



The Relationship Between Machiavellian Leadership, Budget Participation, and Budgetary Slack: mediating propensity to create slack and moderating Locus of Control

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The Relationship Between Machiavellian Leadership, Budget Participation, and Budgetary Slack: Mediating Propensity to Create Slack and Moderating Locus of Control

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Abstract

The study aims to investigate the relationship between Machiavellian Leadership style, Budget Participation, and Budgetary Slack, with the mediating role of Propensity to create slack, and the moderating role of Locus of Control. The study encompasses bankers, who work in Egyptian banking sector. A total of 384 questionnaires were distributed using electronic survey, and 274 questionnaires were retrieved, with a response rate of 71.3%, statistical analysis was conducted on 248 questionnaires. Simple and multiple regressions were used to analyse the data and test hypotheses. The study found a significant positive effects of Machiavellian Leadership style, Budget Participation, on Budgetary Slack. Moreover, the study found a positive and significant partial mediating role of Propensity to create slack on this relation. Finally, the study found a negative and significant partial moderating role of locus of control on the relationship between Machiavellian Leadership style and budgetary slack. The reported findings are interdisciplinary in nature, as it contributes to two different literatures, namely Management accounting literature and organizational behaviour literature. Moreover, this is one of the first studies to confirm the concluded mediating and moderating roles in the middle eastern context.

Keywords Budget Participation, Machiavellian Leadership, Locus of Control, Budget Slack, Propensity to Create Slack, Emerging Markets.

Paper type Research paper

1. Introduction

Since the seminal work of Hopwood (1972), Onsi (1973), and Bruns and Waterhouse (1975) there has been an increased concentration on understanding the management control systems, its tools, managers and employees behavioural interactions to this control system. One of the main tools of control was the budgetary control (Van der Stede, 2000). Many discussions emerged surrounding the rigidity and lenience of this control tool, and what is the effect of the differences in designing and implementing budgetary controls on managers, employees, and companies' performance (Diab and Metwally, 2019). Regarding managers and employees as the persons that are accountable for the company performance and profitability they were mostly measured and appraised based on those budgets. Their salaries, bonuses, and remunerations are mainly based on achieving the budget targets (Merchant and Manzoni, 1989; Metwally and Diab, 2021). Hence, when the emphasis on budget targets is high, which means that the control system is rigid in the use of budget targets as basis of evaluation, many studies found that employees and managers tend to search for a way to protect themselves from any uncertainties in the market through preparing their targets to be easily achieved, namely budget slack creation (Dunk and Nouri, 1998; Kren, 2003; Lukka, 1988; Merchant, 1985; Onsi, 1973; Waller, 1988), or trying to make gaming that increase the current period performance and ignoring the long run planning for the organization. Both reactions are called dysfunctional behaviour in some studies as it harms the organization in the long run (Mahlendorf *et al.*, 2015; Van der Stede, 2000). This harm comes from the managers exploitation of their power, status, and knowledge about the internal operations to set targets what are lower than expected (i.e., lowering profits) or/and increasing the expenditures targets than what is expected to make themselves relax in the coming year (Dunk, 1993; Lukka, 1988).

Budgetary slack literature differentiated between the prosperity to make slack (intention to make slack) and the actual budgetary slack (Dunk, 1993). This literature includes contradictory results of the negative versus positive impact of slack on organizations (Yılmaz *et al.*, 2014). Moreover, it includes many studies that investigated the factors that affect the emergence of budgetary slack. The most important factors that were studied in this literature were budgetary participation (Barus, 2019; Hormati *et al.*, 2017; Kahar *et al.*, 2016; Maiga and Jacobs, 2007; Widanaputra and Mimba, 2014; Wilanda and Nengzih, 2020), information asymmetry (Chow *et al.*, 1988; Dunk, 1993; Lau and Eggleton, 2003, 2004; Young, 1985), budget emphasis (Barus, 2019; Dunk, 1993; Huang and Chen, 2010; Lau and Eggleton, 2003), environmental uncertainty (Kren, 2003; Yılmaz *et al.*, 2014) and other factors such as leadership style (Byington and Johnson, 1990; Hartmann and Maas, 2010; Sundari *et al.*, 2016). However, this literature seems to be well-established, yet it represent one of the most debated literature in management accounting (MA) and organizational Behaviour (OB) (Chariri and Prabowo, 2018).

This debate emerges as budget slack represent a relationship between budget as an object or as a process and people attitude and action. This relationship is reciprocal in nature, as some studies concentrated on how budgets affect people (Bruns and Waterhouse, 1975; Byington and Johnson, 1990; Merchant, 1981; Otley, 1978), and others concentrate on how people affect the budget preparation and implementation (Barus, 2019; Merchant, 1985; Nouri and Parker, 1998; SeTin *et al.*, 2019; Waller, 1988; Wilanda and Nengzih, 2020; Young, 1985). The impact of people on the budget or the vies-versa is based mainly on making a relationship between attitude and behaviour (Byington and Johnson, 1990). For example, some of those studies concentrated on individual attitude toward either the budget or the process of preparing the budget and certain behaviour like budgetary slack or any other gaming behaviours (Byington and Johnson, 1990; Merchant, 1985; Onsi, 1973; Waller, 1988; Young, 1985).

Studying individual's or manager's attitude towards the budgeted preparation or implementation includes several discussions that relates to personality traits and leadership style (Byington and Johnson, 1990). These traits included the effect of locus of control on the relationship between budget participation and performance (Brownell, 1981, 1982; Brownell and McInnes, 1986). Moreover, other studies concentrated on the impact on budgeting preparations, manipulations, and implementations through deploying different leadership styles (Brownell, 1981, 1982; Byington and Johnson, 1990; Merchant, 1981; Otley, 1978). This strand of research reported mixed and contradictory results (Byington and Johnson, 1990).

Most of the academic studies that concentrate on budgetary slack were not implemented in an African setting like Egypt, as most of the studies were either Western or Asian studies. Moreover, none of those studies connected the relationship between budget participation, Machiavellian leadership style and budget slack with mediating prosperity to create slack and moderating locus of control. This plea for more investigation to this blind spot to extend and enrich the literature through concentrating on Egyptian bankers' intentions and actual practicing of budgetary slack. Having this motive along with the conflicting opinions between scholars in the literature urge for more research to enhance our understanding about budgetary slack creation. Having said this, our central research questions can be formulated as follows:

- (1) what are the effects of budgetary participation and machiavellian leadership style on the propensity to create slack and the actual participation on this behaviour?
- (2) What are the effects of locus of control and Propensity to create slack on the actual budgetary slack?
- (3) Is locus of control playing a moderating role in the path of the relationship between Machiavellian leadership style, and budget slack?
- (4) Is the propensity to create slack playing a mediating role in the path of the relationship between Budgetary participation, Machiavellian leadership style, and budget slack?

The paper is organized as follows: Section 2 presents the literature related to Machiavellian leadership style, Budget participation, Propensity to Create Slack, budgetary slack, and locus of control to develop the study hypothesis. Section 3 explains the methodology and methods deployed in conducting the study. Section 4 presents results and discussion. Finally, section 5 presents the concluding remarks, limitations, and research implication.

2. Literature Review and Hypotheses Development

2.1 The Relationship Between Machiavellian Leadership Style and Budgetary Slack

Budgetary slack is the intentional inclusion of excess resources in the planning that makes the attainment of the targets easier (Merchant, 1985). This excessive use of resources in the planning emerges because there is no consensus between managers and employees on their motives and goals especially when it comes to performance appraisal. Consequently, when managers appraise the employees based on achieving the targets specified in the budget (high budget emphasis), employees will tent to create slack to perform well at the end of the year, especially when they are more participating in the budget setting (Barus, 2019; Chow *et al.*, 1988; Hormati *et al.*, 2017; Lukka, 1988; SeTin *et al.*, 2019). The creation of budgetary slack is related to many factors in the literature, some studies concentrated on leadership style as one of the factors that can directly affect the budgetary slack creation (Byington and Johnson, 1990; Hartmann and Maas, 2010; Sundari *et al.*, 2016).

According to Stradovnik and Stare (2018), “Machiavellian leadership is defined as a leadership style that follows the basic principles of Machiavellianism which is considered (jointly with narcissism and psycopathism) a negative and dark personal trait”. Machiavellianism origins can be traced back to the 16th century when the diplomat Niccolò Machiavelli

who visited European courts and observed the courts (D'Souza *et al.*, 2018). According to him politicians must master using manipulations, strategies, sometimes lies, and impression management in order to be able to persuade and control the electors, this in return gives power to the leader (Judge *et al.*, 2009). Machiavellian personality trait is seen to conjoin several dark side actions like manipulation, ruthless, conniving and engaging in immoral, and unethical actions that benefit themselves only (Stradovnik and Stare, 2018). Some studies in the leadership literature investigated the effect of leadership style on employees' emotions, actions, and behaviour and found significant relationship between leadership style and employee's emotions and behaviour (Gkorezis *et al.*, 2015; Shafer and Wang, 2018; Stradovnik and Stare, 2018). More specifically Machiavellian leaders is related to the perception of abusiveness by employees as this kind of leader will exhaust employees to reach their ends with little attention to how their employees will feel (Gkorezis *et al.*, 2015). Moreover, as Machiavellians are goal driven leaders that can engage in all possible means to reach their goals this may lead to unethical environment in the organization, as goal achievement is becoming the endeavour of the employees, regardless of the way of achieving this goal. This becomes more dangerous on organizations if some employees with unethical or manipulative behaviour are becoming appreciated and expressed by their manager to be role model for the best achievers of the goals (Belschak *et al.*, 2018).

In many business studies it was concluded that Machiavellian leadership style leads to many unethical and undesirable actions in different contexts and settings (Shafer and Wang, 2018). For instance, it is reported that in the existence of such leadership less engagement in whistleblowing persist (Dalton and Radtke, 2013), more mismanagement and fraudulent reporting of earnings (Murphy, 2012), implementation of unethical negotiation tactics (Shafer and Wang, 2018), increased tendency to engagement in earning management behaviour (Shafer William and Wang, 2011), increased tendency to manipulate budget rubrics (Byington and Johnson, 1990), and

more pressures on top management to create budget slack (Hartmann and Maas, 2010). This study will go with theory and the supported empirical research so, the following hypothesis will be formulated as follows:

H1: “There is a positive significant relationship between Machiavellian Leadership style and Budgetary Slack”.

2.2 The Relationship Between Budget Participation and Budgetary Slack

Budgetary slack is one of the most studied and unresolved topics in the MA literature (Daumoser *et al.*, 2018), as the literature includes many motivations and factors that affect its creation, of these factors: budget participation (Barus, 2019; Debaerdemaeker and Bruggeman, 2015; Hormati *et al.*, 2017; Kahar *et al.*, 2016; Maiga and Jacobs, 2007; Widanaputra and Mimba, 2014; Wilanda and Nengzih, 2020), information asymmetry (Chow *et al.*, 1988; Dunk, 1993; Lau and Eggleton, 2003, 2004; Young, 1985), budget emphasis (Barus, 2019; Dunk, 1993; Huang and Chen, 2010; Lau and Eggleton, 2003), environmental uncertainty (Kren, 2003; Yılmaz *et al.*, 2014) and many other factors including leadership style (Byington and Johnson, 1990; Hartmann and Maas, 2010; Sundari *et al.*, 2016).

Our main concern in the current study is to expand the literature in the relationship between budget participation and budgetary slack. Participation in the budget process refers to a situation in which subordinates are involved in the preparations of the coming year plans and it is a must to be participative to be having some influence on the planned targets (Damrongsukniwat *et al.*, 2015). Hence, the prepared budget targets may not reflect the actual needs that can help the organization as it may include some manipulations that made in the slack created inside the plan. Most of the slack studies have included budget participation as one of the central factors affecting the creation of slack as the main explanation for the creation of budgetary slack (e.g. Barus, 2019; Bhilawa and Kautsar, 2018; Debaerdemaeker and Bruggeman, 2015; Hormati

et al., 2017; Kahar *et al.*, 2016; Mahlendorf *et al.*, 2015; Maiga and Jacobs, 2007; Sundari *et al.*, 2016; Widanaputra and Mimba, 2014).

However, of this excessive inclusion of budget participation in the budgetary slack literature there is little consensus about how it will affect the creation of slack. The literature includes many contradictory results. Some studies reported that budget participation significantly reduce budgetary slack (e.g. Barus, 2019; Dunk, 1993; Maiga and Jacobs, 2007; Merchant, 1985; Onsi, 1973; Wilanda and Nengzih, 2020), others found that budget participation significantly increase budgetary slack (e.g. Chow *et al.*, 1988; Hormati *et al.*, 2017; Lukka, 1988; Young, 1985), while little number of studies reported no significant relationship between budget participation and budgetary slack (Sundari *et al.*, 2016; Widanaputra and Mimba, 2014). This contradictory results had many explanations in the literature, like the use of agency model (Young, 1985), contingency theory (Dunk and Nouri, 1998; Nouri and Parker, 1998), organizational strategy and clearness of goals before the budget preparation (Van der Stede, 2000) and information asymmetry and market uncertainties (Bhilawa and Kautsar, 2018; Damrongsukniwat *et al.*, 2015; Kren, 2003; Lau and Eggleton, 2003).

Consequently, the following none directed hypothesis is formulated as follows:

H2: “There is a significant Positive relationship between budget participation and Budgetary Slack”.

2.3 The Relationship Between Both Machiavellian Leadership Style, Budget Participation, and Propensity to Create Slack

Propensity to create slack was heavily studied in behavioural and psychologically based studies. There are two main strands of research that relates budget participation with propensity to create slack. The first strand of researchers argued that budget participation will reduce the tendency of both managers and employees to engage in slack creation (Kren, 2003). This strand

of research built their argument based on the impact of good communication between top management and employees on reducing the pressures on those subordinates, this reduction in pressure is expected to lead to less intention to make slack (Merchant, 1985; Onsi, 1973). However, these studies disregarded that those managers and employees may have their self-interest that push them to have propensity to create slack (Kren, 2003). One of the seminal studies in this strand is Baiman and Evans (1983) who concluded that managers and employees will not reduce their intentions to make slack until this will benefit them personally and satisfy their own needs. Moreover, Kaplan and Atkinson (1989) explained that managers and employees are always motivated to create slack as is used to hedge against any uncertainties in the market.

Contradictions in early studies plea for more studies to confirm the actual effect of budget participation on the propensity to create slack. Having said this, many agency theory-based experiments has provided solid evidence in the literature that managers will have high intentions to create slack whenever they can make it (e.g. Chow *et al.*, 1988; Damrongsukniwat *et al.*, 2015; Dunk, 1993; Kren, 2003; Nouri and Parker, 1998; Yilmaz *et al.*, 2014). However, this strand of research built a strong argument, other studies included ethics, fairness and goal commitment as mediators and moderators and found that these factors will lead to a reduction in propensity to create slack (Dunk and Nouri, 1998; Hormati *et al.*, 2017; Maiga and Jacobs, 2007). Moreover, Lau and Eggleton (2004) added trust as another variable that can reduce the intention to create slack, hence, budget participation is not always available from management side, and as it is allowed by the manager this represent a trust from the manager which employees will try to sustain through not having intentions or even engage in actual slack creation.

In our study budget participation and Machiavellian leadership style as main variables that might affect propensity to create slack are not separated. The researchers regard those variables to be intertwined in their effect on the intention to make slack. Having said this, as mentioned earlier Machiavellian

leadership style is related to unethical and undesirable actions in general (Shafer and Wang, 2018), and as employees perceive their managers to be a Machiavellian leader they are expected to be less engaging in whistleblowing (Dalton and Radtke, 2013), more committing fraud in the financial reporting (Murphy, 2012), engaging in unethical (Shafer and Wang, 2018), have the motivation to commit earning management behaviour (Shafer William and Wang, 2011), and is more expected to have motives to manipulate budget rubrics (Byington and Johnson, 1990), and finally is expected to be motivated to create budgetary slack (Hartmann and Maas, 2010). Moreover, as the literature support the argument that Machiavellianism is related to manipulations, unethical behaviour, and seeking personal goals (Aldousari and Ickes, 2021), it is expected that this behaviour will be a social norm in the organization as the manager is perceived to be Machiavellian (Shafer and Wang, 2018; Utami *et al.*, 2019; Zainun *et al.*, 2021). Based on those early studies, the following hypothesis will be formulated:

H3: “There is a positive significant relationship between budgetary participation, Machiavellian leadership style and propensity to create slack”.

This hypothesis can be divided into two sub hypotheses as follows:

H3.A: “There is a positive significant relationship between Machiavellian Leadership style and Propensity to create Slack”,

H3.B: “There is a positive significant relationship between budget participation and Propensity to create Slack”.

2.4 The Relationship Between Locus of Control, Propensity to Create Slack and the Actual Budgetary Slack.

Locus of control is a personality variable that relates to the individual’s perception of controlling actions, activities, and environment in general (Brown and Treviño, 2006). Since it was developed by Rotter in 1954, locus of control has been studied widely in many disciplines including business and

accounting studies (e.g. Aldousari and Ickes, 2021; Barus, 2019; Brownell, 1982; Spector, 1988; Zainun *et al.*, 2021). Rotter (1966), explained that locus of control is about the perception of the power and ability to control or not to control the actions and environment. Based on the constructed scale individuals can be classified as having internal locus of control whenever their perception is related to a high control of the actions and environment, otherwise individuals can be classified as having external locus of control whenever their perception is related to little control or no control over the environment and actions (Zainun *et al.*, 2021). In similar vein, Darshani (2014) defined internal locus of control as “the belief that outcomes are contingent on one’s own responses”, and external locus of control as “generalized belief that outcomes are determined by external factors”.

Having said this, many studies concentrated on the effect of locus of control on individual’s behaviour (e.g. Brown *et al.*, 2001; Smith *et al.*, 1998; Smith *et al.*, 2004; Trevino, 1986; Trevino and Youngblood, 1990). Brown *et al.* (2001), concluded that individuals with the internal locus of control perception tend to be more active and action oriented, while individuals with external locus of control perception are more affected by external factors like fate and tend to explain and act based on the perception that they do not control the results of their actions. Moreover, many added to literature that individuals with internal locus of control perception tend to be more ethical in relation to their actions (Brownell, 1981; Smith *et al.*, 1998; Smith *et al.*, 2004; Trevino, 1986; Trevino and Youngblood, 1990). The reason behind this conclusion is that individuals with internal locus of control tend to make weighting of their actions and the related consequences, this emanates from their believe that their actions make a difference (Boshoff and Van Zyl, 2011; Darshani, 2014; Trevino, 1986; Trevino and Youngblood, 1990).

Locus of control and its impact on budget processes and the creation of slack was studied by some studies and those studies found variant results. Brownell (1981) and Brownell (1982) seminal studies concluded that individuals with external locus of control perceptions will tend to be negatively interacting

with the budgets in general, and as a control tool it pushes on them more pressure as they see that they cannot control the environment and the uncertainties in the market and their actions may be not enough to achieve the budget target. On the contrary internal locus of control perception with associated with positive perception and interaction in the budget preparation. Byington and Johnson (1990) and Frucot and Shearon (1991) added that internal locus of control perception makes the subordinates relatively favouring the engagement in the budget preparation and will have positive attitude towards the targets and the process of budgeting in general . Finally, Barus (2019); Leach-Lopez *et al.* (2008); and Wilanda and Nengzih (2020), added to this debate that employees could engage in budgetary slack when felling pressured, in other words are perceiving external locus of control, and they concluded that external locus of control has a positive impact on creating actual budgetary slack.

The direct relationship between propensity to create slack and the actual Budgetary Slack behaviour represent one of the blind spots in MA research as very little evidence was found in relation to this relationship except for and Kren (2003); Van der Stede (2000) that concentrated on this. The results on those studies were compatible as both found that there is a positive relationship between propensity to create slack and the actual budgetary slack behaviour. Hence, we propose the following hypothesis:

H4: “Locus of control has significantly negative effects in Budgetary Slack, while propensity to Create Slack have significant, direct and positive effects in Budgetary Slack”.

This hypothesis can be divided into two sub hypotheses as follows:

H4.A: “Locus of control has significantly negative effect on Budgetary Slack”

H 4.B: “Propensity to create Slack has significantly positive effect on Budgetary Slack”

2.5 The Relationship Between Both Machiavellian Leadership style, Budget Participation and Budgetary Slack with the Mediating role of Propensity to Create Slack

Many studies support the hypothesis that budget participation and Machiavellian leadership style are having a direct positive effect on propensity to create slack (e.g. Byington and Johnson, 1990; Hartmann and Maas, 2010; SeTin *et al.*, 2019; Utami *et al.*, 2019). As we explained earlier that Machiavellian leadership style is associated with the emergence of unethical and undesirable actions in general (Shafer and Wang, 2018; Utami *et al.*, 2019). Perceiving the manager as a Machiavellian leader will push the employees to be less engaging in whistleblowing (Dalton and Radtke, 2013), engaging in unethical (Shafer and Wang, 2018), have the motivation to commit earning management behaviour (Shafer William and Wang, 2011), and is more expected to have motives to manipulate budget rubrics (Byington and Johnson, 1990), and finally is expected to be motivated to create budgetary slack (Hartmann and Maas, 2010).

Moreover, we clarified earlier that some studies support the hypothesis that propensity to create slack has a direct positive effect on the actual committing of budgetary slack (Kren, 2003; Van der Stede, 2000). As managers and employees will always have intentions to make slack and that this behaviour will always be translated in actual slack except for when this will benefit them personally (Baiman and Evans, 1983). This was also supported by several studies that build on the agency theory to support this intention and actual practices of budgetary slack (Chow *et al.*, 1988; Damrongsukniwat *et al.*, 2015; Dunk, 1993; Kren, 2003; Nouri and Parker, 1998; Yilmaz *et al.*, 2014). Having said this, we can imagine the path between Machiavellian leadership style, budget participation, and actual budgetary slack through the propensity to create slack. Hence, we propose the following hypothesis:

H5: “Propensity to Create Slack has a significant mediating role in the relationship between both of Machiavellian Leadership Style, Budget participation and budgetary Slack”.

This hypothesis can be divided into two sub hypotheses as follows:

H5.A: “Propensity to Create Slack has a significant mediating role in the relationship between both of Machiavellian Leadership Style and budgetary slack”.

H 5.B: “Propensity to Create Slack has a significant mediating role in the relationship between Budget participation and budgetary slack”.

2.6 The Relationship Between Machiavellian Leadership Style and Budgetary Slack with the Moderating Role of Locus of Control

There is an evidence in the literature that Machiavellian Leadership style has a direct positive relation with budgetary slack, and this was supported by some studies (Byington and Johnson, 1990; Hartmann and Maas, 2010). Moreover, there has been some studies in the literature that support the relationship between Machiavellianism as a personality trait (not a leadership style) and locus of control. These studies found a significant positive relationship between external locus of control and Machiavellianism (Aldousari and Ickes, 2021; Galli *et al.*, 1986; Zainun *et al.*, 2021). However, there is very little evidence that Machiavellian Leadership style can affect the locus of control of individuals.

Finally, many studies in the literature connected the locus of control and the budget process and budgetary slack. These studies support a negative impact of internal locus of control on budgetary slack. These studies started by the seminal work of Brownell (1981) and Brownell (1982) that concluded that external locus of control individuals will act negatively regarding the budgets in general, moreover, Byington and Johnson (1990) and Frucot and Shearon (1991) confirmed these early results and explained that internal locus of control perception makes the subordinates relatively favouring the

engagement in the budget preparation and will have positive attitude towards the targets and the process of budgeting in general. Finally, Barus (2019); Leach-Lopez *et al.* (2008); and Wilanda and Nengzih (2020), enriched and confirmed this hypothesis by concluding that external locus of control has a positive impact on creating actual budgetary slack. Hence, we propose the following hypothesis:

H6: “Locus of Control has a significant, direct moderating role in the relationship between machiavellian leadership style and budgetary slack”.

Hence, the researchers have developed a conceptual framework to depict the relationship between both of Machiavellian Leadership Style, Budget participation and Budgetary Slack, with the mediating role of Propensity to Create Slack, and the moderating role of Locus of Control in Figure 1 below.

3. Research Methodology

In this section the researchers will present the variables, variables measure, sample and population information, methods deployed for analysis and reliability tools, as follows:

3.1 Study Variables and Measurement

The three types of variables are presented below:

- (1) Independent variable, represented in Machiavellian Leadership style, Budget participation.
- (2) Mediating and moderating variables, represented in propensity to create slack as a mediator and locus of control as a moderator.
- (3) Dependent variable, which is budgetary slack.

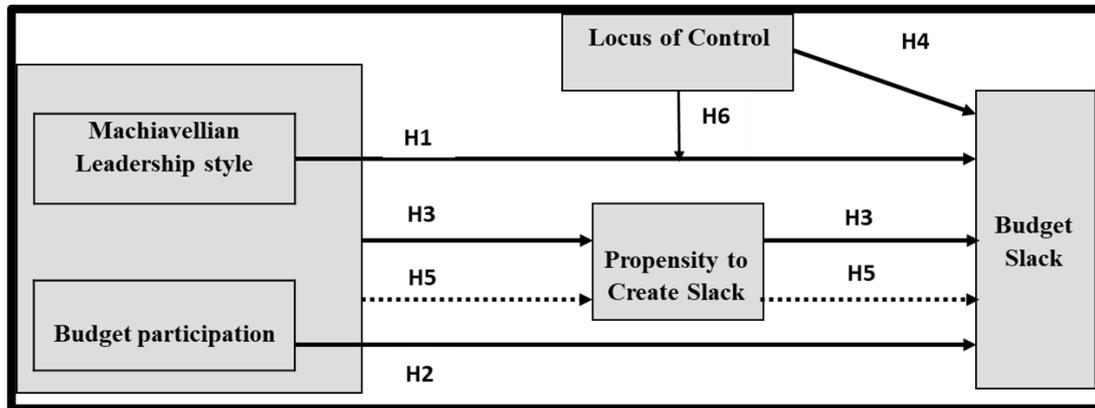


Figure 1: Conceptual Framework

A self-reported questionnaire was used to assess the responders' perceptions of Machiavellian Leadership Style (MLS), Budget participation (BP), Budgetary Slack (BS), Propensity to Create Slack (PCS), and Locus of Control (LOC). The responders were asked to determine their perceptions about these variables. The first part of the questionnaire addressed the demographic and functional variables, including Gender, Age, Educational level, educational specialization, Years of Experience, and Bank ownership. The second part of the survey was devoted to assess Machiavellian Leadership Style (MLS) that have been measured using a 9-item scale which was developed first time by Dahling *et al.* (2009). The third part of the survey was devoted to assess Budget participation (BP) the researchers deployed a 6-item scale that developed by Kren (2003), The forth part of the survey was devoted to assess Locus of Control (LOC) which have been measured using a 12-item scale that developed by Duffy *et al.* (1977) this scale was originated earlier by Rotter (1966). The fifth part of the survey was devoted to assess Propensity to Create Slack (PCS) which have been measured using a 3-item scale that developed by Kren (2003). Finally, the last scale is devoted to assess Budgetary Slack (BS) which have been measured using a 6-item scale that developed by Dunk (1993) .

Respondents were asked to state their level of agreement on a five-point Likert scale (from 1=strongly disagree to 5=strongly agree). Using the back-translation method, an Arabic version of the scale was developed. The questionnaire was made a pre-tested using the reliability and validity of the instrument and then, the adjusted version of the instrument based on the mentioned results. As will be demonstrate later, the required analysis was undertaken to ensure the validation of the scale to collect the needed data.

3.2 Population, Sampling and Data Collection

According to the reports issued by the Central Bank of Egypt, the number of banks registered and authorized to conduct banking activity till January 2019 is 37 banks (CBE, 2020). These banks are classified into governmental, private Egyptian and private foreign banks. The research population includes all customer services, bankers, and others who work in the presence of a target must be achieved. As a result of the inability to precisely determine the number of employees who have this characteristic, the sample size was determined to be (384) bankers, as this sample size still fits regardless of the size of the study population (Krejcie and Morgan, 1970).

A total of 384 questionnaires were distributed using electronic survey, and 274 questionnaires were retrieved, with a response rate of 71.3%, statistical analysis was conducted on 248 questionnaires after excluding incomplete ones. Table (1) below outlines the sample descriptive analysis according to the used demographic and functional dimensions.

Tables 1 below reports descriptive statistics for nominal (categorized) variables. As is shown in table 60.5 % of respondents were males, while the remaining 39.5% were females. As for age, the age was categorized into 4 categories started with (20-30) with an interval of ten years among them, these categories rated of 55%, 30%, 905% and 5.5% respectively. Regarding educational specialization, the largest ratio was related to accounting major. As for educational level, this item was categorized into 4 categories named bachelor, postgraduate diploma, master, and PhD, these categories rated of

72%, 10.5%, 12%, 5.5% respectively. Regarding years of experience, this item was categorized into 3 categories named (less than 10) with ratio of 64.5 %, (from 10 years - less than 20) with ratio of 26%, and (20 years and above) with ratio of 9.5 %. Finally, bank type was the last nominal variable, the statistics indicates that the ratio of respondents of governmental banks was 58%, while the remaining 42% is divided into private and foreign banks that rated of 29% and 13% respectively.

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

Characteristics	Category	Number	%
Gender:	Male	150	60.5
	Female	98	39.5
<i>Total</i>		248	100%
Age:	20- less than 30	136	55
	30- less than 40	74	30
	40 – less than 50	24	9.5
	50 or above	14	5.5
<i>Total</i>		248	100%
Educational Specialization:	Accounting	186	75
	Business Administration	38	15.5
	Other	24	9.5
<i>Total</i>		248	100%
Educational Level:	Bachelor	178	72
	Postgraduate Diploma	26	10.5
	Master	30	12
	PhD	14	5.5
<i>Total</i>		248	100%
Years of Experience:	less than 10 years	160	64.5
	10 years - less than 20	64	26
	20 years and above	24	9.5
<i>Total</i>		248	100%
<i>Bank Types</i>	Governmental bank	144	58
	Private bank	72	29
	Foreign bank	32	13
<i>Total</i>		248	100%

3.3 Validity and Reliability

Cronbach Alpha was used in testing the reliability. While R^2 (the square root) for Alpha coefficient was calculated to determine the validity of the research variables, upon which, the validity of the used tool is determined. Table (2) below reports these results:

Table (2): Reliability and Validity of the study Variables

No.	Variables	Items	Alpha	Alpha R^2
1	Machiavellian Leadership style	9	0.828	0.909
2	Budget participation	6	0.764	0.874
3	Locus of Control	12	0.716	0.846
4	Propensity to Create Slack	3	0.724	0.850
5	Budgetary Slack	6	0.743	0.862

Table (2) above shows that the reliability and validity coefficients for the research variables were relatively high, as the lowest value that recorded for the reliability coefficient was 0.716 for Locus of Control. Regarding to validity coefficient, confidence were high for all research variables as the least coefficient was 0.846 for Locus of Control. According to the validity, coefficients were high for all variables. Hence, these results indicate that there is a good level of used items' internal consistency, and the validity of the study instrument used.

3.4 Data Analytical Strategy

The researchers used SPSS ver.25 in analysing the data. The following techniques were deployed as methods:

- Descriptive statistical (i.e., ratios, means, standard deviations, and correlation coefficients).

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-
- Simple and Multiple Regression Analysis were used to test the relationships that included in the model.

4. Analysis and Discussion

4.1 Preliminary Indicators

Table (3) below presents the research preliminary descriptions of variables and their correlations. As it is useful to make such initial indicators before presenting the main analysis.

Correlation analysis was conducted to analyse the relationship among variables. The result indicates that there are significant statistically and positive correlation between machiavellian leadership style and both of budget participation, propensity to create slack and budgetary slack, while the correlation between machiavellian leadership style and locus of control was negative. As for budget participation, it related to propensity to create slack and budgetary slack with significant statistically and positive relationships, but its relation to locus of control was negative. According to locus of control, it related to both of propensity to create slack and budgetary slack with negative relations. Finally, propensity to create slack is related to budgetary slack with a significant statistically and positive relation.

Table (3): Correlations Among Research Variables

No.	Variables	M	S. D	1	2	3	4	5
1	Machiavellian Leadership style	3.088	0.739	1				
2	Budget participation	3.095	0.768	0.525**	1			
3	Locus of Control	2.990	0.565	-0.410**	-0.379**	1		
4	Propensity to Create Slack	3.354	0.889	0.327**	0.340**	-0.228*	1	
5	Budgetary Slack	3.372	0.541	0.421**	0.370**	-0.368**	.574**	1

** P<0.01 * P<0.05

4.2 Hypotheses Testing

In this section we will highlight the research hypotheses and their testing as follows:

4.2.1 The Test of the first hypothesis:

The first hypothesis is formulated as follows:

H1: “There is a positive significant relationship between Machiavellian Leadership style and Budgetary Slack”.

To test this hypothesis, simple regression analysis was conducted. The result of this test is shown in table (4) below:

Table (4) The relationship between Machiavellian Leadership style and Budgetary Slack”.

Predictor	B	Beta	R	R2	T. Value	Sig. T
Machiavellian Leadership style (MLS)	0.309	0.421	0.421	0.178	5.133	0.000**
Constant	2.419					
Adj. R2	0.171					
F	26.347					
F Sig.	0.000**					

** P<0.01

Table (4) results reveals that:

- Person correlation indicates that there is a significant positive correlation between Machiavellian Leadership style (MLS) and budgetary slack (BS).
- The Adjusted R2 confirm that Machiavellian leadership style (MLS) interprets 17.1% of budgetary slack variance.
- Sig. F indicates the significance of results at $P < 0.01$, in addition, T. value and sig T. refer that the regression coefficients are significant.
- Based on the presented results, the first hypothesis that stated that “There is a positive significant relationship between Machiavellian Leadership style and Budgetary Slack” could be accepted

These results agree with many studies in the literature relating Machiavellian leadership style and how it leads to many unethical and undesirable actions (e.g., Murphy, 2012; Shafer and Wang, 2018; Shafer William and Wang, 2011). More specifically, the current results confirms that Machiavellian leadership style when presence in an organization it will lead to increased tendency to manipulate budget rubrics and increased creation of budgetary slack (Byington and Johnson, 1990; Hartmann and Maas, 2010). These results can be interpreted as a Machiavellianism as a personal trait leads to negative, unethical, and justified behaviour, in our case this is represented in the budgetary slack. Finally, whenever this personality trait is perceived in the leader this will lead as we concluded to more budgetary slack.

4.2.2 Testing the Second Hypothesis:

To test the second hypothesis, simple regression analysis was conducted. The result of this test is shown in table (5) below:

H2: “There is a significant relationship between budget participation and Budgetary Slack”.

Table (5) The relationship between budget participation and Budgetary Slack

Predictor	B	Beta	R	R2	T. Value	Sig. T
Budget Participation (BP)	0.261	0.370	0.370	0.137	4.403	0.000**
Constant	2.564					
Adj. R2	0.130					
F	19.383					
F Sig.	0.000**					

** P<0.01

Table (5) results reveals that:

- Person correlation indicates that there is a significant positive correlation between budget participation (BP) and budgetary slack (BS).
- The Adjusted R2 confirm that budget participation (BP) interprets 13% of budgetary slack variance.
- Sig. F indicates the significance of results at $P < 0.01$, in addition, T. value and sig T. refer that the regression coefficients are significant.

Based on the presented results, the second hypothesis that stated that: “There is a significant relationship between budget participation and Budgetary Slack” could be accepted. These results indicate that budget participation has a positive impact on budgetary slack. Moreover, these results disagree with some studies in the literature that reported that budget participation significantly reduce budgetary slack (e.g. Barus, 2019; Dunk, 1993; Maiga and Jacobs, 2007; Merchant, 1985; Onsi, 1973; Wilanda and Nengzih, 2020), while it agrees with some studies that reported a significant increase in budgetary slack when there is an increase in budget participation (e.g. Chow *et al.*, 1988; Damrongsukniwat *et al.*, 2015; Dunk and Nouri, 1998; Hormati *et al.*, 2017; Lukka, 1988; Nouri and Parker, 1998; Young, 1985). These results can be interpreted as some subordinates consider the action of participation to be an opportunity to take self-benefits, hedge against risks of uncertainty and to relax in achieving the targets, specifically when perceiving their leader to be a Machiavellian leader.

4.2.3 Testing the Third Hypothesis:

To test the below hypothesis, simple regression analysis was used twice. Its results are shown in tables (6, and 7) below each of those tables show the results of one of the sub- hypotheses mentioned above:

H3: “There are positive significant relationship between both of Machiavellian Leadership style, Budget participation and Propensity to Create Slack”.

Table (6) The Relationship Between Machiavellian Leadership Style and Propensity to Create Slack.

Predictor	B	Beta	R	R2	T. Value	Sig. T
Machiavellian Leadership style (MLS)	0.393	0.327	0.327	0.107	3.816	0.000**
Constant	2.142					
Adj. R2	0.099					
F	14.558					
F Sig.	0.000**					

** P<0.01

Table (7) The Relationship Between Budget Participation and Propensity to Create Slack.

Predictor	B	Beta	R	R2	T. Value	Sig. T
Budget Participation (BP)	0.393	0.340	0.340	0.115	3.899	0.000**
Constant	2.142					
Adj. R2	0.108					
F	15.908					
F Sig.	0.000**					

** P<0.01

Table (6) results reveals that:

- Person correlation indicates that there is a significant positive correlation between Machiavellian Leadership style (MLS) and Propensity to Create Slack.
- The Adjusted R2 confirm that Machiavellian Leadership style (MLS) interprets 9.9% of Propensity to Create Slack variance.
- Sig. F indicates the significance of results at $P < 0.01$, in addition, T. value and sig T. refer that the regression coefficients are significant.

Table (7) results reveals that:

- Person correlation indicates that there is a significant positive correlation between Budget Participation (BP) and Propensity to Create Slack.
- The Adjusted R2 confirm that Budget Participation (BP) interprets 10.8% of Propensity to Create Slack variance.
- Sig. F indicates the significance of results at $P < 0.01$, in addition, T. value and sig T. refer that the regression coefficients are significant.

Based on the presented results, the third hypothesis that stated that “There are positive significant relationship between both of Machiavellian Leadership style, Budget participation and Propensity to Create Slack” could be accepted. The above results disagree with some studies that reported that budget participation reduce the propensity to create slack (e.g., Hormati *et al.*, 2017; Kren, 2003; Lau and Eggleton, 2004; Maiga and Jacobs, 2007; Merchant, 1985; Onsi, 1973), while the results agrees with many agency theory-based research that reported that budget participation will result in high intentions to create slack whenever they can make it (e.g., Damrongsukniwat *et al.*, 2015; Dunk, 1993; Kren, 2003; Yilmaz *et al.*, 2014). Finally, the results also conform with all the studies in the literature that concentrated on Machiavellian leadership style as it is positively impacting the intention to make slack which represent an unethical behaviour, and make manipulations to seeking personal goals (Aldousari and Ickes, 2021; Byington and Johnson, 1990; Hartmann and Maas, 2010; Shafer and Wang, 2018; Shafer William and Wang, 2011; Utami *et al.*, 2019; Zainun *et al.*, 2021). These results can be interpreted as the Machiavellian leader has a tendency towards punishment which also increases the pressure over the subordinates to achieve the targets. Having said this, the current situation goes with the literature that pressures over subordinates increase the tendency/intention to make slack as a defensive behaviour when perceiving their leader as a Machiavellian.

4.2.4 Testing the Fourth Hypothesis:

The fourth hypothesis is formulated as follows:

H4: “Locus of control has significantly negative effects in Budgetary Slack, while propensity to Create Slack have significant, direct and positive effects in Budgetary Slack”.

To test this hypothesis, two separate simple regression analysis were used. Its results are shown in the tables (Λ, and ρ) below. each of those tables show the results of one of the sub- hypotheses mentioned above:

Table (Λ) The Relationship Between Locus of Control and Budgetary Slack.

Predictor	B	Beta	R	R2	T. Value	Sig. T
Locus of Control (LOC)	-0.353	-0.368	0.368	0.136	4.374	0.000**
Constant	4.427					
Adj. R2	0.128					
F	19.135					
F Sig.	0.000**					

** P<0.01

Table (9) The Relationship Between Propensity to Create Slack and Budgetary Slack.

Predictor	B	Beta	R	R2	T. Value	Sig. T
Propensity to Create Slack (PCS)	0.349	0.574	0.574	0.329	7.740	0.000**
Constant	2.200					
Adj. R2	0.324					
F	59.908					
F Sig.	0.000**					

** P<0.01

Table (8) results reveals that:

- Person correlation indicates that there is a significant positive correlation between Locus of Control (LOC) and budgetary slack.
- The Adjusted R2 confirm that Locus of Control (LOC) interprets 12.8% of budgetary slack variance.
- Sig. F indicates the significance of results at $P < 0.01$, in addition, T. value and sig T. refer that the regression coefficients are significant.

Table (9) results reveals that:

- Person correlation reveals that there is a significant positive correlation between Propensity to Create Slack (PCS) and budgetary slack.
- The Adjusted R2 confirm that Propensity to Create Slack (PCS) interprets 32.4% of budgetary slack variance.
- Sig. F indicates the significance of results at $P < 0.01$, in addition, T. value and sig T. refer that the regression coefficients are significant.

Based on these results, the fourth hypothesis that stated that “Locus of control has significantly negative effects in Budgetary Slack, while propensity to Create Slack have significant, direct and positive effects in Budgetary Slack”. could be accepted.

These results conform with many studies in the literature of both locus of control and propensity to create slack. As individuals with internal locus of control perception tend to be more ethical (e.g., Boshoff and Van Zyl, 2011; Brownell, 1981; Darshani, 2014; Trevino, 1986; Trevino and Youngblood, 1990), this will in the end lead to reduced amount of budgetary slack (Brownell, 1981, 1982; Byington and Johnson, 1990; Frucot and Shearon, 1991). This also agree with the studies that concentrated on external locus control and that it will lead to more budgetary slack (Barus, 2019; Leach-Lopez *et al.*, 2008; and Wilanda and Nengzih, 2020). Finally, our results also conform with the studies that reported that propensity to create slack will have a positive impact on budgetary slack (Kren, 2003; Van der Stede, 2000). This interpretation of these results is relating to the presence of both locus of

control and prosperity to create slack. As above mentioned, the presence of internal locus of control increases the tendency towards ethical behaviour which is against slack creation. As for prosperity to create slack it is known in the psychological behaviour that intentions lead to actions so the intention to make slack is more likely to lead to actual behaviour.

4.2.5 Testing the Fifth Hypothesis:

The fifth hypothesis is formulated as follows:

H5: “Propensity to Create Slack has a significant mediating role in the relationship between both of Machiavellian Leadership Style, Budget participation and budgetary Slack”.

To test this hypothesis, a multiple regression analysis was used through interring both of Machiavellian leadership style and propensity to create slack as predictors, and then, we will compare the regression coefficients (B& Beta) for the obtained model with the same coefficients for the first hypothesis, and determine the differences in the mentioned models, the same procedure will be applied again for Budget participation. This technique for testing the mediation named Baron and Kenny's Method for Mediation (Baron and Kenny, 1986). These results are shown in the tables (10, and 11) below. Those two tables test the first sub-hypothesis:

Table (10) Propensity to Create Slack as a Mediator in the Relationship Between Machiavellian Leadership Style, and Budgetary Slack.

Predictors	B	Beta	T. Value	Sig. T	Effect
Machiavellian Leadership Style (MLS)	0.192	0.262	3.490	0.001	**
Propensity to Create Slack (PCS)	0.297	0.488	6.504	0.000	**
Constant			1.782		
R			0.625		
R2			0.391		
Adj. R2			0.381		
F			38.787		
F Sig.			0.000**		

**p<0.01

Table (10) results reveals that there is a significant positive effect for both of Machiavellian Leadership Style (MLS) and Propensity to Create Slack (PCS) on budgetary Slack. R2 indicates that the two variables together interpret 38.1% of budgetary Slack. Sig F. indicates the significance of results at $P < 0.01$, in addition, Sig T. refers that the regression coefficients are significant. Moreover, the Beta and B coefficients in the above table are of positive values, which mains that effect of those variables on budgetary Slack is positive.

Baron and Kenny mediation method was followed for testing this hypothesis. Below table (11) illustrates the regression models before and after using of the mediating variables.

Table (11) Propensity to Create Slack (PCS) as a Mediator in the relation between Machiavellian Leadership Style (MLS) and Budgetary Slack Before and After Introducing the Mediator.

Dependent Variable	Independent Variables	Stage 1 Before Mediator			Stage 2 After Mediator		
		B	t. value	sig .t	B	t. value	sig .t
Budgetary Slack	Machiavellian Leadership Style (MLS)	0.309	5.133	0.000**	0.192	3.490	0.001**
	Propensity to Create Slack (PCS)				0.297	6.504	0.000**
	R2	0.178			0.391		
	Adj. R2	0.171			0.381		
	F	26.347			38.787		
	(Sig. F)	0.000**			0.000**		

** $p < 0.01$

Table (11) results illustrate the two stages of the regression analysis. Stage 1 results indicate a positive and significant effect of Machiavellian Leadership Style (MLS) on budgetary Slack, as (F) value is 26.347, which is significant

at level of significance $p < 0.01$, and Adj. R2 value is 0.171, and (B) value is 0.309. In stage 2, we induced Propensity to Create Slack (PCS) with of Machiavellian Leadership Style (MLS) as independent variables (predictors) in the second equation of the regression. This resulted in an increase of Adj. R2 to be 0.381%, that means the addition of an added interpretive content as a result of the introducing of the mediator, in addition, (F) value has increment to be 38.78 and (B) value has decreased to be 0.192. Those results were significant at $p < 0.01$. As the mediator inclusion reduced the significance related to the Machiavellian Leadership Style (MLS) effect in stage 1, with remaining the significance of this effect, hence, the Propensity to Create Slack (PCS) has a mediating role in the direct relation between Machiavellian Leadership Style (MLS) and budgetary Slack, but this mediation was a partial. As explained earlier explained in the hypothesis development we do not have proper literature that has studied this mediating role as a whole. Having said this, the results shown above represent a contribution to the current literature as it enriches our understanding in relation to the Mediating role of Propensity to create slack in the relationship between Machiavellian leadership style and budgetary slack, which explains the mechanisms of this relationship.

Regarding the budget participation and the mediation, Baron and Kenny's Method for Mediation will be applied again for Budget participation. These results are shown in the tables (12, and 13) below. Those two tables test the second sub-hypothesis:

Table (12) Propensity to Create Slack as a Mediator in the Relationship Between, Budget Participation, and Budgetary Slack.

Predictors	B	Beta	T. Value	Sig. T	Effect
Budget participation	0.140	0.198	2.572	0.011	*
Propensity to Create Slack	0.308	0.507	6.572	0.000	**
Constant			1.905		
R			0.603		
R2			0.364		
Adj. R2			0.354		
F			34.640		
F Sig.			0.000**		

** p<0.01, * p<0.05

The above table indicates a significant positive effect for both of Budget participation and Propensity to Create Slack (PCS) on budgetary Slack. R2 indicates that the two variables together interpret 36.4% of budgetary Slack. Sig F indicates the significance of results at $P < 0.01$, in addition, Sig T refers to the significance of the parameters of this regression analysis. Moreover, the Beta and B coefficients in the above table are of positive values, which means that effect of those variables on budgetary Slack is positive. Below table (13) illustrates the regression models before and after using of the mediating variables.

Table (13) Propensity to Create Slack (PCS) as a Mediator in the Relation Between Budget Participation (BP) and Budgetary Slack (PS) Before and After Introducing the Mediator.

Dependent Variable	Independent Variables	Stage 1 Before Mediator			Stage 2 After Mediator		
		B	t. value	sig .t	B	t. value	sig .t
budgetary Slack	Budget participation	0.261	4.403	0.000**	0.140	2.572	0.011*
	Propensity to Create Slack (PCS)				0.308	6.572	0.000**
	R2	0.137			0.364		
	Adj. R2	0.130			0.354		
	F	19.383			34.640		
	(Sig. F)	0.000**			0.000**		

** p<0.01, * p<0.05

Table (13) results illustrate the two stages of the regression analysis. Stage 1 results indicates that there is a positive and significant impact of Budget participation on budgetary Slack, as (F) value is 19.38, which is significant at level of significance $p < 0.01$, and Adj. R2 value is 0.130, and (B) value is 0.309. In stage 2, we induced Propensity to Create Slack (PCS) with of Budget participation (BP) in the second regression equation as independent variables (predictors). This resulted in the increment of Adj. R2 to be 0.354%, that means that there is an added interpretive content as a result of the introducing of the mediator, in addition, (F) value has increment to be 34.640 and (B) value has decreased to be 0.140. Those results were significant at $p < 0.01$.

As the mediator inclusion has reduced the significance related to the Budget participation (BP) effect in stage 1, with remaining the significance of this effect, hence, the Propensity to Create Slack (PCS) has a mediating role in the direct relation between Budget participation (BP) and budgetary Slack,

but this mediating role was a partial. As explained earlier in the hypothesis development we do not have proper literature that has studied this mediating role as a whole. Having said this, the results shown above represent a contribution to the current literature as it enriches our understanding in relation to the Mediating role of Propensity to create slack in the relationship between budget participation and budgetary slack, which explains the mechanisms of this relationship.

4.2.6 Testing the Sixth hypothesis:

The sixth hypothesis is formulated as follows:

H6: “Locus of Control has a significant, direct moderating role in the relationship between Machiavellian Leadership Style and Budgetary Slack”.

To test this hypothesis, a multiple regression analysis is used through interring both of Machiavellian Leadership Style, Locus of Control (LOC), and the interaction variable (MLS*LOC) as predictors, and then, we will compare the regression coefficients (B& Beta) for the obtained model with the same coefficients for the first hypothesis and determine the differences in the mentioned models. These results are shown in the tables (14, and 15) below:

Table (14) Locus of Control as a Moderator in the Relationship Between Machiavellian Leadership Style and Budgetary Slack

Predictors	B	Beta	T. Value	Sig. T
Machiavellian Leadership Style (MLS)	0.840	1.146	2.579	0.010 **
Locus of Control (LOC)	0.420	0.438	1.192	0.236
The Interaction (MLS*LOC)	-1.052	-0.834	-1.884	0.062 *
Constant			1.431	
R			0.496	
R ²			0.246	
Adj. R ²			0.227	
F			13.034	
F Sig.			0.000**	

** p<0.01, * p<0.05

The above table indicates that there are significant positive effects for both of Machiavellian Leadership Style (MLS) and Locus of Control (LOC) on budgetary Slack. The Interaction (MLS*LOC) variable has a negative effect on budgetary Slack. R2 indicates that the three variables together interpret 24.6% of budgetary Slack. Sig F. indicates the significance of results at $P < 0.01$, in addition, Sig T. refers that the regression coefficients are significant. Below table (15) illustrates the regression models before and after using of the moderator.

Table (15) Locus of Control as a Moderator in the Relationship Between Machiavellian Leadership Style and Budgetary Slack Before and After Introducing the Moderator.

Dependent Variable	Independent Variables	Stage 1 Before Mediator			Stage 2 After Mediator		
		B	t. value	sig .t	B	t. value	sig .t
budgetary Slack	Machiavellian Leadership Style (MLS)	0.309	5.133	0.000**	0.840	2.579	0.010**
	Locus of Control (LOC)				0.420	1.192	0.000**
	The Interaction (MLS*LOC)				-1.052	-1.884	0.000 **
	R2	0.178			0.246		
	Adj. R2	0.171			0.227		
	F	26.347			13.034		
	(Sig. F)	0.000**			0.000**		

** $p < 0.01$

Table (15) results illustrate the two stages of the regression analysis. Stage 1 results indicate that there is a positive and significant effect of Machiavellian Leadership Style (MLS) on budgetary Slack, as (F) value is (26.347), which is significant at level of significance $p < 0.01$, and Adj. R2 value is (0.171), and (B) value is (0.309). In stage 2, the researchers induced Locus of Control (LOC) and The Interaction between Machiavellian Leadership Style and Locus of Control (MLS*LOC), all of them were induced alongside of Machiavellian Leadership Style (MLS) in the second regression equation, the three variables were induced as predictors. This led to an increase of Adj. R2 to be (0.227), that means the addition of an added interpretive content as a result of the introducing of the Interactive variable, in addition, (F) value has decreased to be (13.034) and (B) value has decreased to be (13.034). Those results were significant at $p < 0.01$. As the moderator inclusion has reduced the significance of the Machiavellian Leadership Style (MLS) effect in stage 1, with remaining the significance of this effect, hence, Locus of Control has a moderating role in the direct relation between Machiavellian Leadership Style (MLS) and budgetary Slack, but this role was a partial. As explained earlier in the hypothesis development we do not have proper literature that has studied this moderating role. Having said this, the results shown above represent a contribution to the current literature as it enriches our understanding in relation to the moderating role of locus of control in the relationship between Machiavellian Leadership Style and budgetary slack, which explains the conditions of this relationship.

5. Concluding Remarks

The current study examined the impact of Machiavellian leadership style and budget participation on budgetary slack, with the mediating role of propensity to create slack and mediating role of Locus of control. Our results revealed that both Machiavellian leader style and budget participation has positive impact on the budgetary slack. This finding is consistent and extend the results of some studies in the literature, that studied the relationship between:

Machiavellian leadership style and how it leads to many unethical and undesirable actions including budgetary slack (e.g., Byington and Johnson, 1990; Dalton and Radtke, 2013; Hartmann and Maas, 2010; Murphy, 2012; Shafer and Wang, 2018; Shafer William and Wang, 2011); and studies that concentrated on the relationship between budget participation and budgetary slack (e.g. Chow *et al.*, 1988; Hormati *et al.*, 2017; Lukka, 1988; Nouri and Parker, 1998; Young, 1985).

Regarding the mediating role of propensity to create slack in the relationship between Machiavellian leadership style, budget participation and budgetary slack, our results revealed that there is a positive and significant partial role of the propensity to create slack on this relationship as the intention to make slack increases the actual practice of this behaviour. This result represent a contribution to the MA and OB literatures as many studies concluded that both independent variables affect the mediator (e.g., Aldousari and Ickes, 2021; Byington and Johnson, 1990; Dunk, 1993; Hartmann and Maas, 2010; Kren, 2003; Nouri and Parker, 1998; Shafer and Wang, 2018; Utami *et al.*, 2019; Yilmaz *et al.*, 2014; Zainun *et al.*, 2021), while only two studies concentrated on the relation between the mediator and the dependent (Kren, 2003; Van der Stede, 2000), and no evidence was found in the literature to study the mediating role of the propensity to create slack. Having said this, our results represent a new evidence that enriches the current literature about the partial mediating role of propensity to create slack.

Regarding the moderating role of locus of control in the relationship between Machiavellian leadership style and budgetary slack, our results revealed that there is a positive (negative) significant role of external (internal) locus of control on this relationship. This result represent a contribution to the MA and OB literatures as little studies concluded that Machiavellian Leadership style has a direct positive relation with budgetary slack (Byington and Johnson, 1990; Hartmann and Maas, 2010). Moreover, there is no evidence that Machiavellian Leadership style can affect the locus of control of individuals. Finally, many studies in the literature connected the locus of control and

budgetary slack and concluded a negative impact of internal locus of control on budgetary slack (Barus, 2019; Brownell, 1981, 1982; Byington and Johnson, 1990; Frucot and Shearon, 1991; Leach-Lopez *et al.*, 2008; Wilanda and Nengzih, 2020) , and no evidence was found in the literature to study the moderating role of locus of control. Having said this, our results represent a new evidence that enriches the current literature about the partial moderating role of locus of control.

On the methodological level including mediation and moderation in our model to understand the mechanisms and conditions of the relationship between the independent variables on the dependant one represent a contribution to the literature. As the direct relationship between those variables is not adequate to understand and detect the full mechanisms and conditions that relay underneath this relationship. The mediation inclusion enriched the understanding of the relationship's mechanisms, while the moderation inclusion enriched the understanding of the conditions that make the relationship stronger or weaker.

The current study has some limitation. First, this study deployed a self-reported survey as its main methodology to understand about employees' perceptions regarding their leaders, budget actions and intentions which may include some biases. Having said this, this should be considered when reading our results. Second, the study represents a cross-sectional study that included data collection at the same point in time. To overcome this limitation further studies can be made deployed longitudinal methodology. Finally, the results of the current study were based on the Egyptian banking sector and those conclusions cannot be generalized to all other business sectors in the country or region.

The current study results, implications, and contributions filled a part of the blind spots in the literature. However, the literature needs further investigations in many areas. Having said this we suggest the following topics as future research: The relationship between servant leadership style, budget participation, and budgetary slack with the mediating role of leader member

exchange (LMX); moreover, we suggest studying the relationship between ethical leadership style, budget participation and budgetary slack with the mediating role of moral identity; finally, servant leadership style and ethical leadership style may have different implication on budgetary slack when there is either an emphasis on the budget targets as main tool of control or there is uncertainty in the surrounding environment which plea for more investigations.

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علاقة إدراك نمط القيادة الميكيا فيلية والمشاركة في إعداد الموازنات
بإرخاء تقديرات الموازنة: نية إرخاء الموازنة كوسيط تداخلي، ومركز
التحكم لدى الفرد كوسيط تفاعلي

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الملخص

استهدفت الدراسة التعرف على طبيعة العلاقة بين إدراك النمط القيادي الميكيا فيلي والانخراط في سلوك إرخاء تقديرات الموازنة، كما استهدفت الدراسة أيضا التعرف على الدور الوسيط التداخلي لنية الفرد لإرخاء تقديرات الموازنة وكذا الدور الوسيط التفاعلي لمركز التحكم لدى الفرد في هذه العلاقة، وقد أجريت الدراسة التطبيقية على عينة عشوائية من المصرفيين العاملين بالبنوك المصرية الحكومية والخاصة وكذا البنوك الأجنبية الخاضعة لإشراف البنك المركزي المصري ، حيث بلغ حجم العينة (٣٨٤) مفردة ، وقد بلغ عدد القوائم التي أجري عليها التحليل الإحصائي (٢٧٤) قائمة بمعدل استجابة صحيح بلغ (٧١,٣٪) تقريبا، ومن خلال تطبيق نماذج الانحدار البسيط والانحدار المتعدد التدريجي تم التوصل إلي مجموعة من النتائج أهمها، وجود علاقة معنوية موجبة بين إدراك نمط القيادة الميكيا فيلي والمشاركة في إعداد تقديرات الموازنة من جانب وإرخاء تقديرات الموازنة من جانب آخر، كما تم ثبوت الدور الوسيط لنية إرخاء بيانات الموازنة في مسار العلاقة المباشرة بين إدراك نمط القيادة الميكيا فيلي وإرخاء بيانات الموازنة. وأخيرا وفي سياق اختبار الوساطة التفاعلية أسفرت النتائج عن ثبوت الدور الوسيط التفاعلي جزئيا لمركز التحكم لدى الفرد، حيث تبين أن مركز التحكم الداخلي يقلل من درجة تأثير إدراك نمط القيادة الميكيا فيلي على إرخاء تقديرات الموازنة، وتعد النتائج المعروضة مثلا للدراسات ذات التخصصات البيئية حيث تدمج دراسات السلوك التنظيمي والمحاسبية الإدارية، وتعد الدراسة الحالية من أوائل الدراسات في هذا الشأن بالبيئة العربية، هذا وقد تم مناقشة وتفسير هذه النتائج وربطها بجهود السابقين لموضوع البحث واستخلاص دلالاتها ومضامينها على الصعيدين النظري والتطبيقي .

الكلمات المفتاحية: المشاركة في إعداد الموازنة، النمط القيادي الميكيا فيلي، مركز التحكم لدى الفرد، إرخاء الموازنة، النية لإرخاء الموازنة، الأسواق الناشئة.