

Social Cognitive Theory Implementation: The Impact of Herding Behavior on Boosting Budget Absorption

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ABSTRACT

The Ministry of Religious Affairs (MoRA) mandated 70% budget absorption target by July. MoRA's Central Java Province achieved 48–49% in 2022–2023. No prior research whether herding bias moderate the relationship between these structural factors and budget absorption. Study aims: analyze the direct effects of budget planning, budget revisions, and regulations on budget absorption, examine whether herding bias moderates these relationships. Grounded in Bandura's Social Cognitive Theory, about behavior results from interactions between personal, behavioral, and environmental factors. Method: A quantitative, with purposive sampling of 100 respondents. Results: The absence of herding moderation is explained by the dominance of personal factors within SCT. Officers possess high competence, extensive experience and emotional stability, which enable independent decision-making. Conclusion: personal factors can override herding bias in public sector.

Keywords: *Budget Absorption; Herding Bias; Social Cognitive.*

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ABSTRAK

Kementerian Agama (Kemenag) menetapkan target penyerapan anggaran sebesar 70% hingga bulan Juli. Kantor Wilayah Kemenag Provinsi Jawa Tengah mencapai 48–49% pada tahun 2022–2023. Belum ada penelitian sebelumnya yang meneliti apakah bias herding memoderasi hubungan antara faktor-faktor struktural tersebut dan penyerapan anggaran. Tujuan penelitian: menganalisis efek langsung dari perencanaan anggaran, revisi anggaran, dan regulasi terhadap penyerapan anggaran, serta menguji apakah *herding bias* memoderasi hubungan-hubungan tersebut. Berdasarkan Teori Kognitif Sosial Bandura, yang menyatakan bahwa perilaku merupakan hasil interaksi antara faktor pribadi, perilaku, dan lingkungan. Metode: Kuantitatif, dengan sampling purposif terhadap 100 responden. Hasil: Tidak adanya moderasi herding dijelaskan oleh dominasi faktor pribadi dalam SCT. Pejabat memiliki kompetensi tinggi, pengalaman yang luas, dan stabilitas emosional, yang memungkinkan pengambilan keputusan secara mandiri. Kesimpulan: faktor pribadi dapat mengesampingkan bias herding di sektor publik

Kata Kunci: *Penyerapan Anggaran; Herding Bias; Kecerdasan Sosial.*

INTRODUCTION

The implementation of government programs is regulated in the State Revenue and Expenditure Budget, or well-known in Indonesia as Anggaran Pendapatan dan Belanja Negara (APBN), as a guideline for state revenues and expenditures to carry out state duties. The performance is assessed from the level of management and budget absorption effectiveness (Marlena et al., 2022). The Minister of Religious Affairs made a policy to absorb 70% in July (Ministry of Religious Affairs, 2023). Several supporting factors that influence bad practice in budget absorption at the end of the year, including environmental, moral, and personal factors (Hartanto et al., 2020). Since 2022, the Ministry of Religious Affairs in Central Java Province has been implementing this policy, and could not realize budget absorption for 70% by July.

Table 1
Budget Absorption of July 2022-2023, The Ministry of Religious Affairs of Central Java Province

Year	Budget Withdrawal Plan (Rp)	Budget Absorption per Juli (Rp)	Percentage (%)
2022	6.716.754.799.000	3.253.078.079.166	48,43
2023	6.964.254.771.000	3.463.370.293.803	49,34

Source: OMSPAN, 2022-2024

The budget absorption in 2022 and 2023 was under 70% by July. The failure of budget absorption that happened in 2022 and 2023 will be analyzed as follows.

Table 2
Comparison of the Budget Withdrawal Plan with the Budget Absorption
Year 2022 and 2023

Month	2022		2023	
	Budget Withdrawal Plan	Budget Absorption	Budget Withdrawal Plan	Budget Absorption
1	905.052.804	413.363.278	6.488.804.245	5.117.738.498
2	1.156.907.048	1.117.949.971	13.036.654.411	10.343.985.991
3	1.690.206.619	1.298.000.712	14.158.347.304	12.090.946.837
4	5.112.537.901	2.260.059.717	19.489.186.410	19.850.004.304
5	2.168.695.828	1.316.527.654	13.068.490.195	11.310.258.514
6	1.109.469.348	2.042.525.505	25.539.637.196	18.933.000.563
7	7.378.704.870	1.817.296.637	16.382.323.962	10.913.258.514
8	2.355.634.890	1.135.114.491	13.900.992.912	9.452.672.079
9	1.146.319.474	1.150.378.317	13.473.132.594	15.282.774.984
10	1.468.334.008	1.199.308.292	9.771.926.391	16.150.515.812
11	1.094.334.097	1.296.982.589	14.013.363.947	16.688.839.459
12	1.094.334.097	1.296.982.589	14.013.363.947	16.688.839.459

Source: OMSPAN, 2022-2023

One of the budget absorption patterns is influenced by budget planning. Budget planning is a reference in preparing revenue, expenditure, and financing plans for a certain period. Undetailed planning on budget management will impact revision and budget blocking, which greatly determines budget absorption. The study was strengthened by Sirin et al., (2020) and Gusmartina et al., (2021) which stated that budget planning had a significant positive effect on budget absorption. However, these results contradict Laila Yuliani & Lestari (2022) and Handayani et al., (2022) which stated that good budget planning cannot increase budget absorption.

Budget revisions are closely related to the budget absorption process. According to Suwito's (2020) research, the quality of DIPA, which is determined by the number of revisions and the accuracy of cash planning that underpins the budget withdrawal plan, significantly influences budget absorption. Nengsih et al., (2021), Christofer & Darmawati (2024) showed a significant positive influence of budget revision factors on budget absorption. On the other hand, Cahyaningtyas & Gunawan (2023) and Roswinna et al. (2023), proved that the number of revisions does not have a significant effect on budget absorption.

The next factor that influences budget absorption is regulation, because ratifying regulations will have an impact on the budget preparation process, and delays in budget absorption (Kuntadi & Dian Rosdiana, 2022). Research by Oktaliza et al., (2020) and Sutono et al., (2022) confirms that regulation has a positive effect on the level of budget absorption. On the other hand, Rifai et al., (2016) and Rizky Pratiwi & Sukmawijaya (2023) stated that the regulation does not have a significant effect on budget absorption.

While previous studies have examined the effects of budget planning, budget revisions, and regulations on budget absorption, their findings remain inconsistent. Some studies report a significant positive effect of budget planning and regulations on absorption (Gusmartina et al., 2021; Oktaliza et al., 2020), while others find no significant effect (Laila Yuliani & Lestari, 2022; Rizky Pratiwi & Sukmawijaya, 2023). Similarly, budget revisions have been found to either hinder or not significantly affect absorption (Suwito, 2018; Cahyaningtyas & Gunawan, 2023). These inconsistencies suggest the presence of unexplored moderating variables that may influence the strength or direction of these relationships.

Most existing research focuses on structural or procedural factors, largely ignoring the psychological and behavioral dimensions of budget managers. Specifically, the role of herding bias, as the tendency to follow the actions of others rather than exercising independent judgment, has been extensively studied in financial markets but rarely examined in public sector budget management. This omission is critical because budget absorption involves repeated decisions made under uncertainty, time pressure, and social influence, making herding behavior a plausible moderator.

To address this gap, this study draws on Bandura's Social Cognitive Theory (SCT), particularly the Triadic Reciprocal Determinism model, which posits that human behavior is shaped by the dynamic interaction of three factors: personal (cognitive and emotional), behavioral, and environmental (Wood & Bandura, 1989). In the context of budget absorption: 1) personal factors include the competence, experience, and self-efficacy of budget officers, 2) behavioral factors include budget planning, revision actions, and regulatory compliance, and 3) environmental factors include organizational policies, social norms, and peer behavior.

Herding bias occurs when individuals mimic the decisions of a group, assuming that others possess superior information or judgment (Ahmed et al., 2022). In public sector settings, budget officers may observe peers or other work units achieving high absorption and feel pressured to imitate their strategies even when such imitation is not aligned with their own planning or regulatory obligations. This study proposes that herding bias acts as a moderating variable for three reasons as follows.

- 1) Uncertainty: When regulations are ambiguous or planning outcomes are uncertain, officers may rely on peer behavior as a heuristic.
- 2) Social pressure: The 70% absorption target creates performance visibility, encouraging herding to avoid appearing ineffective.
- 3) Lack of information: Officers with limited experience or data may default to following successful peers.

However, SCT suggests that herding is not automatic; it depends on personal factors like self-efficacy and analytical competence. Therefore, this study tests whether herding bias strengthens the influence of budget planning, revisions, and regulations on absorption or whether it is neutralized by officers' internal motivation and self-evaluation.

Given the persistent underachievement of budget absorption targets and the lack of behavioral explanations in existing literature, this study addresses the following research problem: How can the 70% budget absorption target be achieved in work units of the MoRA Central Java Province, considering the moderating role of herding bias? The specific objectives are:

- 1) To analyze the direct effects of budget planning, budget revisions, and regulations on budget absorption.
- 2) To examine whether herding bias moderates the relationships between (a) budget planning, (b) budget revisions, and (c) regulations on budget absorption.

By integrating SCT with behavioral finance concepts of herding bias, this study offers a novel contribution to public financial management literature and provides practical insights for improving budget absorption in government institutions.

LITERATURE REVIEW

Individual behavior in budget absorption, planning, revision, and review of regulations cannot be separated from the social psychology theory, specifically social cognitive theory which focuses on the reciprocal relationship between human behavior, personal elements, and external elements or the surrounding environment (Triadic reciprocal determinism model) (Wood & Bandura, 1989). Social cognitive theory is a

theory that emphasizes the idea that most human learning occurs in a social environment. According to Abdullah (2019), the triadic reciprocal determinism model provides an understanding of the interaction of relationships that influence each other between individual personal factors, the environment, and behavior. In this SCT, reciprocal determinants can be described as an important hypothesis of urgent discussion in Albert Bandura's social learning approach. The rule shows that human behavior is the result of a relationship between three variables: behavior, personal, and environment. Human mental function is a product of interaction between behavior, individuals, and the environment.

An individual shows behavioral bias in decision-making. Behavioral bias, including emotional and cognitive bias. Cognitive bias (overconfidence) and emotional bias (herding bias) could lead to risk perception in decision-making (Kahneman & Tversky, 1979). Due to those conditions, it is necessary to study the effect of behavioral bias on decision-making (Shah et al., 2018). Based on this research, social cognitive theory provides a comprehensive framework for understanding budget planning, budget revisions, and regulations interacting with each other and influencing budget absorption. Through observation, learning, and understanding of existing social norms and regulations, individuals can improve performance in budget management. In terms of budget management, budget absorption is a manifestation of the reciprocal relationship between human behavior and the environment.

According to Hartanto et al., (2020) End-of-year spending behavior is a decision that allocates several expenditure budgets that will be realized at the end of the year for certain purposes. However, in the context of this study, there is an instruction from the Minister of Religious Affairs to do budget absorption until 70% in July to avoid budget absorption at the end of the year (Ministry of Religious Affairs, 2023). Budget absorption indicators are also influenced by 4 factors, namely a) comparison between budget realization and budget absorption targets, b) budget absorption carried out quarterly, c) consistency in terms of program implementation, and d) timeliness of budget absorption as targeted (Zarinah, 2016).

One of the variables that influences budget absorption is planning. Planning is a fundamental function of management to assure the future, due to changes and situations (Hasibuan, 2011). According to Zarinah (2016), planning as a reference for budgeting to prepare revenue, expenditure, and financing plans for a certain period has indicators in the form of participation, data accuracy, budget planning process, planning and needs, and revisions. Another variable that influences budget absorption is budget revision. Budget revision, according to the Regulation of the Director General of the Treasury Number PER-9 / PB / 2023 concerning Technical Instructions for Budget Revision, which is the Authority of the Directorate General of the Treasury, is defined as an adjustment in budget details that have been determined based on the APBN and approved in the DIPA. The indicators for budget revision are budget adjustment, adjustment in budget withdrawal plans, adjustment in budget implementation, adjustment in output and developments that are not by policy assumptions (Abdullah & Nazry, 2015; Junita et al., 2018)

Variables related to budget absorption are regulations. According to the Indonesian Dictionary (2023), regulation is defined as a way to control humans or society with certain rules or restrictions. The application of regulations is usually carried out in various forms, namely legal restrictions given by the government, regulations by a company, and so on. The indicators are: Clarity of objectives, Appropriate institution or official who forms it, Conformity between type, hierarchy, and content, Implementation, Usefulness and effectiveness, Clarity of formulation, and Openness (Article 5 of Law No. 13 Year 2022 about the Formation of Legislation).

Hypotheses

This study is grounded in Bandura's Social Cognitive Theory, especially the Triadic Reciprocal Determinism model. In the context of public budget management, budget absorption is not merely a technical-procedural outcome but also a behavioral one. Officers' decisions to absorb budgets are influenced by their personal competencies, their planning and revision actions, and the regulatory environment and peer actions.

Additionally, Kahneman and Tversky's (1979) Prospect Theory provides insight into how decision-makers behave under uncertainty and risk. Herding bias is the tendency to follow the behavior of a group emerges as a cognitive shortcut when individuals face ambiguous situations, time pressure, or a lack of complete information. Integrating SCT and Prospect Theory, this study argues that budget absorption is a function of both structural factors (planning, revisions, regulations) and behavioral moderators (herding bias), with personal factors (competence, self-efficacy) potentially neutralizing or amplifying these effects.

The Influence of Budget Planning on Budget Absorption

Based on the perspective of SCT, budget planning represents a behavioral factor that is deliberately constructed based on personal cognition (e.g., officers' understanding of organizational needs) and environmental input (e.g., stakeholder participation and data availability). Theoretically, SCT posits that behavior is most effective when it is *forethoughtful* rather than reactive. Budget planning embodies forethought: it allows officers to anticipate challenges, allocate resources efficiently, and set realistic withdrawal schedules. Without quality planning, budget execution becomes reactive, increasing the likelihood of delays and underspending. The quality of budget planning is a significant obstacle that prevents budget absorption (Gusmartina et al., 2021). This statement is under the research results of Ratag et al., (2019), Sirin et al. (2020), and Rizky Pratiwi & Sukmawijaya (2023) prove that budget planning affects budget absorption. Based on the description, the following hypothesis is obtained from this variable:

H1 = Budget planning has a positive effect on budget absorption.

The Effect of Budget Revision on Budget Absorption

Budget revision is an adjustment to the details of the planned budget for its implementation. This description is under previous research conducted by Suwito (2018) and Nengsih et al (2021), which stated that revisions harm budget absorption. The frequency of budget revision can hinder the level of budget absorption. Within SCT, frequent or untimely revisions can disrupt the reciprocal relationship between planning (behavior) and desired outcomes (absorption). When revisions are reactive rather than planned, they create uncertainty and require officers to repeatedly reallocate resources, thereby delaying realization. Thus, the hypothesis of budget revision on budget absorption can be formulated as follows:

H2 = Budget revision hurts budget absorption.

Influence of Regulation on Budget Absorption

Regulation is a tool to protect individuals from information loss (Andayani, 2016). The clarity of regulations issued by the government will make it easier for employees to carry out their duties and responsibilities. This means that the clearer the regulation, the better the budget absorption process. This statement is supported by the research results of Oktaliza et al., (2020), Kuntadi & Dian Rosdiana (2022) which states that regulation has a positive effect on budget absorption. Conversely, ambiguous or frequently changing regulations increase cognitive load and decision-making errors.

SCT emphasizes that individuals learn not only by doing but also by observing and interpreting environmental cues. Regulations serve as *external guidelines* that shape behavior. When regulations are aligned with institutional goals and clearly communicated, they enhance role clarity and procedural efficiency, thereby accelerating budget absorption. The following hypothesis can be obtained from this variable:

H3 = Regulation has a positive effect on budget absorption.

The Effect of Herding Bias as a Moderating Variable on Budget Planning to Budget Absorption

Budget planning is a tool to ensure the implementation of programs and activities (Sirin et al., 2020). Due to the urgency of planning, the role of a planner is vital, especially in proposing the budget plan. This condition cannot be separated from planner behavior. Herding bias has never been used as a moderating variable in budget management research. However, herding behavior can arise due to a lack of information or similar experiences that often occur, and actions that will be taken shortly (Chen et al., 2020). Budget planning is a recurring activity every year carried out by all work units. Every work unit with a high level of budget absorption is considered more experienced in budget planning, thus encouraging other work units to imitate (herding behavior) how budget planning has been carried out. Therefore, herding bias reasoning can affect budget planning towards better budget absorption. Herding bias is defined as the tendency of individuals to mimic the decisions or behaviors of a larger group, often under conditions of uncertainty, information asymmetry, or social pressure (Ahmed et al., 2022). In SCT terms, herding is a *behavioral response to environmental cues*—specifically, observing peers who appear successful. This study assumes that herding bias can be used as a moderator, so that the formulation of the fourth hypothesis is as follows:

H4: Herding bias strengthens the positive influence of budget planning on budget absorption.

The Influence of Herding Bias as a Moderating Variable on Budget Revisions to Budget Absorption

Budget revision should be conducted correctly and with full determination because it has consequences and risks; therefore, the planning officer may seek information from many sources. This behavior may lead to

herd behavior because there is a demand to make budget absorption until 70% in July. This is per the research of Mumtazah & Anwar (2022) Herding behavior has a positive effect on moderating the increase in a person's ability to control risk when they make decisions. From a theoretical perspective, herding in the context of revisions is particularly likely when: 1) regulations are ambiguous about how revisions should be executed, 2) officers lack prior experience with similar revisions, and 3) social comparison is salient.

Thus, herding bias can *strengthen* the effect of revisions on absorption, but the direction of that effect depends on whether the imitated revision practices are effective. This study assumes that herding bias can be used as a moderator of budget revisions on budget absorption. The formulation of the fifth hypothesis is: H₅: Herding bias strengthens the positive influence of budget revisions on budget absorption.

The Effect of Herding Bias as a Moderating Variable for Regulation on Budget Absorption

Regulations are often dense, technical, and open to interpretation. When budget officers encounter ambiguous regulations, for example, unclear instructions about allowable expenditures or reporting deadlines, they may experience uncertainty. According to SCT, individuals reduce uncertainty by observing and imitating others. Regulation is used as a guideline for carrying out an activity and has legal force concerning the rules that are made intentionally (Sutono et al., 2022). Before implementing regulations, each institution tries to interpret the direction and scope of the regulation, both related to budget preparation and budget revisions, which is expected to accelerate budget absorption. The clearer the regulations, the better the budget absorption process (Oktaliza et al., 2020). In the end, the officers may imitate the behavior/methods of other institutions' activity officers in understanding and responding to regulate budget preparation and implementation, which can affect the acceleration of budget absorption. This study assumes that herding bias can be used as a moderator, so that the sixth hypothesis is as follows:

H₆: Herding bias strengthens the positive influence of regulations on budget absorption.

This conceptual framework or framework of thinking includes the influence of budget planning, budget revisions and regulations on budget absorption with herding bias as moderating variable.

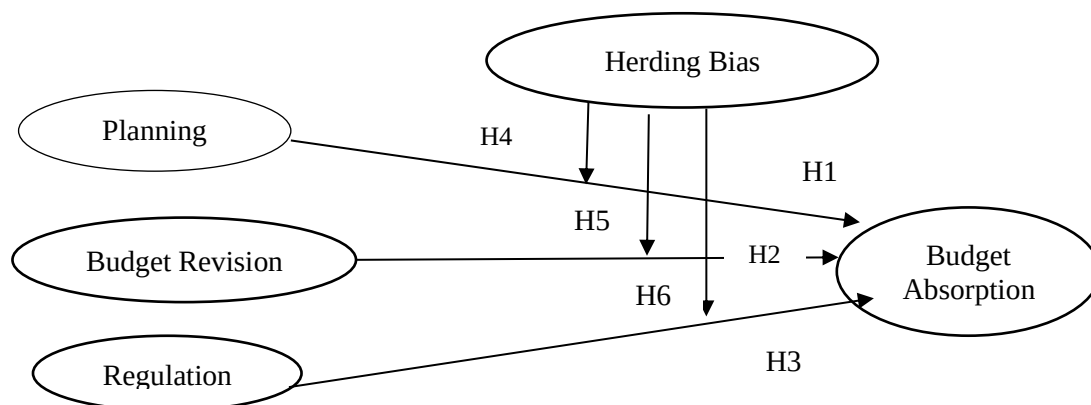


Figure 1. Conceptual Framework

Source: Data Processed, 2024

RESEARCH METHODS

This study was conducted with a quantitative approach. The population in this study was 145 people, consisting of 70 Functional Planning Officers and 75 Commitment Maker Officers (PPK). This study used purposive sampling with a sample size of 100 people. The data analysis used in this study was descriptive statistics. The data processing method used was the structural equation modeling (SEM). According to Marlina (2019), SEM analysis is divided into two approaches, namely covariance-based SEM (CB-SEM) and partial least squares SEM (PLS-SEM). PLS-SEM can be used with small research samples and data that is not normally distributed. The SEM method is used as an alternative method and has stronger results compared to using multiple regression, path analysis, factor analysis, time series analysis, and covariance analysis (Sarwono & Narimawati, 2015). In this study, researchers used the Partial Least Squares (PLS) data analysis technique. PLS is a statistical data analysis method that analyzes independent variables (exogenous) and dependent variables (endogenous) simultaneously (Ghozali & Latan, 2015).

RESULTS AND DISCUSSION

Outer Model

The outer model test used in this study was a convergent validity test, Average Variance Extracted (AVE), Discriminant Validity, and Composite Reliability. The tests were used to determine that the questionnaire in the study had validity, reliability, and consistency.

Convergent Validity Test

All items in the Budget Planning (X1), Budget Revision (X2), Regulation (X3), Herding Bias (M), and Budget Absorption (Y) variables have values above 0.7, so it can be categorized that each question item has validity. This is stated by Ghozali (2018), An indicator can be declared valid if it has a correlation value of more than 0.70 with the construct to be measured.

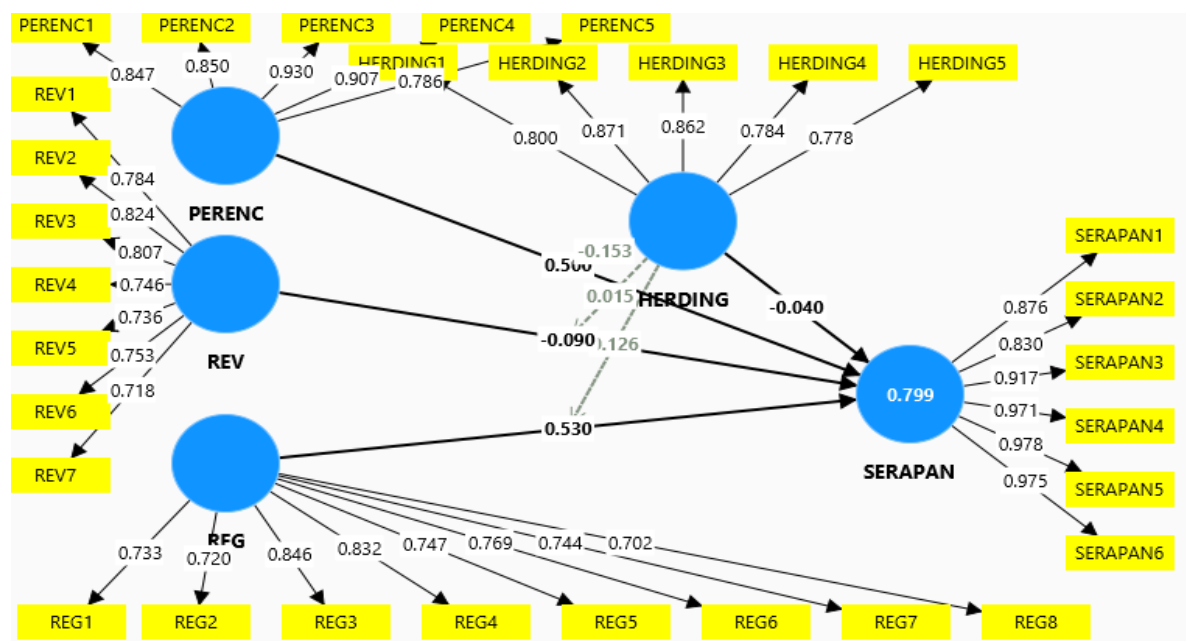


Figure 2. Path Model on Convergent Validity

Source: SmartPLS Result, 2024

Average Variance Extracted (AVE)

Table 3. AVE Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Budget Absorption	0.966	0.973	0.973	0.858
Budget Planning	0.915	0.923	0.987	0.748
Budget Revision	0.884	0.891	0.909	0.589
Regulation	0.898	0.904	0.918	0.583
Herding Bias	0.893	0.970	0.911	0.672

Source: SMART PLS, 2024

In Table 3, the AVE value for Budget Absorption, Budget Planning, Budget Revision, Regulation, and Herding Bias are more than 0.5, so the variables are valid. Thus, the research can be continued.

Discriminant Validity

Table 4 Discriminant Validity

	Herding	Planning	Regulation	Revision	Herd x Plan	Herding x Rev	Herding x Reg
Herding							
Budget Planning	0.119						
Regulation	0.197	0.757					
Budget Revision	0.146	0.410	0.576				
Budget Absorption	0.080	0.876	0.832	0.393			
Herding x B	0.086	0.118	0.179	0.061	0.199		
Planning							
Herding x B.	0.054	0.046	0.108	0.074	0.053	0.430	
Revision							
Herding x	0.094	0.175	0.394	0.097	0.258	0.771	0.438
Regulation							

Source: SMART PLS, 2024

According to Table 4, the construct value for the Budget Planning variable and Regulation variable is higher than the others.

Composite Reliability

The reliability test in this study proved that Cronbach's alpha value for each instrument is > 0.7 . Therefore, it can be concluded that the research instrument is valid and reliable and can be used as an instrument.

Inner Model TestR Square

The inner model can be conducted using R-squared and F-Square, which are described as follows.

Table 5. R Square

	R Square	R Square Adjusted
Budget Absorption	0.799	0.784

Source: SMART PLS, 2024

To determine R Square should be conducted 3 categories: R Square value 0.75 is categorized as strong, 0.5 as moderate, and 0.25 as weak. According to Table 5, all variables can explain their influence on budget absorption (Y), which is 78.4% or strong.

Hypothesis Test

The requirement for a hypothesis test is conducted through the p-value. If the value score is < 0.05 , it is declared significant, but if the p-value is > 0.05 , it is declared insignificant.

Table 6. p-value

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (IO/STDEV)	P Values
Herding	Bias-Budget	-0.040	-0.033	0.053	0.756	0.450
Absorption						
Planning-Budget		0.900	0.515	0.082	6.113	0.000
Regulation-Budget		0.530	0.520	0.109	4.859	0.000
Absorption						
Budget	Revision-Budget	-0.090	-0.087	0.059	1.527	0.127
Absorption						
Herding Bias x Budget		-0.153	-0.127	0.110	1.390	0.165
Planning-Budget						
Revision						
Herding Bias x Budget		0.015	0.014	0.061	0.252	0.801
Revision-Budget						
Absorption						
Herding Bias Regulation –		0.126	0.111	0.121	1.043	0.297
Budget Absorption						

Source: SMART PLS, 2024

Based on Table 6, the variables that have significance are the Budget Planning and Regulation variables, because the p-value <0.05, while the Budget Revision variable has no influence and significance. Thus, it can be stated as follows.

- H1: There is a positive and significant Influence of Budget Planning on Budget Absorption (accepted)
- H2: There is No Influence of Budget Revision on Budget Absorption (rejected)
- H3: There is an Influence of Regulation on Budget Absorption (accepted)
- H4: Herding Bias Does Not Moderate Budget Planning on Budget Absorption (rejected)
- H5: Herding Bias Does Not Moderate Budget Revision on Budget Absorption (rejected)
- H6: Herding Bias Does Not Moderate Regulation on Budget Absorption (rejected)

F Square

F Square is a method used to assess the relative impact of an exogenous variable on an endogenous variable. According to (Juliandi, 2018) The criteria for determining the F Square value are as follows.

- 1) The F2 value is 0.02; it is stated that the exogenous variable has a low effect on the endogenous variable.
- 2) The F2 value is 0.15; it is stated that the exogenous variable has a moderate effect on the endogenous variable.
- 3) The F2 value is 0.35; it is stated that the exogenous variable has a high effect on the endogenous variable.

Table 7 F Square

	Budget Absorption
Herding Bias	0.008
Budget Planning	0.588
Regulation	0.411
Budget Revision	0.026
Herding Bias x Budget Planning	0.052
Herding Bias x Budget Revision	0.001
Herding Bias x Regulation	0.023

Source: SMART PLS, 2024

Referring to the standard, it can be seen that the influence of the Budget Planning variable (X1) is categorized as high on the Budget Absorption variable (Y), namely 0.588. Regulation variable (X3) has a moderate influence on the Budget Absorption variable (Y), namely 0.411, while the influence of the Budget Revision variable (X2) on Budget Absorption (Y) is categorized as low, namely 0.026.

The role of the moderation variable in this study is almost non-existent for the Budget Revision variable on Budget Absorption, which is only 0.001. The role of herding bias as a moderating variable for Budget Planning on Budget Absorption is categorized as weak, namely 0.052, and the role of herding bias as a moderating variable for Regulation on Budget Absorption is almost non-existent, namely 0.023.

Discussion

This study examined the influence of budget planning, budget revisions, and regulations on budget absorption, with herding bias as a moderating variable, within the context of the Ministry of Religious Affairs (MoRA) of Central Java Province. The result are as follow.

Budget planning has a strong, positive, and significant effect on budget absorption (H1 accepted)

The existence of research results stated that budget planning is correlated with budget absorption. That statement is in line with the results of research conducted by Nusan et al., (2021) The effectiveness of budget absorption is very dependent on budget planning. The results of this study are in line with Nilasari et al., (2024), good budget absorption can be conducted by referring back to the planning that has been carried out because budget planning is correlated with the amount of budget that has been planned to be realized within a certain period of time. Based on those statements, the budget produced by poor planning will have an impact on hampering budget absorption. This is as expressed by Zarinah (2016) that planning is used as a reference for absorption. Thus, the results of that research are in line with this study, that Budget Planning (X1) has a strong and significant influence on Budget Absorption (Y). To realize effective and efficient planning, several indicators are needed, as expressed by Zarinah (2016), namely as follows.

1) Participation

To support budget absorption to be carried out properly, planning must be carried out in a participatory manner. Budget planning is carried out by involving both internal and external stakeholders. On the other

hand, participatory planning is rarely carried out by the Regency/City Level of the Ministry of Religious Affairs Office because it takes time and budget.

2) Data accuracy

Data accuracy is the main requirement in planning. Accurate data will produce effective and efficient planning.

3) Planning process

The planning process supports the creation of an appropriate budget. The planning process at the Ministry of Religious Affairs of Central Java Province is carried out in 3 (three) stages, namely temporary ceiling, indicative ceiling, and budget allocation ceiling. The obstacles in budget planning are budget proposal ceiling on the temporary budget ceiling is not accommodated for further budget allocation. Thus, it reduces the motivation to make detailed budget planning.

4) Planning and needs

Planning is a tool to achieve institutional goals. Planning is used to meet the needs of institutional development. Therefore, in terms of the planning process, stakeholder contribution is needed in determining the appropriate budget.

5) Revision or adjustment

Budget revisions can be carried out during budget implementation. Budget revisions are carried out to adjust to changes in government priority interests, such as when there is a natural disaster, the spread of a virus, and an adjustment in the direction of government policy. Budget revisions can also be conducted due to changes in leadership policies. Revisions in the current year as carried out by the work unit leader, are reasonable revisions because the work unit leader needs adjustments for budget absorption (Abdullah & Nazry, 2015).

Based on the previous research, the supporting factors for budget planning are the quality of human resources, data, and links to other planning documents. The diverse quality of human resources will impact the quality of planning and budget absorption. The positive effect of budget planning on absorption found in this study is consistent with earlier research by Sirin et al. (2020), Gusmartina et al. (2021), and Nilasari et al. (2024). These studies similarly concluded that participatory, data-driven planning enhances budget realization. However, this finding contradicts studies by Laila Yuliani & Lestari (2022) and Handayani et al. (2022), who reported that good budget planning does not necessarily increase absorption. Why the difference? Several explanations are possible:

- 1) Contextual differences: The contradictory studies were conducted in different institutional settings (e.g., local governments and universities), where planning processes may be more symbolic than substantive. In contrast, MoRA's Central Java office has implemented a binding 70% July target since 2022, creating stronger incentives for serious planning.
- 2) Measurement differences: Prior contradictory studies may have measured planning as mere document completion, whereas this study measured planning through five specific indicators (participation, data accuracy, planning process, needs alignment, and revision readiness).
- 3) Moderating factors: The contradictory studies did not account for organizational commitment or leadership support, which may amplify the planning-absorption relationship.

Thus, the inconsistency in the literature may be resolved by recognizing that planning quality is not just about planning presence matters, and that institutional pressure (like the 70% target) activates the planning-absorption link.

Budget revisions do not affect absorption (H2 refused)

The finding that budget revisions have no significant effect on absorption contradicts studies by Suwito (2018) and Nengsih et al. (2021), who reported that revisions harm absorption, but aligns with Cahyaningtyas & Gunawan (2023) and Roswinna et al. (2023), who found no significant effect. The existence of inconsistency due to the three theoretical explanations as follows.

- 1) Type of revision matters: Not all revisions are equal. Administrative revisions (e.g., updating account codes) have little impact, while ceiling reductions or output changes may disrupt absorption.
- 2) Timing of revision: Revisions made early in the fiscal year (e.g., March–May) allow sufficient time for re-planning, while late revisions (e.g., November–December) are more damaging.

- 3) Officer competence as a buffer: SCT suggests that competent officers can absorb the shock of revisions through adaptive behavior. Given that MoRA officers are required to pass competency tests, their skills may neutralize the negative effects of revisions.

Regulation has a moderate, positive, and significant effect on budget absorption (H3 accepted)

In the context of this study, regulation influences budget absorption, although the influence is categorized as moderate and significant. Implementation of regulation can be carried out effectively if it meets 2 (two) factors, namely internal and external. This is stated to realize regulation effectively, internal and external factors are needed (Purwanto, 2017). The role of regulations in budget absorption is in line with research conducted by Putri T. et al., (2024) that regulations have an important role in budget absorption because budget absorption carried out by the government must be in line with regulations. Regulations that do not support budget realization will have an impact on the success of budget absorption.

The positive effect of regulation on absorption aligns with Oktaliza et al. (2020), Kuntadi & Dian Rosdiana (2022), and Sutono et al. (2022). However, it contradicts Rifai et al. (2016) and Rizky Pratiwi & Sukmawijaya (2023), who found no significant effect. The key differentiator appears to be regulatory clarity and enforcement. In this study, the 70% July target regulation is specific, measurable, and monitored. In contrast, the contradictory studies examined general budget regulations that were broad, ambiguous, or poorly enforced. From an SCT perspective, environmental factors (regulations) only shape behavior when they are perceived as clear, legitimate, and consequential.

- 1) Herding Bias Does Not Moderate Budget Planning Against Budget Absorption (H4 refused)

Budget planning is a process that must be followed in an institution's management. Thus, planning is carried out systematically based on a participatory, bottom-up, and top-down approach. Planning is also carried out with the support of appropriate data. Thus, budget planning is not carried out by following suit or lacking information. This is in accordance with the results of the study by Chen et al., (2020), so the herding bias used in this study arises when there is a lack of information or experience. On the other hand, the Functional Planning Officer is a position that requires a competency test to prove competence and capability in the planning process. The results of this analysis are in line with the results of this study, that the herding bias variable does not moderate budget planning on budget absorption.

- 2) Herding Bias Does Not Moderate Budget Revisions on Budget Absorption (H5 refused)

Budget revisions are inevitable in the implementation of program activities in one budget year. Budget revisions are made to adjust changes in the State Budget Law and government priority policies to maintain the quality of spending (Nengsih et al., 2021). In terms of adjustment or revision, it will have an impact on budget absorption. Budget revisions that are carried out appropriately, in accordance with the rules and time that does not conflict with budget absorption. In this study, it is proven that budget revisions that were carried out did not have an impact on budget absorption, as well as when added with a moderating variable in the form of herding bias. Herding bias does not encourage budget revisions because the revisions that will be carried out have been considered both in terms of regulations and the reasons for implementing the revision. So, budget revisions are not carried out by following suit, lacking information, or seeing the success of other work units.

- 3) Herding Bias Does Not Moderate Regulation on Budget Absorption (H6 refused)

In this study, it was proven that herding bias does not moderate regulation on budget absorption. This is because regulation is a guideline to carry out activities and has legal force (Sutono et al., 2022). Users of regulations must conduct a review to translate the purpose of the regulation. Thus, in every agency within the Regional Office of the Ministry of Religion of Central Java Province, there is a Policy Analyst Functional Officer and a Functional Planning Officer who have the competence to conduct regulatory reviews. Therefore, herding bias will not affect the decision-making in budget absorption.

In this study, the role of moderating variable cannot be proven because herding bias indicates ignorance, lack of information, and lack of experience for the Functional Planning Officer and Commitment-making Officer. However, concerning the competence of human resources involved in budget absorption, the herding bias variable does not show its role.

Herding bias is a behavior that is influenced by external factors, such as information on success, strategies for achieving a target, and the amount of budget absorption that has been achieved. The existence of this information can increase officers' emotional bias and lead to herding behavior. Thus, it can be seen that herding behavior will occur if employees do not have the following factors:

- 1) Lack of competence of employees to perform their duties and responsibilities. Competence is very important in conducting the duties. The better the competence, the better performance will be. This is as

expressed by Yaşar et al., (2013) that individuals who have high competence will be directly do the work correctly and proportionally to their performance.

2) Employees do not have work experience.

Work experience has an impact on performance. Officers who have work experience surely conduct the analysis and problem-solving correctly. Work experience will contribute to the ability in decisions. This statement is in line with the research of Kresnawati et al., (2024) that herding behavior occurs for various reasons, one of which is a lack of experience, so that individuals are interested in following others who have succeeded in reducing risk.

3) Employees have an unstable emotional level.

Unstable emotions affect decision outcomes. Officers who are full of emotion and driven to absorb the budget quickly will tend to behave emotionally, seeing the success of other work units, and want to immediately do the same thing in the same way as others. This statement is in line with Setyorini et al., (2023) the emotional aspect is very complex because it is related to cognitive, psychological, social, and behavioral aspects. However, when cognitive factors have a vital influence on decision-making, the emotional aspect will not be seen in decision-making. That research result is also in line with Yehezkiel et al., (2018) people who make decisions emotionally will not use cognitive aspects to think critically.

Based on those analyses, the unimpact herding bias on budget planning, budget revision, and regulation of absorption because of the competence, experience, and controllable emotions. Therefore, the following decision-making behaviors do not exist. The officers still use their individual abilities and personal standards in the decision-making process. Personal factors (such as self-confidence) are more dominant in influencing budget absorption than external factors (such as herding bias), indicating that budget managers rely more on self-evaluation in making budget decisions.

Herding bias does not moderate budget absorption; the most striking finding is that, in this public sector context, herding bias a well-documented moderator in investment and stock market research (Ahmed et al., 2022; Mumtazah & Anwar, 2022) does not moderate any of the three relationships, because of the following reasons.

1) Theoretical Explanation: The Primacy of Personal Factors in SCT

Social Cognitive Theory emphasizes that the interaction of personal, behavioral, and environmental factors shapes behavior. In this study, personal factors (competence, experience, and emotional stability) appear to dominate over environmental social influence (herding). The results suggest that officers with high competence, experience, and emotional stability do not need to imitate others because they possess internal decision-making frameworks. This finding extends SCT by specifying a boundary condition: herding behavior emerges only when personal factors are weak.

2) Comparison with Financial Markets

Herding bias is well-established in financial markets because retail investors often lack competence, experience, and emotional control. In contrast, public sector budget officers in Indonesia must pass competency-based selection tests, receive regular technical training on budget execution, and operate within a hierarchical accountability structure. Thus, herding bias is less applicable in public institutions than in private investment contexts.

3) Alternative Explanation: Herding as Complementary, Not Superior

Arlen & Tontrup (2016) distinguish between herding as *superior* (fully replacing individual judgment) versus *complementary* (adding information to individual judgment). This study suggests that officers use peer success stories as motivation or inspiration, not as a substitute for analysis. They observe what works in other units but adapt it to their own context—a form of *vicarious learning* described in SCT, not herding bias. Therefore, the measurement instrument may have failed to capture this distinction.

This study has several limitations that affect the generalizability and interpretation of findings;

1) Sample Size and Sampling Method

The sample consisted of 100 officers drawn through purposive sampling from a population of 145. While PLS-SEM can handle small samples (Ghozali & Latan, 2015), the sample size limits statistical power for detecting moderation effects. A larger, randomly selected sample might reveal significant moderation effects not detected here. Future research should aim for $n > 200$ and use probability sampling.

2) Reliance on Self-Reported Questionnaire Data

All variables were measured using self-reported questionnaires. This introduces several biases, namely a) social desirability bias because officers may overreport their competence and underreport herding behavior to appear professional, b) common method variance because the same respondents provided data on independent, moderating, and dependent variables, the relationships may be artificially inflated, and retrospective bias because officers may not accurately recall their planning processes or revision justifications. Future research should use multi-source data (e.g., supervisor evaluations of absorption, archival revision records, observation of planning meetings) and longitudinal designs to establish causality.

3) Limited Applicability of Herding Bias in Public Institutions

Herding bias originated in behavioral finance to explain stock market anomalies (Kahneman & Tversky, 1979). Applying it to public sector budget management requires careful contextual adaptation. Unlike investors, public officers: a) face legal and audit consequences for poor decisions, b) operate under transparent, rule-based procedures, and c) are evaluated on compliance, not just outcomes.

4) Lack of Behavioral Observation Data

This study relied entirely on quantitative survey data. Herding is inherently a behavioral phenomenon that manifests in group settings, decision-making processes, and responses to social cues.

Despite its limitations, this study makes several theoretical contributions, namely extending SCT to public budget management. This study demonstrates that SCT's triadic model (personal, behavioral, environmental) applies to budget absorption, but with the novel finding that personal factors can override environmental social influence a refinement of Bandura's original formulation. This study challenges the assumption that herding is universal by bridging behavioral finance and public administration. This study is among the first to empirically test herding bias outside financial markets, revealing that behavioral biases do not operate identically across institutional contexts. Herding bias may be context-dependent, emerging only when personal factors are weak.

Based on the research results and analysis, the policymakers in the MoRA of Central Java should make an investment in planning quality through training on participatory methods, data validation, and multi-year planning, which will yield greater absorption returns. Moreover, the policymaker should clarify regulations early to avoid budget regulation ambiguity, and do not assume herding is a problem because officers rely on competence rather than imitation; interventions to reduce herding may be unnecessary. Instead, strengthen competency development.

CONCLUSIONS AND RECOMMENDATIONS

This study began with a practical problem: low budget absorption despite a clear 70% July target. It ends with a theoretical insight: In public sector contexts characterized by competent, experienced, and emotionally stable officers, herding bias does not moderate budget decisions. Budget planning and regulations directly drive absorption, while revisions have no net effect. These findings refine Social Cognitive Theory by specifying boundary conditions for environmental influence and challenge the assumption that behavioral biases from financial research apply universally to public organizations. The most important implication for policymakers is counterintuitive, namely do not focus on reducing herding behavior because it is not occurring. Instead, invest in the personal factors that make herding unnecessary: competence, experience, and emotional stability. For researchers, the implication is equally clear, namely behavioral public financial management must develop context-sensitive theories and measures, not simply import constructs from behavioral finance.

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