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The effect of stakeholder type and non-monetary incentive on the propensity to create a budgetary slack – an experimental study among controllers

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Abstract

Aim: This study investigated whether the type of stakeholder and the presence of non-monetary incentives affect the controller's propensity to create budgetary slack and examines the ethical evaluation of budgetary slack creation.

Methodology: The authors conducted an experiment among controllers working in Poland.

Results: Both incentive and stakeholder types can influence managers' decision-making about budgetary slack. The ethical evaluation of budgetary slack was affected by the type of stakeholder.

Implications and recommendations: A negative ethical evaluation of budgetary slack does not always result in its non-acceptance, especially when the incentive is present and the stakeholder is defined by power, legitimacy, and urgency.

Originality/value: Budgetary slack is not widely accepted among Polish controllers, although the needs of production workers serve as ethical justification for creating it. This study expands existing management accounting by incorporating stakeholder issues into the budgetary slack creation problem, as well as contributes to the numerous stakeholder literature, especially to the ‘accounting for stakeholders’ concept.

Keywords: budgetary slack, stakeholders, stakeholder theory, incentives, controllers, ethics

1. Introduction

Budgetary slack creation can be interpreted as a professional and ethical issue, and the propensity to its creation can emerge from various factors, and self-interest can be perceived as the most important of them, which is a manifestation of phenomena described in the agency theory. However, the authors argue that another prominent theory, stakeholder theory, which challenged the agency theory-based shareholder view of the company, can also be applied. Therefore, the research was rooted within the scope of the stakeholder approach, arguing that stakeholders are vital but underestimated factors influencing the company's budgeting practices. They can impact budgetary slack creation as well as the inclination to create this slack, which can emerge from the self-interest of a controller who is in charge of formulating an entity’s budgets.

The research was built around the stakeholder theory, postulated by Freeman, the author of stakeholder theory, and other researchers, introducing “accounting for stakeholders” (Freeman, 1984; Freeman et al., 2010; Andon et al., 2015; Freeman et al., 2020) and budgeting as part of management accounting. Freeman’s recommendation has been already partially fulfilled in prior literature, yet nowadays, it consists mainly of reporting design and practices, such as environmental and social responsibility reporting. Consequently, the authors found a research gap in the stakeholder and management accounting literature. There are no empirical studies on how various groups of stakeholders can influence the controller’s decision to create budgetary slack.

As prior literature states that “an empirical revolution has arrived in social science” (Floyd, & List, 2016), this study applied experimental research. The experimental research in economics focuses on numerous issues, from bidding and overconfidence (Allen, & Evans, 2005) to favouritism and financial incentives (Rickman, & Witt, 2008). A recent systematic literature review on behavioural finance experiments (Valcanover et al., 2020) suggested that it is a growing research area. The survey of historical trends on experiments in finance (Huber, & Kirchler, 2023) revealed that until 2000, only a few experimental finance studies were published in top journals and were limited mainly to market experiments. After 2000, there was rapid growth, and since then individual decision experiments have gained more popularity. Moreover, the number of experimental finance papers published in top finance journals is still increasing, whereas the trend is stable for top economic journals. The experimental method in finance established itself as an important method, starting from almost no publications in the 1980s and the early 1990s (Huber, & Kirchler, 2023). Numerous authors postulated the wider use of experiments in accounting and finance. For example, Floyd, & List (2016) suggested field experiments, describing as one of the promising areas for research in accounting, enumerating incentive structures, meaning incentives from entry-level employees to top executives. In this study, incentives concern controllers.

The paper is structured in the following manner. It starts with a theoretical background of budgetary slack creation within a stakeholder theory. Firstly, the authors discuss the understanding of the term ‘stakeholder’ and presents the problems of stakeholders’ classification. Secondly, the study demonstrates the relationship between the stakeholder approach and accounting solutions implemented in the companies. Thirdly, the issue of the budgetary slack is introduced and the results of prior investigations on this topic are presented. Therefore, the authors developed hypotheses to investigate how stakeholder type and incentive influence the propensity to create budgetary slack and what is its ethical assessment. Then the authors described the research methodology, including experimental design, followed by the research results. The final presents discussion and conclusions, formulating recommendations for future studies.

2. Theoretical background

2.1. Stakeholder theory

Today, not a single stakeholder theory but a whole set of theories exists, and there are different understandings of incorporating stakeholders into business research and practice. Following normative stakeholder theory, companies should act in favour of their stakeholders' interests because it is morally just and fair. Normative theory interprets a corporation's function, including identifying moral or philosophical guidelines for the operation and management of corporations (Donaldson, & Preston, 1995; Freeman, 2017). Contrary to the ethical perspective of normative stakeholder theory, instrumental stakeholder theory emphasises that companies should act in favour of their stakeholders' interests because it pays off. It focuses on identifying the connections (or lack of them) between stakeholder management and the achievement of traditional, commonly desired corporate objectives related to profitability and growth (Jones, 1995). Finally, empirical and descriptive stakeholder theories indicate that researchers should explore the questions about stakeholders because this expands the existing knowledge, describes and sometimes explains corporate characteristics and behaviour (Donaldson, & Preston, 1995). This reflects and explains the past, present, and future states of affairs of corporations and their stakeholders.

As well as different approaches to incorporating stakeholders into business practice and research, the theory of stakeholders also asks the question of who a stakeholder is, as different views of its definition exist (Reynolds et al., 2006). Mitchell et al. (1997) noted a narrower and broader view of who the stakeholder is. The narrow view considers such facts as resources, time, and managers' attention span. This view restricts the stakeholders to groups directly relevant to the company's economic interests. The broad interpretation of stakeholders results from an observation that companies can impact upon or be affected by almost all individuals and groups. The most complex and up-to-date analysis of stakeholder definitions distinguishes 15 stakeholder definitions: claimant, influencer, collaborator, recipient, claimant-recipient, claimant-influencer, influencer-collaborator, claimant-collaborator, collaborator-recipient, influencer-recipient, claimant-influencer-recipient, claimant-influencer-collaborator, claimant-collaborator-recipient, influencer-collaborator-recipient, claimant-influencer-collaborator-recipient (Miles, 2017).

Mitchell, Agle, and Wood (1997) proposed the classes of stakeholders to be defined according to the possession of the following attributes: (1) the stakeholder's power to influence the firm, (2) the legitimacy of the stakeholder's relation with the firm, and (3) the urgency of the stakeholder's claim on the firm. Therefore, different groups of stakeholders can be distinguished. All three attributes typify a group of definitive stakeholders (possessing three attributes: power, legitimacy, and urgency). Three groups are characterised by two out of three stakeholder attributes: dangerous stakeholders (defined by power and urgency), dependent stakeholders (possessing legitimacy and urgency), and dominant stakeholders (distinguished by their power and legitimacy). Three other groups are described by only one out of three attributes: dormant stakeholders (characterised by power), discretionary stakeholders (possessing legitimacy), and demanding stakeholders (identified by urgency). Without power, legitimacy, or urgency, the groups and individuals constitute a non-stakeholder group or group of potential stakeholders. Saliency, understood as managers' priority given to different stakeholder claims, is higher for the stakeholders possessing, according to managers, all three attributes (Mitchell et al., 1997).

Relative saliency influences the balancing of stakeholder interests (Reynolds et al., 2006). When stakeholders are perceived as more salient, managers are less inclined to balance stakeholder interests.

Resource divisibility significantly influences the approach used to more salient stakeholder interests. The more indivisible resource is, the more managers employ the across-decision approach to balancing stakeholder interests. There is a statistically significant preference for the across-decision approach compared to the within-decision approach, and it is more instrumentally valuable for an individual manager and the organization. The across-decision approach to balancing stakeholder interest is perceived as more ethical than the within-decision approach (Reynolds et al., 2006), although the latter represents a strict interpretation of the stakeholder approach.

Given the above-described theoretical background, the study acknowledged the different types of stakeholders and assumed that stakeholders' characteristics (as seen by managers making financial decisions) may motivate decision-makers to certain actions to satisfy a specific group of stakeholders even if the decision is perceived as unethical.

2.2. Stakeholders and accounting

Most of the research in the finance or accounting domain performed within stakeholder theory focused on the impact of stakeholder behaviour on companies' financial performance, stakeholders' influence on accounting, and stakeholders' reactions to financial data disclosure. Freeman et al. (2010) observed that a central issue concerning stakeholders in the finance literature is whether management encompassing stakeholders improves profits. The debate is based on the assumption that satisfying a broad group of stakeholders is inconsistent with the ideas of shareholder wealth maximisation.

Besides the above-described central issue concerning stakeholders, the prior literature proposed several solutions for managerial accounting, controlling, and budgeting, seeking more long-term prosperity than short-term profitability and emphasising the need to adopt the stakeholder approach to achieve long-term sustainability and contribute to all stakeholders. Although traditional corporate governance is still popular, many large companies adopt the stakeholder value model in which the managers must put an effort to manage stakeholder relations for the benefit of all the concerned parties (Kelly, & Alam, 2008).

Moll and Hoque (2011), exploring the case of budgeting at an Australian University, proved that it needs legitimising by internal and external stakeholders. The paper showed the problems emerging when only the external institutions are treated as such and when external reporting systems are loosely coupled with those used inside the organization. This indicates that the lack of internal legitimacy emerges from only focusing on the external demand. At the university, which was the object of Moll and Hoque's study, the problems were addressed by introducing more centralised budgeting to reinstate the University's budget coordination. The assurance of transparency is designed to comply with the demands of external stakeholders (especially financing institutions) consistent with internal stakeholders' values and expectations. Therefore, the internal stakeholders can have a crucial impact on accounting. Moreover, they play the role of critical legitimizing agents (Moll, & Hoque, 2011).

Concerning stakeholder research, it can be stated that the stakeholder approach impacts the management accounting system (Mohammadi et al., 2015). However, the problem of self-seeking opportunistic managers is open for investigation of formulating budgets according to the shareholder approach and lacks discussion regarding a particular design of a managerial accounting system to achieve stakeholder/shareholder goals.

2.3. Budgetary slack

Budgetary slack creation is a result of a decision concerning the planned budget. In the prior literature, it was defined as "the difference between planned performance and real performance capabilities" (Douglas, & Wier, 2000) or "the intentional underestimation of revenues and production capabilities and/or overestimation of costs and resources required to complete a budgeted task" (Dunk, & Nouri, 1998).

The literature also showed that slack creation is influenced by social comparison, measurement basis, and preference for honesty (Church et al. 2019). The budgetary slack depends on the organizational commitment of budget decision-makers and budgetary participation within a company (Nouri, & Parker, 1996). The slack creation depends on the timing and aggregation of budgeting (Nikias et al. 2010), superior's pressure over budgetary slack (Davis et al., 2006), and/or on the decision maker's ranking of needs in accordance with Maslow's theory (Nowak, & Maruszewska, 2022).

Within business ethics research, it was stated that the propensity to create slack depends on budget decision-makers' moral features such as relativism and idealism, incentives to create slack, and information asymmetry (Douglas, & Wier, 2000). Slack depends on involvement in decision-making and the level of Machiavellianism (Hartmann, & Maas, 2010). Furthermore, external investigation and self-reporting can reduce the propensity to create budgetary slack at the ex-ante budgeting stage. The impact of the external investigation is higher than the effect of self-reporting. Moral development moderates the impact of the external investigation on budgetary slack. More specifically, the impact of the external investigation on budgetary slack is stronger for employees with high moral development levels than for employees with low moral development levels (Deng et al., 2020). The judgment on budgetary slack creation is also affected by a moral frame of budgeting (truth-inducing, complying with social norms, slack-inducing, compatible with self-interest), traditional values of empathy (Hobson et al., 2011).

Researchers investigating budgetary slack in terms of ethics have already proved that honesty in budget reporting is influenced by personal compensation and social comparison (reference group) (Brown et al., 2014). Managers use common interests as an excuse for misreporting (Church et al., 2012), while executives report less honestly when the benefit of slack is shared than when it is not shared, regardless of whether others are aware of the misreporting. Moreover, the managers report more honestly when other employees have a known preference for honesty than otherwise. Finally, national culture impacts slack creation (Douglas, & Wier, 2005; Mohanna, & Sponem, 2020).

Although the literature on budgetary slack investigates many different factors affecting its creation, it has not yet considered the impact of stakeholder type on management's propensity to accept budgetary slack. This omission is critical due to the influence of stakeholders on accounting, including budgeting, as described in the previous section. Furthermore, as the managers create budgetary slack, and stakeholders play a role in legitimising agents for them, it is interesting to explore the influence of different types of stakeholders on the tendency to create budgetary slack by individuals in charge of the budgeting process.

3. Hypotheses development

Finance department employees are often confronted with many decisions for which clear guidance is not provided by legal regulations. Moreover, in the case of controllers responsible for the company's financial health (particularly for managing the budget process and financial planning), different (long-term or short-term) goals can make a difference, especially when they are somewhat conflicting, which may be reflected in budgeting, and especially in the form of budgetary slack. The authors incorporated budgetary slack in accordance with the definition by Douglas and Wier (2000), concentrating on intentional overestimation or underestimation of costs or revenues in the planned budget, which results in an unrealistic budget setting that is aimed to have consequences in more eagerness of the board or executives to invest in the entity or raise salaries of the employees.

This research aimed to investigate whether different types of stakeholders have an effect on the decision to create budgetary slack. Due to the complicated nature of today's entities' business operations, controllers may be able to create budget slack tacitly, without the knowledge or control of others in the organization. This is especially valid for small and medium entities whose organization chart does not include extensive financial departments and all management accounting tasks are in one position with limited control of supervisor having domain knowledge. The authors selected a parent company and anonymous investors as stakeholders investing limited economic resources into the company, assuming them to be a substantially different category from the class of employees to which the controller does not belong – a group of production workers. Furthermore, the parent company was seen as a separate stakeholder category from anonymous shareholders that do not maintain ongoing, intensive contacts with the company. Following Mitchell, Agle, and Wood (1997), it was assumed that only the parent company possesses three attributes, and thus, it can be called a definite stakeholder, while anonymous investors and workers belong to stakeholders characterised by only two out of three attributes. Thus, the study classified anonymous investors as dependent stakeholders, following Mitchell, Agle and Wood (1997), and allocated production workers among 'dangerous stakeholders' attributed with urgency and power, but not possessing legitimacy.

Moreover, in the case of a budget decision, judging the expectations of an important stakeholder was necessary, as the earlier stakeholder literature (based on normative theory) emphasised the necessity of stakeholder inclusion and minimising harmful stakeholder strategies (Bondy, & Charles, 2020; Harrison, & Wicks 2021). The literature shows that managers are more prone to act in the stakeholder's interest when the stakeholder is of greater salience. Moreover, taking stakeholders' interests into account often plays the role of a legitimising tool (Moll, & Hoque, 2011; Moerman, & Van Der Laan, 2005; Deegan, & Blomquist, 2006). Thus, the authors incorporated stakeholders' claims into the budget plan with negative financial consequences for the entity, e.g. the reduction of the declared additional financing or action (undertaken by the employees) threatening the smooth realisation of customers' contracts.

The past research on decision-making (Chow et al., 1988; Rankin et al., 2008; Agoglia et al., 2015; Mendoza, 2019) also suggested that incentives are influential factors in the decision-making process, including the accounting domain where outer (international, local) or inner (company's) regulations do not provide sufficient guidance to all situations (Salterio et al., 1997). This study:

- incorporated non-monetary incentives as they are less powerful than monetary incentives and thus may not dominate stakeholders as factors affecting decision-making,
- made situational (stakeholder) and personal (incentive) factors corresponding.

The proposed hypotheses capture the research problem, which was to investigate whether the propensity to create budgetary slack is related to the type of stakeholder benefiting from it and to the presence/absence of non-monetary incentives. The three detailed hypotheses regarding the propensity to create budgetary slack are as follows:

H1: Controllers will be more likely *to create budgetary slack* when a stakeholder possesses all three attributes (Mitchell et al., 1997). In fact, it is expected that the propensity to create budgetary slack will be the highest among treatment groups dealing with the parent company serving stakeholder, as this stakeholder group is typified as a definitive stakeholder possessing three attributes: power, legitimacy, and urgency. This is a prior literature-based assumption that is aimed at investigating the difference between stakeholders.

H2: Controllers will be more likely *to create budgetary slack* when the incentive is present. As the past literature clearly stated that monetary incentives are influential factors affecting decision-maker behaviour, the authors chose non-monetary incentives similar to those in the research of Agoglia et al. (2015).

H3: There is a joint effect of a stakeholder and the incentive on *the propensity to create budgetary slack*. It is predicted that when the parent company is serving as a stakeholder and incentive is present, controllers will show the highest propensity to create budgetary slack.

Furthermore, the study investigated how controllers assess the ethics of budgetary slack creation as the prior literature incorporated ethical questions into decision-making experiments (Church et al., 2005; Ritter, 2006; Hasseldine, & Hite, 2003; May et al., 2014; Niesiobędzka, & Kolodziej, 2019).

Research showed that when the benefits of budgetary slack are shared with others, common interests can be an excuse for misreporting (Church et al., 2012). Moreover, the legitimacy of the stakeholder makes the claims of this stakeholder be perceived as socially desirable or morally justified (Mitchell et al., 1997), which can impact the ethical assessment of acting in this stakeholder's interests. Consequently, it was assumed that there is a difference in the ethical appraisal of budgetary slack creation, depending on the stakeholder type.

The authors formulated three additional hypotheses to address the research problem of whether a stakeholder type and the presence or the absence of an incentive influence the ethical evaluation of slack creation.

H4: The type of stakeholder will influence how controllers *evaluate the ethics of budgetary slack creation* in line with stakeholders' expectations. Specifically, it is expected that controllers will mildly evaluate the ethics of budgetary slack in the case of the parent company privileged with priority given to its claims. Once again, as in the case of H1, this is a literature-based hypothesis.

H5: The presence/absence of incentive will influence how controllers *evaluate the ethics of budgetary slack creation* in line with stakeholders' expectations. It is expected that controllers will be more likely to assess budgetary slack as ethical when the incentive is present.

H6: There is a joint effect of a stakeholder and incentive on how controllers *evaluate the ethics of budgetary slack creation* in line with stakeholders' expectations. It was predicted that when the parent company is a stakeholder and an incentive is present, controllers will most sympathetically evaluate the ethical side of the budgetary slack creation.

To sum up, although one expects that the parent company will differentiate the most the propensity to create budgetary slack and the ethical assessment of it, the authors also wanted to investigate anonymous stakeholders as well as production workers treated as contrasting groups of stakeholders. In the case of the incentives being present, an increase in obtained results was predicted, as suggested in the prior literature.

4. Research method

This study adopted a quantitative research approach, thus a questionnaire survey was elaborated. Data gathered in the computer-assisted web interview (CAWI) using LimeSurvey software were stored in MS Excel and uploaded into SPSS to perform the required tests. The following statistical tests were employed for data analysis: frequency and descriptive statistics, univariate analysis of variance ANOVA, and Bonferroni post hoc tests. The significance threshold was set at .05.

4.1. Experiment design

A quantitative research approach was adopted, and a questionnaire survey was elaborated. The study incorporated the suggestions of various authors previously conducting similar experiments (Harrel, & Harrison 1994; Reynolds et al., 2006; Davis et al., 2006; Huang, & Chang 2010; Nikias et al., 2010; Hobson et al., 2011; Church et al., 2012; Brown et al., 2014; Church et al., 2019).

The authors carried out an experimental impact study (Fischer et al. 1992) and thus, the questionnaire embraced a scenario in which the participant was acting as a controller whose main task was to prepare and update quarterly and annual budgets based on data provided by:

- sales department (planned sales revenues),
- cost calculation department (direct cost forecast),
- technical department (anticipated changes in overhead allocation).

The controller's position is accountable for a comprehensive set of controls and budgets designed for financial planning, which includes updating financial plans and reporting significant issues to management, as well as providing financial analyses as needed. The participants were tasked with a decision about updating the budget based on the data provided from the departments mentioned above and known expectations of a chosen (one) group of company's stakeholders:

- parent company,
- anonymous shareholders (investors),
- production workers.

The controller participants were given background information on the planned budget B0 and actual (changed) budget B1 resulting from quarterly data provided by sales, cost, and technical departments. Information provided to subjects was numerical, showing material differences between the planned (B0) and actual (B1) budget. They were told that the actual budget was not following what had been promised to a specific group of stakeholders and that their disappointment with the actual budget B1 creates a risk for the company. The kind of risk depended on the type of stakeholder and resulted in urgent unfavourable financial consequences for the company.

The participants were then given the amended version B2 of the budget (also presented with numbers) that a particular group of stakeholders would positively receive because it shows much better financial results. Specifically, the direct and indirect costs were underestimated in the amended budget B2 to meet the expectations arising as a result of earlier promises made to a certain group of stakeholders. It was claimed that B2 would be positively received by a certain stakeholder, but it did not reflect the truth.

Finally, based on a summary of numerical information regarding B0, B1 and B2, the participants were asked (a) how much they would be willing to agree to the amended (B2) version of the budget as the final (approved) budget, and (b) whether – in their opinion – amending the budget numbers to the expectations of the stakeholders was ethical.

In the last part of the questionnaire, they answered general questions such as demographics and professional information.

Before distributing a questionnaire, a validation of the scenario was performed with two management accountants. A pre-test was conducted to validate the clarity and ambiguity level of the experiment instrument. No substantive amendments were required, although several details of the description of the situation were introduced.

4.2. Independent variables

The study used an experimental design with six independent groups: 2 (incentive present/absent) × 3 (parent company, anonymous investors, production workers), and manipulated:

- the type of stakeholder interested in the financial results presented in a budget, and
- the presence/absence of an incentive.

For the first independent variable, the stakeholder was either the parent company, anonymous investor, or production workers. In each scenario, the controller was aware that a specific group of stakeholders had been promised (in the past) to reach a certain level of profitability, and not achieving this level (not specified in numbers) was the basis for specific unfavourable actions of each stakeholder, namely:

- discontinuance of financing the open project run by the company – in the case of the parent company serving as a stakeholder,
- decrease in the market price of the company's stocks – in the case of anonymous investors serving as a stakeholder,

- production workers' (employees') strike (due to failure to meet the deferred conditions of their salary increase) threatening smooth customers' contract realisation.

To introduce an incentive, the participants in surveyed groups with an incentive were informed that they are waiting for a salary increase and they have already gained approval, so the controller intends to make sure nobody will raise any objections to their job at this point, including the work on the updated budget. In case of the absence of incentive, this statement was omitted in the scenarios of three other treatment groups. The manipulation of an incentive to shirk based on a need to do a job that will not appeal to anyone was inspired by the reputation scenario used by Harrel and Harrison (1994) and repeatedly cited in subsequent studies (Rutledge, & Karim, 1999; Douglas, & Wier, 2000).

4.3. Dependent variable

To test hypotheses H1 to H3, the study investigated the propensity of the controllers to agree to the amended (B2) version of the budget. In addition, the authors asked whether the participants perceived amending the budget numbers to the stakeholders' expectations as an ethical decision (H4-H6) (Hobson et al. 2011). In the questions related to scenarios, a 5-point Likert scale was used, where: 1 – definitely no, 2 – no, 3 – neither yes nor no, 4 – yes, 5 – definitely yes. Thus, the smaller the numerical response, the smaller the propensity to accept the budgetary slack, and the greater tendency to assess budgetary slack as unethical.

4.4. Research participants

The experiment was conducted among professionals having experience in accounting tasks, e.g. cost accounting, budgeting, IT in management accounting, evaluating projects, process management, bookkeeping, and tax calculations. The average declared experience in a position dealing with management accounting tasks was 3.8134 years (SD = 4.476), while financial accounting was 3.6899 years (SD = 4.5215). Participation in the study was voluntary and anonymous, and no remuneration was offered to accounting practitioners. Professionals were recruited among lifelong learning courses of two large public universities in Poland, thus mature participants appeared to possess both real accounting experience and educational background.

Out of 278 responses, a total of 267 persons with appropriate professional experience participated in the study: 188 women and 79 men (mean age = 32.8441, SD = 7.9046). To control for individual differences, the participants were randomly assigned to one out of six experimental groups. The demographic analysis of the participants is presented in Table 1.

Table 1. Demographic analysis of the experiment participants

Demographic characteristics	Number of participants	Percentage of participants
Gender		
Females	188	70,4
Males	79	29.6
Missing data	0	0
Age		
22 – 34	163	61.0
35 – 49	92	34.4
50 – 68	8	3.0
>69	0	0
Missing data	4	1.6

Professional experience		
Management accounting, *including:*		
Operational/short-term management accounting	95	35.6
Strategic/long-term management accounting	14	5.2
IT systems in management accounting	61	22.8
Process, project management accounting	66	24.7
Labour management accounting	68	25.5
Other	36	13.5
Entity where professional experience was gained – sector		
Private sector	205	76.8
Public sector	57	21.4
Non-governmental organizations	2	.7
Other	2	.7
Missing data	1	.4
Entity where the professional experience was gained – origin of capital		
Polish	154	57.7
Foreign	99	37.1
Other	7	2.6
Missing data	7	2.6

Source: own work.

The study confirmed no statistically significant differences between men and women in the scope of age and declared experience in management accounting, as well as two characteristics regarding the entity in which the participant gained most of his/her professional experience in management accounting – sector and origin of capital.

4.5. Controller's decision

A two-way ANOVA was performed to compare the main effect of incentive and the type of stakeholder as well as their interactions on the propensity to choose the amended budget B2 with budgetary slack. The dataset was log-transformed for normality (Feng et al., 2014). Levene's test showed that the variance of the groups was equal ($F(5, 261) = .438$, $p = .822$). The observed descriptive statistics in each treatment group are presented in Table 2.

Table 2. Observed descriptive statistics -– controller's decision

Stakeholder	Incentive		TOTALS
	Present	Absent	Mean/SD/N
	Mean/SD/N	Mean/SD/N	
Parent company	.5710 / .179 / 45	.355 / .174 / 42	.415 / .185 / 87
Anonymous investor	.437 / .153 / 46	.435 / .170 / 40	.436 / .160 / 86
Production workers	.447/ .152 / 46	.383 / .176 / 48	.414 / .167 / 94
TOTALS	.451 / .161 / 137	.390 / .175 / 130	.422 / .171 / 267

Source: own work.

Table 2 shows that when the parent company was a stakeholder whose expectations were met while creating budgetary slack, the mean likelihood of the controller's propensity to choose budget (B2) was .415 while when production workers were stakeholders, the mean probability was .436, and for an anonymous investor, the mean was .414 This shows that the propensity to generate budgetary slack is not high, as 43.0% of participants (n = 115) were not eager to agree to the amended budget version B2. The stakeholder effect was statistically insignificant ($F(2, 267) = .492$, $\eta^2 = .004$, $p = 0.611$), providing no evidence (Table 3) to confirm the hypothesis **H1** claiming that controllers will be more likely to create budgetary slack when a stakeholder is a definitive one as compared to those dependent or dangerous.

Furthermore, as shown in Table 2, the mean likelihood of choosing an amended budget B2 when the incentive is present is .451, while when the incentive is absent, it is .390. The main effect of incentive yielded an effect (Table 3) of size 0.031, indicating that 3.1% of the variance in propensity to choose budget B2 and create budgetary slack was explained by incentive ($F(1, 267) = 8.443$, $\eta^2 = .031$, $p = .004$). This means that hypothesis H2 suggesting that controllers will be more likely to create a budgetary slack when the incentive is present, was confirmed.

Table 3. Two-way analysis of variance – controller's decision

Source of variation	DF	Type III SS	Mean square	F-statistic	p-value
Incentive	1	.239	.239	8.443	.004
Stakeholder	2	.028	.014	.494	.611
Incentive × Stakeholder	2	.140	.070	2.476	.086
Error	261	7.383	.028		
Total	267				

Source: own work.

Although the study did not confirm the interaction (**H3**) between the effect of incentive and stakeholder on the propensity to choose the amended budget B2 with budgetary slack ($F(2, 267) = .070$, $\eta^2 = .019$, $p = .086$), at the tendency level ($p = 0,1$) the interaction can be observed.

Figure 1 presents the main effects (H1 and H2) and statistically unconfirmed interaction between stakeholder and incentive-independent variables (H3).

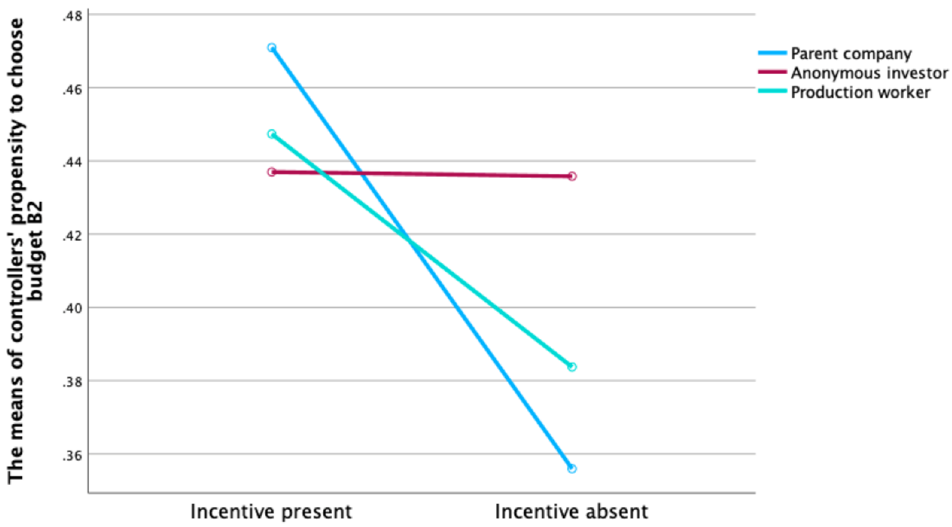

Fig. 1. Controller's propensity to choose an amended budget B2 creating budgetary slack

Source: own work.

From Figure 1, it can be observed that there is essentially no difference between the decisions made by controllers facing the scenarios with anonymous investors when the incentive was present, but there was a visible difference between the parent company or production workers serving as a stakeholder and when the controller faced an incentive situation compared to when the incentive is absent. In the case of incentives present, the propensity to create budgetary slack was the highest. This confirms hypothesis **H2** claiming that when an incentive is present, it will have the highest propensity to create budgetary slack.

4.6. Ethical evaluation of budgetary slack

In addition, the participants were asked to evaluate the ethics of budgetary slack creation in line with stakeholders' expectations. The dataset was log-transformed for normality (Feng et al., 2014). Levene's test showed that the variance of the groups was not equal ($F(5, 261) = 4.261$, $p < .001$). Due to large samples of each treatment group ($n \approx 40$) and based on (Stevens, 1996), it was assumed that violation of this assumption was not problematic as the ratio of largest to smallest group sizes was 1.5 or less. The ratio in this study was 1.2 (48/40).

The observed descriptive statistics in each treatment group are presented in Table 4, while the two-way analysis of variance statistics is shown in Table 5.

Table 4. Observed descriptive statistics – ethical evaluation of budgetary slack creation

Stakeholder	Incentive		TOTALS
	Present	Absent	
	Mean/SD/N	Mean/SD/N	Mean/SD/N
Parent company	.290 / .238 / 45	.278 / .189 / 42	.284 / .215 / 87
Anonymous investor	.322 / .223 / 46	.388 / .160 / 40	.353 / .198 / 86
Production workers	.367/ .219 / 46	.407 / .144 / 48	.387 / .185 / 94
TOTALS	.327 / .227 / 137	.359 / .173 / 130	.343 / .203 / 267

Source: own work.

Table 5. Two-way analysis of variance – ethical evaluation of budgetary slack creation

Source of variation	DF	Type III SS	Mean square	F-statistic	p-value
Incentive	1	.065	.065	1.631	.203
Stakeholder	2	.496	.248	6.239	.002
Incentive × Stakeholder	2	.068	.034	.862	.424
Error	261	10.371	.040		
Total	267				

Source: own work.

Table 4 shows that when the parent company was a stakeholder, the mean of ethical evaluation of the change of budget numbers to meet a stakeholder's expectations was .284. When production workers were serving stakeholders, the mean of ethical assessment was .387, and the mean of ethical evaluation in the group with the anonymous investor was .353. In general, the participants evaluated the described behaviour as unethical, as 55.06% ($n = 147$) of controllers indicated answers 'Definitely no' or 'No'.

Hypothesis **H4** specifying that controllers will lightly evaluate the ethics of budgetary slack in the case of the parent company, cannot be confirmed. Although the main effect of stakeholder yielded an effect size of p = .046, indicating that 4.6% of the variance in the ethical evaluation was explained by stakeholder type ($F(2, 267) = 6.239$, $\eta^2 = .046$, $p = .002$), it was found that the lax ethical evaluation refers to production workers and anonymous investors which seems to be a bigger excuse (for the controller) than the stakeholder in the form of the parent company. The opposite finding, i.e. the parent company serving as a stakeholder, is worth mentioning that it does not serve as an excuse for the ethical evaluation of slack creation.

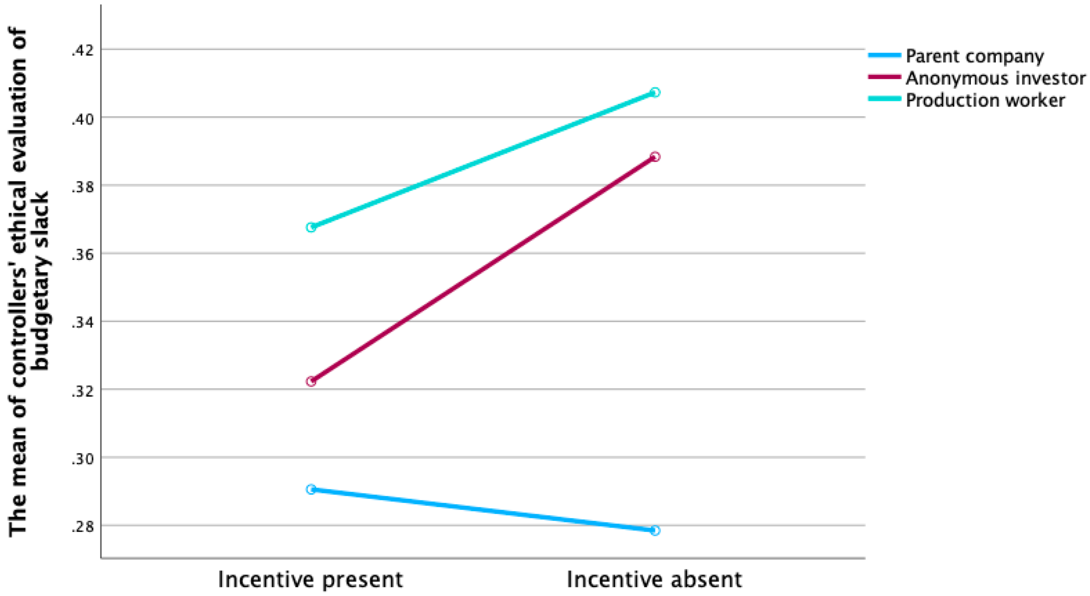

Fig. 2. Controllers’ ethical evaluation of budgetary slack creation

Source: own work.

Interestingly (Figure 2), the ethical evaluation of budgetary slack creation was stricter when the incentive was absent only in the case of the parent company serving as a shareholder. When an anonymous investor or production worker is presented as a stakeholder, stricter ethical evaluation can be observed among controllers experiencing an incentive in a scenario. The Bonferroni pairwise comparisons in 2-way ANOVA showed that there is a difference between treatment groups experiencing the scenario with the parent company and production workers observed ($F(2, 267) = .248$; $p = .004$). The participants acting as controllers in scenarios with the parent company and incentive absent evaluated the ethics of budgetary slack creation the most harshly ($M = .278$, $SD = .189$), compared to participants dealing with production workers and not experiencing incentive ($M = .407$, $SD = .144$).

Hypothesis **H5** stating that the presence/absence of incentives will influence how controllers evaluate the ethics of budgetary slack creation in line with stakeholders’ expectations, cannot be confirmed as there was no statistically significant evidence ($F(1, 267) = .136$, $\eta^2 = .001$, $p = .712$).

Finally, analysing **H6**, the study did not find a significant effect for the interaction between incentive and stakeholder ($F(2, 267) = .034$, $\eta^2 = .007$, $p = .424$). Figure 2 indicates that when the parent company was a stakeholder and controllers were not experiencing the incentive, the ethical evaluation was stricter, while when production workers were stakeholders and the incentive was absent, the ethical evaluation was the most lax. Despite the differences presented in Figure 2, hypothesis H6 was not confirmed.

In summary, regarding the controller's decision to accept budgetary slack, statistical analysis revealed the main effect of the incentive (**H2**) and the interaction effect between incentives and stakeholders on the tendency level (**H3**). Concerning the ethical evaluation of budgetary slack creation, the authors found the main effect of a stakeholder (**H4**). Together with the overall observable low acceptance of the budgetary slack along with a negative ethical evaluation, these results suggest a more complex relationship between independent and dependent variables in the experiment.

5. Concluding discussion

It was found that the propensity to accept budgetary slack is low, and stakeholder type does not affect the controllers' decision to create budgetary slack. This result contrasts with prior stakeholder literature assuming that differences among stakeholders are the basis for managers' priority given to different stakeholders' claims (Mitchell et al. 1997). Although the study incorporated a definite stakeholder and two stakeholders with two (out of three) attributes, there were no differences between the propensity to create budgetary slack.

Thus, the results suggest that a mixture of motivations may stand behind the controller's decisions as they do in real life. Although the study did not confirm the stakeholders' type main effect – it was found that both the type of stakeholder and the non-monetary incentive are the factors affecting controllers' propensity to create the budgetary slack at the tendency level. The highest propensity to accept an amended budget with budgetary slack was observed among participants facing the scenario with the parent company serving as a stakeholder and non-monetary incentive present. Surprisingly, the lowest propensity was observed in the group with the parent company and incentive absent which suggests that the strongest factor affecting the decision-maker was the incentive, even though non-monetary. On the one hand, this finding follows the previous extensive research on agency theory showing self-interest as an influential factor in organizational decision-making, and suggests that even definite stakeholders lose due to incentives influencing managers. On the other hand, the study also contributes to the previous literature by showing that the relation between the inclination to create budgetary slack and incentive present/absent depends on the type of stakeholder. These findings call for broader research on the attributes describing stakeholders to explain the behaviour of controllers paying attention to stakeholders.

The study shows that budgetary slack is perceived as unethical, and also pinpointed the influence of stakeholder type on the ethical evaluation of such a decision. Interestingly, a severe ethical assessment was observed among the participants facing the parent company as a stakeholder, whether or not there was an incentive. The least severe ethical evaluation was granted to production workers who were in the stakeholder role, and irrespectively of whether an incentive was present or absent. This confirms the prior findings and the authors' expectations that essential differences among stakeholders are the guidelines for the operation and management of corporations, as suggested by the instrumental stakeholder theory. Moreover, as the scenario with the parent company was ethically evaluated most harshly, although it satisfied the criteria for a definite stakeholder, it suggests a more complicated perception of stakeholders than only by the attributes of power, legitimacy, and urgency. Once again, this finding calls for further in-depth research on stakeholders' attributes to extend the understanding of corporations and their stakeholders.

The authors believe that this study expands existing management accounting by incorporating stakeholder issues into the budgetary slack creation problem, as well as contributes to the numerous stakeholder literature, especially to the 'accounting for stakeholders' concept. The latest one, introduced by Freeman (2017), is still undeveloped, and publications on this matter are scarce. This study is probably one of the first experimental research in the field of accounting for stakeholders, thus filling the research gap, and addressing the Freeman postulate on the research on accounting for stakeholders.

Moreover, the authors employed the non-monetary incentive (promotion possibility), which is more nuanced than the financial incentive most often used by experimental research. As stated by Libby et al. (2002), addressing the question of whether to provide explicit monetary incentive, the answer should be driven primarily by the goals of the experiment. Additionally, the study contributes to experimental behavioural accounting and finance by incorporating experimental methods for the budgetary slack problem. Earlier experimental research was criticized for its lack of psychological or economic theories (Libby, 2002).This problem was addressed by basing the research on the well--known and widespread stakeholder theory.

With regard to the limitations of the study, it is known that ethical evaluation may be influenced by culture (Vittel, & Festervand, 1987), and also in the scope of budgeting systems (Douglas, & Wier, 2005). The representativeness of these results can be questioned even for Eastern European countries sharing similar accounting histories and legal backgrounds, therefore further research could use larger, more international samples of management accountants. The second limitation refers to the scant number of subjects participating in the laboratory experiment, mainly well-educated but young participants, most of whom were women working in management accounting departments in Poland. The third limitation is linked to the employed tools. As in all experiments, the study investigated only two factors in a specific budgetary slack scenario setting, hence other situational and personal factors should be examined in future. Finally, the issue of how the budgetary slack setting could be used for reducing unethical behaviour was addressed, and this seems an interesting path for research in this field.

References

Agoglia, C. P., Hatfield, C. R., & Lambert, A. T. (2015). Audit team time reporting: An agency theory perspective. *Accounting, Organizations and Society*, *44*, 1-14.

Allen, W. D., & Evans, D. A. (2005). Bidding and overconfidence in experimental financial markets. *Journal of Behavioral Finance, 6*(3), 108-120.

Andon, P., Baxter, J., & Chua, F. W. (2015). Accounting for stakeholders and making accounting useful. *Journal of Management Studies*, *52*(7), 986-1002.

Bondy, K., & Charles, A. (2020). Mitigating stakeholder marginalisation with the relational self. *Journal of Business Ethics*, *165*(1), 67-82.

Brown, J. L., Fisher, J.G., Sooy, M., & Sprinkle, G. B. (2014). The effect of rankings on honesty in budget reporting. *Accounting, Organizations and Society*, *39*(4), 237-246.

Chow, C. W., Cooper, J., & Waller, W. (1988). Participative budgeting: Effects of a truth-inducing pay scheme and information asymmetry on slack and performance. *The Accounting Review*, *63*(1), 111-122.

Church, B. K., Hannan, L. R., & Kuang, J. X. (2012). Shared interest and honesty in budget reporting. *Accounting, Organizations and Society*, *37*(3), 155-167.

Church, B. K., Kuang, J. X., & Liu, Y. (2019). The effects of measurement basis and slack benefits on honesty in budget reporting. *Accounting, Organizations and Society*, *72*, 74-84.

Church, B., Gaa, C. J., Khalid Nainar, S. M., & Shehata, M. M. (2005). Experimental evidence relating to the person-situation interactionist model of ethical decision making. *Business Ethics Quarterly*, *15*(3), 363-383.

Davis, S., DeZoort, T. F., & Kopp, S. L. (2006). The effect of obedience pressure and perceived responsibility on management accountants' creation of budgetary slack. *Behavioral Research in Accounting*, *18*(1), 19-35.

Deegan, C., & Blomquist, C. (2006). Stakeholder influence on corporate reporting: An exploration of the interaction between WWF-Australia and the Australian minerals industry. *Accounting, Organizations and Society*, *31*(4-5), 343-372.

Deng, D., Liu, J. Y. L., & Wen, S. (2020). The impact of accountability-oriented control aspects of variance investigation on budgetary slack and moderating effect of moral development. *Frontiers in Psychology*, *11*, 583643.

Donaldson, T., & Preston, E. L. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Revi*ew, *20*(1), 65-91.

Douglas, P. C., & Wier, B. (2000). Integrating ethical dimensions into a model of budgetary slack creation. *Journal of Business Ethics*, *28*(3), 267-277.

Douglas, P. C., & Wier, B. (2005). Cultural and ethical effects in budgeting systems: A comparison of U.S. and Chinese managers. *Journal of Business Ethics*, *60*(2), 159-174.

Dunk, A. S., & Nouri, H. (1998). Antecedents of budgetary slack: A literature review and synthesis. *Journal of Accounting Literature*, *17*, 72-96.

Feng, Ch., Wang, H., Lu, N., Chen, T., He, H., Lu, Y., & Tu, X. M. (2014). Log-transformation and its implications for data analysis. *Shanghai Archives of Psychiatry*, *26*(2), 105-109.

Fischer, C. M., Wartick, M. & Mark, M. M. (1992). Detection probability and taxpayer compliance: A review of the literature. *Journal of Accounting Literature*, *11*, 1-46.

Floyd, E. & List, J. A. (2016). Using field experiments in accounting and finance. *Journal of Accounting Research*, *54*(2), 437-475.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Freeman, R. E. (2017). Five challenges to stakeholder theory: A report on research in progress. *Stakeholder management (Business and Society)*, *360*(1), 1-20.

Freeman, R. E., Harrison, S. J., Wicks, C. A., Parmar, L. B. & de Colle, S. (2010). *Stakeholder theory: The state of the art*. Cambridge University Press.

Freeman, R. E., Phillips, R. & Sisodia, R. (2020). Tensions in stakeholder theory. *Business & Society*, *59*(2), 1-19.

Harrel, A., & Harrison, P. (1994). An incentive to shirk, privately held information, and managers' project evaluation decisions. *Accounting, Organizations, and Society, 19*(7), 569-577.

Harrison, J. S., & Wicks, C. A. (2021). Harmful stakeholder strategies. *Journal of Business Ethics*, *169*(3), 405-419.

Hartmann, F. G. H., & Maas, S. V. (2010). Why business unit controllers create budget slack: Involvement in management, social pressure, and Machiavellianism. *Behavioral Research in Accounting*, *22*(2), 27-49.

Hasseldine, J., & Hite, A. P. (2003). Framing, gender and tax compliance. *Journal of Economic Psychology*, *24*(4), 517-533.

Hobson, J. L., Mellon, J. M., & Stevens, E. D. (2011). Determinants of moral judgments regarding budgetary slack: An experimental examination of pay scheme and personal values. *Behavioral Research in Accounting*, *23*(1), 87-107.

Huang, Ch.-L., & Chang, B.-G. (2010). The effect of managers' moral philosophy on project decisions under agency problem conditions. *Journal of Business Ethics*, *94*, 595-611.

Huber, C., & Kirchler, M. (2023). Experiments in finance: A survey of historical trends. *Journal of Behavioral and Experimental Finance*, *37*, 100737.

Jones, T. M., (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, *20*(2), 404-437.

Libby, R., Bloomfield, R., & Nelson M. W. (2002). Experimental research in financial accounting. *Accounting, Organizations and Society*, *27*, 775-810.

Kelly, M., & Alam, M. (2008). Management accounting and the stakeholder value model. *Journal of Applied Management Accounting Research*, *6*(1), 75-86.

May, D. R., Li, C., Mencl, J., & Huang, Ch.-Ch. (2014). The ethics of meaningful work: Types and magnitude of job-related harm and the ethical decision-making process. *Journal of Business Ethics*, *121*(4), 651-669.

Mendoza, K. I. (2019). Reducing underreporting by aggregating budgeted time. *Accounting Review*, *95*(5), 299-319.

Miles, S. (2017). Stakeholder theory classification: A theoretical and empirical evaluation of definitions. *Journal of Business Ethics*, *142*(3), 437-459.

Mitchell, R. K., Agle, R. B., & Wood, J. D. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, *22*(4), 853-886.

Moerman, L., & Van Der Laan, S. (2005). Social reporting in the tobacco industry: All smoke and mirrors? *Accounting, Auditing and Accountability Journal*, *18*(3), 374-389.

Mohammadi, M. A. D., Khan, M. N. A. A., Ghasemi, R., & Mohamad, N. A. (2015). Management accounting system and shareholder versus stakeholder-oriented managerial decision-making. *Middle-East Journal of Scientific Researc*h, *23*(9), 2145-2154.

Mohanna, D., & Sponem, S. (2020). The impact of the budget process on budgetary slack: The moderating role of uncertainty avoidance and individualism. *Comptabilite Controle Audit*, *26*(2), 45-87.

Moll, J., & Hoque, Z. (2011). Budgeting for legitimacy: The case of an Australian university. *Accounting, Organizations and Society*, *36*(2), 86-101.

Niesiobedzka, M., & Kolodziej, S. (2019). The impact of procedural fairness and extent of a tax loss or gain on the acceptance of tax authority decisions and the intention to appeal against them. *Psychology, Public Policy, and Law*, *25*(1), 46-56.

Nikias, A. D., Schwartz, T. S., Spires, E. E., Rollscheid, J. W., & Young, A. R. (2010). The effects of aggregation and timing on budgeting: An experiment. *Behavioral Research in Accounting*, *22*(1), 67-83.

Nowak, M., & Maruszewska, W. E. (2022). The joint effect of the type of stakeholder and incentive on the acceptance of budgetary slack. Observed differences in the hierarchy of needs indicated by Polish management accountants. *Financial Sciences*, *27*(1), 14-27.

Nouri, H., & Parker, J. R. (1996). The effect of organizational commitment on the relation between budgetary participation and budgetary slack. *Behavioral Research in Accounting*, *8*, 74-90.

Rankin, F. W., Schwartz, T. S., & Young, A. R. (2008). The effect of honesty and superior authority on budget proposals. *Accounting Review*, *83*(4), 1083-1099.

Reynolds, S. J., Schultz, C. F., & Hekman, R. D. (2006). Stakeholder theory and managerial decision-making: Constraints and implications of balancing stakeholder interests. *Journal of Business Ethics*, *64*(3), 285-301.

Rickman, N., & Witt, R. (2008). Favouritism and financial incentives: A natural experiment. *Economica*, *75*(298), 296-309.

Ritter, B. A. (2006). Can business ethics be trained? A study of the ethical decision-making process in business students. *Journal of Business Ethics*, *68*(2), 153-164.

Rutledge, R. W., & Karim, E. K. (1999). The influence of self-interest and ethical considerations on managers' evaluation judgments. *Accounting, Organizations and Society*, *24*, 173-184.

Salterio, S., & Koonce, L. (1997). The persuasiveness of audit evidence: The case of accounting policy decisions. *Accounting, Organizations, and Society, 22*(6), 573-587.

Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3rd ed.). Lawrence Erlbaum Associates.

Valcanover, V. M., Sonza, I. B., & da Silva, W. V. (2020). Behavioral finance experiments: A recent systematic literature review. *SAGE Open*, *10*(4).

Vittel, S. J., & Festervand, A. T. (1987). Business ethics: Conflicts, practices and beliefs of industrial executives. *Journal of Business Ethics*, *6*, 111-122.

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