

Electronic participatory budgeting, budget emphasis, and job tension: Implications for managerial performance

Muhammad Natsir^a, Nina Yusnita Yamin^{a*}, Fadli Moh. Saleh^a, Jamaluddin^a and Rizaldi^a

^aUniversitas Tadulako, Palu, Indonesia

CHRONICLE

Article history:

Received: July 2, 2023

Received in revised format: July 26, 2023

Accepted: August 18, 2023

Available online: August 18, 2023

Keywords:

Local Government

Financial Management

Managerial Performance

Electronic Participatory Budgeting

Budget Emphasis

ABSTRACT

The paradigm shift in local government financial management necessitates a change in the perspective of government officials, viewing them as financial managers. This study explores the intriguing aspect of assessing managerial performance, particularly in government organizations. The uniformity in reward structures, such as salary and benefits, irrespective of different workloads, adds to the interest in this investigation. To analyze these factors, a quantitative approach with Partial Least Squares (PLS) as an analytical tool and path analysis for mediation examination is employed. The target population for this study comprises employees from the planning division of the Central Sulawesi Government. A saturated sample is used as the sampling technique. Data collection involves distributing 180 questionnaires to gather relevant information. The results of this study reveal several important findings. Firstly, it tests the hypothesis that electronic participatory budgeting does not have a direct effect on work tension. Secondly, it demonstrates that budget emphasis has a direct effect on work tension. Thirdly, it concludes that work tension does not have a direct effect on managerial performance. Additionally, the study indicates that job tension does not mediate the effect of electronic participatory budgeting on managerial performance. However, work tensions are found to mediate the influence of budgetary emphasis on managerial performance.

© 2023 by the authors; licensee Growing Science, Canada.

1. Introduction

In contrast to the private sector, budgeting in government organizations is a complex process. Public sector organizations, especially the government, are oriented towards providing public services, which makes the budgeting process centered around public interests (Aritonang, 2017). In government organizations, budgets must be made transparent and open to criticism and discussion, allowing for public input. This openness serves as a mechanism for ensuring accountability in managing public funds and implementing programs financed by public money (Kettl, 2015). On the other hand, budgeting in the private sector is kept confidential and not disclosed to the public. In the government system, budgeting plays a crucial role as it involves funds sourced from and used for the benefit of the community. Economic and non-economic factors, such as personal character, reputation, and self-esteem, also influence the budgeting process in the public sector. For instance, according to Simons (2019) and Osabiya (2015) subordinates and superiors tend to be more motivated and productive when their personal goals align with the company or organizational goals, which is referred to as goal alignment. The budgeting system serves as a vital component in formulating financial plans, both short-term and long-term. An effective budgeting system should involve various stakeholders in the drafting process, ensuring inclusivity and collaboration. The budget serves as a tool for financial planning and control, outlining goals and actions to achieve them in the future. To create the budget, regional apparatus organizations first develop a strategic plan, identifying future activities and operations typically spanning a year. This strategic plan helps translate the overall strategy into both long-term and short-term goals (Otley & Berry, 2019). Electronic

* Corresponding author.

E-mail address: nyyamin.untad@gmail.com (N. Y. Yamin)

ISSN 2561-8156 (Online) - ISSN 2561-8148 (Print)

© 2023 by the authors; licensee Growing Science, Canada.

doi: 10.5267/j.ijds.2023.8.016

participatory budgeting is a managerial approach believed to enhance organizational effectiveness by improving the individual performance of each member within the organization (Gordon et al., 2017). Managerial performance, as evaluated by leadership, is one of the factors that contribute to enhancing organizational effectiveness. Evaluating the performance of regional apparatus organizations essentially involves assessing the behavior of the personnel in fulfilling their roles within the organization (Koochang et al., 2017). However, research conducted by Hutama & Yudianto (2019) empirically shows an unclear relationship between electronic participatory budgeting and the subsequent increase in organizational performance.

Budgeting serves as a formal evaluation tool for superiors to assess the performance of subordinates (Lunardi et al., 2019; Rokhman, 2017). However, the extent of leader involvement in the budgeting process can impact job-related outcomes like job tension and managerial performance, making it an interesting area for study. Engaging in budgeting can potentially enhance managerial performance by promoting learning and knowledge-seeking. Nevertheless, participation in budgeting and budget emphasis do not always lead to positive effects on managerial performance. It is plausible that the process of budgetary participation may create discrepancies in the budget, as it acts as the basis for evaluating managerial performance (Bergmann et al., 2020; Arnold & Artz, 2019). These discrepancies occur when the actual resources needed to efficiently complete a task differ from the larger amount of resources allocated for that task, resulting in budget emphasis. Research by Sicilia & Steccolini (2017) suggests that budget emphasis is linked to achieving budget realization, indicating the possibility of budget gaps and highlighting that managerial performance might not be fully effective. This perspective emphasizes that managerial performance primarily relies on human resources and their behavior, which forms the central focus of this research. The behaviors exhibited during the budgeting process, the presence of budgetary pressure, and work tension are factors that are likely to have implications on managerial performance.

2. Literature Review and Hypothesis Development

2.1. *Electronic Participatory Budgeting, Work Tension*

The budget is a financial statement outlining the projected performance for a specific period, as defined by Beck (2018). The budgeting process in government is complex and highly politicized, making it a political undertaking within government organizations. This contrasts with budgeting in the private sector, which typically involves fewer political considerations and is treated as confidential information not disclosed to the public. In government, however, budgets must be transparent, subject to criticism, discussion, and public input, serving as a mechanism for ensuring accountability in managing public funds and implementing programs financed by public money (Suharyono, 2019; Uzochukwu et al., 2018; Rana & Hoque, 2020). Active participation in budgeting is an effective means to motivate managers and leaders. According to Simons (2019), high levels of participation encourage managers to better understand budgets. Vveinhardt and Banikonytė (2017) emphasize that electronic participatory budgeting involves the collaboration of middle and lower-level managers/leaders, ensuring that the budget is prepared and presented according to the needs of the members. The key distinction between participatory and non-participatory budgeting lies in the extent of involvement of subordinates in the budget preparation process (Saripudin & Siswantoro, 2020). On the other hand, Electronic Participatory Budgeting (EPB) is an innovative approach to budgeting that involves engaging citizens and stakeholders in the budget allocation process through digital platforms. EPB aims to increase transparency, citizen participation, and accountability in the budgeting process, ultimately leading to more effective and responsive public resource allocation. Research on EPB has shown that it can positively impact democratic governance by empowering citizens to directly influence budget decisions. Previous studies highlight how EPB fosters greater public engagement, increases civic awareness, and strengthens the relationship between governments and citizens.

Participation in budgeting, as discussed by Van den Berg et al. (2020), can lead to negative effects, such as setting budget standards that are either too high or too low. Overly ambitious standards may result in failure to achieve them, while easily attainable standards may diminish managers' motivation and lead to decreased performance. Budgetary slack, also known as a budgetary gap, occurs when managers deliberately create budgets with lower income and higher expenses than necessary. This deceptive practice is aimed at maintaining the appearance of good performance, as achieving the budget targets set by managers leads to pseudo participation when top managers demand false participation from lower-level managers during the budgeting process (Rifqi et al., 2017; Park & Jang, 2021). Budget emphasis involves superiors pressuring subordinates to perform well in implementing the budget, using sanctions for underperformance and rewards for exceeding targets (Zhang et al., 2017). This pressure can cause subordinates to manipulate their budgets to ensure easy achievement. Budget emphasis serves as a benchmark for performance evaluation in organizations, creating tension among employees and leading to dysfunctional actions as they strive to avoid excessive pressure and enhance their chances of receiving bonuses. According to Okafor and Otor (2018), budgetary pressure is a contributing factor to budget gaps. Since performance appraisal is solely based on target achievement, employees attempt to enhance compensation prospects by creating gaps in the budget. Furthermore, job tension is a manager's attitude or behavior that can impact their performance (Rokhman, 2017). Being able to adapt to market dynamics and stakeholder demands tends to reduce work tension, which manifests frustration, stress, suspicion, conflict, and ambiguity in the workplace. When subordinate managers experience low work tension, it is expected to lead to increased managerial performance, positively contributing to sustainable development and enhancing organizational performance. Electronic participatory budgeting and budget emphasis facilitate collaboration between subordinate and superior managers, enabling them to find solutions and achieve budget targets, thereby avoiding negative attitudes and behaviors that

hinder job completion, especially in competitive work environments influenced by work tension and participatory budgeting. Using the budget as a tool to evaluate managers/leaders' performance in their managerial roles, work tension becomes a key aspect in assessing subordinate managers based on achieving budget targets (Kettl, 2015; Arnold & Artz, 2019).

Managerial performance refers to the level of achievement in implementing activities, programs, or policies that align with the organization's strategic planning and goals. Fahmi (2016) defines it as the outcomes achieved by both profit-oriented and nonprofit organizations over a specific time period. Similarly, according to Bastian, performance entails meeting predetermined targets in policy activities or programs. This necessitates organizations to carry out their work programs economically, effectively, and efficiently, thus evaluating the extent of their performance's societal benefits. Beck (2018) elaborates that managerial performance involves effectively managing a company's resources to attain operational profits in both short and long terms. Taouab & Issor (2019) defines managerial performance as the organizational achievements based on the organization's vision and mission. Additionally, Saad & Abbas (2018), describes performance as the results of an individual's work in alignment with the organization's established standards, norms, and rules.

H₁: *Electronic participatory budgeting has a negative and significant effect on work tension.*

H₂: *Electronic Participatory Budgeting has a positive and significant effect on managerial performance.*

H₃: *Budget emphasis has a positive and significant effect on work tension.*

H₄: *Budget emphasis has a positive and significant effect on managerial performance.*

H₅: *Work tension has a negative and significant effect on managerial performance.*

H₆: *Work tension can mediate the effect of electronic participatory budgeting and Budget emphasis on managerial performance.*

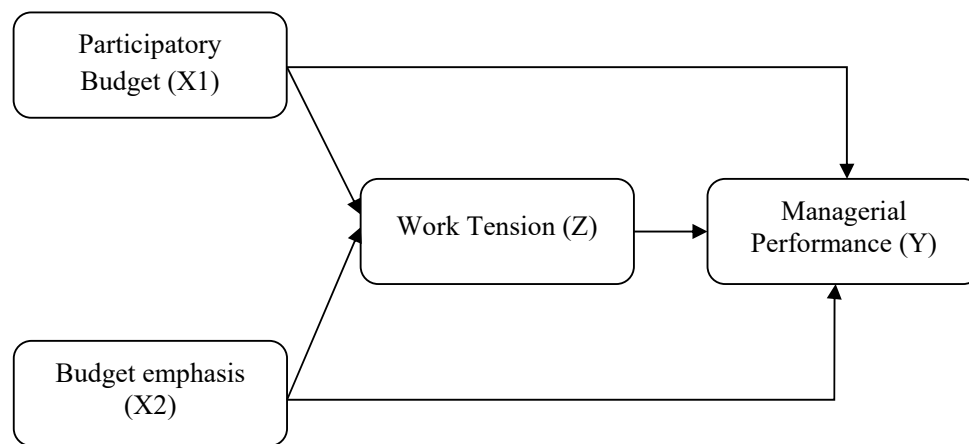


Fig. 1. Theoretical Model

3. Method

This study represents field research, which involves conducting a survey to gather data in the field, aiming to examine the impact of electronic participatory budgeting and budgetary pressure on managerial performance, with work tension serving as a mediating variable. Based on Saripudin and Siswanto (2020) classification, this research falls under the category of hypothesis testing. Furthermore, the research design adopted is explanatory research, as it seeks to explain causal relationships between variables through hypothesis testing. In this study, the target population comprises all financial management apparatus in each regional government apparatus of Central Sulawesi Province. To ensure the relevance of the sample, a specific criterion is set for the sampling process. The sample includes apparatus who are directly involved in financial management tasks, such as budgeting, preparation, implementation, and financial reporting. By focusing on this specific group, the study aims to obtain valuable insights into the impact of electronic participatory budgeting and budget emphasis on managerial performance. The researchers collected data through a questionnaire distributed among the identified respondents. Out of the 190 potential participants, 180 completed and returned the questionnaires, resulting in a valid and robust dataset for analysis.

Regarding the operationalization of variables, this study focuses on two independent variables: participatory budgets and budget emphasis. The mediating variable under examination is job tension, while the dependent variable is managerial performance. Electronic participatory budgeting refers to the process of involving middle and lower-level managers/leaders in preparing the budget, ensuring that the budget reflects the needs of the members (Rifqi et al., 2017). Budget emphasis involves superiors exerting pressure on subordinates to effectively implement the budget, using sanctions for underperformance and rewards for exceeding budget targets. This may lead subordinates to adopt a more lenient approach in budgeting to ensure easy achievement. Budget emphasis entails rewarding or evaluating the performance of middle to lower-level managers based on their ability to achieve budget targets (Bergmann et al., 2020).

Work tension, also known as job tension, refers to a manager's attitude or behavior that can influence their performance. When managers are adept at responding to market dynamics and stakeholder demands, work tension tends to decrease. This reduction is evident through a decrease in feelings of frustration, stress, suspicion, conflict, and ambiguity in the workplace. Lastly, managerial performance is the evaluation of the level of achievement in implementing activities, programs, or policies aligned with an organization's goals, objectives, mission, and vision as outlined in its strategic planning.

For the analysis, the researchers employed Partial Least Square (PLS) as the statistical technique. PLS is well-suited for examining complex relationships and interactions among variables, making it an appropriate choice for this study. To conduct the analysis, the researchers utilized the WarpPLS 7.0 program, which is a software tool designed specifically for PLS analysis. This program aids in handling the statistical calculations and generates comprehensive results to draw meaningful conclusions from the collected data. By utilizing an appropriate sampling technique, collecting comprehensive data through questionnaires, and employing advanced statistical analysis, this study endeavors to shed light on the influence of electronic participatory budgeting and budget emphasis on managerial performance in the financial management apparatus of Central Sulawesi Province. The findings from this research will contribute to a better understanding of how these factors affect the performance of managers in the public sector, potentially offering valuable insights for future policy and decision-making processes.

4. Results

In this study, there were a total of 180 respondents. Among them, 47% were women, and 53% were men. The age range of the respondents varied from 32 years to 58 years, with the majority of them being 48 years old. This indicates that most of the respondents are in the productive age group, implying that they likely possess more experience and a better understanding of financial management mechanisms in regional apparatus organizations (OPD), which function as accounting entities. Regarding education, at least 53% of the respondents held a bachelor's degree with a master's degree, while 47% had a bachelor's degree. This suggests that the respondents already possess a satisfactory level of education, enabling them to perform well in their roles.

The validity test is conducted based on the average variance extracted (AVE). To be considered valid or included in the good category, an indicator must have an outer loading value of > 0.60 and a significant p-value (< 0.05). In this study, the validity test results indicate that all indicators meet the validity criteria, as their outer loading values are > 0.60 , and the p-value is $0.000 (< 0.05)$ for all measurement indicators. Besides assessing the outer loading value, validity testing can also be determined by examining the average variance extracted (AVE) value. For a good model, each indicator must have an AVE value > 0.50 .

Table 1
Reliability and Validity

Construct	Item	Std. Loading Factor	Cronbach's α	AVE	p-value
Electronic Participatory Budgeting	EPB1	0.852	0.674	0.797	0.000
	EPB2	0.884		0.855	
	EPB3	0.794		0.763	
	EPB4	0.865		0.753	
	EPB5	0.844		0.832	
	EPB6	0.841		0.851	
Budget Emphasis	BE1	0.810	0.665	0.686	0.000
	BE2	0.821		0.729	
	BE3	0.785		0.688	
	BE4	0.823		0.776	
	BE5	0.760		0.759	
	BE6	0.849		0.713	
	BE7	0.834		0.752	
	BE8	0.828		0.746	
Work Tension	WT1	0.897	0.587	0.682	0.000
	WT2	0.832		0.767	
	WT3	0.876		0.838	
	WT4	0.857		0.817	
	WT5	0.891		0.753	
Managerial Performance	MP1	0.877	0.614	0.694	0.000
	MP2	0.759		0.719	
	MP3	0.793		0.683	
	MP4	0.859		0.620	
	MP5	0.855		0.668	
	MP6	0.817		0.820	
	MP7	0.852		0.719	

The results of the validity and reliability tests in the Table 1 above show that the electronic participatory budgeting variables show that all items have a high standard loading factor value (0.794 – 0.884), indicating that these items effectively measure

the electronic participatory budgeting variable. The reliability of the electronic participatory budgeting variable is also quite good with Cronbach's α value reaching 0.674, and its validity is acceptable with an AVE value of 0.797. Furthermore, on the emphasis budget variable, the test results show that the items used have a strong standard loading factor value. The reliability of the emphasis budget variable is good with Cronbach's α value of 0.665, and its validity is acceptable with an AVE value of 0.686. Tests on the work tension variable show that all items have a high loading factor, and the reliability of the work tension variable is slightly lower than the other constructs with a Cronbach's α value of 0.587. Even so, the validity is still acceptable with an AVE value of 0.682. Furthermore, the test results on the managerial performance variable show that the reliability of this construct is good as evidenced by the Cronbach's α value of 0.614, and its validity is accepted with the AVE value of 0.694.

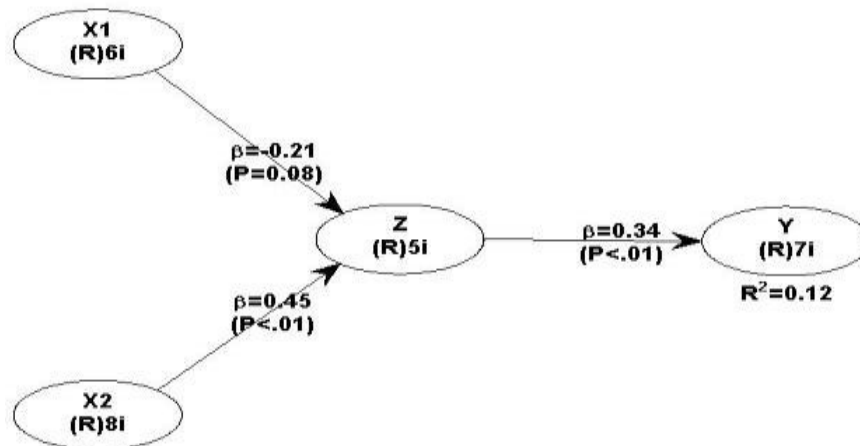


Fig. 2. Full Model

Furthermore, a model fit test is conducted to ensure that the model used can explain the patterns in the data properly and is in accordance with the proposed hypothesis. In assessing whether or not the model used in the study using the fit model test can be seen from the standardized root mean squared residual (SRMR) and normal fit index (NFI) values obtained. The results of the fit model test in Table 2 show that the SRMR value was 0.062; NFI value of 0.863. The SRMR value obtained was below 0.10 and the NFI value obtained was very good where the value was above 0.80 (very close to 1.0). Thus, it means that the model used in this study is suitable.

Table 2
Fit Model

	Saturated Model	Estimated Model
SRMR	0.062	0.062
d_ ULS	0.813	0.813
d_ G	0.410	0.410
Chi-Square	413.085	413.085
NFI	0.863	0.863

After analyzing the data with WarpPLS 7.0, the hypothesis test results revealed fit indices and P-values concerning the direct and indirect effects of the independent variables on the dependent variable. The hypothesis was examined through the p-values, where exogenous variables were considered to have a direct impact on endogenous variables if their p-values were less than the predetermined alpha level ($\alpha=0.05$).

Table 3
Direct Effect

Path	Path Coefficient	P-Values
Electronic Participatory Budgeting (X1) → Work Tension (Z)	0.29	0.08
Budget Emphasis (X2) → Work Tension (Z)	0.56	0.01
Work Tension (Z) → Managerial Performance (Y)	0.29	0.34

To assess the indirect effects, the hypothesis testing results are observed through the p-values. Exogenous variables are considered to have an indirect impact on endogenous variables if their p-values are below the predetermined alpha level ($\alpha=0.05$). The specific outcomes of the indirect effect test for each independent variable are presented in Table 4.

Table 4

Indirect Effect

Path	Path Coefficient	P-Values
Electronic Participatory Budgeting (X1) → Work Tension	0.08	0.01
Work Tension (Z) → Managerial Performance (Y)	0.01	0.01

5. Conclusion

The analysis results indicate several important findings. Firstly, it shows that electronic participatory budgeting does not have a direct impact on work tension. Secondly, budget emphasis directly influences work tension. Thirdly, work tension does not have a direct effect on managerial performance. Moreover, the study reveals that work tension does not mediate the effect of electronic participatory budgeting on managerial performance. However, work tension is found to mediate the influence of budgetary emphasis on managerial performance.

One limitation of the analysis is that the study focuses solely on the relationship between electronic participatory budgeting, budget emphasis, work tension, and managerial performance. It does not consider other potential factors that could also influence work tension and managerial performance. Additionally, the study only examines the mediating role of work tension in the relationship between budgetary emphasis and managerial performance. There could be other mediating variables that have not been explored. Thus, future studies should consider adding variables that further explore the impact of managerial performance. Understanding how other factors might influence managerial performance can provide deeper insights and a more comprehensive understanding of the dynamics at play in the context of financial management in regional government apparatuses. By expanding the scope of research, future research can enhance the understanding of the factors that contribute to managerial performance, which could have practical implications in improving the financial management practices of government organizations.

References

- Aritonang, D. M. (2017). The impact of e-government system on public service quality in Indonesia. *European Scientific Journal, ESJ*, 13(35), 99-111.
- Arnold, M., & Artz, M. (2019). The use of a single budget or separate budgets for planning and performance evaluation. *Accounting, organizations and society*, 73, 50-67.
- Beck, A. W. (2018). Opportunistic financial reporting around municipal bond issues. *Review of Accounting Studies*, 23(3), 785-826.
- Bergmann, M., Brück, C., Knauer, T., & Schwering, A. (2020). Digitization of the budgeting process: determinants of the use of business analytics and its effect on satisfaction with the budgeting process. *Journal of Management Control*, 31(1-2), 25-54.
- Gordon, V., Osgood Jr, J. L., & Boden, D. (2017). The role of citizen participation and the use of social media platforms in the participatory budgeting process. *International Journal of Public Administration*, 40(1), 65-76.
- Hutama, R. S., & Yudianto, I. (2019). The Influence of Budget Participation, Budget Goals Clarity and Internal Control Systems Implementation on Local Government Performance. *Journal of Accounting Auditing and Business*, 2(2), 58-76.
- Kettl, D. F. (2015). The job of government: Interweaving public functions and private hands. *Public Administration Review*, 75(2), 219-229.
- Koohang, A., Paliszkievicz, J., & Goluchowski, J. (2017). The impact of leadership on trust, knowledge management, and organizational performance: A research model. *Industrial Management & Data Systems*, 117(3), 521-537.
- Lunardi, M. A., Zonatto, V. C. D. S., & Nascimento, J. C. (2019). Effects of job involvement, managerial attitudes, and information sharing on controllers' performance in the budgetary context. *Revista Brasileira de Gestão de Negócios*, 21, 540-562.
- Okafor, C., & Otor, J. (2018). Budget participation and budgetary slack: Evidence from Quoted Firms in Nigeria. *International Journal of Accounting and Finance (IJAF)*, 7(2), 106-118.
- Osabiya, B. J. (2015). The effect of employees motivation on organizational performance. *Journal of public administration and policy research*, 7(4), 62-75.
- Otley, D. T., & Berry, A. J. (2019). Control, organisation and accounting. In *Management Control Theory* (pp. 101-114). Routledge.
- Park, S. J., & Jang, S. (2021). Asymmetric information and excess budget: the influence of performance-based budgeting on budgetary slack in US states. *International Review of Public Administration*, 26(4), 353-372.
- Rana, T., & Hoque, Z. (2020). Institutionalising multiple accountability logics in public services: Insights from Australia. *The British Accounting Review*, 52(4), 100919.
- Rifqi, R. A., Subekti, I., & Rahman, A. F. (2017). The effect of budget participation to budgetary slack with external pressure as moderating Variable. *Journal of Accounting and Business Education*, 2(1), 178-201.
- Rokhman, M. T. N. (2017). Improving managerial performance through participation role of budget preparation: a theoretical and empirical overview. *Journal of Economics and Finance*, 8(1), 39-43.

- Saad, G. B., & Abbas, M. (2018). The impact of organizational culture on job performance: a study of Saudi Arabian public sector work culture. *Problems and Perspectives in Management*, 16(3), 207-218.
- Saripudin, S., & Siswanto, D. (2020). The Effect of Participatory Budgeting on Managerial Performance with Moderating Variables. *Jurnal ASET (Akuntansi Riset)*, 12(1), 17-31.
- Sicilia, M., & Steccolini, I. (2017). Public budgeting in search for an identity: state of the art and future challenges. *Public Management Review*, 19(7), 905-910.
- Simons, R. (2019). The role of management control systems in creating competitive advantage: new perspectives. In *Management Control Theory* (pp. 173-194). Routledge.
- Suharyono, S. (2019). The effect of accountability, transparency, and supervision on budget performance by using the concept of value for money in regional business enterprises (bumd) of Riau province. *International Journal of Public Finance*, 4(2), 236-249.
- Taouab, O., & Issor, Z. (2019). Firm performance: Definition and measurement models. *European Scientific Journal*, 15(1), 93-106.
- Uzochukwu, B., Onwujekwe, E., Mbachu, C., Okeke, C., Molyneux, S., & Gilson, L. (2018). Accountability mechanisms for implementing a health financing option: the case of the basic health care provision fund (BHCPF) in Nigeria. *International journal for equity in health*, 17, 1-16.
- Van den Berg, N. J., van Soest, H. L., Hof, A. F., den Elzen, M. G., van Vuuren, D. P., Chen, W., ... & Blok, K. (2020). Implications of various effort-sharing approaches for national carbon budgets and emission pathways. *Climatic Change*, 162, 1805-1822.
- Vveinhardt, J., & Banikonytė, J. (2017). Managerial solutions that increase the effect of group synergy and reduce social loafing. *Organizacijų vadyba: sisteminiai tyrimai*, 78, 109-129.
- Zhang, Y., Song, X., & Zhao, S. (2017). Evidences from China: Impacts of Information Asymmetry, Budgetary Participation, Emphasis, Procedural Justice, Interactive Justice, Clarity and Difficulty of Budgetary Goals on Subordinate Manager Propensity of Creating Budgetary Slack. *Journal of Computational and Theoretical Nanoscience*, 14(1), 207-220.



© 2023 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).