ability to control their thoughts, motivations and emotions in preparing a budget to participate in deciding a budget on environmental uncertainty. In [25]–[28] suggests using personal characters, such as self-efficacy to examine the effects of managerial characteristics in exploring dysfunctional supply chain strategy problems.

This research differs from the model proposed by [29], which uses the legitimating nature of control as a moderating relationship between management control systems and dysfunctional supply chain strategy, and the results are not significant. In [30], [31] linked self-efficacy with managerial performance variables. In [32] prove that the success of a business is determined by individual characteristics or personalities. In [33] revealed that personality traits that can change because they are influenced by experience and learning factors such as self-efficacy as personality traits and entrepreneurs with high self-efficacy have confidence that they are capable of solving business problems, following their business processes with good, and carry out its responsibilities. The results of [34] prove that auditors' audit judgments in East Java remain of high quality when they have high self-efficacy even though they are subject to compliance

pressure.

The social-cognitive theory introduced by [35] can predict that the participatory budgeting process will effect changes in human supply chain strategy through dynamic interactions between humans and their environment to share information in setting budget decisions. The dynamic process of interaction in processing information will have an impact on changes in social and cognitive processes. Changes in social processes lie in how humans as dynamic individuals are able to interact with their environment to share information, while changes in cognitive processes lie in how humans are able to see, remember, learn and think to process information. The process of social and cognitive change will affect the supply chain strategy according to thought to behave functionally or dysfunctional. This study focuses on discussing the negative consequences of participatory budgeting that have an impact on the creation of a dysfunctional supply chain strategy. Based on the empirical and theoretical phenomena described above, this study was conducted in East Java Province, and the research questions were: 1) does participatory budgeting have an influence on dysfunctional supply chain strategy? 2) Does self-efficacy have an influence on dysfunctional supply chain strategy? 3) Does participatory budgeting have an influence on dysfunctional supply chain strategy mediated by self-efficacy? The aim of this research is to test and analyze the effect of participatory budgeting on dysfunctional supply chain strategy empirically both directly and indirectly through self-efficacy contingency variables. This study provides theoretical benefits to explain the social-cognitive theory in predicting the relationship of participatory budgeting to dysfunctional supply chain strategy mediated by self-efficacy involving executive officials at East Java Province. In addition, contributing ideas for the development of supply chain strategy accounting, particularly the study of management accounting in the public sector.

## 2. Literature review

### 2.1 Social-Cognitive Theory

This research model uses the social-cognitive theory. Bandura (1977) explains that social-cognitive theory provides understanding, predictions, and changes in human supply chain strategy through interactions between humans and their environment. This theory is based on the proposition that both social processes and cognitive processes are central to understanding human motivation, emotions and actions. In [35] reinforces Bandura's statement that the perspective of social-cognitive theory portrays human function as a product of dynamic interactions of personal influence, supply chain strategy, and environment and when linked to individual supply chain strategy in their efforts to obtain information, each individual will interact actively and dynamically to get various information. Cognitive concepts can explain the process of how humans as

dynamic individuals are able to see, remember, learn and think to process information.

Based on the opinion of [36], [37], the socio-cognitive theory can provide understanding, prediction, and change in human supply chain strategy through interactions between humans and their environment which is influenced by how high and low the level of motivation, emotions and human actions and is influenced by several factors like, personal, supply chain strategy, and environment. In the end, it will affect supply chain strategy change to behave ethically or unethically through social and cognitive processes. This study leads to the negative consequences of participatory budgeting that have an impact on the emergence of dysfunctional supply chain strategy as unethical supply chain strategy.

## 2.2 Dysfunctional Supply chain strategy

In [38] state that budgeting can have negative or positive supply chain strategy effects, largely depending on how the budget is used. The budget has a positive supply chain strategy impact when each manager's goals are aligned with the goals of the organization and have the drive to achieve them, while negative supply chain strategy is included in the category of dysfunctional supply chain strategy because there is a basic conflict with organizational goals. Likewise, [38] shows that participatory budgeting can create supply chain strategy problems. The statement shows that individuals involved in the budgeting process tend to behave positively or negatively depending on how the budget will be used and this research will focus on the negative consequences of the budgeting process, namely dysfunctional supply chain strategy.

In [39] classify dysfunctional supply chain strategy into six broad categories, namely smoothing, biasing, focusing, games, filtering, and illegal actions. Smoothing is the act of using an information system that is advantageous by changing the initial planning data, without changing the actual activities in the organization so that manipulation is not seen, biasing is the act of choosing the best information and in accordance with favourable conditions, this situation when asked to provide estimates of events in the future-forward, the focus can occur when certain aspects are either enhanced (highlighted) or degraded (hidden), games occur when choosing the best course of action in making a report to the boss by redesigning a credible information system, filtering occurs when information is hidden because information can be used to hinder success or advance career, subordinate. Acts or forgery are acts of falsifying documents and reports intentionally, thus violating organizational norms.

## 2.3 Participatory Budgeting

In [40] state that participation methods offer additional benefits for management because lower

managers will disclose their personal information, reveal data about how well they can do work, or allow the introduction of new ideas that can help improve the process and [41] state that participatory budgeting can increase employee commitment to achieve budget goals.

In [41], [42] state that participatory budgeting in addition to having a number of positive impacts also has three potential problems, namely: 1) Setting standards that are too high or too low. 2) Make allowances in the budget (padding the budget). 3) False participation.

## 2.4 Self-Efficacy

In [43] cite Bandura's opinion that self-efficacy is one's belief in his ability to perform sufficient tasks. Human basic beliefs form the resulting supply chain strategy patterns so that [44] state that self-efficacy is one's belief in his ability to perform tasks. It is predicted by the social cognitive theory introduced by [45] that self-efficacy provides understanding, prediction and change in human supply chain strategy through interactions between humans and their environment through social and cognitive processes. Social and cognitive processes are influenced by the level of motivation, emotions, and actions of humans themselves in their efforts to process information.

In [46] state that cognitive, motivational, affective, and selection processes can influence individuals to think that individuals will be able to increase or weaken self-efficacy, depending on how and how well individuals can motivate themselves and survive facing adversity, maintain emotional quality, and maintain vulnerability to stress and depression, and the choices they make at important decision points. This opinion can be concluded that the four psychological, cognitive processes, motivation, affective, and selection are able to shape human self-efficacy to be high or low and humans have the ability to always exercise control over the nature and quality of life as their core from human nature.

In [47] also examined the basic model of individual self-efficacy, which affects the supply chain strategy patterns of individuals who have high self-efficacy or low self-efficacy derived from the ability of individuals to process ideas from their own. Experiences, experiences of others, verbal persuasion and psychological and emotional conditions of individuals. Company management requires employees who have strong self-efficacy personalities to do better, so the formulation needs to be prepared. Starts when employees go through the selection process to give awards. In [44] show several ways, such as accuracy in the process of recruiting employees, providing challenging assignments, training and coaching, setting goals, supporting leadership and guidance, giving awards. In [35] state that employee training activities can increase self-efficacy, and the opinion of [7] add that cultural factors can also affect the level of self-efficacy.

## 2.5 Hypothesis development

The effect of participatory budgeting on dysfunctional behaviour.

Previous research topics often linked participatory budgeting variables with slack budget variables, and this supply chain strategy was included in the category of dysfunctional supply chain strategy. Dysfunctional supply chain strategy variables give more meaning than budgetary slack. [7], [11] found evidence that high participatory budgeting can reduce budgetary slack supply chain strategy. In [32] proves that participatory budgeting as a management control system is able to reduce dysfunctional supply chain strategy. Previous studies linking participatory budgeting with budgetary slack supply chain strategy in the public sector, such as [6]; in [18] proves that participatory budgeting can reduce budgetary slack. Based on the empirical results and the explanation above, underlying the concept of thinking that when executive officials involved in the budgeting process in the public sector are involved in a high participatory budgeting process, then dysfunctional supply chain strategy becomes lower, so the research hypothesis can be formulated as follows:

H1: High participatory budgeting can reduce dysfunctional supply chain strategy.

## 2.6 Effects of Self-efficacy on Dysfunctional Supply chain strategy

[32] states that a supportive relationship can improve self-efficacy through problem management and provide positive incentives. Logically, Bandura's statement illustrates that the participatory budgeting mechanism allows there to be a dynamic relationship in formulating budget targets full of obstacles and problems. The involvement of subordinates in formulating budget targets will be responded positively because they can participate directly in decision making, have the opportunity to set goals and negotiate their budgets, so that participatory budgeting can be considered to increase self-efficacy with the ability of individuals to manage their psychological processes, namely cognitive aspects, motivation, affective and selection.

[16] show that participation in decision making can increase self-efficacy. This means that the ability of subordinates to deal with all problems in formulating budget targets depends on their ability to manage their psychological processes, by always learning from experience, being able to motivate themselves and endure difficulties, maintain emotional quality, maintain vulnerability to stress and depression, and choices that they make at important decision points. Based on the empirical results and the explanation above, underlying the concept of thinking that when executive officials involved in the budgeting process in the public sector are involved in a high participatory budgeting process, it will form a high

aspect of self-efficacy by managing psychological aspects, so that research hypotheses can be formulated as follows:

H2: High participatory budgeting can increase self-efficacy

## 2.7 Effects of Participatory Budgeting on the Dysfunctional Supply chain strategy Mediated by Self-Efficacy

The participatory budgeting mechanism has a positive impact on the attitudes and supply chain strategy of the individuals involved. Explained by [14] states that someone who has high self-efficacy tends to have expectations of success and goal-oriented, so they always try to evaluate past events, manage stress and emotions, learn from the success of others, whereas someone with self-efficacy low tends to feel worried and always thinks of failure and unable to do quality tasks.

In [32] prove that the neuroticism personality character has a positive effect on self-efficacy. Neuroticism has a character who is always calm in dealing with tense situations and is able to manage stress well, then this type of personality has an impact on high managerial performance. In [35] used an experimental method with the aim of seeing cognitive aspects in the process of participation in decision making and the results proved that self-efficacy was able to mediate the relationship between participation in decision making on performance. In [40] prove that there is a positive relationship between self-efficacy and managerial performance, meaning that individuals who have high self-efficacy will have high managerial performance as well.

The mindset and supply chain strategy of individuals tend to be positive or negative depending on their intentions and thoughts, but basically, humans have the ability to control their intentions and thoughts in determining their moral choices for a better quality of life, and that is the essence of human nature, as revealed by [7], and this ability is the core of human nature. That humans also have multiple moral choices to refrain from behaving ethically or unethically, as revealed by [48] that moral agency has multiple aspects and is manifested in both the power to refrain from inhuman supply chain strategy and the proactive power to behave humanely. Based on the empirical results and the explanation above, underlying the concept of thinking that when executive officials involved in the budgeting process in the public sector are involved in high participatory budgeting processes, then dysfunctional supply chain strategy becomes lower when officials have high self-efficacy, so the research hypothesis can be formulated as follows:

H3: High participatory budgeting can reduce dysfunctional supply chain strategy through self-high efficacy.

### 3. Methodology

This is quantitative research in [22] state that quantitative research is often used to measure supply chain strategy, knowledge, opinions or attitudes. This study will measure the supply chain strategy, attitudes, perceptions of the Head of the SKPD and the Head of Section at each SKPD at the provincial level of East Java. Based on these explanations, the main theory used as the thinking frame of this study is agency theory, continuous theory and social cognitive theory. This theory is used to explain and provide empirical evidence of the effect of participatory budgeting on dysfunctional supply chain strategy-information manipulation, dysfunctional-gaming supply chain strategy that is mediated by self-efficacy.

#### 3.1 Variable Participatory Budgeting

Participatory budgeting is the level of participation involving individuals in the budgeting process and has an influence in determining the achievement of budget targets at the centre of accountability. This variable is operationalized as a construct to measure the level of participation of individuals involved in the budgeting process up to the final results, to measure this variable in use an instrument developed and validated by Yu-Ni et al. (2009). Consists of five indicators with a scale of one to seven.

Self-efficacy is defined as a manager's belief in his ability to carry out his duties. This variable is operationalized as far as management feels about the skills in their jobs, abilities, qualifications, and self-confidence. The instrument used in this variable is an instrument developed and validated by [19]. Consists of eight indicators with a scale of one to seven. This instrument uses interval measurement scales and measurement techniques variables with a differential semantic scale, starting from point 1 (strongly disagree) to point 7 (strongly agree), meaning that point 7 describes high self-efficacy and point 1 describes low self-efficacy.

#### 3.2 Dysfunctional behaviour

It is a latent variable that has two dimensions, namely: Information dysfunctional-manipulation supply chain strategy and gaming-dysfunctional supply chain strategy. The operational definitions are as follows: Dysfunctional supply chain strategy - information manipulation is an act of manager who intentionally removes or manipulates information by selecting the information that is the best and in accordance with conditions that are favourable for its performance to be reported to its superiors. Dysfunctional-gaming supply chain strategy is an act of managers who deliberately play a measure of performance by choosing activities that are more profitable so that their performance looks good to be reported to their superiors. The instrument used in

this study is an instrument developed by [40], consisting of 7 items on a scale of one to seven. This instrument uses the interval measurement scale and the technique of measuring the semantic variable different scale.

#### 3.3 Population and Sample

The population is executive officers involved in the budgeting process in 38 City Regencies in East Java Province. The sampling technique uses quota sampling. [39] explains that quota sampling is a technique for determining samples from populations that have certain characteristics until the desired amount (quota) is fulfilled. Specific characteristics of the respondents sampled were executive officers in East Java who were actively involved in the budget formulation team. In [45] suggest that the appropriate sample size ranges from 100-200 respondents, and in accordance with the analysis techniques used using PLS is sufficient to represent the population. The data collection method uses mail surveys, both online and offline.

The analysis of this study uses Structural Equation Modeling (SEM) with a variance-based approach or component-based with partial least square (PLS). [36] shows the steps in the PLS analysis technique. First step: Measurement model or the outer model. Outer model is to test the level of validity and reliability. Validity test is measured by convergent validity, which is to see the correlation between the score of the reflexive indicator and the latent variable score, using loading 0.5 to 0.6. In addition, discriminant validity is measured, that is by looking at cross-loading with its latent variable. Another method is by comparing the square root of the average variance extracted (AVE) values of each construct with the correlations between other constructs in the model. If the initial measurement values of the two methods are better than the other construct values in the model, it can be concluded that the construct has a good discriminant validity value or vice versa. Accordingly, it is recommended that measurement values be greater than 0.50. Reliability test uses composite reliability. This measurement is to see whether the block indicator can measure the internal consistency of construct indicators. The accepted limit value for the composite reliability level is 0.7. Second step: Structural model or the inner model. The inner model is evaluated by looking at the percentage of variance described by looking at R<sup>2</sup> (R Square exogenous variables) for the latent dependent construct using the size of the stone-Geisser Q Square test and looking at the magnitude of the structural path coefficients. The stability of this estimate is evaluated using a statistical test obtained through the bootstrapping procedure. The measurement uses R-square dependent latent variables with the same interpretation as regression.

Step Three: Interpret research results to answer hypotheses.

## 4. Results

### 4.1 Demographic Data

Research subjects in the collection of initial data can rely on colleagues, substitute respondents or real respondents. Based on Cooper and Schindler's opinion, the initial questionnaire plan that will be distributed as many as 45 copies targeting female and male official respondents as field officials II in the OPD environment is equipped with 130 respondents who are elaborated with details that:

**Table 1.** Demographic Respondents

No.	Type	Description	Total
1.	Gender	Men	70
		Women	60
2.	Age	Less 25 years	1
		25-35 years	23
		Over 35 years	106
3.	Work Experienced	1-3 years	18
		4-6 years	13
		7-10 years	9
		Less than ten years	7
		More Than ten years	83
4.	Education	SMA	26
		D3	2
		S1	50
		S2	35
		S3	17

### 4.2 Research Analysis and Results

First step: Measurement model or outer model  
 Evaluation of the outer model is done through two stages of measurement, which will then be explained directly in stage II. Outer model to determine the validity and reliability of the indicators and constructs used. Validity is measured through convergent validity and discriminant validity, while reliability is measured through composite reliability. Outer model

evaluation is done on variables with reflective indicators, on variables with reflective indicators assuming indicators are bound to one another in reflecting their latent constructs.

#### a. Analysis of Convergent Validity Phase II

Convergent validity in PLS with reflective indicators is assessed based on outer loading. The rule of thumb used for convergent validity is outer loading > 0.50 and average variance extracted (AVE) > 0.50 [15]. Indicators said to be valid can also be assessed from the value of T-statistics, provided that if the value of T-statistics is greater than 1.96, then the indicator is said to be valid. Here are the outer loading values for each indicator in the participatory budgeting variable, Self-Efficacy and Functional Supply chain strategy.

**Table 2.** Outer Loading Value (step 2)

Variable	Indicator	Outer Loading	Keterangan
Dysfunctional Supply chain strategy	DB4	0.703784	Valid
	DB6	0.817917	Valid
	DB7	0.764692	Valid
Participative Budgeting	PB1	0.869645	Valid
	PB2	0.892368	Valid
	PB3	0.867389	Valid
	PB4	0.890260	Valid
	PB5	0.581782	Valid
Self-Efficacy	SE2	0.858821	Valid
	SE4	0.862383	Valid
	SE5	0.657042	Valid

Validity evaluation, it is known that all indicators on the research variable already have an outer loading value greater than 0.50, so that all indicators are concluded to be valid in measuring each research variable and meeting convergent validity so that it can be used for further analysis. The results of convergent validity evaluation based on outer loading values for each indicator can also be seen in the following.

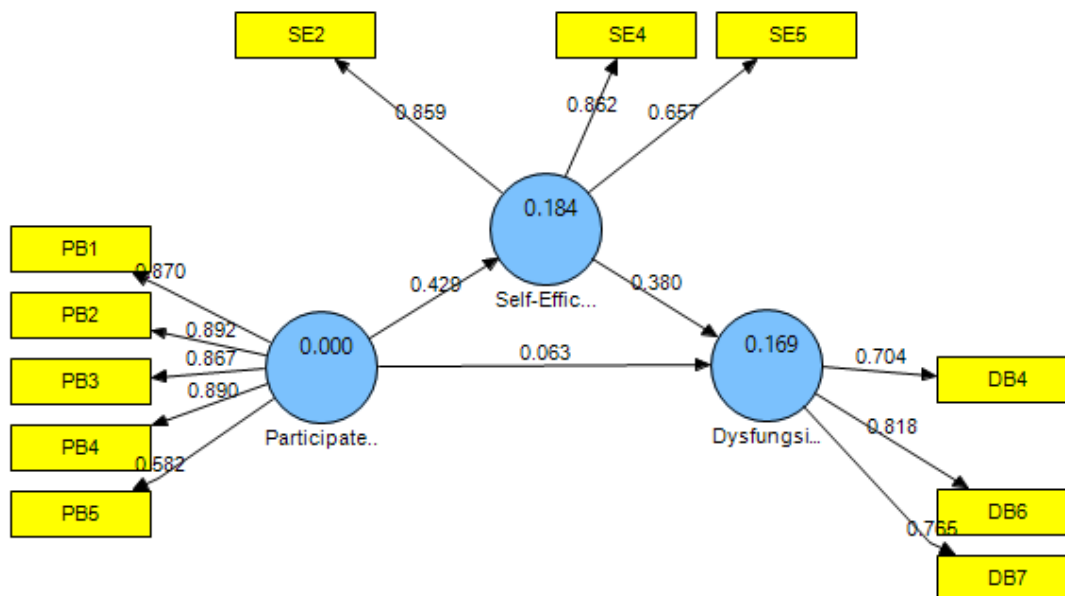


Figure 1. Evaluation of Outer Model Phase II

In addition to using outer loading and T-statistics values, convergent validity testing can also be done by looking at the Average Variance Extracted (AVE) value. AVE values for each construct of Participative Budgeting, Self-Efficacy and Dysfunctional Supply chain strategy are presented in the following table:

Table 3. AVE

Variable	AVE
Dysfunctional Supply chain strategy	0.583018
Participative Budgeting	0.687200
Self-Efficacy	0.637661

Based on the AVE value, all constructs / latent variables have an AVE value greater than 0.50, so that the indicators on the construct of Participative Budgeting, Self-Efficacy and Dysfunctional Supply chain strategy, are all concluded to be valid in measuring latent variables or meeting convergent validity.

a. Analysis of Discriminant Validity Phase II

Discriminant validity is seen based on the cross-loading value for each indicator in the construct formed. An indicator is said to meet discriminant validity if the indicator has a greater cross-loading value on the construct formed, compared to other constructs. The results of discriminant validity testing through cross-loading calculations are presented in the table below.

Table 4. Cross Loading Value (Step II)

Indicator	Dysfunctional Supply chain strategy	Participative Budgeting	Self-Efficacy
DB4	0.703784	0.173014	0.229440
DB6	0.817917	0.217477	0.378917
DB7	0.764692	0.117815	0.296830
PB1	0.220800	0.869645	0.402707
PB2	0.178466	0.892368	0.337944
PB3	0.159593	0.867389	0.410135
PB4	0.201206	0.890260	0.377929
PB5	0.180150	0.581782	0.209189
SE2	0.383308	0.352278	0.858821
SE4	0.367835	0.342680	0.862383
SE5	0.199075	0.340279	0.657042

DB4	0.703784	0.173014	0.229440	Valid
DB6	0.817917	0.217477	0.378917	Valid
DB7	0.764692	0.117815	0.296830	Valid
PB1	0.220800	0.869645	0.402707	Valid
PB2	0.178466	0.892368	0.337944	Valid
PB3	0.159593	0.867389	0.410135	Valid
PB4	0.201206	0.890260	0.377929	Valid
PB5	0.180150	0.581782	0.209189	Valid
SE2	0.383308	0.352278	0.858821	Valid
SE4	0.367835	0.342680	0.862383	Valid
SE5	0.199075	0.340279	0.657042	Valid

Based on the table above it is known that all indicators already have a high cross-loading value in general on the variable they form and are low in other variables, so it is concluded that all indicators are valid in forming constructs.

a. Phase II Reliability Analysis (Composite Reliability)  
Reliability testing in PLS can use two methods, namely Cronbach's alpha and composite reliability. Cronbach's alpha measures the lower limit of reliability while



composite reliability measures the true value of the reliability of a construct. Composite reliability is considered better in estimating the internal consistency of a construct. The rule of thumb value of composite reliability must be greater than 0.70, although the value of 0.60 is still acceptable.

The following are the results of the calculation of the outer model stage composite reliability evaluation phase II on the variable Participative Budgeting, Self-Efficacy and Dysfunctional Supply chain strategy:

**Table 5.** Composite Reliability (II)

Variable	Composite Reliability
Dysfunctional Supply chain strategy	0.806909
Participative Budgeting	0.914935
Self-Efficacy	0.838795

Based on the table above, it can be seen that all variables that have a composite reliability value greater than 0.70, so it can be concluded that the variable is reliable/reliable.

*Evaluation of Structural Model (Inner Model)*

The structural model (inner model) in PLS is evaluated by using R2 for the dependent construct, and the path coefficient or t-value (t-statistics) for the significance test between constructs. The higher the value of R2 means the better prediction of the proposed model. The path coefficient or inner model score indicated by the t-statistics value must be above 1.96 for testing hypotheses on alpha (research error

rate) of 5%.

a. R-square analysis

Based on data processing by PLS, the coefficient of determination (R-square) is produced as follows:

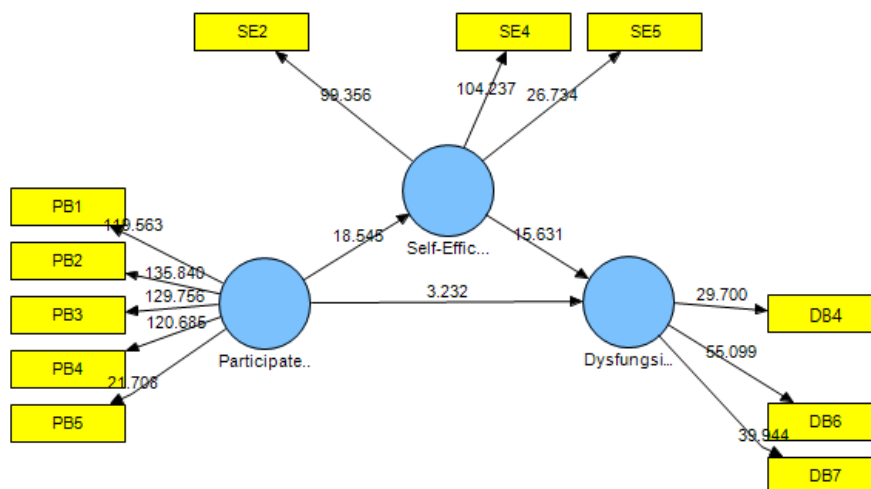
**Table 6.** R Square

Variable	R Square
Dysfunctional Supply chain strategy	0.168662
Participative Budgeting	-
Self-Efficacy	0.184303

R-square value on the variable Self-Efficacy is 0.184303, meaning that the magnitude of the influence of Participative Budgeting on Self-Efficacy is 18.4%. R-square value on the Dysfunctional Supply chain strategy variable is 0.168662, which means the influence of Participative Budgeting and Self-Efficacy on the Dysfunctional Supply chain strategy is 16.8%.

a. Hypothesis Testing with Inner Weight

The next step is to test the hypothesis using t-statistics. The parameter of the presence or absence of partial effect can be determined based on the t-statistics value, with the provision that through the comparison of t-statistics 96 1.96, there is the influence of exogenous variables on endogenous variables or endogenous variables on endogenous variables. Conversely, if t-statistics <1.96, there is no influence of exogenous variables on endogenous variables or endogenous variables on endogenous variables. The results of calculating the T-statistics values through the evaluation of the inner model are presented in the following figure:



**Figure 2.** T Statistic Value

The results of the calculation of the T-statistics value through the evaluation of the inner model in Figure 5.9 above, are then used to test the hypothesis of the

influence between variables, as presented in the Hypothesis Testing table with the Inner Weight below:



**Table 7.** Hypothesis Test with Inner Weight

Inter-variable Influence	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )	
Participative Budgeting -> Dysfunctional Supply chain strategy	0.062552	0.019355	3.231828	Supported
Participative Budgeting -> Self-Efficacy	0.429305	0.023150	18.544619	Supported
Self-Efficacy -> Dysfunctional Supply chain strategy	0.379926	0.024306	15.631109	Supported

Hypothesis Testing Table with Inner Weight above can be explained as follows:

- 1) The magnitude of the influence of Participative Budgeting on Dysfunctional Supply chain strategy is 0.062552 with a T-statistics value of 3.231828, where the T-statistics value is greater than 1.96, so it can be concluded that Participative Budgeting has a significant positive effect on Dysfunctional Supply chain strategy, the greater the Participative Budgeting will have a real impact on Dysfunctional Supply chain strategy. Thus, the first hypothesis stating Participative Budgeting has a significant effect on Dysfunctional Supply chain strategy. Thus, the first hypothesis which states that Participative Budgeting is high reduces Dysfunctional Supply chain strategy is not proven.
- 2) The magnitude of the influence of Participative Budgeting on Self-Efficacy is 0.429305 with a T-statistics value of 18.544619, where the value of T-statistics is greater than 1.96, so it can be concluded that Participative Budgeting has a significant positive effect on Self-Efficacy, the greater Participative Budgeting will have a real impact on Self-Efficacy. Thus, the first hypothesis stating Participative Budgeting has a significant effect on increasing Self-Efficacy supported.
- 3) The magnitude of the effect of Self-Efficacy on Dysfunctional Supply chain strategy is 0.379926

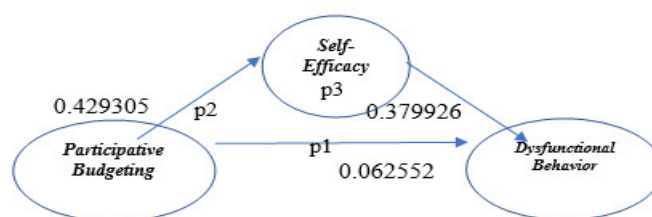
with a T-statistics value of 15.631109, where the value of T-statistics is greater than 1.96, so it can be concluded that Self-Efficacy has a significant effect on Dysfunctional Supply chain strategy, the greater Self-Efficacy will have a real impact on Dysfunctional Supply chain strategy. Thus, the first hypothesis stating Self-Efficacy has a significant effect on Dysfunctional Supply chain strategy.

#### c. Testing Mediation Effects

Testing the effect of intervening variables used the path analysis method. Path analysis is the path coefficient to estimate whether or not the influence of the variable or the others. Based on the criteria in the intervening test, automatically testing the direct and indirect effects must be carried out. Each path tested shows direct and indirect effects. The path coefficient value can be seen in the following relationship path:

Direct and indirect effects of Participative Budgeting on Dysfunctional Supply chain strategy through Self-Efficacy

The results of statistical analysis can be concluded that Participative Budgeting influences Dysfunctional Supply chain strategy and also to Self-Efficacy with T-statistics > 1.96, respectively 3.231828 and 18.544619. Thus, it can be concluded that the assumption of the main effects of the independent variables on the dependent variable must be fulfilled significantly so that the mediation effect test can be carried out [28].

**Figure 3.** Path analysis participative budgeting on dysfunctional supply chain strategy through self-efficiency**Table 8** Mediation Influence Test Results

Pengaruh Antar Variable	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )	
Participative Budgeting -> Dysfunctional Supply chain strategy	0.062552	0.019355	3.231828	supported
Participative Budgeting -> Self-Efficacy	0.429305	0.023150	18.544619	supported
Self-Efficacy -> Dysfunctional Supply chain strategy	0.379926	0.024306	15.631109	supported

Based on the path analysis picture that the effect of participatory budgeting on the dysfunctional supply chain strategy mediated by self-efficacy obtained the following values:

1) Direct Effect (Direct Effect)

p1: Participative Budgeting -> Dysfunctional Supply chain strategy = 0.062552

2) Indirect effect (Indirect Effect)

Participative Budgeting -> Self-Efficacy-> Dysfunctional Supply chain strategy

$P2 \times p3$

$0.429305 \times 0.379926 = 0.163121228$

3) Total effect (Total Effect)

$Tp123 = Tp1 + (Tp2 \times Tp3)$

$= 0.062552 + (0.429305 \times 0.379926)$

$= 0.223673228$

Thus, it can be concluded that this mediation is only full mediating (fully mediating) because the direct effect of Participative Budgeting-> Dysfunctional Supply chain strategy (p1) is smaller than the indirect effect of Participative Budgeting-> Self-Efficacy-> Dysfunctional Supply chain strategy (p2xp3) with a total effect of 0.223673228 or 22.3%. Based on the results of mediation testing provide evidence of a third hypothesis that high participatory budgeting can reduce dysfunctional supply chain strategy through high self-efficacy not proven

## 5. Discussion

### 5.1 The Effect of Participative Budgeting on Dysfunctional Supply chain strategy

The results showed that the first hypothesis was not supported. The empirical results can be interpreted that public officials who are actively involved in the budgeting process tend to manipulate information so that their performance looks good to be reported to their superiors. The findings of the research are evidenced from the respondents' answers which stated that as many as 39.2% of officials involved in the budgeting process had an important contribution to the preparation of the budget so that they had flexibility in managing the budget that was beneficial to their performance. In addition, as many as 36.9% of public officials tend to present data or information to superiors who benefit their performance. This was done so that the performance was still considered well by superiors because 29.2% stated that they chose to present information to make it look better. This condition means that the blame is not entirely on the official concerned; this is triggered by the uncertainty of the convoluted public budgeting process and bureaucracy, which triggers officials to do so. Such supply chain strategy needs to be watched out, which will have an impact on activity-based performance measures and indirectly provide opportunities for fraud.

In [13] explain that public officials carry out slack as an effort to anticipate public budgeting uncertainty, such as proposing more budget in order to cope with

activities that are not programmed, for example, funds for sick employees, holiday benefits, and natural disasters. For this reason, the results of the study support several previous studies in the public sector, although dysfunctional supply chain strategy is peroxide by budgetary slack, such as [32], [49] provide empirical evidence that participatory budgeting can improve budgetary slack supply chain strategy, conversely [50]; In [43] proves that participatory budgeting can reduce budgetary slack.

### 5.2 The Effect of Participatory Budgeting on Self-efficacy

The results of the study can prove the second hypothesis that high participatory budgeting can increase self-efficacy. This study can illustrate that when executive officials are increasingly involved in the budgeting process, it will form a high self-efficacy. This research provides empirical evidence that when subordinates are actively and dynamically involved in determining budget targets, then they will feel a challenging obligation in realizing budget targets. This condition encourages subordinates to have high self-efficacy, which is sourced from previous experiences, experiences of others, motivation from within and motivation from others. In addition, high self-efficacy is a good form of emotional control in preparing a budget. In line with the opinion of [20] states that the pattern of self-efficacy supply chain strategy is influenced by four sources, namely from one's own experience, the experience of others, verbal persuasion and psychological and emotional conditions. A high level of self-efficacy will have an impact on success.

Research studies show 33.8% state that many public officials are involved in discussions with superiors related to budget preparation, thus influencing efforts to realize budget targets. This condition is supported by the level of experience and emotional control, as many as 36.9% stated that past experience could increase confidence in undergoing the budgeting process. This statement is supported by the respondents' work experience of more than ten years by 64% and the age of respondents over 35 years by 81%. These conditions indicate a mature age in emotional control and good work experience in dealing with the complexities of the budgeting process.

The research findings are able to explain the social-cognitive theory that changes in human supply chain strategy occur because there is an interaction between humans and the environment. This theory is based on the proposition that both social processes and cognitive processes are central to understanding human motivation, emotions and actions. This study supports the research of Latham et al. (1994) show that participation in decision making can increase self-efficacy. This means that the ability to address all problems in formulating budget targets depends on their ability to manage their psychological processes through experience, self-motivation and withstand adversity, maintaining emotional quality and vulnerability to stress

and depression. However, it is not in line with the research of Yu-Ni et al. (2009) that participatory budgeting does not have an effect on increasing self-efficacy.

### **5.3 Effects of Participatory Budgeting on Dysfunctional Supply chain strategy Mediated by Self-Efficacy**

The test results are not able to prove the third hypothesis, because the results of this study provide empirical evidence that the involvement of subordinates in the budgeting process is higher but unable to reduce dysfunctional supply chain strategy through high self-efficacy. This study successfully revealed that officials who have high levels of self-efficacy will be able to process information optimally in the participatory budgeting process and have confidence in success in achieving budget targets, in line with the opinion of [33] states that individuals who have high self-efficacy are oriented towards organizational goals, by trying to evaluate past events, controlling stress and emotions, and always learning from the success of others, and supported by the opinion of expert psychologists that beliefs are the basic efficacy this human being forms the resulting supply chain strategy patterns [21].

The results of this study support social-cognitive theory, being able to predict changes in human supply chain strategy through social and cognitive processes in participatory budgeting mechanisms. The social process lies in how executive officials as dynamic individuals are able to interact with their environment in exploring information, while the cognitive process lies in the ability to see, remember, learn and think to process information. Changes in social and cognitive processes will believe and believe that what is thought will affect their supply chain strategy.

Managers who have high self-efficacy are supported by the core of human nature itself, which has the moral choices to live better quality. This opinion is in line with the thought of [6] that humans have the ability to exercise control over the nature and quality of life; this ability is the essence of human nature. In [29] adds that moral agency has a dual aspect that is manifested in both the power to refrain from behaving unethically and the proactive power to behave ethically. This is what drives individuals to behave ethically because besides having high self-efficacy and good morals, they tend to perform better or behave dysfunctional low. However, it is not in line with this research that officials tend to manipulate information so that their performance looks good. This condition is triggered by the complexity of the bureaucracy and uncertainty in the budgeting process so that it encourages officials to manipulate information, which is actually not for their personal interests, for example, there is no budget for employee recreation. Even though recreational activities are very important to reduce work stress, they cannot be budgeted.

The results of this study support the research of [19] because the results of his study showed that the self-efficacy variable was not able to mediate the relationship of participatory budgeting with managerial performance and job satisfaction. The results of this study do not support the research of [14] that self-efficacy is able to mediate the relationship between participation in decision making on performance, and although the study uses performance the results of the study provide a picture that is almost the same as this study.

### **5.4 Research Implications and limitations**

The practical implications of the research can provide input to the East Java provincial government that in an effort to increase self-efficacy can be done by increasing training, coaching employees and giving material and non-material rewards, so inviting recreational employees is very important. For this reason, it is necessary to review the policies that govern budget allocations for employee welfare. In [17] show several ways to improve self-efficacy, such as starting from carefulness in the process of recruiting employees, assigning challenging tasks, training and coaching, setting goals, supporting leadership and mentoring, and giving awards. In addition, [15] also revealed that employee training activities could increase self-efficacy. Theoretical implications can contribute to the idea that social-cognitive theory is able to predict changes in human supply chain strategy through social and cognitive processes in participatory budgeting mechanisms.

The limitations of this study are not able to capture the phenomenon of dysfunctional supply chain strategy predicted by participatory budgeting and self-efficacy, because the value of R<sup>2</sup> is only about 16%, which means 94% is influenced by other variables outside the research model. For this reason, it is recommended for further research to use other personal character variables, such as gender and locus of control (LOC), both internal and external.

## **6. Conclusions and Suggestions**

The results showed that officials who were actively involved in the budgeting process in East Java Province tended to manipulate information by having high self-efficacy. Manipulation of information, such as choosing to be safe in making budgets and presenting data or reports that have a beneficial effect on their performance. This condition means that the blame is not entirely on the official concerned; this is triggered by uncertainty in the convoluted public budgeting process and bureaucracy, which triggers officials to do so. That supply chain strategy needs to be watched out will indirectly give an opportunity to commit fraud. Research suggestions provide input for further research to include other variables, such as gender or LOC in examining the relationship of participatory budgeting with dysfunctional supply chain strategy and in particular for the East Java Provincial Government to review policies related to employee awards and improve employee

training in shaping their self-efficacy attitude.

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