Does target setting lead managers to engage in unethical behavior for the organization?[1]

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[1]Abbreviations:

WUPB: willingness to engage in unethical pro-organizational behavior

UPB: unethical pro-organizational behavior

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Abstract

Recent accounting and management research findings suggest that unethical behavior in organizations can be normalized as a result of management control processes such as performance evaluations and incentive compensation, and as a result of actions that attempt to serve the organization, such as unethical pro-organizational behavior. We investigate the relationship between budget target setting, which is widely used as a management control practice, and managers' willingness to engage in unethical pro-organizational behavior (WUPB). For our analysis, we use data from a web-based survey of 450 managers in the marketing and sales departments of Japanese companies. We find that (1) the relationship between budget target difficulty and WUPB is an inverted U-shape; (2) budget target difficulty increases WUPB by mediating budget target flexibility; and (3) the relationship between budget target difficulty and WUPB strengthens when budget targets and incentive compensation are linked. The results suggest that unethical behavior for the organization may result from budget targets set to maximize performance or set flexibly to suit the business environment and the process of achieving them.

Keywords: Unethical pro-organizational behavior; Target setting; Target difficulty; Target flexibility; Budget

1. Introduction

We investigate the relationship between budget target setting and managers' willingness to engage in unethical pro-organizational behavior (WUPB). Unethical pro-organizational behavior (UPB) is defined as "actions that are intended to promote the effective functioning of the organization or its members (e.g., leaders) and violate core societal values, mores, laws, or standards of proper conduct" (Umphress & Bingham, 2011, p. 622). In the field of management, unethical behavior in organizations, such as UPB, has been shown to be embedded and normalized in a variety of organizational processes. (Ashforth & Anand, 2003; Pinto, Leana, & Pil, 2008; Umphress & Bingham, 2011; Umphress, Bingham & Mitchell, 2010). For example, in cases when supervisors decouple performance and moral perceptions, UPB may act as a positive indicator of employee performance, leading to higher employee status in the organization or even job retention (Fehr et al., 2019; Ghosh, 2017; Lee, Oh, & Park, 2020).

We bridge WUPB with insights from the literature on budgetary control, which is considered an important management control tool in accounting (Chenhall, 2003; Luft & Shields, 2003). In particular, budget target setting is an important element of management control in almost all organizations and is used for various purposes (Chenhall, 2003; Luft & Shields, 2003); for example, as a tool for performance evaluation (Feichter, Isabella, & Frank, 2018) or as a decision-making tool in planning, coordination, and resource allocation (Feichter et al., 2018; Hansen & Van der Stede, 2004; Widener, 2007). In addition, setting difficulty and flexibility in budget targets is also important as a motivator for organizational performance (Arnold & Artz, 2015). Although the various purposes for which budgets are used can be conflicting, in practice, a single budget is often used simultaneously for multiple purposes (Arnold & Artz, 2019; Becker, Mahlendorf, Schäffer, & Thaten, 2016; Hansen & Van der Stede, 2004). According to Schweitzer, Ordóñez, and Douma (2004) and Barsky (2008), there is a relationship between target setting and unethical behavior. However, most previous studies do not consider whether unethical behavior is engaged in for the organization. In particular, studies on the

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relationship between budget target setting and WUPB have not accumulated sufficiently.[1] This study aims to fill this research gap.

We surveyed 450 managers of marketing and sales department at a wide range of levels: executive (director), upper, middle, and lower, and comprehensively analyzed the relationship between budget target setting and WUPB using a mediating variable model built on Arnold and Artz (2015) and Mahlendorf, Matějka, and Weber (2018). Such an approach creates the following values for our study. First, by introducing new measures from organizational behavior and psychology literature, WUPB may reduce social desirability bias more than, for example, questionnaires that directly ask about earnings manipulation, a frequently discussed topic in accounting (Mahlendorf et al., 2018). Second, a survey of managers at a wide range of levels about the impact of budget target difficulties on WUPB allows us to consider unethical behavior embedded in the organization, not just in top management. Finally, our sample comprises managers in marketing and sales departments, where budget targets are likely to be used for planning, sales activities, and evaluating their performance (Shim & Siegel, 2005). Thus, it is easier to consider the relationship between budget targets to be achieved and WUPB.

After adjusting for common method bias, we estimate a mediating variable model for analyzing our hypotheses using data from a web-based survey of managers in various positions in the marketing and sales departments of Japanese companies. In our analysis, we observe an inverted U-shaped relationship between budget target difficulty and WUPB of managers. In other words, the higher the difficulty of the budget target, the stronger the manager's WUPB; however, when the difficulty exceeds a certain level, the WUPB becomes weaker. Budget target difficulty also affects the manager's WUPB via budget target flexibility. In other words, a mediating effect is observed: the greater the budget target difficulty, the greater the flexibility of the budget target, and the greater the flexibility of the budget target, the stronger the WUPB of the manager. In addition, the relationship between budget target difficulty and WUPB is stronger, especially when managers' incentive compensation is linked to achieving budget targets.

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[1] For example, the final report of the special committee of LIXIL (a major Japanese housing equipment manufacturer), which investigated the fraudulent sales of its subsidiaries, revealed that the motive for the sales manipulation was to meet targets and avoid possible workforce cuts (LIXIL Group Special Investigation Committee, 2019). In this example, anecdotal evidence suggests that members of the organization engage in unethical behavior for the benefit of the organization.

Next, we create subsamples based on whether managers influence budget target setting and investigate the effects of budget target difficulty and flexibility on WUPB. The results show that when managers have a strong influence on budget target setting, no direct effect from budget target difficulty on WUPB is observed, while it affects WUPB mediated by the flexibility of budget targets. In contrast, managers with a limited influence on budget target setting are observed to have a significant direct effect from budget target difficulty on WUPB. Furthermore, to identify motivation and selection effects on the relationship between budget targets and WUPB, we create subsamples according to stints in that firm and marketing sales departments of managers with limited influence on budget target setting and control for information asymmetries between target setters and managers. As a result, the relationship between budget target difficulty and WUPB continues to be observed in the subsamples with shorter stints in that firm and marketing and sales departments. These are consistent with budget target difficulty acting as a motivator for WUPB.

This study contributes to accounting research in two main aspects. First, to the best of our knowledge, this is the first management accounting study to identify budget target setting and managers' WUPB. By comparing our results with prior studies such as Arnold and Artz (2015), which analyzed the relationship between budget target setting and performance, we can examine how unethical behavior occurs within companies. For instance, a manager's WUPB may be stronger when stretch budget targets are set to maximize performance or when budget targets are changed flexibly depending on the situation. This means that UPB may be a side effect of budget targets set to maximize performance or more appropriately control the organization. In other words, managers may engage in unethical behavior not out of malice toward the company or their superiors, but rather for the good of the organization. If budgets are set without knowing this side effect, top management may suffer unintended damage from their subordinates' UPB. In addition, our study is based on a sample of managers from a wide range of levels, from executives to lower-level managers, who work in real companies. Managers face a variety of incentives in the labor market within their companies, including incentive compensation and promotions. The observed relationship between budget target setting and WUPB in this context suggests that WUPB may be an issue in the actual activities of companies and organizations. Therefore, researchers, practitioners, and policymakers

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involved in corporate management and governance should be interested in the relationship between budget target setting and managers' WUPB.

Our findings may have implications for research on accounting fraud and earnings manipulation. UPB is believed to be associated with earnings manipulation and accounting fraud (Umphress et al., 2010). While there is a vast amount of prior research on earnings manipulation, parties such as auditors and analysts rarely draw attention to it in the real world. Therefore, in recent years researchers have emphasized the importance of opening the black box of corporate practices, such as boards of directors, and allowing researchers to observe the practice more closely (Ball, 2013; Brennan, 2021). In this context, the need to shift the focus from economic self-interest assumptions to a broader consideration of accounting in a social context is discussed (Brennan, 2021). Although our analysis did not directly analyze earnings manipulation, it suggests that budgeting, a common management accounting practice in firms, may cause managers to engage in unethical behavior for the organization's benefit. Therefore, analyzing the relationship between UPB and earnings manipulation may help us understand in detail the real-world phenomena captured by the earnings manipulation observed in prior studies.

The remainder of this paper is organized as follows: Section 2 develops the hypotheses of the relationship between budget target setting and managers' WUPB based on prior research. Section 3 describes data collection and methods. Section 4 presents the results of our analysis, and Section 5 summarizes the discussion and concludes this study.

2. Theoretical background and hypotheses development

As shown in Figure 1, we propose a mediating variable model that assumes that budget target difficulty not only directly affects managers' WUPB but also indirectly affects managers' WUPB through the mediation of flexibility, based on Arnold and Artz (2015). We develop hypotheses for all relationships except for the relationship between budget target difficulty and flexibility, which has already been tested by Arnold and Artz (2015).

[Figure 1: Research model and predictions]

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2.1. Target difficulty and WUPB

The primary focus of this study is to examine the relationship between target setting and managers' WUPB. Many accounting and psychology studies have shown that difficult but achievable targets improve performance (Bonner & Sprinkle, 2002; Hirst & Lowy, 1990). Difficult but achievable targets focus managers' attention and efforts on goal-relevant activities, energize the organization, increase perseverance, and lead to the arousal, discovery, and/or use of task-relevant knowledge and strategies (Locke & Latham, 2002). However, performance gains from setting challenging targets can be achieved through self-regulatory behavior, which is the suppression of self-desires (Baumeister, 2002; Muraven & Baumeister, 2000). Difficult target setting can force managers to constantly exercise restraint, which can lead to the depletion of cognitive resources such as ethical recognition and self-regulation. Therefore, setting challenging targets may induce unethical behavior in individuals (Barsky, 2008; Clor-Proell, Kaplan, & Proell, 2015; Kanfer & Ackerman, 1989; Welsh, Bush, Thiel, & Bonner, 2019; Welsh & Ordóñez, 2014). In addition, the uncontrollable increase in the difficulty of the target can lead, for example, to "denial of responsibility" (Sykes & Matza, 1957) and cause "neutralization" that ignores moral and ethical imperatives. Neutralization is an enabling condition for the expression of UPB (Umphress & Bingham, 2011).

Although UPB is intended to benefit the organization, individuals who engage in UPB may believe it may also ultimately benefit themselves. In other words, UPB is not completely detached from self-interested unethical behavior (Effelsberg, Solga, & Gurt, 2014; Lee, Schwarz, Newman, & Legood, 2019). For example, Mahlendorf et al. (2018) show that WUPB is stronger for financial managers with higher incentive compensation. Fehr et al. (2019) show that supervisor evaluations and employee WUPB are positively related when supervisors endorse moral decoupling, which separates recognition of performance and recognition of morality. Ghosh (2017) and Lee et al. (2020) find that UPB arises to maintain employment and status within an organization.

Relatedly, achievement of budget targets not only benefits the organization but also the managers. According to Feichter et al. (2018), in companies with multiple departments, managers' achievement of budget targets favors the allocation of resources

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and autonomy to the departments to which they belong. In addition, the compensation and position of managers, including executives, are affected by their performance on some targets, such as financial measures, nonfinancial measures, and subjective evaluations (Casas-Arce, Indjejikian, & Matějka, 2020; Indjejikian & Matějka 2012; Indjejikian & Nanda, 2002; Widener, 2006). Therefore, when budgets are used to evaluate performance, the achievement of budget targets may affect managers' compensation and other evaluations (Otomasa, Shiiba, & Shuto, 2020). These suggest that managers may expect to maximize their own compensation and maintain or improve their position by contributing to the organization through the achievement of budget targets, leading to their WUPB, for example, exaggerating the quality of goods and services or withholding negative information from clients, to achieve their budget targets.

Furthermore, UPB differs from self-interested unethical behavior in that it can be rationalized as an activity aimed at benefitting the organization (Umphress & Bingham, 2011; Umphress et al., 2010). Therefore, the positive relationship between target difficulty and WUPB may be observed more clearly than the relationship between target difficulty and self-interested unethical behavior. Therefore, we propose the first hypothesis:

Hypothesis 1a: There is a positive relationship between budget target difficulty and WUPB.

Considering the existence of psychological costs caused by a large UPB and the lack of procedural justice in compensation contracts caused by difficult budget targets, the relationship between budget target difficulty and WUPB may be an inverted U-shape.

First, regarding the psychological costs caused by a large UPB, prior research suggests that the psychological costs increase with the degree of unethical behavior (Lundquist, Ellingsen, Gribbe, & Johannesson, 2009; Mazar, Amir, & Ariely, 2008; Schweitzer & Hsee, 2002; Schweitzer et al., 2004; Shalvi, Dana, Handgraaf, & De Dreu, 2011). For example, Hilbig and Hessler (2012) confirm through critical examination that the probability of cheating is a decreasing function of the distance between the actual truth and lie required to increase profits. Thus, while WUPB is expected to increase with budget target difficulty as discussed in Hypothesis 1a, it is expected to gradually decrease

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as the unethical behavior required to achieve budget targets increases. In other words, an inverted U-shaped relationship may be observed between budget target difficulty and WUPB considering psychological costs.

Next, we consider the problem of procedural justice in compensation contracts created by difficult budgetary targets. Setting difficult targets imposes an excessive risk of unforeseeable and uncontrollable events on managers who are required to achieve them, thereby reducing the procedural justice of the compensation contract (Gibbs, Merchant, Van der Stede, & Vargus, 2004). Furthermore, setting difficult targets can lead to a loss of commitment to the target and have a negative effect on motivation (Arnold & Artz, 2015; Beilock, Kulp, Holt, & Carr, 2004; Hollenbeck & Klein, 1987; Locke, Latham, & Erez, 1988). Many firms do not set targets at the maximum level and intentionally leave leeway for change (Merchant & Manzoni, 1989; Van der Stede, 2000). Consequently, when budget targets are set with extreme difficulty, management may not actively engage in UPB to achieve their targets. From the above discussion of psychological costs and compensation contract problems, we propose the following hypothesis:

Hypothesis 1b: There is an inverted U-shaped relation between budget target difficulty and WUPB.

2.2. Target flexibility and WUPB

We also consider the impact of budget target difficulties on WUPB via budget target flexibility. As economic conditions change, targets may be adjusted ex-post if they become unachievable or unchallenging to achieve. Such flexible operation of the target is known as target flexibility (Gibbs et al., 2004). As shown in prior studies, the higher the target difficulty, the higher the target flexibility (Arnold & Artz, 2015).

Many firms allow managers to revise their budget targets during the fiscal year (Feichter et al., 2018). If managers are aware of the possibility of changes in difficult budget targets, they may be less willing to engage in UPB. Thus, there may be a negative relationship between budget target flexibility and WUPB.

Meanwhile, changes in budget targets affect managers' commitment to achieving their targets (Gibbs et al., 2004; Kelly, Webb, & Vance, 2015) and their accountability

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(Becker et al., 2016; Frow, Marginson, & Ogden, 2010; Hartmann & Maas, 2011; Henttu-Aho, 2018).

Regarding managers' commitment to achieving their targets, in uncertain environments, it is expected that targets will be adjusted in response to changes in the environment to ensure that targets are reasonable (Ekholm & Wallin, 2011; Kelly et al., 2015). When budget targets are difficult, greater flexibility in budget targets increase the justice of the targets and the manager's commitment to achieving them for the remainder of the period (Gibbs et al., 2004; Kelly et al., 2015). Therefore, managers may be more willing to engage in UPB to meet budget targets.

Next, we consider accountability. Many prior studies have researched ways to simultaneously achieve both budget setting and control to respond strategically to an uncertain environment. For example, Ahrens and Chapman (2002, 2004) consider how budgets can actually be used by top management. Using the framework of "enabling" control, they consider mechanisms for mobilizing on-the-ground knowledge and experience to support company-wide goals and cope with the uncertain business environment. Simons (1990, 1991, 1994, 1995) argues the need to use interactive control to facilitate dialogue and promote organizational learning to monitor strategic uncertainty and explore new directions.

Under either framework, a high degree of flexibility in budget target settings results in greater discretion and accountability for frontline managers (Becker et al., 2016; Frow et al., 2010; Hartmann & Maas, 2011; Henttu-Aho, 2018). For example, according to Frow et al. (2010), under "continuous budgeting," in which budget targets are flexible and resource allocation is continually reviewed, company goals are cascaded down and assigned to each manager, and managers are held accountable for their targets. According to their research, flexible target setting does not condone the failure to meet the targets, but rather requires managers to account for the rationality of the work they have done to achieve their targets (e.g., variance analysis, identification, and effective use of resources). As a result, managers are expected to do all they can within their discretion, and the failure to meet targets is punitive in nature in maintaining the manager's position. Similarly, Becker et al. (2016) provide a quantitative and qualitative analysis of budget setting during economic crises, when the economic environment changes dramatically. They show that during economic crises, budgets become more important in planning and

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resource allocation, although their importance in performance evaluation declines. In their interviews, they also reveal that top management, which normally does not have direct contact with frontline managers, may pressure them to plan and forecast more accurately during economic crises to enable control through budgets.

Based on the above, we expect that the greater the flexibility of budget targets, the more the discretion allowed to managers, and at the same time, the stronger the accountability demanded of them. In situations where strong accountability regarding target achievement is imposed, or in situations where managers themselves subjectively feel more accountable, it may lead to the promotion of unethical behavior (Hall, Ferris, Bowen, & Fitzgibbons, 2007), and as a result, managers may be more motivated to achieve their targets even if by engaging in UPB. Therefore, we propose our second hypothesis:

Hypothesis 2: After controlling for budget target difficulty, budget target flexibility is positively associated with WUPB.

2.3. Moderation effect of organizational identification and incentive contracts

UPB is an unethical behavior that occurs with organizational identification as a driver. (Umphress & Bingham, 2011). This is due to the tendency among individuals with strong organizational identification to internalize organizational failures and successes as their own and engage in behaviors consistent with organizational norms and values (Ashforth & Mael, 1989; Mael & Ashforth, 1992, 1995; Lee, Park, & Koo, 2015). As a result, individuals with strong organizational identification may disregard personal moral standards and engage in behaviors that favor the organization, possibly at the expense of people outside the organization (Ashforth & Anand, 2003). Umphress and Bingham (2011) argue that WUPB may occur due to the neutralization of morality and ethics by strong organizational identification. Moreover, Umphress et al. (2010) and Mahlendorf et al. (2018) show that the stronger the organizational identification, the stronger WUPB is, especially in the presence of strong positive reciprocity beliefs.

It is noteworthy that Hypothesis 1 discusses psychological factors, such as cognitive resource depletion and moral and ethical neutralization, which result from

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attempts to achieve difficult targets. Furthermore, it discusses economic factors, such as self-interest gains, which result from providing benefits to the organization. Although managers faced with difficult budgetary targets due to depletion of cognitive resources, moral, and ethical neutralization, and self-interest gain may seek to engage in unethical behavior, it is not clear whether the unethical behavior is "for the organization's benefit." Here, organizational identification can link the manager's self-interest to the organization's interest. Namely, when the manager's organizational identification is strong, the manager may be willing to engage in unethical behavior to meet the organization's need to achieve its budget targets. In other words, the inverted U-shaped relationship between budget target difficulties and WUPB would be strong. We, therefore, pose the following hypothesis:

Hypothesis 3: The total effect of budget target difficulty on WUPB is stronger for managers with stronger organizational identification.

As our sample comprises marketing and sales department managers, budget targets are likely to be used for planning and performance evaluation (Shim & Siegel, 2005). Moreover, generally, budget targets are also used for coordination and resource allocation (Hansen & Van der Stede, 2004; Sprinkle, 2003). Naturally, different budget purposes require different functions. For example, when the planning function of the budget is emphasized, the budget must be accurate and realistic. In contrast, when a budget is used for performance evaluation, it is required to function as a motivator for managers by setting budget targets at a stretched level (Churchill, 1984). The use of a single budget for different purposes and functions can cause low motivation in managers due to reduced budget credibility and the associated costs (Arnold & Artz, 2019).

For these reasons, some firms may use different budgets for different purposes. Arnold and Artz (2019) find that although many firms in their full sample start with a single budget at the beginning of the period, most of them use multiple budgets at the end of the period owing to budget adjustments during the period. Moreover, Arnold and Artz (2015) show that when budget targets are used not for control but for decision-making, such as planning, coordination, and resource allocation, the impact of budget targets on performance is smaller. Thus, if multiple budgets are used and managers are not

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motivated to meet budget targets, managers may not attempt UPB. Conversely, if there is a strong association between the achievement of budget targets and bonuses or manager promotions, manager behavior is likely to be motivated by the achievement of budget targets (Mahlendorf et al., 2018). As a result, managers may engage in unethical behavior for the organization to avoid missing targets (Pinto, Leana, & Pil, 2008). In this regard, Mahlendorf et al. (2018) show a positive relationship between financial managers' incentive compensation and WUPB.

It is noteworthy that Hypothesis 1 states that WUPB may arise from economic factors that result in self-interested gains resulting in benefits to the organization. If a manager's incentive compensation is strongly linked to the achievement of budget targets, then engaging in UPB may achieve the organization's need for the budget target, resulting in higher compensation for the manager. These suggest that the stronger the association between the achievement of budget targets and incentive compensation, the more likely the relationship between budget target difficulty and WUPB will arise. We, therefore, pose a final hypothesis:

Hypothesis 4: The total effect of budget target difficulty on WUPB is stronger for managers with a stronger association between budget targets and incentive compensation.

3. Methods

3.1. Data collection

To analyze the relationship between budget target setting and managers' WUPB, we conducted a web-based survey through MACROMILL (volunteer panel, point reward system) and collected data from managers in managerial (including executives) and lower positions in the marketing and sales departments of Japanese companies. The focus on marketing and sales department managers is to emphasize that budgets function as plans and targets. Marketing and sales department managers are expected to use their budgets to forecast future sales volumes and prices of products and services, plan appropriately, and evaluate and analyze the results through budget variances (Shim & Siegel, 2005).

Some disadvantages of web-based surveys are the difficulty of collecting responses from people without access to the Internet, and of fully controlling the respondents to be surveyed. However, web-based surveys do not require personal information that would identify the respondents, thus avoiding the social stigma that may result from responding to the survey. Further, web-based surveys have the advantage of reaching people who cannot be reached face-to-face (Wright, 2005). As the main focus of this study was on the WUPB of managers in marketing and sales departments, collecting data through web-based surveys was deemed to be appropriate.

Furthermore, limiting data collection to Japan reduces potential bias due to cultural factors that may affect the variables under investigation (Vitell, Nwachukwu, & Barnes, 1993). As the web-based survey was conducted in Japan, we adopted established back-translation procedures to ensure cross-linguistic validity when using relevant research instruments. Appendix 1 contains information on the survey questions. Our web-based survey was conducted in February 2020, before the COVID-19 pandemic affected economic activity in Japan, and therefore does not reflect the impact of COVID-19.

We selected our sample in two stages. In the first stage, we screened marketing and sales managers who had pre-registered for the study. This screening resulted in 631 people who were able to answer about WUPB. In the second stage, out of the people selected in the first stage, those who could respond to budget targets were selected, producing a final sample of 450 respondents for the analysis.

The demographic data of our sample are shown in Table 1. Based on the management positions in Panel A, 42 and 116 respondents hold executive and upper manager, respectively, with a total of 158 respondents in higher positions. The number of respondents holding middle and lower manager positions is 193 and 99, respectively; thus, the total number of respondents in lower positions is 292. Panel B shows that approximately 40% of the respondents are in the 50–60 age group. Panel C summarizes the sizes of the companies of the respondents and indicates that they work in companies with relatively few managers (median: approximately 200). The distribution of industries in Panel D shows that the data cover a wide range of industries. Given that most Japanese companies are small- and medium-sized enterprises, this study's sample is representative of managers in the marketing and sales departments of Japanese companies across several industries.

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[Table 1: Demographic data]

3.2. Common method bias and variables measurement

As we collected the data required for our analysis through web-based surveys, our data may have been affected by variations arising from the data collection and measurement methods, rather than by the factors we aimed to analyze. This type of bias is known as the common method bias. Therefore, we first addressed this problem in a procedural manner. In our surveys, we ensured that our questions were clear, concise, and specific to minimize bias.

To also minimize common method bias, we primarily ensured the anonymity of the respondents. When answering questions about the willingness to engage in unethical behavior or about a respondent's business situation, respondents may choose to give answers that are considered socially desirable, possibly resulting in bias. Therefore, ensuring the anonymity of the respondents may reduce such bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The respondents are people who had voluntarily registered with MACROMILL and voluntarily participated in this survey. To ensure the anonymity of the respondents, our screening and questionnaire survey were conducted completely online via MACROMILL. The data collected did not contain personally identifiable information.

As a statistical check, we conducted Harman's single-factor test on the survey items. From the principal component analysis, six components were extracted. The variance explained by the first principal component was 29.2%, less than half of the total variance explained (69.5%), suggesting that common method bias was not a big concern (Podsakoff & Organ, 1986).

However, we recognize that procedural steps do not completely eliminate common method bias, and Harman's single-factor test is ineffective in detecting common method bias (Podsakoff et al., 2003). In particular, some of the questions in our analysis contain items that deviate from hyper norms, which could lead to common method bias, such as bias due to social desirability. Therefore, we followed Podsakoff et al. (2003) to

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control for the influence of a single unmeasured latent method factor (LMF) using structural equation modeling (SEM). This method can be used to effectively control for common method bias even in situations where researchers cannot obtain independent and dependent variables from different sources and cannot identify the source of method bias (Podsakoff et al., 2003).

The procedure for estimation by SEM to control for LMF is as follows. First, for each of the questionnaire items listed in Appendix 1, six factors are set for WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE, respectively. For example, paths are set up from the WUPB factors to the six questions about WUPB described in Appendix 1. Note that we restrict the coefficients from the first questionnaire item in the path to be estimated (in the case of the WUPB factor, WUPB1) to each factor to be fixed at 1. This is to match the intention of the question with the sign of the factor being estimated, and to check that each factor has a sufficient variance to be needed for the main analyses. Next, all six factors on WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE are allowed to have covariance. Finally, we establish an LMF that has paths to all the questionnaire items on WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE and is independent of these six factors. To observe the impact of each questionnaire item from common method bias, we need to check the statistical significance of the coefficients from the LMF to all the questionnaire items. Therefore, we restrict the variance of the LMF to be fixed at 1. The SEM to control for the LMF is estimated by the maximum likelihood method.[2]

The goodness of fit of the models, including LMF, is as follows. The standardized root mean square residual (SRMR), which indicates the amount of variance in the data not explained by the model, is 0.057. The comparative fit index (CFI), which indicates how much the discrepancy between the model and data has improved from the independent model, is 0.929, and the root mean square error of approximation (RMSEA),

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[2] CAREER in this study may be strongly affected by common method bias. In the model including LMF, some standardized coefficients from LMF to CAREER exceeded 0.9, and the survey items might not adequately explain the CAREER factor. For this reason, we exclude CAREER from the main analysis and check the results of the analysis. As a result, we observe results consistent with Hypotheses 1–4 and the results presented in the main text.

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a goodness-of-fit index that takes into account the complexity of the model, is 0.064.[3] These indicate that the model including the LMF is a moderate fit. In addition, 24 of the 27 factor loadings from the LMF to the questions on the six factors used are statistically significant at the 5% level or higher. For this reason, this study follows Podsakoff et al. (2003) and uses the factor scores for each factor estimated from the model, including the LMF.

To test our hypotheses, we estimate a mediation model using ordinary least squares based on Arnold and Artz (2015). For the variables controlling for managers WUPB, we also refer to Mahlendorf et al. (2018). Although our sample was limited to managers in the marketing and sales departments, as indicated by Abernethy, Bouwens, and Van Lent (2012), Harrell, Taylor, and Chewning (1989), and Mahlendorf et al. (2018), managers with specific professional and ethical training may not engage in UPB. In Japan, bank monitoring, especially that of main banks, strongly influences corporate management and inhibits unethical behavior, such as earnings management (Sakawa, Watanabel, & Yamada, 2017). Thus, we also add a control variable, FSECTION, which indicates that the respondent's company is in the financial sector. The definition of each variable is summarized in Appendix 2.[4]

4. Results

4.1. Descriptive statistics

Table 2 presents the descriptive statistics. The mean value for WUPB is 0.810. The maximum and minimum values for WUPB are 3.027 and -1.319, respectively. Our data show that there is cross-sectional variation across managers for WUPB. In addition, the

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[3] We did not use chi-square values to determine goodness of fit because the observations in this study (n = 450) exceed Hoelter's critical N (p = 0.05; n = 181).

[4] We conducted confirmatory factor analysis to evaluate the discriminant validity among the three individual-level latent variables (i.e., WUPB, organizational identification, and career self-interest). Results suggested that the three-factor model had a good fit to the data (SRMR = 0.09, CFI = 0.89, RMSEA = 0.11). The goodness of fit of the three-factor model was then compared to a series of two-factor models in which the variables combined and the one-factor model in which all items were loaded onto one factor. In all cases, the goodness of fit of these models was worse than those of the three-factor model, which suggests adequate discriminant validity between study variables. Note that these tests were conducted before controlling for common method bias.

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minimum value of DIFFICULTY, one of the variables of most interest in our analysis, is 0.446. We predict a non-linear relationship between DIFFICULTY and WUPB, and in this regard, DIFFICULTY being non-negative facilitates the interpretation of the analysis. RETIRE, AGE, FSECTION, LISTED, and SIZE are variables that are not affected by common method bias. FSECTUION indicates that the manager belongs to a company in the financial section, with a mean of 0.093. The variables IDENTIFICATION and INCENTIVE are used to split the sample in testing Hypotheses 3 and 4. Further, the common method bias of these variables is controlled by the LMF. The median values of IDENTIFICATION and INCENTIVE used in splitting the subsample are 3.194 and 2.988, respectively. Finally, INFLUENCE, FIRM STINT, and SALES STINT are the variables used in additional tests. INFLUENCE represents the influence over the budget target setting, FIRM STINT represents the duration of working time at the firm, and SALES STINT represents the duration of working time in the marketing and sales departments of the firm. We find that approximately 60.2% of the respondents in our sample have influence over the setting of budget targets, and that they have worked for the firm for an average of approximately 17.9 years and in the marketing and sales departments for an average of approximately 11.1 years.

[Table 2: Descriptive statistics]

Table 3 summarizes Pearson's correlation coefficients. Hypothesis 1a predicts a positive linear relationship between WUPB and budget target difficulty, while Hypothesis 1b predicts an inverted U-shaped relationship between WUPB and budget target difficulty. We observe a statistically significant negative correlation between WUPB and DIFFICULTY. This relationship needs to be examined after controlling for other variables. In contrast, Hypothesis 2 predicts a positive relationship between WUPB and budget target flexibility. The correlation coefficient between WUPB and FLEX is 0.176, which is statistically significant. This suggests that the more flexible the budget target, the greater the WUPB. We also observe a statistically significant positive correlation between DIFFICULTY and FLEX; these are consistent with the mediating effects of DIFFICULTY and WUPB via FLEX, as expected in Hypothesis 2.

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[Table 3: Correlation matrix]

4.2. Main results

Table 4 summarizes the effects of budget target difficulty and flexibility on managers' WUPB. First, Model 1 explains the total effect of DIFFICULTY on WUPB with a linear relationship. Hypothesis 1a predicts that WUPB increases as DIFFICULTY increases due to cognitive resource depletion, moral and ethical neutralization, and self-interest gain. The coefficient of DIFFICULTY for Model 1 is not statistically significant, and the result of the F-test testing the improvement of R^2 by adding DIFFICULTY is not statistically significant. The results of Model 1 do not show a clear linear relationship between DIFFICULTY and WUPB. Model 2 explains the total effect of budget target difficulty on WUPB with an inverted U-shaped relationship. Hypothesis 1b predicts an inverted U-shaped relationship between WUPB and budget target difficulties due to justification and compensation contract issues. The results of our analysis are statistically significant at the 1% level, with a positive value for the coefficient of DIFFICULTY and a negative value for the coefficient of DIFFICULTY squared (DIFFICULTY^2), respectively. Furthermore, the results of the F-test on the improvement in R^2 by adding DIFFICULTY and DIFFICULTY^2 to the estimated model are statistically significant at the 1% level. These results indicate an inverted U-shaped relationship between WUPB and budget target difficulties, consistent with Hypothesis 1b.

Model 3 investigates the impact of budget target flexibility on WUPB. Hypothesis 2 predicts that budget target difficulty will affect managers' WUPB through budget target flexibility. We expect a positive relationship between FLEX and WUPB because we expect greater flexibility in budget targets to result in greater manager commitment and accountability. The estimated result for the coefficient of FLEX in Model 3 is positive and statistically significant at the 1% level, consistent with Hypothesis 2.

Model 4 is the final model to test Hypotheses 1 and 2, estimating the direct effects of DIFFICULTY and FLEX on WUPB. The coefficients of DIFFICULTY and DIFFICULTY^2 are 1.002 and -0.345, respectively, statistically significant at more than 5% level. These results indicate that the direct effect of DIFFICULTY on WUPB is observed in an inverted U-shaped relationship. This means that as DIFFICULTY

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increases, WUPB increases; however, as DIFFICULTY exceeds approximately 1.452 (dy/dx = 0), WUPB decreases. These results fully support Hypothesis 1b.

The coefficient of FLEX for Model 4 is 0.120, which is statistically significant at the 1% level. Here, Model 5 analyzes the path from DIFFICULTY to FLEX. The coefficient of DIFFICULTY for Model 5 is 0.496 and statistically significant at the 1% level. This is similar to Arnold and Artz (2015), who examined the relationship between DIFFICULTY and FLEX, indicating that the greater the target difficulty, the greater the target flexibility. Considering both Models 4 and 5 estimation results, a partial mediation effect from DIFFICULTY to WUPB is shown: the higher the DIFFICULTY, the higher the FLEX, and the higher the FLEX, the stronger the WUPB. The mediation effect is approximately 0.06 (0.120*0.496), and the result of the Sobel test to check the significance of the mediation effect is statistically significant at the 1% level. These results fully support Hypothesis 2.

For the control variables, the coefficient of CAREER in Model 4 is positive and statistically significant at the 1% level. Even though Mahlendorf et al. (2018) use almost the same CAREER variable as in our analysis, they do not observe a significant relationship between CAREER and WUPB, unlike Model 4. This may be because our analysis focuses on managers working for Japanese companies. One Japanese environmental factor that affects the characteristics of corporate governance at the national level is the low liquidity of the labor market. For this reason, Japanese companies are known to reward outstanding employees through internal promotions (Aguilera & Jackson, 2003). These labor market characteristics surrounding Japanese companies may influence managers' WUPB.

[Table 4: Target setting and WUPB]

In addition, we test the moderating effect of organizational identification (IDENTIFICATION) and incentive compensation (INCENTIVE) on the total effect of budget target difficulty on WUPB (Hypotheses 3 and 4). It should be noted that Hypotheses 3 and 4 focus on the "strength" of the relationship between budget target difficulty and WUPB. According to Gerdin and Greve (2004), when analyzing differences in the strength of the relationship between two variables caused by moderation variables,

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researchers generally observe the fit of the model to the data (variance of residuals) with subsamples. This is because in this study, for example, the moderation variable may cause differences in "strength" that do not involve differences in the "form" of the relationship between budget target difficulty and WUPB (Gerdin & Greve, 2004). Therefore, we create two subsamples for both IDENTIFICATION and INCENTIVE. For IDENTIFICATION, we create two groups; a group with strong IDENTIFICATION (managers with factor scores for IDENTIFICATION above the median) and a group with weak IDENTIFICATION (managers with factor scores for IDENTIFICATION below the median). For INCENTIVE, we create two groups; a group with a strong link between achievement of budget targets and incentive compensation (managers with factor scores for INCENTIVE above the median) and a group with a weak link between achievement of budget targets and incentive compensation (managers with factor scores for INCENTIVE below the median).

Models 6 and 7 in Table 5 observe the total effect from DIFFICULTY to WUPB in the weak and strong IDENTIFICATION groups, respectively. Although the coefficients of DIFFICULTY and DIFFICULTY^2 for Models 6 and 7 are both statistically significant at the 5% level, the difference between the coefficients of DIFFICULTY and DIFFICULTY^2 for the two models is not statistically significant ($\chi^2 = 0.028$). Regarding the improvement of R^2 by adding DIFFICULTY and DIFFICULTY^2, the results of the F-test are statistically significant at the 5% level for both Models 6 and 7. From these results, no moderation effect of IDENTIFICATION is observed, either for form or for strength. Therefore, Hypothesis 3 regarding the moderating effect of IDENTIFICATION is not supported. The causes of these results may be explained by Umphress et al. (2010), who tested for UPB and IDENTIFICATION. Although they predict a positive relationship between IDENTIFICATION and UPB, they observe it only when positive reciprocity beliefs are strong. Therefore, further control of sample characteristics may be needed to observe a moderation effect from IDENTIFICATION.

Models 8 and 9 in Table 5 analyze the moderation effect of incentive contracts on the total effect from DIFFICULTY to WUPB. The coefficients of DIFFICULTY and DIFFICULTY^2 for Model 8 are not statistically significant, whereas the coefficients of DIFFICULTY and DIFFICULTY^2 in Model 9 are estimated with positive and negative values, respectively, and are statistically significant at the 1% level. However, no

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statistically significant difference is observed between the coefficients of DIFFICULTY and DIFFICULTY^2 for Models 8 and 9 (χ^2 = 0.518). Therefore, we find no moderation effect by INCENTIVE on the form of the relationship between DIFFICULTY and WUPB. In contrast, the results of the F-test for the improvement of R^2 by DIFFICULTY and DIFFICULTY^2 only for Model 9 are statistically significant at the 5% level. This indicates that the strength of the relationship between DIFFICULTY and WUPB is affected by moderation effects due to INCENTIVE. These results are consistent with Hypothesis 4.

The results of Hypotheses 3 and 4 provide us an insight into Hypothesis 1. We suggest that the factors driving Hypothesis 1 are cognitive resource depletion, neutralization, and self-interest gain. The results of Hypotheses 3 and 4 suggest that the relationship between WUPB and budget target difficulty is stronger, especially when self-interest gain is tied to organizational needs.

[Table 5: Moderation effects of organizational identification and incentive contracts]

4.3.   Additional tests

4.3.1.   Influence on budget target setting

Along with the direct effects that predict an inverted U-shaped relationship between budget target difficulty and WUPB, we also examine the mediating effect of budget target difficulty on the strength of WUPB via budget target flexibility in our main analysis. Hypothesis 1 regarding the budget target difficulty is discussed without asking how budget targets are determined. Furthermore, the positive relationship between budget target flexibility and WUPB in Hypothesis 2 is expected because greater flexibility in budget targets leads to greater commitment from managers to achieve budget targets, and also because of the increased demand for manager accountability.

Here, the relationship between budget targets and WUPB may change, depending on whether the budgeting process is top-down or whether managers participate in budget setting. In other words, the pathways through which budget target difficulties affect managers' WUPB may differ between managers with strong and weak influence on

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budget target setting. Influence on budget target setting indicates the degree of participation in budget setting (Milani, 1975; Simons, 1987; Sponem & Lambert, 2016). Managers who participate in setting budget targets are predicted to change targets to an appropriate level if they are difficult to achieve to earn a high reputation as fair budget target setters (Arnold & Artz, 2015; Brashear, Manolis, & Brooks, 2005; Cohen-Charash & Spector, 2001; Gibbs et al., 2004; Jansen, Merchant, & Van der Stede, 2009; Kelly et al., 2015; Merchant & Manzoni, 1989; Widener, 2006). Thus, managers who participate in setting budget targets may not be willing to engage in UPB with psychological costs to achieve their targets. In other words, budget target difficulty may not directly affect the WUPB of managers with a high influence on budget target setting.

However, managers who participate in setting budget targets may be under more pressure than other managers to achieve targets that are changed ex-post. As Frow et al. (2010) state, manager discretion and accountability are inextricably linked. Managers who do not participate in setting budget targets are responsible for resource allocation and variance analysis at their own discretion to achieve the targets assigned to them, and are accountable for their activities. In contrast, managers who participate in setting budget targets have the added accountability of demonstrating that changes in budget targets are reasonable. As already noted, in situations where strong accountability for target achievement is imposed, it may promote unethical behavior (Hall et al., 2007). Based on the above, the relationship between budget target difficulty and WUPB may be weak, while the relationship between budget target flexibility and WUPB may be strong for managers who influence the setting of budget targets. As our sample includes executive-level managers, it is possible to observe differences in the impact on budget target setting.

To test for these, we created subsamples according to whether managers had an influence on setting budget targets. Managers answered "yes" or "no" to the item "I have decisive influence on budget targets" (Sponem & Lambert, 2016). This gives us subsamples of managers with a high influence on budget target setting (high influence: N = 271) and managers with a low influence on budget target setting (low influence: N = 179). Additional analysis of the relationship between budget target setting and managers' WUPB is conducted on these subsamples.

Models 10–12 in Table 6 summarize the relationship between WUPB, DIFFICULTY, and FLEX for managers with a high influence on budget target setting. In

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Model 10, we no longer observe a statistically significant relationship between budget difficulty (DIFFICULTY, DIFFICULTY^2) and WUPB (total effect). This suggests that budget target difficulty is not a strong motivator for WUPB for managers with a high influence on budget target setting. Contrarily, the coefficient of FLEX in Model 11 is statistically significant at the 5% level, and the F-test for change of R^2 is also statistically significant at the 5% level. Furthermore, the coefficient of DIFFICULTY for Model 12 is statistically significant at the 1% level, and based on the results for Models 11 and 12, the mediation effect by FLEX is about 0.078 (0.121*0.645) and the Sobel test is statistically significant at the 5% level. These are consistent with our predictions: managers with a high influence on budget target setting have a significant impact on WUPB through budget target flexibility. Furthermore, we find that budget difficulty only affects WUPB through budget flexibility.

For comparison, Models 13–15 in Table 6 summarize the relationship between DIFFICULTY, FLEX, and WUPB for managers with a low influence on budget target setting. Model 13 shows a total effect from budget target difficulty to WUPB. In addition, the respective coefficients of DIFFICULTY and DIFFICULTY^2 for Model 14 are statistically significant at the 1% level (direct effect), indicating an observed non-linear relationship between budget target difficulty and WUPB. Considering Models 14 and 15, the coefficients of FLEX and DIFFICULTY for Models 14 and 15 are not statistically significant, and the result of the F-test for change of R^2 at Model 15 is also not statistically significant. Moreover, the result of the Sobel test showing mediation effects is statistically insignificant. These results indicate that, for managers with a low influence on budget target setting, budget target difficulty tends to directly affect WUPB and, as expected, the pathways through which budget targets affect WUPB vary with a high influence on budget target setting.

Prior research has shown that participatory budgeting is related to individual-level factors such as budget tension, job satisfaction, and compensation, as well as organizational-level factors such as organizational size, organizational politics, and performance (Lau, Scully, & Lee, 2018; Luft & Shields, 2003; Mahlendorf, Schäffer, & Skiba, 2015). Thus, further analysis might be possible if the causes of managers' influence on budget settings could be identified.

A careful interpretation may be necessary because only a mediating effect is

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observed in Models 10–12, even though no total effect on WUPB is observed due to budget target difficulty. MacKinnon, Krull, and Lockwood (2000) and MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) point to cases in which direct and mediating effects cancel each other out as examples in which total effects are not observed despite the presence of direct and indirect effects. Our models assume a non-linear direct effect from budget target difficulty to WUPB, which is slightly negative when expressed as a linear relationship from DIFFICULTY to WUPB, as confirmed by Model 1 in Table 4. However, a positive relationship is assumed for the mediating effect from DIFFICULTY to WUPB via FLEX. These data characteristics suggest that the effects of budget target difficulty and flexibility may have offset each other and a total effect was not observed.

[Table 6: Influence on budget target setting]

4.3.2. Identification of motivation and selection effects

In our hypotheses, we assume that managers' WUPB arises because they are motivated by the achievement of budget targets (motivation effect). However, if the achievement of budget targets is related to benefits, such as retention of manager positions, promotions, and bonuses, then managers might lobby the budget target setters (Milgrom & Roberts, 1988) or budget target setters might design compensation systems to properly evaluate manager contributions (Lazear & Rosen, 1981). In other words, a reverse causal relationship may occur in which budget targets are set according to manager characteristics (selection effect).

In this section, we control for information asymmetries between budget target setters and managers to identify motivation and selection effects. If there are no observational problems in the budget target setter's assessment of the manager, the budget target setter can set budget targets according to the manager's WUPB. In general, the longer a manager has worked for a budget target setter, the more opportunity the budget target setter has to observe the manager's behavior, which may mitigate information asymmetry and allow the budget target to be set according to the manager's characteristics. Thus, the longer a manager has worked for the firm or the department, the more likely a

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selection effect will occur; the shorter a manager has worked for the firm or the department, the less likely a selection effect will occur. Prior research suggests that employers have more information about their employees than external candidates (Gibbons & Katz, 1991). In addition, promotion to jobs with greater responsibility in executive careers is much more likely to occur through internal mobility than through external mobility (Bidwell & Mollick, 2015).

Therefore, we focus on subsamples of managers with low influence on budget target setting who have been with the firm or in the marketing and sales departments for a relatively short period. This allows us to set up cases where the budget target setter and manager are different and the budget target setter does not have sufficient information about the manager. If statistically significant inverted U-shaped relationships are observed between budget targets and WUPB of managers even in those subsamples, it is consistent with a motivation effect. As indicated in Section 4.3.1, the mediating effect of budget target flexibility is not observed for managers with low influence on budget targets. For this reason, in this section, we only observe the overall effects of budget target difficulty and WUPB.

Model 16 in Table 7 estimates the relationship between WUPB and DIFFICULTY for a subsample of managers with low influence on budget target setting who have worked for the firm for a relatively short time. The mean FIRM STINT for the subsample used for Model 16 is approximately 10.8 years. The coefficients of DIFFICULTY and DIFFICULTY^2 for Model 16 are both statistically significant at the 5% level and are estimated with positive and negative values, respectively. The result of the F-test for change in R^2 is also statistically significant at the 5% level. We observe a similar trend in the estimation results for the subsample of Model 17 with approximately five years of working time in the marketing and sales department (SALES STINT). Specifically, the coefficients of DIFFICULTY and DIFFICULTY^2 are estimated with positive and negative values, respectively, and both are statistically significant at the 1% level. Furthermore, the result of the F-test for the change in R^2 is statistically significant at the 1% level.

For comparison, subsamples with relatively long FIRM STINT (Model 18) and relatively long SALES STINT (Model 19) are also included in Table 7. In particular, neither a statistically significant inverted U-shaped relationship between WUPB and

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DIFFICULTY nor an improvement in R^2 is observed for Model 19.

These results are consistent with the fact that the budget target difficulty has a motivation effect on WUPB.

[Table 7: Identification of motivation and selection effects]

5. Discussion and conclusion

This study bridges the gap between managers' WUPB and accounting knowledge of budgetary control, an important management control tool. The setting of budgetary targets is an important component of management control in almost all organizations and is used for a variety of purposes (Chenhall, 2003; Luft & Shields, 2003). Difficulty and flexibility in the budget also affect performance (Arnold & Artz, 2015). Meanwhile, there is a growing need to understand the side effects of budget target setting, as some arguments indicate that target setting induces unethical behavior (Barsky, 2008; Schweitzer et al., 2004). However, there is limited research on the relationship between budget target setting and WUPB, and this study aims to fill this research gap. Specifically, we analyzed the effects of budget target difficulty and flexibility on managers' WUPB.

The results of our analysis revealed an inverted U-shaped non-linear total effect and direct effect from budget target difficulty on managers' WUPB. In addition, the total effect of budget target difficulty on WUPB was observed to be more pronounced when the relationship between budget targets and incentive compensation was clear. The results also showed that the manager's influence on budget target setting affected the channels of the relationship between budget target difficulty and WUPB. Moreover, the estimated results for the subsample of managers with low influence on budget target setting and short stint in the firm or marketing and sales suggest that budget targets have a motivation effect on WUPB.

Thus, managers' WUPB caused by the motivation to contribute to the organization, may result from the budget target set, a routine management control practice. As Arnold and Artz (2015) argue, setting stretch budget targets maximizes organizational performance. Moreover, budget targets are expected to be flexibly adjusted to maintain their relevance when changing economic conditions make them unattainable or

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unchallenging to achieve (Ekholm & Wallin, 2011; Kelly et al., 2015). However, the budget targets used by such top management to successfully manage the organization may increase subordinate managers' WUPB. This provides implications for studying corporate governance and management control. Researchers need to be cautious regarding unethical behavior that results from top management and other managers' attempts to contribute to their organizations, not only to deceive investors and others.

This study has several limitations. First, we used a web-based survey, which may have biased our data. In addition, our sample did not allow us to identify individuals or companies, and we could not link the survey data to archival data. Therefore, we consider our study complementary to the results of prior studies based on archival data. Our study also relies on Arnold and Artz (2015) to develop the theory behind our hypotheses, which assumes that budget target difficulty affects budget target flexibility. However, our survey does not distinguish whether target difficulty is pre- or post-target change; difficulty and flexibility may interact with each other. These points remain to be addressed in future work.

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Tables (7)

Table 1: Demographic data

Panel A: Management Position

	N	%
Executive	42	9.3%
Upper	116	25.8%
Middle	193	42.9%
Lower	99	22.0%

Panel B: Age of Manager

	N	%
60+	48	10.7%
60-50	180	40.0%
50-40	159	35.3%
-40	63	14.0%

Panel C: Number of employees

	N	%
10000+	38	8.4%
1000-10000	95	21.1%
100-1000	145	32.2%
-100	172	38.2%

Panel D: Listed or not

	N	%
Listed	131	29.1%
Unlisted	319	70.9%

Panel E: Industry

	N	%
Fishery, agriculture & forestry	2	0.4%
Mining	0	0.0%
Construction	26	5.8%
Manufacturing	113	25.1%
Electric power & gas	5	1.1%
Transportation & logistics	16	3.6%
Information & communication	26	5.8%
Wholesale trade	67	14.9%
Retail trade	33	7.3%
Financial & insurance	42	9.3%
Real estate	34	7.6%
Service	83	18.4%
Other	3	0.7%

Table 2: Descriptive statistics

	Mean	S.D.	Min.	Median	Max.
WUPB	0.810	0.788	-1.319	0.802	3.027
DIFFICULTY	1.882	0.490	0.446	1.873	2.646
FLEX	2.790	1.072	0.168	2.804	5.670
CAREER	0.010	0.261	-1.582	0.059	0.813
RETIRE	0.089	0.285	0.000	0.000	1.000
AGE	48.909	8.979	25.000	50.000	72.000
FSECTION	0.093	0.291	0.000	0.000	1.000
LISTED	0.291	0.455	0.000	0.000	1.000
SIZE	5.703	2.586	0.000	5.298	15.425
IDENTIFICATION	3.107	1.061	-0.041	3.194	5.469
INCENTIVE	3.045	1.143	0.293	2.988	6.073
INFLUENCE	0.602	0.490	0.000	1.000	1.000
FIRM STINT	17.900	10.270	1.000	18.000	50.000
SALES STINT	11.093	8.668	1.000	9.000	40.000

Note: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE are the factor scores controlled by one unmeasured latent method factor common to these factors. The definitions of the variables are summarized in Appendix 2.

Table 3: Correlation matrix

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1]	WUPB	1.000	-0.121	0.176	0.189	-0.109	-0.127	-0.123
[2]	DIFFICULTY		1.000	0.201	-0.094	-0.010	0.029	0.055
[3]	FLEX			1.000	0.224	0.101	0.000	0.008
[4]	CAREER				1.000	0.053	0.069	0.043
[5]	RETIRE					1.000	0.530	-0.100
[6]	AGE						1.000	-0.069
[7]	FSECTION							1.000

		[8]	[9]	[10]	[11]	[12]	[13]	[14]
[1]	WUPB	-0.096	-0.072	0.068	-0.040	-0.010	-0.075	0.015
[2]	DIFFICULTY	0.015	0.062	0.376	0.234	0.006	0.007	-0.043
[3]	FLEX	-0.034	0.007	0.267	0.372	0.126	-0.030	-0.071
[4]	CAREER	-0.053	-0.005	0.185	0.148	0.011	0.052	0.021
[5]	RETIRE	-0.080	-0.176	0.024	0.083	0.158	0.174	0.170
[6]	AGE	-0.220	-0.108	0.022	0.022	0.024	0.445	0.266
[7]	FSECTION	0.148	0.164	0.064	0.065	-0.129	-0.050	-0.056
[8]	LISTED	1.000	0.575	-0.089	0.147	-0.049	0.088	0.016
[9]	SIZE		1.000	-0.054	0.167	-0.173	0.244	-0.023
[10]	IDENTIFICATION			1.000	0.292	0.072	-0.001	-0.054
[11]	INCENTIVE				1.000	0.059	-0.009	-0.125
[12]	INFLUENCE					1.000	-0.060	-0.076
[13]	FIRM STINT						1.000	0.542
[14]	SALES STINT							1.000

Note: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE are the factor scores controlled by one unmeasured latent method factor common to these factors. The definitions of the variables are summarized in Appendix 2. 5% critical value (two-tailed) = 0.0925 for N=450.

Table 4: Target setting and WUPB

	Model 1 WUPB			Model 2 WUPB			Model 3 WUPB			Model 4 WUPB			Model 5 FLEX		
	coeff.	t		coeff.	t		coeff.	t		coeff.	t		coeff.	t	
const	1.758	6.575	**	0.620	1.504		1.166	4.274	**	0.467	1.152		2.396	6.054	**
DIFFICULTY	-0.145	-1.954		1.222	3.062	**				1.002	2.556	*	0.496	4.828	**
DIFFICULTY^2				-0.391	-3.359	**				-0.345	-3.040	**			
FLEX							0.108	2.933	**	0.120	3.158	**			
CAREER	0.586	3.862	**	0.550	3.716	**	0.516	3.398	**	0.436	2.965	**	0.992	5.106	**
RETIRE	-0.210	-1.220		-0.196	-1.148		-0.267	-1.521		-0.266	-1.515		0.576	2.664	**
AGE	-0.011	-2.323	*	-0.011	-2.217	*	-0.010	-2.148	*	-0.009	-1.922		-0.014	-1.982	*
FSECTION	-0.343	-3.198	**	-0.310	-2.962	**	-0.359	-3.292	**	-0.312	-3.047	**	-0.019	-0.127	
LISTED	-0.151	-1.571		-0.136	-1.433		-0.129	-1.363		-0.120	-1.292		-0.149	-1.126	
SIZE	-0.007	-0.410		-0.005	-0.340		-0.012	-0.712		-0.008	-0.503		0.019	0.835	
Partial R^2 added due to main variables		0.008			0.029	**		0.020	**		0.052	**		0.051	**
Adj. R^2		0.083			0.102			0.096			0.124			0.104	
N		450			450			450			450			450	
Sobel test													z=	2.604	**

Note: WUPB, DIFFICULTY, FLEX, and CAREER are the factor scores controlled by one unmeasured latent method factor common to these factors. The definitions of the variables are summarized in Appendix 2. DIFFICULTY^2 indicates the square of DIFFICULTY. White's standard error with adjusted degrees of freedom was used for the t-test of regression coefficients. Partial R^2 added due to main variables is the change in R^2 when main variables are added to the base model including all control variables, and is tested with the F-test. The standard error of the mediating effect in the Sobel test used the second-order exact solution of Aroian (1944). ** and * indicate statistically significant at the 1%, and 5% levels, respectively.

Table 5: Moderation effects of organizational identification and incentive contracts

	IDENTIFICATION <=median Model 6 WUPB			IDENTIFICATION >median Model 7 WUPB			INCENTIVE <=median Model 8 WUPB			INCENTIVE >median Model 9 WUPB		
	coeff.	t		coeff.	t		coeff.	t		coeff.	t	
const	0.633	1.102		0.582	0.927		0.671	1.116		0.486	0.968	
DIFFICULTY	1.176	2.176	*	1.243	2.043	*	1.018	1.719		1.428	2.924	**
DIFFICULTY^2	-0.389	-2.367	*	-0.412	-2.368	*	-0.322	-1.886		-0.444	-2.960	**
CAREER	0.663	3.682	**	0.418	1.799		0.614	3.815	**	0.445	1.372	
RETIRE	-0.293	-1.216		-0.198	-0.818		-0.048	-0.165		-0.277	-1.296	
AGE	-0.010	-1.579		-0.008	-1.117		-0.007	-0.937		-0.014	-2.111	*
FSECTION	-0.163	-0.928		-0.447	-3.704	**	-0.281	-2.150	*	-0.345	-2.041	*
LISTED	-0.133	-0.979		-0.131	-0.917		0.005	0.036		-0.250	-1.907	
SIZE	-0.007	-0.297		0.001	0.052		-0.029	-1.297		0.016	0.681	
Coefficient different between groups?												
DIFFICULTY+DIFFICULTY^2				χ^2=	0.028					χ^2=	0.518	
Partial R^2 added due to main variables		0.030	*		0.033	*		0.018			0.031	*
Adj. R^2		0.134			0.067			0.071			0.112	
N		225			225			225			225	

Note: WUPB, DIFFICULTY, FLEX, and CAREER are the factor scores controlled by one unmeasured latent method factor common to these factors. The definitions of the variables are summarized in Appendix 2. DIFFICULTY^2 indicates the square of DIFFICULTY. White's standard error with adjusted degrees of freedom was used for the t-test of regression coefficients. Coefficient different between groups tests whether the coefficients of DIFFICULTY and DIFFICULTY^2 are different for Models 6 and 7, and Models 8 and 9 , respectively. Partial R^2 added due to main variables is the change in R^2 when main variables are added to the base model including all control variables, and is tested with the F-test. ** and * indicate statistically significant at the 1%, and 5% levels, respectively.

Table 6: Influence on budget target setting

	High-influence									Low-influence								
	Model 10			Model 11			Model 12			Model 13			Model 14			Model 15		
	WUPB			WUPB			FLEX			WUPB			WUPB			FLEX		
	coeff.	t		coeff.	t		coeff.	t		coeff.	t		coeff.	t		coeff.	t	
const	1.227	2.134	*	1.085	1.896		2.311	4.882	**	0.054	0.082		-0.070	-0.111		2.421	3.277	**
DIFFICULTY	0.689	1.111		0.449	0.726		0.645	4.844	**	1.899	3.615	**	1.728	3.482	**	0.293	1.815	
DIFFICULTY^2	-0.231	-1.309		-0.185	-1.061					-0.603	-3.967	**	-0.562	-3.944	**			
FLEX				0.121	2.317	*							0.099	1.833				
CAREER	0.440	2.373	*	0.339	1.844		0.858	3.781	**	0.698	2.982	**	0.591	2.410	*	1.130	3.495	**
RETIRE	0.024	0.118		-0.062	-0.281		0.676	2.768	**	-1.008	-4.258	**	-0.993	-3.816	**	-0.096	-0.213	
AGE	-0.015	-2.557	*	-0.013	-2.193	*	-0.016	-1.971	*	-0.007	-0.911		-0.007	-0.853		-0.010	-0.808	
FSECTION	-0.056	-0.311		-0.060	-0.343		0.045	0.179		-0.496	-3.856	**	-0.500	-4.033	**	-0.011	-0.054	
LISTED	-0.319	-2.439	*	-0.289	-2.284	*	-0.284	-1.747		0.065	0.474		0.063	0.468		0.017	0.072	
SIZE	-0.002	-0.119		-0.006	-0.312		0.030	1.122		-0.011	-0.428		-0.013	-0.517		0.020	0.471	
Partial R^2 added due to main variables	0.011			0.032		*	0.079		**	0.076		**	0.095		**	0.019		
Adj. R^2	0.062			0.079			0.136			0.237			0.252			0.051		
N	271			271			271			179			179			179		
Sobel test							z=	2.055	*							z=	1.203	

Note: WUPB, DIFFICULTY, FLEX, and CAREER are the factor scores controlled by one unmeasured latent method factor common to these factors. The definitions of the variables are summarized in Appendix 2. DIFFICULTY^2 indicates the square of DIFFICULTY. White's standard error with adjusted degrees of freedom was used for the t-test of regression coefficients. Partial R^2 added due to main variables is the change in R^2 when main variables are added to the base model including all control variables, and is tested with the F-test. The standard error of the mediating effect in the Sobel test used the second-order exact solution of Aroian (1944). ** and * indicate statistically significant at the 1%, and 5% levels, respectively.

Table 7: Identification of motivation and selection effects

	Low-influence											
	FIRM STINT ≤ median			SALES STINT ≤ median			FIRM STINT > median			SALES STINT > median		
	Model 16 WUPB			Model 17 WUPB			Model 18 WUPB			Model 19 WUPB		
	coeff.	t-ratio		coeff.	t-ratio		coeff.	t-ratio		coeff.	t-ratio	
const	-0.616	-0.558		-0.322	-0.365		1.240	1.400		1.002	1.049	
DIFFICULTY	2.188	2.100	*	2.076	3.011	**	1.579	3.313	**	1.314	1.607	
DIFFICULTY^2	-0.700	-2.366	*	-0.681	-3.349	**	-0.515	-3.516	**	-0.408	-1.756	
CAREER	0.310	0.721		0.495	1.327		0.920	3.777	**	0.853	3.699	**
RETIRE	-1.032	-2.678	**	-1.393	-3.143	**	-1.010	-4.575	**	-0.833	-3.287	**
AGE	0.003	0.261		0.000	-0.022		-0.026	-1.885		-0.019	-1.504	
FSECTION	-0.533	-2.946	**	-0.397	-2.215	*	-0.460	-2.359	*	-0.648	-3.409	**
LISTED	0.199	0.776		0.143	0.821		0.052	0.363		-0.017	-0.086	
SIZE	-0.014	-0.298		-0.029	-0.909		-0.009	-0.335		0.010	0.262	
Mean of STINT		10.833			4.957			26.562			19.588	
Partial R^2 added due to main variables		0.080	*		0.110	**		0.083	**		0.030	
Adj. R^2		0.149			0.183			0.348			0.268	
N		90			94			89			85	

Note: WUPB, DIFFICULTY, FLEX, and CAREER are the factor scores controlled by one unmeasured latent method factor common to these factors. The definitions of the variables are summarized in Appendix 2. DIFFICULTY^2 indicates the square of DIFFICULTY. White's standard error with adjusted degrees of freedom was used for the t-test of regression coefficients. Partial R^2 added due to main variables is the change in R^2 when main variables are added to the base model including all control variables, and is tested with the F-test. ** and * indicate statistically significant at the 1%, and 5% levels, respectively.

Figure (1)

Figure 1: Research model and predictions
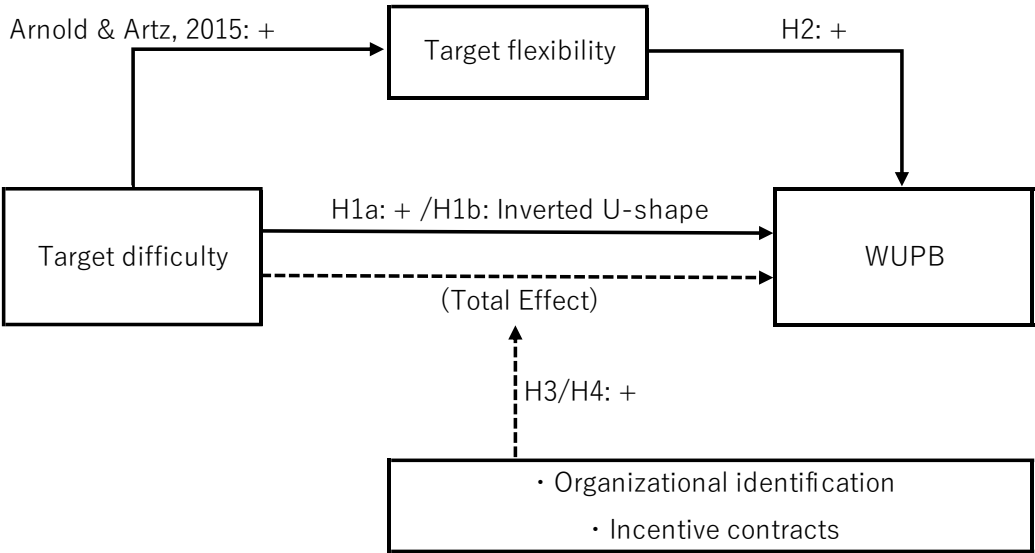
Appendix 1: Survey items

The web-based survey in Japanese was conducted in February 2020. Participants, who were marketing and sales department managers (N = 631), responded to a Likert scale of answers by selecting a radio button on the website. They were pre-registered with MACROMILL as able to respond to questions on the willingness to engage in unethical pro-organizational behavior. For our analysis, we used those managers from this pool who had a budget target at work (N = 450). The survey did not ask for information that would identify individual respondents. (R) indicates the reverse-coded item.

Willingness to engage in unethical pro-organizational behavior (Umphress et al., 2010)
Scale: 1 (strongly disagree)–7 (strongly agree)
WUPB1. If it would help my organization, I would misrepresent the truth to make my organization look good.
WUPB2. If it would help my organization, I would exaggerate the truth about my company's products or services to customers and clients.
WUPB3. If it would benefit my organization, I would withhold negative information about my company or its products from customers and clients.
WUPB4. If my organization needed me to, I would give a good recommendation on the behalf of an incompetent employee in the hope that the person will become another organization's problem instead of my own.
WUPB5. If my organization needed me to, I would withhold issuing a refund to a customer or client accidentally overcharged.
WUPB6. If needed, I would conceal information from the public that could be damaging to my organization.

Target difficulty (Kenis, 1979)
Scale: 1 (strongly disagree)–7 (strongly agree)
DIFFICULTY1.   I should not have too much difficulty in reaching my budget targets. They appear to be fairly easy. (R)
DIFFICULTY2.   My budget targets are quite difficult to attain.
DIFFICULTY3.   My budget targets require a great deal of effort from me to achieve them.
DIFFICULTY4.   It takes a high degree of skills and know-how on my part to attain fully my budget targets.

Target flexibility (Arnold and Artz, 2015; Van der Stede, 2001)
Scale: 1 (strongly disagree)–7 (strongly agree)
FLEX1.   Budgets are updated on a regular basis (e.g., monthly or quarterly) to a new business environment.
FLEX2.   Budgets are usually adjusted during the year to those circumstances that could not be foreseen at the time the budget was drawn up.
FLEX3.   There is a continuous monitoring in our firm to assess whether budgets are still realistic or have to be changed.

Career self-interest (Collins, 2006)
Scale: 1 (strongly disagree)–7 (strongly agree)

CAREER1. I do whatever it takes to enhance my job security.
CAREER2. I do whatever it takes to enhance reputation with my company's executives.
CAREER3. I do whatever it takes to enhance my promotion potential.
CAREER4. I do whatever it takes to enhance my pay rises.
CAREER5. I do whatever it takes to enhance my pay relative to my peers.
CAREER6. I do whatever it takes to avoid losing my job.

Organizational identification (Mael and Ashforth, 1992)
Scale: 1 (strongly disagree)–7 (strongly agree)

IDENTIFICATION1.	When someone criticizes my organization, it feels like a personal insult.
IDENTIFICATION2.	I am very interested in what others think about my organization.
IDENTIFICATION3.	When I talk about this organization, I usually say "we" rather than "they."
IDENTIFICATION4.	This organization's successes are my successes.
IDENTIFICATION5.	When someone praises this organization, it feels like a personal compliment.

Incentive compensation (Shields and Young, 1993)
Scale: 1 (strongly disagree)–7 (strongly agree)

| INCENTIVE1. | The compensation systems for managers is very clearly specified in terms of how compensations is related to budgeted performance. |
| INCENTIVE2. | Managers' financial rewards increase as actual performance increasingly exceeds budgeted performance. |

Scale: 1(not at all influential)–7 (extremely influential)

| INCENTIVE3. | How influential is the actual performance relative to the budgeted performance of a center in affecting the probability that the manager will be promoted? |

Influence on budget setting (Sponem and Lambert, 2016)
Scale: 1 (Yes) / 0 (No)
● I have decisive influence on budget target.

Demographics

AGE
XX years old
● Please enter your age.

Position
Select radio button
Chairman or Vice chairman (Executive); President or Vice-president (Executive); Senior managing director (Executive); Managing director (Executive); General manager (Upper manager); Section manager (Middle manager); Section chief (Lower manager)

- Please choose only one position that best describes your main job title. If you hold more than one position, please choose the highest one. If you have different names for this position, please choose the equivalent one.

LISTED
Yes or No
- Is your company listed?

Industry
Select a radio button from the middle industry classification of the Japan Securities Exchange (JSE).
- Please select the industry that best describes the main industry of your company.

SIZE
XX employees
- How many employees does you company have?

FIRM STINT
XX years
- How many years have you worked in your company?

SALES STINT
XX years
- How many years have you worked in the sales and marketing department of your company?

Appendix 2: Definition of variables

Variables	Definition
WUPB	WUPB indicates the factor scores for the factors estimated by the six items on WUPB, referring to Umphress et al. (2010), noted in Appendix 1. We follow Podsakoff et al. (2003) in controlling for the effects of a single unmeasured latent method factor to the six factors: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE.
DIFFICULTY	DIFFICULTY indicates the factor scores for the factors estimated by the four items on DIFFICULTY, referring to Kenis (1979), noted in Appendix 1. We follow Podsakoff et al. (2003) in controlling for the effects of a single unmeasured latent method factor to the six factors: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE.
FLEX	FLEX indicates the factor scores for the factors estimated by the three items on FLEX, referring to Arnold and Artz (2015) and Van der Stede (2001), noted in Appendix 1. We follow Podsakoff et al. (2003) in controlling for the effects of a single unmeasured latent method factor to the six factors: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE.
CAREER	CAREER indicates the factor scores for the factors estimated by the six items on CAREER, referring to Collins (2006), noted in Appendix 1. We follow Podsakoff et al. (2003) in controlling for the effects of a single unmeasured latent method factor to the six factors: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE.
RETIRE	RETIRE is a dummy variable set to 1 if AGE is more than 60 years and 0 otherwise.
AGE	AGE indicates the age of the respondent as answered in the survey.
FSECTION	FSECTION is a dummy variable created based on the industry of the respondent's company as answered in the survey. Respondents belonging to the financial section are set to 1, and others are set to 0.
LISTED	LISTED is a dummy variable created based on whether the respondent's company is listed. Listed companies are set to 1, and others are set to 0.
SIZE	SIZE is the natural logarithm of the number of employees at the respondent's company as answered in the survey.
IDENTIFICATION	IDENTIFICATION indicates the factor scores for the factors estimated by the five items on IDENTIFICATION, referring to Mael and Ashforth (1992), noted in Appendix 1. We follow Podsakoff et al. (2003) in controlling for the effects of a single unmeasured latent method factor to the six factors: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and

	INCENTIVE.
INCENTIVE	INCENTIVE indicates the factor scores for the factors estimated by the three items on INCENTIVE, referring to Shields and Young (1993), noted in Appendix 1. We follow Podsakoff et al. (2003) in controlling for the effects of a single unmeasured latent method factor to the six factors: WUPB, DIFFICULTY, FLEX, CAREER, IDENTIFICATION, and INCENTIVE.
INFLUENCE	Respondents who answered YES to the question on "Influence on budget setting" were set to 1 (high-influence), while those who answered No were set to 0 (low-influence).
FIRM STINT	FIRM STINT indicates the number of years the respondent has worked for the company.
SALES STINT	SALES STINT indicates the number of years the respondent has worked in the marketing and sales department at the firm.