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Locus of Control as Budget Slack Moderator: The Role of Ethical Leadership and Budget Participation

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Abstract: The current study investigates the impact of Budget Participation and Ethical Leadership on Budget Slack. Further, the study investigates how Locus of Control serves as a moderator. The study sample includes bankers working in the Egyptian banking sector. The study deployed an electronic survey. Of the 384 total distributed questionnaires 275 were retrieved, with a response rate of 71.6%. The final sample for the statistical analysis was 251 questionnaires after all exclusions. For testing hypothesis about the relationship between the study variables simple and multiple regression models were adapted. The study results revealed a negative and significant impact of Ethical Leadership on Budget Slack, while Budget Participation was found to affect Budget Slack behaviour positively and significantly. Furthermore, our study revealed that Locus of Control partially and negatively moderating the correlation between Ethical Leadership and Budget slack. These findings contribute to the organizational behavior and management accounting literature, representing one of the first studies to examine this interdisciplinary relationship and confirm the moderating roles identified in African and Middle Eastern contexts.

Keywords: Locus of control, Ethical Leadership, Budget Participation, Budget slack, Emerging markets.

1 Introduction

Management control systems (MCS) has been a research interest recently as many studies concentrated on understanding their methodologies, and how managers and employees engage with them. This research builds on the influential work of Hopwood [1], Onsi [2], and Bruns and Waterhouse [3]. Budget control is a notable control mechanism [4]. Debates have arisen regarding the strictness and flexibility of this tool and the impact of variations in budget control design and implementation on managers, employees, and company performance. Managers and employees, who are held accountable for the company's success and profits, are primarily evaluated and rewarded based on these budgets, with their salaries, bonuses, and compensation being tied to meeting budget targets [5].

So, when the focus on budget goals is strong (indicating a strict control system relying on budget goals for evaluation), research has shown that managers and employees may attempt to protect themselves from market uncertainties by setting easily achievable targets, known as creating budget slack [2, 6-10], or engaging in practices that boost current performance while neglecting long-term planning for the company. These behaviors, identified as dysfunctional conduct, have the potential to cause harm to the organization in the long term [4, 11]. Managers engage in these practices by exploiting their power, status, and insider information to intentionally set lower-than-required targets, resulting in decreased profits, or by increasing expenditure targets to make the subsequent year easier [7, 12].

The literature on budget slack distinguishes between deliberate slack creation and actual budget slack [12]. Results are conflicting on the effects of slack, both positive and negative, on organizations [13]. Many studies have examined factors contributing to budget slack, such as budget participation [14-19], budget emphasis [12, 18, 20, 21], environmental uncertainty [10, 13], and leadership style [22-24]. Despite being well established, this area of research remains a highly debated topic in management accounting (MA) and organizational analysis [25].

The debate surrounding budget slack centers on the connection between the budget as a tool or procedure and how it influences people's attitudes and actions, which can also influence the budget in return. Research has focused on both the

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impact of budgets on people [3, 22, 26, 27] and the impact of people on budget preparation and implementation [6, 8, 18, 19, 28-30]. This relationship is established through the correlation between attitudes and behaviors [22]. For instance, some studies have looked at how individuals' attitudes towards the budget or budget preparation process affects behaviors such as budget slack or other manipulative behaviors [2, 6, 8, 22, 28].

Studies on budget preparation or execution approaches by individuals or managers have covered various areas such as personality traits and leadership styles [22]. Prior research has examined the impact of locus of control on the association between budget participation and performance [31-33]. Furthermore, different leadership styles have been examined for their impact on budgetary planning, manipulation, and implementation [22, 26, 27, 31, 32]. However, findings from these studies have been inconsistent and contradictory [22].

Most academic research on management control systems and budget slack has been conducted in either Western or Asian contexts, with relatively little attention paid to African environments such as Egypt [34-36]. Furthermore, there is a lack of research examining how Locus of Control moderates the association between budget participation, ethical leadership, and budget slack. This research gap highlights the need for a more comprehensive investigation into Egyptian bankers' budgetary intentions and practices, and to improve our understanding of budget slack creation given the conflicting viewpoints in the literature. Consequently, our primary research questions are as follows: (1) How does ethical leadership and budget participation impact actual budget slack behavior? (2) How does Locus of Control impact budget slack? (3) Does Locus of Control moderate the relationship between ethical leadership and budget slack?

The article is structured to follow a conventional format of empirical research. In Section 2, an exhaustive review of the relevant literature on Ethical leadership, Budget participation, Budget slack, and Locus of control is undertaken to provide the basis for the study hypotheses. Section 3 provides a comprehensive explanation of the methods and procedures utilized in the study to ensure methodological rigor and validity. The presentation and discussion of the results are reported in Section 4. Lastly, Section 5 offers a critical reflection on the findings, acknowledges the limitations of the study, and provides recommendations for future research directions.

2 Literature review and hypotheses development

2.1 Ethical Leadership and Budget Slack

Budget slack is a technique employed by organizations to incorporate surplus resources during the planning stage, making it easier to achieve objectives [6]. This tendency to allocate excess resources during the planning phase arises from the need for managers and employees to align their motivations and goals, especially in the context of performance reviews. The presence of a high budget focus during employee evaluations often leads to the generation of slack by employees, particularly those involved in the budget formulation process [7, 17, 18, 30, 37]. The phenomenon of budget slack has been studied extensively in the literature, with leadership style identified as a potential influencing factor by several researchers [22-24]. This research adds to the current body of literature by examining budget slack in a distinct context.

The emergence of various ethical problems such as theft, corruption, and fraud has led to a need for ethical leadership in business organizations. These issues have caused significant financial losses for organizations each year and have contributed to other administrative and ethical failures. To achieve long-term success and sustainability, organizations must prioritize ethics and integrity as the core values of leadership [22]. Effective leadership is characterized by virtuous ethics and integrity. Ethical leaders are impartial and exhibit ethical behavior in their dealings with subordinates [30]. They are attentive to the desires of their subordinates and fairly defend their rights. Ethical leadership aims to coordinate ethical values and behaviors to enhance performance. Socially responsible influencing of a group's activities to achieve goals is the definition of ethical leadership from a social influence perspective.

Prior research has emphasized the significance of effective ethical leadership in managing crises and handling ethical problems in a dynamic and uncertain environment. Ethical leadership can be described as displaying appropriate moral conduct by means of personal behavior and social interactions, as well as endorsing such behavior in employees through methods like reinforcement, open dialogue, and informed decision-making [37]. Ethical leadership has numerous favourable consequences, as an example enhancing organizational citizenship behavior, ethical identity, organizational commitment, and job satisfaction, decreasing unethical behaviors, and facilitating ethical decision-making, stimulating enthusiasm for work, and strengthening the self-motivation of subordinates [23, 29, 30].

According to Brown, et al. [38], ethical leadership includes three main styles. Two of them namely the participative and democratic leadership styles are viewed as ethical models, while the autocratic approach lacks ethical behaviour. Because

ethical leadership is participatory, leaders may share their power to stimulate their employees. As a result, inspiration is a causal element for improved performance [39, 40]. Hence, companies emphasise ethical leadership as crucial in upholding ethical values and principles which in return is expected to improve employee performance [41].

Earlier research has examined the impact of leadership style on employee conduct, with certain studies discovering a notable connection between perceived leadership style and employee behavior [42]. Social exchange theory suggests that frequent interaction between managers and subordinates can enhance creativity among followers [43]. Furthermore, various scholars have highlighted the significance of Ethical Leadership, arguing that individuals who prioritize ethical conduct are more driven than those who are solely motivated by financial or social rewards. These investigations offer valuable information on the influence of leadership style on employee behavior, underscoring the importance of Ethical Leadership in enhancing employee motivation. When employees perceive that their managers value their work, they are more likely to be inspired and motivated to assist others, which can lead to enhanced creativity and proactive behavior [44-47].

Many business studies have established that an Ethical leadership leads to a variety of ethical and desirable activities in many contexts and settings [48-50]. For example, it is reported that such leadership exists improves organisational performance [51]. Similarly, Alkhadra, et al. [40] and Ilyas, et al. [52] found that organizational performance and CSR are improved with the presence of ethical leader. Moreover, Hanaysha, et al. [53] found that employee creativity and organisational citizenship behaviour are affected positively by ethical leadership. This study will be guided by social exchange theory and empirical research; thus, the study will formulate the following hypothesis:

H1: “A significant inverse correlation exists between Ethical Leadership and the occurrence of Budget Slack.”

2.2 Budget Participation and Budget Slack

Budget slack remains a highly debated and unresolved topic in the MA literature, with numerous factors and incentives influencing its development. Among these influences are budget participation, information asymmetry, budget emphasis, environmental uncertainty, leadership style, and several others. These factors have been extensively studied and documented in various sources, including references [12-24, 28, 35, 54, 55].

The current research extends the budget slack literature through concentrating on the impact of participation of employees in the process of preparation and how it increases or decreases the slack. Budget participation involves the process in which subordinates develop plans for the upcoming year with the requirement that such plans impact the proposed objectives [56]. However, the budget may not necessarily reflect the organizational needs precisely, as the plan itself may contain some manipulations. Although earlier research on budget slack has recognized budget participation as a critical factor that impacts its creation [11, 14-18, 24, 57], the extensive attention given to this factor necessitates a more unified consensus on how it affects the generation of slack.

The existing literature on the association between budget participation and slack has produced mixed results. Some studies have suggested that participation leads to a significant reduction in budget slack [e.g., 2, 6, 12, 14, 18, 19], while others have found that it results in a substantial increase in budget slack [e.g., 7, 17, 28, 37]. Moreover, a few studies have reported negligible associations between the two [15, 24]. To explain these inconsistent findings, the literature has suggested several factors, including the application of the agency model [28], contingency theory [9, 29], organizational strategy and goal clarity before budget preparation [4], as well as information asymmetry and market uncertainties [10, 20, 56, 57]. Consequently, this study proposes a non-directed hypothesis.

H2: “There is a significant correlation between participation in budgeting and the presence of Budget Slack”.

2.3 Locus of Control Impact on the Budget Slack.

Locus of control is a personality trait that characterizes an individual's belief in their capacity to impact their actions, undertakings, and surroundings [51]. Locus of control refers to how individuals perceive and interpret The relationship between what they do and the consequences that result from their actions. An external locus of control is exhibited by individuals who attribute the consequences of their behavior to external factors beyond their control, such as luck or chance. On the other hand, individuals who attribute the outcomes of their behavior to their own abilities, intelligence, and capabilities are described as having an internal locus of control.

Since locus of control inception by Rotter in 1954, it has been extensively studied in a range of fields, including business and accounting research [e.g., 18, 32, 50, 58]. According to Rotter [59], Locus of control is associated with the sense of power and ability to govern or not govern one's activities and environment. Studies have demonstrated that Locus of

control influences ethical behavior among financial sector managers in South Africa [60]. Rotter developed a scale that allows individuals to evaluate their perception of control over their actions, outcomes, and environment (internal Locus). Conversely, individuals who have little or no perception of control over their surroundings and the consequences of their actions characterize the opposite end of the scale [50].

The concept of Locus of control has been extensively studied in the literature, tracing back to Rotter's initial work [61-63]. Studies have shown that an individual's perception of control over their environment and actions can impact their behavior. Those who perceive an external Locus tend to be less active and believe in fate, while those who perceive an internal Locus tend to be more organized and action-oriented in pursuing their goals [62]. Additionally, research has highlighted the association between Locus of control and ethical behavior, with individuals perceiving an internal Locus exhibiting more ethical behavior and assessing the ethicality of their actions [31, 61, 63, 64]. This is because they believe that their actions can influence outcomes and society, motivating them to act more ethically [60, 65].

The impact of Locus of control on budget processes and Budget Slack has been explored in previous studies, but the results have been mixed. Some studies found that individuals with an external Locus had a negative association with budgets due to feeling they have no control over market uncertainties and outcomes [e.g., 31, 32]. Other studies found that those with an internal Locus perception tend to participate positively in budget planning and have a favorable attitude towards targets and the budgeting process [22, 66]. Meanwhile, Barus [18], Wilanda and Nengzih [19], and Leach-Lopez, et al. [67] found that employees may engage in Budget Slack under pressure, particularly if they have an external Locus perception, suggesting that an external Locus contributes positively on creating genuine Budget Slack. Therefore, the following hypothesis is proposed:

H3: "Locus of control has a significant adverse effect on Budget Slack."

2.4 Ethical Leadership and Budget Slack: Locus of Control moderating role

Numerous studies have suggested that locus of control and ethical behavior are positively associated [31, 60, 63, 68, 69, 70, 72]. For instance, Miller and Toulouse [71] found that locus of control and effective leadership are positively associated, while Detert et al. [73] suggested that employees who perceive internal locus are more likely to understand the impact of their actions. Chiu [74] and other studies have found that those with high Locus exhibit greater ethical leadership by being accountable for the outcomes of their actions. In addition, Locus of control was found to impact ethical behavior among managers in the financial sector in South Africa [60]. These findings support the argument that individuals with high Locus are more likely to consider the consequences of their actions on ethical behavior [64].

There has been a significant amount of research exploring the relationship between Locus of control, budget processes, and Budget Slack. The existing studies indicate that an internal Locus has a negative impact on Budget Slack. Brownell [31] and Brownell [32] first reported that individuals with an external Locus reacted unfavorably to budgets in general. Previous studies supported the idea that individuals with an internal Locus are more likely to have a positive attitude towards budget preparation and targets [22, 66]. Similarly, research by Barus [18], Wilanda and Nengzih [19], and Leach-Lopez et al. [67] found that those with an external Locus tend to engage in Budget Slack. Building on these findings, we propose the following hypothesis:

H4: "The relationship between Ethical Leadership and Budget Slack is moderated by Locus of Control"

The conceptual framework of the study is presented in Figure 1. It illustrates the association between Budget participation, Ethical Leadership, and Budget Slack, while taking into account Locus of Control moderating effect.

3 Research methodology

3.1 Variables and measurement

The study includes the following variables classified into three categories:

- (1) Independent Variables: Ethical Leadership and Budget participation
- (2) Moderating Variable: Locus of Control
- (3) Dependent Variable: Budget Slack

The measurement of these variables and details regarding the sample and population information, analytical methodologies, and reliability tools will be discussed in the following sections.

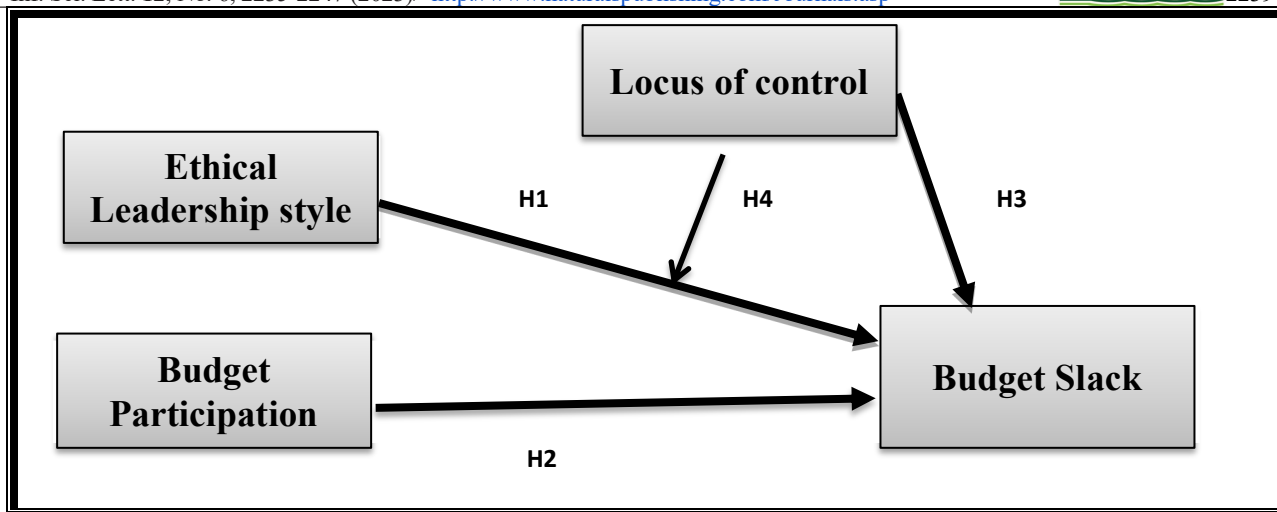


Fig. 1: Conceptual Framework

The study employed a questionnaire based on self-reporting to measure respondents' impressions of Ethical Leadership (EL), Budget Participation (BP), Budget Slack (BS), and Locus of Control (LOC). The survey consisted of two sections. The first section focused on demographic and functional factors such as gender, age, level of education, field of specialization in education, years of experience, and ownership of the bank. The second section evaluated the study variables, including Ethical Leadership (EL) measured by a 10-item scale developed by [38], Budget Participation (BP) evaluated using a 6-item scale developed by Kren [10], Locus of Control (LOC) measured by a 12-item scale developed by Duffy, et al. [75], and Budget Slack (BS) assessed using a 6-item scale developed by Dunk [12]. Respondents used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to rate their level of agreement. The questionnaire underwent pre-testing to ensure the reliability and validity of the instrument, and an amended version of the survey was created based on the results. An Arabic version of the scale was created using the back-translation method. The scale's validity was confirmed through necessary analyses to obtain the required data.

3.2 Population, Sampling and Data Collection

As reported by the Central Bank of Egypt, there were 37 registered and authorized banks operating until January 2019[76]. These banks fall into the categories of government, Egyptian private, and foreign private banks. The research included all customer service representatives, bankers, and others who work in the banking industry and had a target to be achieved. However, the exact number of employees with this characteristic could not be determined, so a sample size of 384 bankers was selected. This sample size was considered sufficient regardless of the total study population [77].

The study was conducted using an electronic survey and out of the 384 questionnaires distributed, 275 were returned with a response rate of 71.6%. After exclusion, the final sample for statistical analysis was 251 questionnaires. The sample descriptive analysis is presented in Table 1 and includes demographic and functional dimensions.

Table 1: Descriptive statistics for nominal (categorised) variables.

Features	Category	Number	%
Gender:	Male	150	59.7
	Female	101	40.3
<i>Total</i>		251	100%
Age:	20-30	136	54
	30-40	74	29.5
	40 – 50	27	11
	50 or above	14	5.5
<i>Total</i>		251	100%
Educational Specialisation:	Accounting	189	75.3
	Business Administration	38	15.1
	Other	24	9.6
<i>Total</i>		251	100%
Education:	BSC	178	71
	PG Diploma	26	10.3
	MSc	30	12

	PhD	17	6.7
<i>Total</i>		251	100%
Years of Experience:	< 10 years	160	63.7
	From 10 to 20 years	64	25.5
	More than 20 years	27	10.8
<i>Total</i>		251	100%
<i>Bank ownership</i>	Governmental	144	57.4
	Private	75	30
	Foreign	32	12.6
<i>Total</i>		251	100%

The table above presents the descriptive statistics for nominal variables. As shown, 59.7% of the participants were male and 40.3% were female. Age was divided into four categories: 20-30, 30-40, 40-50, and 50 and above, with proportions of 54%, 29.5%, 11%, and 5.5%, respectively. The highest ratio among educational specializations was for accounting. Education level was divided into four categories: bachelor, postgraduate diploma, master, and PhD, with proportions of 71%, 10.3%, 12%, and 6.7%, respectively. Experience was categorized into three groups: less than 10 years (63.7%), 10-20 years (25.5%), and 20 years or more (10.8%). Finally, the type of bank was the last nominal variable, with 57.4% of respondents working in government banks, 30% in private banks, and 12.6% in foreign banks.

3.3 Validity and Reliability

To test the reliability of the study, Cronbach Alpha was utilized, and the validity of the research variables was assessed by calculating the square root of the Alpha coefficient (R^2). Table 2 displays the outcomes of this analysis.

Table 2: Study Variables Reliability and Validity

No.	Variables	Items	Alpha	Alpha R^2
1	Ethical Leadership.	10	0.844	0.918
2	Budget participation.	6	0.852	0.923
3	Locus of Control.	12	0.728	0.853
4	Budget Slack.	6	0.757	0.870

From the data presented in Table 2, it can be observed that the research variables' reliability and validity coefficients are significantly high. The lowest reliability coefficient recorded was 0.728 for Locus of Control, which is still within the acceptable range. Furthermore, all the research variables demonstrated high validity coefficients, with the lowest coefficient being 0.853 for Locus of Control. Therefore, it can be inferred that there is a high level of confidence in the validity of all the research variables. These results indicate that the research instrument used was a reliable and valid tool for conducting the study, with good internal consistency among the items used.

3.4 Data analytical strategy

The data was analyzed using SPSS ver.25. The following procedures were also utilized as methods:

- Descriptive statistical (i.e., ratios, means, SDs, and correlation coefficients).
- For testing hypothesis about the relationship between the study variables simple and multiple regression models were adapted.

4 Analysis and Discussion

4.1 Initial Indicators

Table 3 provides an overview of the variables and their correlations in the study. These preliminary indicators are helpful in understanding the relationships between the variables Prior to presenting the main analysis. Pearson Correlation analysis was used to examine the association between the variables. The results revealed a significant and negative correlation among budget participation, ethical leadership, and budget slack. On the other hand, there was a positive correlation between Ethical Leadership and Locus of Control. Budget Participation showed a significant and positive relationship with Budget Slack but a negative association with Locus of Control. Finally, Locus of Control had a negative correlation with Budget Slack.

Table 3: Correlations and descriptive statistics

No.	Variables	Mean	Std. deviation	(EL)	(BP)	(LOC)	(BS)
1	Ethical Leadership (EL)	3.159	0.719	1			
2	Budget participation (BP)	3.776	0.769	-0.164**	1		

3	Locus of Control (LOC)	3.045	0.567	0.241**	-0.315**	1	
4	Budget Slack (BS)	3.374	0.539	-0.397**	0.414**	-0.375**	1
Notes: ** P<0.01 * P<0.05							

4.2 Hypotheses Testing

This section focuses on the testing of the research hypotheses as follows:

4.2.1 First hypothesis testing:

The first hypothesis was assessed through conducting a simple regression analysis as presented below in Table 4:

Table 4: The impact of Ethical Leadership on Budget Slack”.

Predictor	Coefficient	T. Value	Sig.
Constant	4.043	39.352	0.000**
EL	-0.212	-6.835	0.000**
R ²	.158		
Adjusted R ²	.155		
F.value	46.731		0.000**
Notes: ** P<0.01			

Results in table (4) reveal that: there is a significant and negative impact of the independent variable Ethical leadership (EL) on the Budget Slack (BS), as the regression coefficient were -0.212 at the level of significant p.value < 0.01. Furthermore, it has an F-value of 46.731; at p.value < 0.01, this result demonstrates the model’s significance. Besides that, the Adjusted R² was 0.155, confirming that Ethical leadership (EL) could explain 15.5% of the variances in the Budget Slack (BS). According to the above results, the first study hypothesis can be accepted.

These results align with previous research on ethical leadership and its association with virtuous and desirable behaviours [48, 78]. Specifically, the current results support the notion that ethical leadership in an organization reduces the likelihood of manipulating budget figures and reducing budget slack [48-50]. This can be seen as a reflection of an ethical character leading to ethical and justified actions [40, 52, 53]. The results show that the perception of ethical leadership in a leader result in reduced budget slack.

4.2.2 Second hypothesis testing:

The second hypothesis was tested through conducting a simple regression analysis as shown below in Table 5:

Table 5: The impact of budget participation on Budget Slack

Predictor	Coefficient	T. Value	Sig.
Constant	2.382	16.818	0.000**
BP	0.263	7.183	0.000**
R ²	.172		
Adjusted R ²	.168		
F.value	51.597		0.000**
Notes: ** P<0.01			

Results in table (5) reveal that: there is a significant and positive impact of the independent variable Budget Participation (BP) on the Budget Slack (BS), as the regression coefficient were 0.263 at the level of significant p.value < 0.01. Furthermore, it has an F-value of 51.597; at p.value < 0.01, this result demonstrates the model’s significance. Besides that, the Adjusted R² was 0.168, confirming that Budget Participation (BP) could explain 16.8% of the variances in the Budget Slack (BS). According to the above results, the second study hypothesis can be accepted.

From the previous results, the second study hypothesis is confirmed. The findings show that budget participation has a positive effect on Budget slack, contradicting previous research that claimed it decreases Budget slack [e.g., 2, 6, 12, 14, 18, 19], but supporting other studies that found a significant increase in Budget slack when budget participation increases [e.g., 7, 9, 17, 28, 29, 37, 56]. These results suggest that some subordinates view participation as a chance to advance their own interests, mitigate risks, and relax in achieving the targets.

4.2.3 Third hypothesis testing:

The third hypothesis was tested through conducting a simple regression analysis as shown in Table 6.

Table 6: The relationship between Locus of Control and Budget Slack.

Predictor	coefficient	T. Value	Sig.
Constant	4.363	27.585	0.000**

LOC	-0.325	-6.378	0.000**
R ²	.140		
Adjusted R ²	.137		
F.value	40.685		0.000**
Notes: ** P<0.01			

Results in table (6) reveal that: there is a significant and negative impact of the independent variable Locus of Control (LOC) on the Budget Slack (BS), as the regression coefficient were -0.325 at the level of significant p.value < 0.01. Furthermore, it has an F-value of 40.685; at p.value < 0.01, this result demonstrates the model's significance. Besides that, the Adjusted R² was 0.137, confirming Locus of Control (LOC) could explain 13.7% of the variances in the Budget Slack (BS).

Based on the presented findings, the third hypothesis can be accepted. These outcomes align with numerous investigations in the literature that have focused on Locus of Control. Individuals who possess an internal Locus are inclined to behave more ethically in general and weigh the ethicality of their actions [31, 61, 63, 64, 79, 80], ultimately leading to a lower tendency to create Budget Slack [31, 32]. Additionally, the obtained results are consistent with other studies that have examined the influence of external Locus [18, 19]. The interpretation of the aforementioned results is associated with having an internal Locus. As the internal Locus increases, there is a stronger inclination towards ethical behavior and a reduction in the creation of slack.

4.2.4 Fourth hypothesis testing:

The fourth hypothesis was tested through conducting a multiple regression analysis, which included Ethical Leadership (EL), Locus of Control (LOC), and the interaction variable (EL*LOC) as predictors. The regression coefficients obtained from the model were then compared with those of the first hypothesis to identify any differences between the two models. The findings are presented in Tables 7 and 8 below.

Table 7: Ethical Leadership and Budget Slack: locus of control as a moderator

Predictor	coefficient	T. Value	Sig.
Constant	4.701	28.662	0.000**
EL	-0.174	-5.706	0.000**
LOC	-0.256	-5.078	0.000**
The Interaction (EL*LOC)	0.003	0.092	0.927
R ²	.241		
Adjusted R ²	.231		
F.value	26.082		0.000**
Notes: ** P<0.01			

The presented data in the above table reveals that Ethical Leadership (EL) and Locus of Control (LOC) have a significant negative impact on Budget Slack (BS), while the Interaction (EL*LOC) variable has a small, insignificant positive effect on Budget Slack. The independent variables account for 23.1% of the variation in Budget Slack (BS), as indicated by the R² value. Additionally, the F-value of 26.082 is significant at p.value < 0.01, thus demonstrating the model's significance.

Table 8 below provides a comparison of regression models prior to and subsequent to the inclusion of the moderator variable.

Table 8: The effect of the moderator both before and after its introduction.

Dependent Variable	Independent Variables	Stage 1 Before Moderator			Stage 2 After Moderator		
		β	t. value	sig	β	t. value	sig
BS	EL	-0.212	-6.835	.000**	-0.174	-5.706	.000**
	LOC	-----	-----	-----	-0.256	-5.078	0.000**
	The Interaction (EL*LOC)	-----	-----	-----	0.003	0.092	0.927
	R ²	.158			.241		
	Adjusted R ²	.155			.231		
	F.value	46.713			26.082		
	(Sig)	.000**			.000**		
Notes: ** P<0.01							

The outcomes of a two-stage regression analysis are presented in Table 8. In Stage 1, the results indicate a significant

negative effect of Ethical Leadership (EL) on Budget Slack, with an F-value of 46.713 that is significant at $p < 0.01$, an Adjusted R² of 0.155, and a regression coefficient of -0.212. In Stage 2, Locus of Control (LOC) and the interaction between Ethical Leadership (EL) and Locus of Control (EL*LOC) were introduced as predictors, in addition to Ethical Leadership (EL). As a result, there was an increase in Adjusted R² to 0.231, and a decrease in the F-value to 26.082 and the (B) value to -0.174, all of which were statistically significant at a p-value of less than 0.01. The insertion of the moderator decreased the significance of Ethical Leadership (EL) in Stage 1, while still maintaining its significance, indicating a partial moderating role of Locus of Control in the relationship between Ethical Leadership (EL) and Budget Slack. As highlighted in the hypothesis section, further research is needed in this area to fully comprehend the moderating role. The findings contribute to the current literature by providing novel insights into the role of Locus of Control (LOC) in moderating the association between Ethical Leadership (EL) and Budget Slack (BS), and the factors that influence this relationship.

5 Concluding remarks

The aim of this study was to investigate the association between Budget Participation and Ethical Leadership on Budget Slack, with the moderating role of Locus of Control. The results revealed that Ethical Leadership had a negative effect on Budget Slack, while Budget Participation had a positive effect [22, 23, 49]. These findings support and build upon prior research on the association between Ethical Leadership and ethical behaviors that prevent Budget Slack creation, as well as research on the connection between Budget Participation and Budget Slack [e.g. 7, 17, 28, 29, 37].

The study revealed significant findings on Locus of Control moderating role in the association between Ethical Leadership and Budget Slack. The results showed that Locus of Control played a significant moderating role, with external or internal Locus having a notable impact. These findings contribute novel insights to the fields of Management Accounting and Organizational Behavior [22, 23]. Additionally, previous research has not demonstrated that Ethical Leadership can affect an individual's Locus of Control. Prior literature has shown a negative relationship between internal Locus and Budget Slack [18, 19, 22, 31, 32, 66, 67]. However, limited research has investigated the moderating role of Locus of Control in this relationship. Thus, the present study provides new evidence that enriches the understanding of the partial moderating role of Locus of Control in the Ethical Leadership and Budget Slack relationship.

In terms of methodology, incorporating moderation into our model to examine the mechanisms and circumstances that affect the relationship between independent variables and the dependent variable is a contribution to the literature. Although a clearer understanding of the direct relationship between the variables is needed to fully comprehend the underlying mechanisms and conditions, adding moderation has improved our understanding of the factors that either strengthen or weaken the relationship.

The present study has several limitations that should be considered when interpreting the findings. Firstly, the primary method used to gather data on employees' perceptions of their leaders, budget decisions, and intentions was a self-reported survey, which may introduce some biases. Secondly, the study utilized a cross-sectional design, and data collection occurred concurrently. To overcome this limitation, future research could adopt a longitudinal approach. Thirdly, a case study methodology with detailed interviews and qualitative analysis may be useful methodology to get deeper information about the slack reasons and how to reduce such behaviour. Lastly, the results are specific to the banking sector in Egypt and may not be generalizable to other business sectors in the region.

Although the current study has addressed some gaps in the literature, there is still more work to be done in several areas. As a suggestion for future research, we propose exploring the relationship between servant leadership, budget participation, budget slack, and the mediating effect of leader-member exchange (LMX). Additionally, we suggest investigating the association between servant leadership [81], budget participation, budget slack, and the impact of moral identity. Lastly, it's possible that servant leadership may have different effects on budget slack depending on whether budget targets are the primary control mechanism or if there is uncertainty in the environment. Further investigation is necessary in this regard.

Conflicts of Interest Statement

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

References

- [1] A. G. Hopwood. An Empirical Study of the Role of Accounting Data in Performance Evaluation. *Journal of Accounting Research*, 10, 156-182, (1972).
- [2] M. Onsi. Factor Analysis of Behavioral Variables Affecting Budgetary Slack. *The Accounting Review*, 48 (3), 535-548, (1973).
- [3] W. J. Bruns and J. H. Waterhouse, Budgetary Control and Organization Structure. *Journal of Accounting Research*, 13 (2), 177-203, (1975).
- [4] W. A. Van der Stede. The relationship between two consequences of budgetary controls: budgetary slack creation and managerial short-term orientation. *Accounting, Organizations and Society*, 25 (6), 609-622, (2000).
- [5] K. A. Merchant and J. F. Manzoni. The Achievability of Budget Targets in Profit Centers - a Field-Study. *Account Rev*, 64 (3), 539-558, (1989).
- [6] K. A. Merchant. Budgeting and the Propensity to Create Budgetary Slack. *Account Org Soc*, 10 (2), 201-210, (1985).
- [7] K. Lukka. Budgetary Biasing in Organizations - Theoretical Framework and Empirical-Evidence. *Account Org Soc*, 13 (3), 281-301, (1989).
- [8] W. S. Waller. Slack in Participative Budgeting - the Joint Effect of a Truth-Inducing Pay Scheme and Risk Preferences. *Account Org Soc*, 13 (1), 87-98, (1988).
- [9] A. Dunk and H. Nouri. Antecedent of budgetary slack : A literature review and synthesis. *Journal of Accounting Literature*, 17, 72-96, (1998).
- [10] L. Kren. Effects Of Uncertainty, Participation, And Control System Monitoring On The Propensity To Create Budget Slack And Actual Budget Slack Created. *Advances in Management Accounting*, 11, 143-167, (2003).
- [11] M. D. Mahlendorf, U. Schäffer, and O. Skiba. Antecedents of Participative Budgeting – A Review of Empirical Evidence. *Advances in Management Accounting*, 25, 1-27, (2015).
- [12] A. S. Dunk. The Effect of Budget Emphasis and Information Asymmetry on the Relation between Budgetary Participation and Slack. *Account Rev*, vol. 68 (2), 400-410, (1993).
- [13] E. Yılmaz, G. Özer, and M. Günlük. Do Organizational Politics and Organizational Commitment Affect Budgetary Slack Creation in Public Organizations?. *Procedia - Social and Behavioral Sciences*, 150, 241-250, (2014).
- [14] A. S. Maiga and F. Jacobs. Budget participation's influence on budget slack: The role of fairness perceptions, trust and goal commitment. *Journal of Applied Management Accounting Research*, 5 (1), 39-58, (2007).
- [15] A. A. Widanaputra and N. P. S. H. Mimba. The influence of participative budgeting on budgetary slack in composing local governments' budget in Bali province. *Procd Soc Behv*, 164, 391-396, (2014).
- [16] S. Kahar, A. Rohman, and A. Chariri. Participative Budgeting, Budgetary Slack And Job Satisfaction In The Public Sector. *Journal of Applied Business Research*, 32 (6), 1663-1674, (2016).
- [17] A. Hormati, R. Laduna, S. Mahdi, and S. Kahar. The effect of budgetary participation on budgetary slack using budgetary ethical compliance as the mediating and moderating variable. *International Journal of Civil Engineering Technology*, 8 (8), 1081-1092, (2017).
- [18] M. Barus. The Effect Of Budget Participation, Asimetry Information And Budget Emphasis On Budgetary Slack With Locus Of Control As Moderating Variables At Islamic University Of Sumatera Utara (Uisu). *International Journal of Public Budgeting, Accounting and Finance*, 2 (1), 1-10, (2019).
- [19] R. Wilanda and N. Nengzih. The Effect of Budget Participation, Locus of Control on Budgetary Slack Moderated by Large Scale Social Restrictions (PSBB). *Saudi Journal of Business and Management Studies*, 5 (12), 544-553, (2020).
- [20] C. M. Lau and I. R. C. Eggleton. The influence of information asymmetry and budget emphasis on the relationship between participation and slack. *Accounting and Business Research*, 33 (2), 91-104, (2003).
- [21] C. L. Huang and M. L. Chen. Playing devious games, budget-emphasis in performance evaluation, and attitudes towards the budgetary process. *Management Decision*, 48 (6), 940-951, (2010).
- [22] J. Byington and G. Johnson. Machiavellianism And Accounting Competence: Effects On Budgetary Attitudes.

- [23] F. G. H. Hartmann and V. S. Maas. Why Business Unit Controllers Create Budget Slack: Involvement in Management, Social Pressure, and Machiavellianism. *Behav Res Account*, 22 (2), 27-49, (2010).
- [24] S. Sundari, A. H. Habbe, and A. Mediaty. The Relation among Budgetary Participation and Budgetary Slack with Organizational Commitment and Leadership Style as Moderating Variable. *Journal of Business and Management*, 18 (10), 28-36, (2016).
- [25] A. Chariri and T. J. W. Prabowo. The Role of Risk Management on Budget Quality and Slack. *Academy of Accounting and Financial Studies Journal*, 22 (4), 1-12, (2018).
- [26] D. T. Otley. Budget Use and Managerial Performance. *Journal of Accounting Research*, 16 (1), 122-149, (1978).
- [27] K. A. Merchant. The Design of the Corporate Budgeting System - Influences on Managerial Behavior and Performance. *Account Rev*, 56 (4), 813-829, (1981).
- [28] S. M. Young. Participative Budgeting - the Effects of Risk-Aversion and Asymmetric Information on Budgetary Slack. *Journal of Accounting Research*, 23 (2), 829-842, (1985).
- [29] H. Nouri and R. J. Parker. The relationship between budget participation and job performance: The roles of budget adequacy and organizational commitment. *Account Org Soc*, 23 (5-6), 467-483, (1998).
- [30] S. SeTin, R. Sembel, and Y. Augustine. Budget gaming behavior: Evidence in Indonesian manufacturing companies. *Jurnal Keuangan dan Perbankan*, 23 (2), 258-269, (2019).
- [31] P. Brownell. Participation in Budgeting, Locus of Control and Organizational-Effectiveness. *Account Rev*, 56 (4), 844-860, (1981).
- [32] P. Brownell. A Field-Study Examination of Budgetary Participation and Locus of Control. *Account Rev*, 57 (4), 766-777, (1982).
- [33] P. Brownell and M. Mcinnes. Budgetary Participation, Motivation, and Managerial Performance. *Account Rev*, 61 (4), 587-600, (1986).
- [34] A. A. A. Diab and A. B. Mohamed Metwally. Institutional ambidexterity and management control. *Qualitative Research in Accounting & Management*, 16 (3), 373-402, (2019). doi: <https://doi.org/10.1108/QRAM-08-2017-0081>
- [35] A. Mohamed and A. Metwally. The Relationship Between Machiavellian Leadership, Budget Participation, and Budgetary Slack: mediating propensity to create slack and moderating Locus of Control. *Scientific Journal for Financial and Commercial Studies and Research*, vol. 3, no. 2 Part 1, 1-50, (2022). doi: <https://doi.org/10.21608/CFDJ.2022.229752>
- [36] A. B. M. Metwally and A. Diab. An institutional analysis of the risk management process during the COVID-19 pandemic: evidence from an emerging market. *Journal of Accounting & Organizational Change*, 19 (1), 40-62, (2023). doi: <https://doi.org/10.1108/JAOC-03-2021-0043>
- [37] C. W. Chow, J. C. Cooper, and W. S. Waller. Participative Budgeting - Effects of a Truth-Inducing Pay Scheme and Information Asymmetry on Slack and Performance. *Account Rev*, vol. 63 (1), 111-122, (1988).
- [38] M. E. Brown, L. K. Treviño, and D. A. Harrison. Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97 (2), 117-134, (2005). doi: <https://doi.org/10.1016/j.obhdp.2005.03.002>.
- [39] M. S. Malik, M. Awais, A. Timsal, and U. H. Qureshi. Impact of ethical leadership on employees' performance: Moderating role of organizational values. *International Review of Management Marketing*, 6 (3), 590-595, (2016).
- [40] W. A. Alkhadra, S. Khawaldeh, and J. Aldehayyat. Relationship of ethical leadership, organizational culture, corporate social responsibility and organizational performance: a test of two mediation models. *International Journal of Ethics and Systems*, vol. ahead-of-print, no. ahead-of-print, (2022).
- [41] N. Purnama and L. Warsindah. PENGARUH ETHICAL LEADERSHIP TERHADAP EMPLOYEE TASK PERFORMANCE YANG DI MEDIASI OLEH ORGANIZATIONAL IDENTIFICATION. *PROSIDING SEMINAR NASIONAL CENDEKIAWAN*, 2, 1121-1125, (2018).
- [42] P. Gkorezis, E. Petridou, and T. Krouklidou. The Detrimental Effect of Machiavellian Leadership on Employees' Emotional Exhaustion: Organizational Cynicism as a Mediator. *Eur J Psychol*, 11 (4), 619-631, (2015).

- [43] M. M. Hammond, N. L. Neff, J. L. Farr, A. R. Schwall, and X. Zhao. Predictors of individual-level innovation at work: A meta-analysis. *Psychology of Aesthetics, Creativity, the Arts*, 5 (1), 90-105, (2011).
- [44] K. Kalshoven, D. N. Den Hartog, and A. H. B. De Hoogh. Ethical leadership at work questionnaire (ELW): Development and validation of a multidimensional measure. *The Leadership Quarterly*, vol. 22 (1), 51-69, (2011). doi: <https://doi.org/10.1016/j.leaqua.2010.12.007>.
- [45] M. Abdelmotaleb, A. B. E. Mohamed Metwally, and S. K. Saha. Exploring the impact of being perceived as a socially responsible organization on employee creativity. *Management Decision*, 56 (11), 2325-2340, (2018). doi: <https://doi.org/10.1108/MD-06-2017-0552>
- [46] R. L. Dhar. Ethical leadership and its impact on service innovative behavior: The role of LMX and job autonomy. *Tourism Management*, 57, 139-148, (2016).
- [47] A. Pandey, V. Gupta, and R. K. Gupta. Spirituality and innovative behaviour in teams: Examining the mediating role of team learning. *IIMB Management Review*, 31 (2), 116-126, (2019).
- [48] W. E. Shafer and Z. Wang. Effects of ethical context and Machiavellianism on attitudes toward earnings management in China. *Managerial Auditing Journal*, 26 (5), 372-392, (2011).
- [49] D. Dalton and R. R. Radtke. The Joint Effects of Machiavellianism and Ethical Environment on Whistle-Blowing. *J Bus Ethics*, 117 (1), 153-172, (2013).
- [50] N. F. H. Zainun, J. Johari, and Z. Adnan. Machiavellianism, locus of control, moral identity, and ethical leadership among public service leaders in Malaysia: the moderating effect of ethical role modelling. *Int J Sociol Soc Pol*, 41 (9-10), 1108-1133, (2021).
- [51] M. E. Brown and L. K. Trevino. Ethical leadership: A review and future directions. *Leadership Quart*, 17 (6), 595-616, (2006).
- [52] S. Ilyas, G. Abid, and F. Ashfaq. Enhancing the perceived organizational support, perceived ethical-philanthropic CSR and subjective well-being: the role of ethical leadership. *International Journal of Ethics and Systems*, vol. ahead-of-print, no. ahead-of-print, (2022).
- [53] J. R. Hanaysha, V. V. A. Kumar, M. In'airat, and C. Paramaiah. Direct and indirect effects of servant and ethical leadership styles on employee creativity: mediating role of organizational citizenship behavior. *Arab Gulf Journal of Scientific Research*, 40 (1), 79-98, (2022).
- [54] C. Daumoser, B. Hirsch, and M. Sohn. Honesty in budgeting: a review of morality and control aspects in the budgetary slack literature. *J Manag Control*, 29 (2), 115-159, (2018).
- [55] C. M. Lau and I. R. C. Eggleton. Cultural Differences in Managers' Propensity to Create Slack. *Advances in International Accounting*, 17, 137-174, (2004).
- [56] P. Damrongsukniwat, D. Kunpanitchakit, and S. Durongwatana. The measurements of budgetary slack: the empirical evidence of listed companies in Thailand. *Journal of Economics, Business and Management*, 3(2), 244-251, (2015).
- [57] L. Bhilawa and A. Kautsar. The Determinants of Relationship Between Budgetary Participation and Budgetary Slack. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8 (2), 155-163, (2018).
- [58] P. E. Spector. Development of the Work Locus of Control Scale. *J Occup Psychol*, 61 (4), 335-340, (1988).
- [59] J. B. Rotter. Generalized expectancies for internal versus external control of reinforcement. *Psychol Monogr*, 80 (1), 1-28, (1966).
- [60] E. Boshoff and E. Van Zyl. The relationship between locus of control and ethical behavior among employees in the financial sector. *Koers*, 76 (2), 283-303, (2011).
- [61] A. Smith, J. D. Coates, and D. R. Deis. Are Ethical Responses Linked to Locus of Control? *Teaching Business Ethics*, 2 (3), 249-260, (1998).
- [62] L. Brown *et al.* An inventory of nitrous oxide emissions from agriculture in the UK using the IPCC methodology: emission estimate, uncertainty and sensitivity analysis. *Atmos Environ*, 35 (8), 1439-1449, (2001).
- [63] A. Smith, E. C. Hume, A. B. Davis, and R. Zimmermann. The universal relevance of locus of control in ethical decision making: a multi-country examination. *Journal of Legal, Ethical Regulatory Issues*, 7 (1/2), 15-18 (2004).

- [64] L. K. Trevino. Ethical Decision-Making in Organizations - a Person-Situation Interactionist Model. *Acad Manage Rev*, 11 (3), 601-617, (1986).
- [65] R. Darshani. A review of personality types and locus of control as moderators of stress and conflict management. *International Journal of Scientific Research*, 4 (2), 1-8, (2014).
- [66] V. Frucot and W. T. Shearon. Budgetary Participation, Locus of Control, and Mexican Managerial Performance and Job-Satisfaction. *Account Rev*, 66 (1), 80-99, (1991).
- [67] M. A. Leach-Lopez, W. Stammerjohan, and J. Rigsby. An Update On Budgetary Participation, Locus Of Control, And The Effects On Mexican Managerial Performance And Job Satisfaction. *Journal of Applied Business Research*, 24 (3), 121-134, (2008).
- [68] E. C. Ameen, D. M. Guffey, and J. J. McMillan. Gender differences in determining the ethical sensitivity of future accounting professionals. *J Bus Ethics*, 15 (5), 591-597, (1996).
- [69] G. E. Jones and M. J. Kavanagh. An experimental examination of the effects of individual and situational factors on unethical behavioral intentions in the workplace. *J Bus Ethics*, 15 (5), 511-523, (1996).
- [70] M. K. McCuddy and B. L. Peery. Selected individual differences and collegians' ethical beliefs. *J Bus Ethics*, 15 (3), 261-272, (1996).
- [71] D. Miller and J.-M. Toulouse. Chief Executive Personality and Corporate Strategy and Structure in Small Firms. *Management Science*, 32 (11), 1389-1409, (1986).
- [72] L. K. Trevino and S. A. Youngblood. Bad Apples in Bad Barrels - a Causal-Analysis of Ethical Decision-Making Behavior. *J Appl Psychol*, 75 (4), 378-385, (1990).
- [73] J. R. Detert, L. K. Treviño, and V. L. Sweitzer. Moral disengagement in ethical decision making: a study of antecedents and outcomes. *J Appl Psychol*, 93 (2), 374-391, (2008).
- [74] R. K. Chiu. Ethical Judgment and Whistleblowing Intention: Examining the Moderating Role of Locus of Control. *J Bus Ethics*, 43 (1), 65-74, (2003).
- [75] P. J. Duffy, S. Shiflett, and R. G. Downey. Locus of control: dimensionality and predictability using Likert scale. *J Appl Psychol*, 62 (2), 214-9, (1977).
- [76] CBE. "List of Egyptian Banks." Central Bank of Egypt. <https://www.cbe.org.eg/en/BankingSupervision/Pages/LicenseLists.aspx> (accessed 29/07/2020, 2020).
- [77] R. V. Krejcie and D. W. Morgan. Determining Sample Size for Research Activities. *Educ Psychol Meas*, 30 (3), 607-610, (1970).
- [78] P. R. Murphy. Attitude, Machiavellianism and the rationalization of misreporting. *Account Org Soc*, 37 (4), 242-259, (2012).
- [79] JP. Green, SR. Hina. God locus of health control, paranormal beliefs, and hypnotizability. *Int J Clinical Exp Hypnosis*, 70 (2), 174-195. (2022). doi: <https://doi.org/10.1080/00207144.2022.2049445>.
- [80] JC. Yang, YL. Lin, and Y-C. Liu. Effects of locus of control on behavioral intention and learning performance of energy knowledge in game-based learning. *Environ Educ Res*, 23 (6), 886-899, (2017). doi: <https://doi.org/10.1080/13504622.2016.1214865>.
- [81] M., Abdelmotaleb, A. Metwally, and S.K. Saha. Servant leadership and nurses' upward voice behavior in an Egyptian hospital: Does prosocial motivation matter? *Human Systems Management*, 41 (1), 47-58, (2022). doi: <https://doi.org/10.3233/HSM-201134>.