European Accounting Review

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rear20

The Effects of Transparency and Voice on Managerial Decisions and Employee Effort in Hierarchical Organizations

Xi (Jason) Kuang, Ziyang Li & Di Yang

To cite this article: Xi (Jason) Kuang, Ziyang Li & Di Yang (2022) The Effects of Transparency and Voice on Managerial Decisions and Employee Effort in Hierarchical Organizations, European Accounting Review, 31:4, 1003-1027, DOI: 10.1080/09638180.2021.1896370

To link to this article: https://doi.org/10.1080/09638180.2021.1896370

European Accounting Review, 2022
Vol. 31, No. 4, 1003–1027, https://doi.org/10.1080/09638180.2021.1896370

The Effects of Transparency and Voice on Managerial Decisions and Employee Effort in Hierarchical Organizations

Xi (Jason) Kuang*, Ziyang Li** and Di Yang†

*Scheller College of Business, Georgia Institute of Technology, Atlanta, GA, USA; **Business School, Sichuan University, Chengdu, People's Republic of China; †School of Accounting, Auditing and Taxation, UNSW Sydney, Sydney, Australia

(*Received: March 2020; accepted: February 2021*)

Abstract Organizations often promote procedural justice by increasing the transparency of managerial decisions and encouraging employees' voice in the decision process. We experimentally investigate how implementing these control policies in hierarchical organizations (owners vs. managers vs. employees) affects managers' resource-allocation decision and employee effort. We predict and find that managers allocate more resources to employees, lowering owners' return, when the allocation decision is transparent than when it is not transparent, despite being incentivized to increase owners' return. Further, managers allocate more resources to employees when employees can voice their desired outcome than when employees' voice is not allowed, but only if the allocation decision is transparent. Managers' intention to exchange gifts with employees mediates these effects. We also find that, when employees have a voice, their effort is influenced by whether the allocation reaches their desired level. The implications of our findings for management control theory and practice are discussed.

Keywords: Multi-level agency; Information policy; Employees' voice

1. Introduction

Employees' morale and attitude toward the organization are influenced by their perceptions of organizational justice, including distributive justice (i.e., the fairness of outcome distributions) and procedural justice (i.e., the fairness of procedures used to make decisions) (Greenberg, 1990).[1] In large, hierarchical organizations, procedural justice is particularly important because these organizations typically use more formalized and more sophisticated control procedures than other organizations do (Ambrose & Schminke, 2003; Chenhall, 2003). To enhance procedural justice, many organizations adopt a participative control approach, increasing the transparency of managerial decisions and allowing for employees' voice in the decision-making process

Correspondence Address: Ziyang Li, Business School, Sichuan University, 29 Wangjiang Road, Chengdu, Sichuan 610064, People's Republic of China. Email: lzy_feng@scu.edu.cn

Paper accepted by Victor Maas.

[1]Some researchers propose a third type of organization justice – interactional justice (i.e., the fairness of interpersonal treatments), whereas others view procedural and interactional justice as two aspects of a single construct (Cropanzano et al., 2002).

(Collier & Esteban, 1999; McCabe & Lewin, 1992; Schminke et al., 2000). Prior research suggests that transparency in managerial decision making boosts employees' trust in the firm and strengthens the firm's ethical culture (Kaptein, 2008; Rawlins, 2008a). Effective communication between employees and managers enhances employees' job satisfaction and organizational commitment (Kim, 2002; Rees et al., 2013; Wood & Wall, 2007). In this paper, we investigate the effects of transparency and voice on managers' resource-allocation decisions and employees' responses to these decisions in hierarchical organizations.

In hierarchical organizations (hereafter, generically represented by a three-tier structure of owners, managers, and employees), managers play dual roles (Lee & Taylor, 2014; Sappington, 1991; Shapiro, 2005). First, managers act as an agent for owners, making decisions that result in resource allocation between owners and employees. For example, managers prepare expense budgets, which, once approved by owners, determine the funding or support available to employees. We hereafter refer to this relationship as the *manager-owner* interaction. Second, managers act as a principal for employees, inducing employees to work toward organizational goals. For example, managers rely on employees to carry out innovation projects and employee effort is an important determinant of the project outcome. We hereafter refer to this relationship as the *manager-employee* interaction.

In fulfilling their dual roles, managers often need to make trade-offs between the firm's long-term and short-term interests because advancing one interest could undermine the other (Abernethy et al., 2013). One such type of trade-off is to allocate limited resources toward employees' compensation and benefit programs versus business projects that boost the firm's current performance. Committing more resources to compensation programs may increase employees' morale, benefiting the firm in the long run, but may weaken the firm's ability to improve current performance, causing adverse market reactions (Brochet et al., 2015; Chung et al., 2016). In these cases, while long-term interests are important, firms may need short-term results to survive or remain competitive (Laverty, 1996).

Prior accounting research suggests that managers' long-term versus short-term trade-offs are affected by the attributes of management control systems (Farrell et al., 2007; Farrell et al., 2012; Van Rinsum & Hartmann, 2007). Extending this literature, we contend that organizational policies that promote decision transparency and employees' voice may lead managers to focus on employees' needs and, thereby, influence their trade-offs between long-term and short-term interests. We focus on two important institutional features of the manager-employee interaction: the openness of the firm's internal information policy (i.e., whether managers' decisions are observable to employees) and communication between employees and managers (i.e., whether employees can communicate their desired outcome to managers). As discussed earlier, adopting an open information policy and allowing for employees' voice may improve perceived procedural justice. However, because an open information policy makes managerial decisions observable to employees, it becomes salient that employees may base their effort choices on the resources allocated to them. This increased salience may prompt managers to consider employees' needs, expecting to elicit employees' future reciprocation. Allowing for employees' voice under an open information policy may further increase the likelihood of managers accommodating employees' needs because such communication reduces ambiguity about the level of 'gift' needed to initiate a reciprocal exchange. In addition, we predict that, when employees have a voice in the decision-making process, their reaction to managers' allocation decision will be primarily influenced by whether their communicated preference is satisfied.

We conduct a two-stage experiment to test our predictions. Participants are randomly divided into groups of three (i.e., an owner, a manager and an employee). In stage one, the manager allocates a fixed amount of resources between the owner and the employee, and receives a payoff that increases with the amount allocated to the owner. In stage two, the employee is paid a fixed

wage to perform an effort-choice task, with a cost increasing with the effort level, and higher effort financially benefits both the manager and the owner. We use a 2 × 2 between-participants design, where we manipulate (1) whether the employee observes the manager's allocation decision before making the effort choice and (2) whether the employee can communicate to the manager the amount of resources that he or she would like to receive before the manager makes the allocation decision.

Consistent with our predictions, we find that, despite being given an owners-return-based incentive, managers allocate more resources to employees when the allocation decision is observable to employees than when the allocation decision is not observable. Interestingly, managers' allocation decisions are generally not effective in eliciting employees' effort: the overall effort level is indeed *lower* when the allocation decision is observable than when it is not observable. We find that this result is likely driven by employees reacting negatively to allocations that fall short of the level that they perceive as fair.

Furthermore, managers allocate more resources to employees when employees can communicate their preferences to managers than when there is no communication, but this effect only occurs when the manager's decision is observable. Additional analysis shows that the extent to which managers desire to initiate a gift exchange with employees mediates these effects. Supplemental data suggest that these results are not attributable to managers' concerns about employees' impressions, thus lending credence to our theory. We also find that, when employees have a voice, whether their communicated preference is satisfied has important effects on their effort choices and on their perceptions of procedural fairness.

This study has several important implications for management accounting theory and practice. First, our study contributes to the emerging literature investigating agency problems in multi-level organizations (e.g., Hales & Williamson, 2010; Maggian et al., 2018). In these organizations, managers act not only as an agent for owners but also as a principal for employees. When fulfilling these roles, managers face trade-offs between the firm's long-term and short-term interests. Our findings help identify contextual factors that influence managers' trade-offs, thus providing insights into how firms can induce managers to appropriately balance different stakeholders' interests. Such insights have important implications for improving the total efficiency of multi-level organizations.

Second, prior research has documented the benefits of adopting a transparent information policy and encouraging communication between managers and employees, such as enhanced cooperation and trust (Evans et al., 2016; Whitener et al., 1998). However, our study points out that these organizational practices can complicate managers' decision making in multi-level organizations: a high degree of organizational openness may increase managers' tendency to maintain a reciprocal relationship with employees while focusing less on owners' short-term return, and employees' upward communication can enhance such a tendency. Companies need to be aware of these externalities and adjust control systems accordingly to maximize the overall control effectiveness.

Third, our study extends the literature on impression management in organizations. Prior research suggests that employees may spend time and energy on influence activities (e.g., manipulate managers' impression about them) that could otherwise be devoted to productive tasks. As a result, managers give inflated performance ratings towards employees who curry favor (Tirole, 1986). Our study takes a new perspective by showing that, in organizational settings where employees' expectations or needs are highly visible and salient, managers may also engage in influence activities in order to manage employees' expectations. These influence activities can have substantial impacts on the allocation of resources in organizations.

The reminder of this paper is organized as follows. The second section discusses research background, reviews relevant literature, and develops testable hypotheses. The third section

outlines the experimental method. The fourth section reports the experimental results, and the fifth section concludes.

2. Background and Hypotheses

2.1. Decision Transparency and Employees' Voice

It has long been argued that procedural justice has pronounced effects on employees' behavior and work attitude (Cropanzano et al., 2007). In particular, procedural justice is important for larger organizations (Scott et al., 2011) because the complex administrative procedures in these organizations make it inherently more difficult to gain employees' trust and satisfaction (Ambrose & Schminke, 2003; Robson et al., 2008; Searle et al., 2011; Yoon, 1996). Research suggests that organizations can enhance procedural justice by creating an open information environment to increase the transparency of their decision processes (Konovsky, 2000; Schnackenberg & Tomlinson, 2016). Consistent with this perspective, prior literature has documented the benefits of adopting an open information policy, including enhancing mutual trust (Kidwell & Scherer, 2001), reducing employee misconduct (Ethisphere & Jones Lang LaSalle, 2011), and increasing employee engagement (Schumpeter, 2012). Therefore, researchers underscore the importance of transparency in managerial decision making (Norman et al., 2010; Rawlins, 2008b). Particularly, prior accounting research contends that management control systems should be tailored to fostering intra-firm transparency, which in turn improves control effectiveness and business unit performance (Ahrens & Chapman, 2004; Chapman & Kihn, 2009).

Furthermore, allowing employees to voice their opinions in managerial decision making is argued to be an important determinant of their perception of procedural justice (Greenberg, 1986; Greenberg & Tyler, 1987; Kernan & Hanges, 2002). Prior research finds that communication between managers and employees helps improve trust and cooperation (Whitener et al., 1998), job satisfaction (Gorden & Infante, 1991; Smidts et al., 2001), and organizational performance (Campion et al., 1993; Goldhaber, 1993). The accounting literature also provides evidence that employees who have a voice in budget setting are more satisfied with the budget and the task (even when the budget is unattainable) than employees who have no voice (Lindquist, 1995). Libby (1999) finds that allowing for employees' voice and providing explanation for budget setting increase employees' performance. Along these lines, researchers argue that managers should understand employees' preferences in compensation and performance-evaluation processes (Chiang & Birtch, 2007; Folger & Konovsky, 1989; Tremblay et al., 1998). Many firms encourage managers to elicit employees' opinions about the firm's compensation practices (e.g., by surveys) on a regular basis (Guzzo & Noonan, 1994). In fact, it is asserted that 'a good performance appraisal process must be participative – that is, the employee must have a voice in the process' (Nelson, 2000, p. 42).

We contend that, aside from these benefits, decision transparency and employees' voice have profound effects on managers' resource-allocation decisions and employees' effort responses to these decisions in hierarchical organizations. In the following subsections, we first explain managers' dual roles and the associated trade-offs between the firm's long-term and short-term interests. We then discuss how decision transparency and employees' voice may influence managers' decision making and employees' effort choices.

2.2. Managers' Dual Roles in Multi-level Organizations

Prior agency research largely focused on two-level relationships between a principal and an agent. However, in practice, many organizations are comprised of more than two hierarchical

levels (e.g., owners, managers, and employees) (Anderson & Brown, 2010). We refer to such relationships as multi-level agency relationships. An important yet understudied feature of multi-level agency relationships is that the middle-level managers often play dual roles of both an agent (for owners) and a principal (for employees). The fulfilling of one role can influence the fulfilling of the other role, and such influences may ultimately affect owners (Floyd & Lane, 2000). Recent accounting research has started to empirically investigate agency problems in multi-level organizations. Hales and Williamson (2010) find that linking managers' payoff to owners' welfare leads to managers' myopic decisions that favor owners at the cost of employees. Yin (2017) finds that employees use whether managers self-servingly extract rents from other parties (e.g., owners) as a signal of whether managers are trustworthy and this signaling effect curbs managers' rent-extracting behavior. Cardinaels et al. (2018) show that employees identify more with their local units than with the firm and, as a result, create budgetary slack to benefit their units.[2]

Particularly relevant to our study, Maggian et al. (2018) find that managers who have hiring discretion opportunistically hire low-ability employees (as opposed to high-ability employees) because these 'undeserving' employees are more likely to reciprocate the favor by diverting efforts to managers' pet project at the cost of owners. Their study mainly investigates the economic incentives underlying managers' hiring decision and the *endogenous* 'entitlement effect' of the hiring decision on *employees* (i.e., low-ability employees feel less entitled to being hired and therefore are more grateful if hired). By comparison, we focus on incomplete contracting settings where managers do not have the full information for a cost-and-benefit analysis (discussed later) and we investigate the *exogenous* effect of organizational policies on the trade-offs that *managers* make when fulfilling their dual roles.

Specifically, when managers make decisions in the role of an agent for owners, these decisions can be viewed as an allocation decision, which results in resources being distributed between owners and employees (Balogun, 2003; Demski, 2013). In making these decisions, managers often need to balance the firm's long-term and short-term interests, especially when the two interests are in conflict (Crilly, 2017; Marginson & McAulay, 2008). In fact, making such trade-offs is considered managers' 'fact of life' (Abernethy et al., 2013, p. 925). Along these lines, a common managerial decision is to allocate limited resources between business projects versus employees' compensation and benefit programs (DeAngelo & DeAngelo, 1991; Klasa et al., 2009). On one hand, focusing resources on business projects bolsters the firm's ability to improve current performance and owners' return, which are important for the firm's survival and growth because short-term results signal the firm's stability to the market (Benmelech et al., 2012; Merchant & Manzoni, 1989). Indeed, research evidence suggests that shareholders tend to prefer short-term results over long-term value (Abowd, 1989; Bushee, 1998, 2001).

On the other hand, employees' compensation and welfare influence their morale and attitude, affecting organizational efficiency in the long run (Currall et al., 2005). In the role as the principal for employees, managers assign work to employees, and the level of employees' effort is a primary determinant of the work outcome. However, employees' effort may not be directly observable to managers (Jones, 1984; Ouchi, 1977). Additionally, firm or divisional output may be a noisy signal about employees' effort, so managers cannot link employees' pay to output but instead pay a fixed salary (Klein, 1983; Lazear, 1986). Therefore, incomplete contracts are commonplace in large, hierarchical organizations (Leavitt, 2003; MacLeod & Parent, 2012; Simon, 1991; Williamson, 1988). In this paper, we focus on the manager-employee interaction in incomplete contracting environments.

[2]Besides these empirical studies, analytical research has investigated agency problems that are unique to multi-level organizations, including increased difficulties in designing effective incentives (McAfee & McMillan, 1995) and collusion between managers and employees (Demski & Sappington, 1989; Tirole, 1986).

Under incomplete contracts, employees often follow the norm of reciprocity by taking different actions depending on the treatment they receive (Parzefall, 2008; Rousseau, 1995; Uhl-Bien & Maslyn, 2003). For example, when employees are offered a gift of a generous wage, they reciprocate with a gift of effort above the contractually enforceable level (Fehr et al., 1993; Fehr et al., 1997; Hannan, 2005; Hannan et al., 2002; Kuang & Moser, 2009). Notably, Maximiano et al. (2013) provide experimental evidence that, in hierarchical organizations, employees who are paid a gift wage reciprocate to the firm as a whole (i.e., the owner and manager combined), regardless of whether the wage decision is made by the owner or by the manager. Thus, in our setting, managers can initiate a gift exchange with employees by being generous to them in resource allocation during the manager-owner interaction and expect them to reciprocate with higher effort that benefits the firm in future periods.

The above discussions suggest that managers should balance the long-term and short-term effects of their decision on the firm's overall efficiency, but achieving the 'right' balance can be difficult for several reasons. Managers' compensation scheme may lead them to care more about one effect than the other (Laverty, 1996). Further, making such trade-offs entails acquiring, processing, and interpreting a large volume of complex information, and whether managers can get these jobs done effectively is influenced by their cognitive ability and attentional capacity (Nikolov, 2018; Van Rinsum & Hartmann, 2007).[3] Therefore, the long-term versus short-term orientation varies greatly across managers (Miller, 2002). In particular, managers often exhibit 'selective attention,' overly focusing on the domains that appear salient or relevant in their decision context (Cho & Hambrick, 2006; Nadkarni & Barr, 2008). Along these lines, prior accounting research finds that managers' long-term versus short-term trade-offs are swayed by variations in the design of management control systems. For example, within longer evaluation periods, managers' time orientation increases with the time lag between leading indicators and accounting results (Van Rinsum & Hartmann, 2007). Other research finds that managers' time orientation increases when there are direct relationships between leading indicators and accounting performance and when these relationships are explicitly communicated to managers (Farrell et al., 2007; Farrell et al., 2012). Extending this literature, we posit that organizational policies that aim to increase procedural justice can influence managers' long-term versus short-term preferences by prompting managers to attend to employees' needs and lean toward accommodating employees' expectations.[4]

2.3. Managers' and Employees' Behavior Under Decision Transparency and Employees' Voice

2.3.1. Managers' behavior

An important condition for a gift exchange to occur is that employees perceive managers' decision as a gift (Falk & Fischbacher, 2006). The development of such perceptions largely depends on the openness of the internal information environment, which varies across organizations

[3]For example, survey evidence suggests that managers often are not able to relate customer satisfaction measures to future financial performance and find it difficult to understand 'the point of diminishing returns for customer satisfaction initiatives' (Ittner & Larcker, 1998, p. 3). Other research suggests that managers' individual differences play a role in their trade-off between short-term and long-term considerations. For example, managers with lower self-efficacy are more vulnerable to myopic loss aversion in investment decision making (Hopfensitz & Wranik, 2008). Managers who have 'self-concept specificity' in their firm (i.e., unconscious fixation on the firm's current profile) tend to be myopic in their strategic decision process (Johnston, 2009). Highly narcissistic managers are more likely than non-narcissists to focus corporate strategies on future development and growth, such as new product introduction and radical innovation (Kashmiri et al., 2017).

[4]We do not examine whether these organizational policies affect the likelihood of managers making the 'optimal' allocation. In our study we do not give managers the full information needed for an optimization analysis (details provided later) because in practice such an analysis may not be feasible due to data unavailability.

(Colella et al., 2007; Futrell & Jenkins, 1978). As discussed earlier, in order to promote procedural justice, many organizations adopt an open information policy and encourage employees' voice in the decision-making process. Absent decision transparency and employees' voice, managers may allocate resources between current business projects and employees' compensation based on their own judgments of how short-term and long-term interests should be appropriately balanced. However, when the firm has an open information policy, managers' long-term considerations may change. Prior survey findings suggest that, under an open information policy, employees may have access to information regarding how corporate resources are distributed between business projects (e.g., budgeted income statements; market strategies; investment plans) and employees' compensation (e.g., salaries and wage rates; productivity and output) (Kleiner & Bouillon, 1988; Peccei et al., 2010).[5] In these environments, the level of resources allocated to employees may directly influence their effort choices (Fehr & Gächter, 2000), thus making the need to exchange gifts with employees more salient and more compelling because failure to do so may demotivate employees, which in turn affects managers' and owners' long-term benefits. As a result, managers' short-term versus long-term tradeoff is likely to shift toward long-term considerations.

Therefore, we predict that managers may allocate more resources to employees under an open information policy than under a closed information policy. We formally state this prediction in the following hypothesis:

H1a: When allocating resources between owners and employees, managers will allocate more resources to employees under an open information policy than under a closed information policy.

Individuals tend to rely on a reference point to assess whether an outcome is fair (Fehr et al., 2009; Kahneman, 1992). In our setting, we posit that employees' voice about their preferred outcome will influence the reference point that managers use when initiating a gift exchange, conditional on the openness of the information policy. Under an open information policy (i.e., managers' decisions are transparent), when employees have a voice, managers learn unambiguously the level of resources desired by employees. It is possible that employees strategically communicate an inflated level, which managers are not willing to *fully* satisfy. On the other hand, managers may anticipate that employees would react negatively if their voice was entirely ignored (Harrison, 1985; Libby, 1999). Therefore, employees' voice is likely to result in managers adopting a higher reference in determining the level of the gift for employees, as compared to when employees have no voice.

By comparison, under a closed information policy, managers' decisions are not observable to employees and, as a result, employees are not able to base their effort choice on the manager's decision. Thus, the need to initiate a gift exchange with employees is not as prominent to managers as under an open information policy. We therefore expect that managers under a closed information policy will not feel pushed to exchange gifts with employees or accommodate employees' preference even when it is known.

To sum up, we predict that managers will allocate more resources to employees when employees have a voice than when employees have no voice, but only under an open information policy. We formally state this in the following hypothesis:

H1b: When allocating resources between owners and employees, managers will allocate more resources to employees when employees can communicate their preferences to managers than when communication is not available, but only under an open information policy.

[5]In fact, when emphasizing the importance of transparency within organizations, Jeff Sutherland, the inventor of the Scrum management methodology, remarks that, 'in my companies, every salary, every financial, every expenditure is available to everyone' (cited in Birkinshaw & Cable, 2017). Advances in information technology have greatly facilitated such intra-organizational information disclosures (Topinka, 2015).

2.3.2. Employees' behavior

While employees may choose their effort levels depending on the resources allocated to them when the allocation decision is observable, they do not have such a decision-making standard when the allocation is not observable. Prior research suggests that, when individuals are not able to discern others' motive, they are likely to give others the benefit of the doubt (Kagel et al., 1996). For example, investors who have no information about firms' earnings management motive tend to take the firm's (questionable) financial reports at face value (Erickson et al., 2017; Koonce et al., 2010). Therefore, when the allocation is not observable, employees might react in a neutral and benign manner. Alternatively, employees might form individual judgments regarding the level of effort they should provide. Due to these potential differences in the basis used for making effort choices, it is difficult to predict *a priori* how the overall effort level will compare between an open information policy and a closed information policy. Hence, we propose the following hypothesis in the null form:

H2a: Employees' effort will not differ between an open information policy and a closed information policy.

Next, we consider the impact of employees' voice on their reaction to managers' allocation decisions. We focus on firms that adopt an open information policy because under a closed information policy, where managers' decisions are not observable, employees do not have a readily available basis for assessing the fairness of the decision. When evaluating decision outcomes, individuals often simplify the evaluation judgment by categorizing possible outcomes into an easy-to-process dichotomy (e.g., 'win' versus 'lose'; 'satisfactory' versus 'unsatisfactory') depending on whether the outcome meets an aspiration level (Schneider, 1992; Siegel, 1957; Simon, 1955, 1959). In our setting, employees are likely to form an aspiration or an entitlement as they communicate their preference to managers and then base their effort choice on whether this communicated level is met. If the allocated resource exceeds the communicated amount, employees may perceive this outcome as satisfying their aspiration or entitlement and react positively. On the other hand, if the allocated resource falls short of the communicated amount, employees may feel that their aspiration or entitlement is violated and react negatively (Nichol, 2019).[6]

Thus, we expect that, after communicating their preferred outcome to managers, employees' subsequent effort choices will primarily depend on whether their preference is satisfied rather than on the absolute level of resources allocated. We formally state this in the following hypothesis:

H2b: When employees have a voice under an open information policy, their effort will be higher than when they have no voice only if the allocated resource equals or exceeds the communicated level.

3. Method

3.1. Experimental Task and Design

We design a two-stage experiment to test our hypotheses. Participants are randomly assigned to one of three roles: the owner, manager, and employee. In stage one, the manager allocates 2000 Lira (an experimental currency which is later converted to cash at 150 Lira = $1) between the owner and employee. The manager is paid a fixed salary of 1200 Lira plus a bonus, which is determined as five percent of the amount allocated to the owner and is deducted from the

[6]While organizational policies (e.g., allowing for employees' voice) that increase employees' aspiration or entitlement might have undesirable effects on the owner, these policies often help improve employees' welfare, which in turn could have a positive long-term effect on the morale of the workforce.

amount allocated to the employee.[7] The three parties' payoff functions in stage one, which are summarized below, are given to all participants as common knowledge.

$$\begin{aligned}\text{Manager's payoff} &= 1200 + 5\% \times (2000 - \text{the amount allocated to the employee})\\ \text{Employee's payoff} &= \text{the amount allocated to the employee}\\ &\quad - 5\% \times (2000 - \text{the amount allocated to the employee})\\ \text{Owner's payoff} &= 2000 - \text{the amount allocated to the employee}\end{aligned}$$

In stage two, the employee is paid a fixed wage of 1000 Lira to perform a production task for the manager by choosing an effort level. Each effort level has a cost for the employee and the cost increases with the effort level. The employee's effort generates a payoff for the owner and manager: the higher the effort, the greater the payoffs for the owner and manager. The three parties' payoff functions in stage two are given below.

$$\text{Employee's payoff} = 1000 - \text{Cost of effort}$$

where: Cost of effort $= (\text{effort})^2$ and effort is chosen from the range $\{0, 1, 2, \ldots, 9, 10\}$.

$$\begin{aligned}\text{Manager's payoff} &= 50 \times \text{Effort}\\ \text{Owner's payoff} &= 10 \times \text{Effort}\end{aligned}$$

Participants are not informed of the exact payoff functions in stage two. Instead, participants are told that the employee's effort level is positively related to the payoffs of the manager and owner, and has a greater impact on the manager's payoff than on the owner's payoff. This design choice minimizes the possibility for participants to achieve any specific payoff distribution, thus enabling our findings to speak to the common organizational settings where the exact impact of individual employees' actions on firm or divisional output is difficult to discern (Douthit & Stevens, 2015; Jones, 1984). The inherent uncertainty in these organizational settings also makes it hard for managers to derive the theoretically 'optimal' solution in the trade-off between long-term and short-term interests (Nilakant & Rao, 1994).

We use a 2×2 between-participant design in which we manipulate two factors in stage one. The first manipulated factor is the openness of the information policy: in one condition, the manager's allocation decision is disclosed to the employee at the end of stage one (i.e., before stage two begins), referred to as the OPEN condition. In the other condition, the employee is never informed of the manager's allocation decision, referred to as the CLOSED condition. The second manipulated factor is whether employees have a voice in resource allocation in stage one: in one condition, employees communicate to the manager the amount that they would like to receive before the manager makes the allocation decision, referred to as the VOICE condition. In the other condition, employees do not make such communication, referred to as the NO-VOICE condition. The amount that the employee communicates to the manager is not binding and the manager can freely decide how to allocate the 2000 Lira between the owner and employee.

[7]The design choice of deducting the manager's bonus from the employee's payoff is analogous to a discretionary allocation of a fixed bonus pool between managers and employees (Rajan & Reichelstein, 2006). For example, the divisions of HCC Industries receive a bonus pool based on divisional profits and the divisional managers decide 'how the pool would be allocated among themselves and the others included' (Emmanuel et al., 1990, p. 465). Abernethy et al. (2020) provide field evidence that department managers of a hospital have discretion in allocating the departmental bonus pool between themselves and their subordinates.

All participants were provided with instructions for both stage one and stage two before they make any decision. From the standard agency theory perspective, the manager's decision making should be independent between the two stages. Specifically, in stage two, a self-interested employee should always choose the lowest effort level, regardless of the manager's allocation decision in stage one. Anticipating this, in stage one the manager should allocate resources so as to maximize their contractual compensation. As discussed earlier, however, we predict that managers expect employees' effort choices to be influenced by their stage-one allocation and, thus, will tailor the allocation decision to inducing employees' reciprocation in stage two.

3.2. Participants and Experimental Procedures

Two hundred and sixty-four undergraduate business students at a U.S. public university participated in our experiment. Participants' average age is 20.4 years and 54 percent are male. The experiment task was computerized using the z-Tree software (Fischbacher, 2007). After reading instructions, participants answered a quiz to ensure that they fully understood the instructions and were not able to proceed until all questions were answered correctly. Then, participants were randomly divided into groups of three, with each group consisting of an owner, a manager, and an employee. Participants remained in the same role throughout the experiment.

Experimental procedures were similar across the four conditions except for the differences in stage one necessitated by our variable manipulation. Specifically, in the VOICE conditions the employee entered the amount that he or she would like to receive, which was transmitted to the manager before making the allocation decision, whereas in the NO-VOICE conditions, the manager made the allocation decision directly. After managers made the allocation decision, employees in the OPEN conditions were informed of the amount allocated to them, whereas employees in the CLOSED conditions were not informed of it. Then, in stage two, employees in all conditions chose their effort level. After the two stages were completed, participants answered a post-experimental questionnaire. Finally, participants were paid in cash (a five-dollar participation fee plus experimental earnings) and dismissed. The average participant payoff was $15.

4. Results

Table 1 presents descriptive statistics for all experimental conditions. Notably, while standard economic theory would predict that managers allocate zero Lira to the employee, the average amount allocated to employees is significantly higher ($p < 0.001$) than zero in all four conditions.[8] Because the normality assumption is violated in our data (Shapiro–Wilk test: p values ≤ 0.001), we use ranked data (except for employees' effort levels) in the main analyses. Our main dependent variables are the amount that the manager allocated to the employee in stage one, labeled *Allocation-employee*, and employees' effort choice in stage two, labeled *Effort*. Our main independent variables are a dummy variable which equals one for the OPEN condition and zero for the CLOSED condition, labeled *Openness*, and a dummy variable which equals one for the VOICE condition and zero for the NO-VOICE condition, labeled *Voice*.

4.1. Tests of H1a and H1b

H1a and H1b focus on managers' decision making. H1a predicts that managers will allocate more resources to employees under an open information policy than under a closed information

[8]The p values reported in this section are two-tailed unless otherwise specified.

Table 1. Descriptive statistics.

Panel A: The mean and [s.d.] of *Allocation-employee*

		Openness of information policy	
		OPEN	CLOSED
Employees' voice	VOICE	1109 [373] $N = 22$	783 [376] $N = 21$
	NO VOICE	952 [381] $N = 21$	721 [451] $N = 24$

Panel B: The allocation-adjusted mean and [s.d.] of *Effort*

		Openness of information policy	
		OPEN	CLOSED
Employees' voice	VOICE	3.6 [1.2] $N = 22$	4.9 [1.0] $N = 21$
	NO VOICE	3.2 [1.1] $N = 21$	4.5 [0.9] $N = 24$

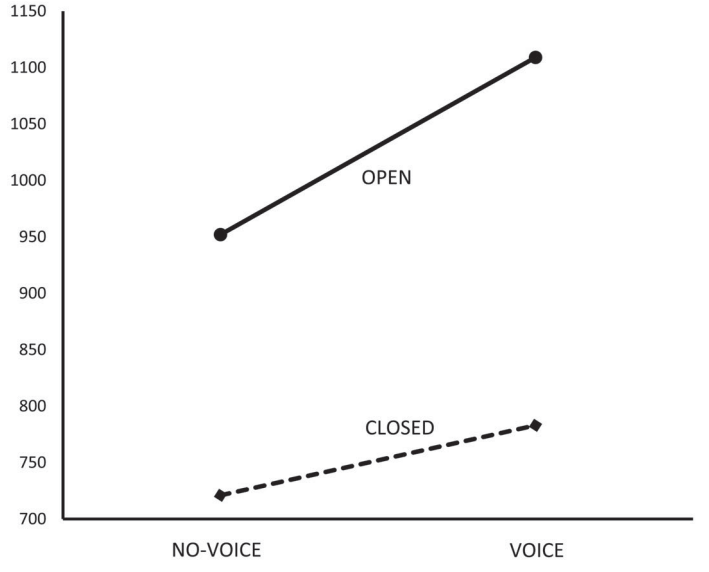
Notes: *Allocation-employee* = the amount of resources allocated by the manager to the employee. *Effort* = the effort level chosen by the employee. In Panel B, the mean of *Effort* is adjusted for *Allocation-employee*.
In the OPEN condition, employees observe managers' resource allocation decisions before making an effort choice.
In the CLOSED condition, employees do not learn managers' resource allocation decisions before making an effort choice.
In the VOICE condition, employees communicate to managers the amount that they would like to receive before managers make the resource allocation decision.
In the NO-VOICE condition, employees do not communicate to managers the amount that they would like to receive before managers make the resource allocation decision.

policy. H1b predicts that managers will allocate more resources to employees when employees have a voice than when employees have no voice, but only under an open information policy. Panel A of Figure 1 depicts the mean *Allocation-employee* by condition. A visual inspection of the figure suggests that, consistent with our theory, *Allocation-employee* is higher under VOICE than under NO-VOICE in the OPEN condition, but this difference is less pronounced in the CLOSED condition. Because H1a predicts a main effect of *Openness* and H1b predicts an ordinal interaction effect between *Openness* and *Voice* on *Allocation-employee*, the appropriate statistical test is a contrast analysis (Buckless & Ravenscroft, 1990; Guggenmos et al., 2018).

We conduct a series of contrast analyses to test H1a and H1b. To provide a general picture of the pattern of our data, we first conduct an omnibus contrast test with the weights of $+3$ for the OPEN/VOICE condition, $+1$ for the OPEN/NO-VOICE condition, and -2 for the CLOSED/VOICE and CLOSED/NO-VOICE conditions.[9] As reported in Panel A of Table 2, this contrast model is statistically significant ($p < 0.001$), suggesting that the overall pattern of the experimental results is consistent with our predictions. The residual variance not captured by this omnibus contrast is not significant ($p = 0.316$), indicating that our contrast model provides a good explanation for the data.

[9]These contrast weights are consistent with our ordinal interaction prediction that combines a main effect (H1a) and an interaction effect (H1b).

Panel A: *Allocation-employee*



Panel B: *Intention*

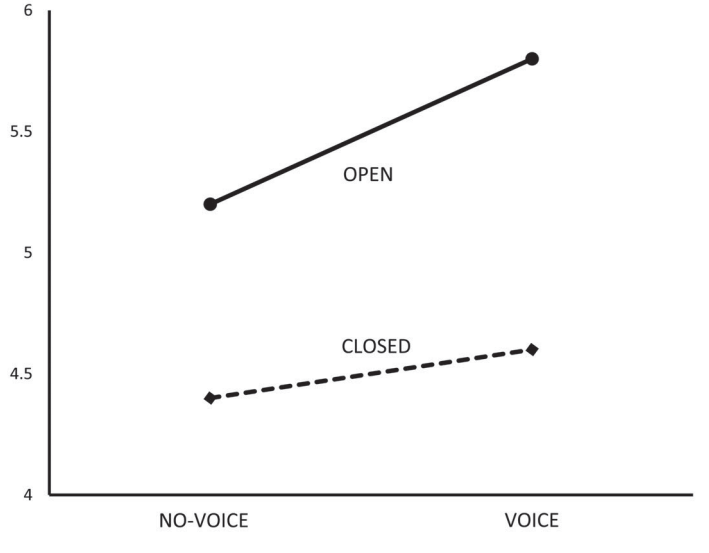


Figure 1. The mean *Allocation-employee* and *Intention* by condition.
Notes: *Allocation-employee* = the amount of resources allocated by the manager to the employee. *Intention* is the average of participants' ratings of the extent to which they agree with the following three statements: (1) 'I made the allocation decision with the purpose of influencing the employee's work level choice in stage two;' (2) 'I wanted to employee to pay attention to my allocation to him/her'; (3) 'If I made the allocation decision in favor of the employee in stage one, the employee would choose a higher work level in stage two.' Participants give a rating on a seven-point Likert scale where 1 = Strongly disagree and 7 = Strongly agree. In the OPEN condition, employees observe managers' resource allocation decisions before making an effort choice. In the CLOSED condition, employees do not learn managers' resource allocation decisions before making an effort choice. In the VOICE condition, employees communicate to managers the amount that they would like to receive before managers make the resource allocation decision. In the NO-VOICE condition, employees do not communicate to managers the amount that they would like to receive before managers make the resource allocation decision.

Table 2. Results of tests of H1a and H2a.

Panel A: Omnibus Contrast [+3 + 1 −2 −2] (Dependent variable = *Allocation-employee*)

	SS	df	MS	F-statistic	*p*-value
The contrast model	11445	1	11445	22.13	< 0.001
Error	43441.44	84	517.16		
Test of unexplained residual variance				1.17	0.316

Panel B: Contrast [+2 + 2 −2 −2] (Dependent variable = *Allocation-employee*)

	SS	df	MS	F-statistic	*p*-value
The contrast model	9403.67	1	9463.07	18.18	< 0.001
Error	43441.44	84	517.16		
Test of unexplained residual variance				3.14	0.048

Panel C: Contrast [+1 −1 0 0] (Dependent variable = *Allocation-employee*)

	SS	df	MS	F-statistic	*p*-value
The contrast model	2013.77	1	2013.77	3.89	0.052
Error	43441.44	84	517.16		
Test of unexplained residual variance				2.39	0.126

Notes: *Allocation-employee* = the amount of resources allocated by the manager to the employee.
In all three panels, the contrast weights are assigned to the OPEN/VOICE condition, the OPEN/NO-VOICE condition, the CLOSED/VOICE condition, and the CLOSED/NO-VOICE condition, respectively. *P*-values are two-tailed.
See notes to Table 1 for the definitions of other variables.

Then, we decompose this omnibus contrast into two orthogonal contrasts to examine the specific predictions in H1a and H1b, respectively. The first contrast uses the weights of +2 for OPEN/VOICE, +2 for OPEN/NO-VOICE, and −2 for CLOSED/VOICE and CLOSED/NO-VOICE. As shown in Panel B of Table 2, consistent with H1a, this contrast is statistically significant ($p < 0.001$), suggesting that managers allocate more resources to employees in the OPEN condition than in the CLOSED condition. However, the residual variance not captured by the contrast is significant ($p = 0.048$), indicating that this contrast does not sufficiently explain the variation in our data. We follow up with a second contrast using the weights of +1 for OPEN/VOICE, −1 for the OPEN/NO-VOICE, and 0 for CLOSED/VOICE and CLOSED/NO-VOICE. As shown in Panel C of Table 2, this contrast is statistically significant ($p = 0.052$), suggesting that, consistent with H1b, employees' voice increases managers' allocation but only under an open information policy. Importantly, this contrast reduces the residual variance left from the first contrast to a non-significant level ($p = 0.126$), indicating that it explains a significant proportion of the variation in our data that cannot be explained by the first contrast. Put together, the results of our analyses support H1a and H1b.

To shed light on the reference points that managers use to determine the level of the gift for employees, in the post-experimental questionnaire we ask manager-participants to indicate the fair amount that they think should be allocated to the employee, labeled *Manager_fair_amount*. We find that *Manager_fair_amount* is significantly higher ($t_{86} = 2.24$; $p = 0.028$) in the OPEN condition than in the CLOSED condition and is significantly higher ($t_{86} = 2.17$; $p = 0.032$) under VOICE than under NO-VOICE. These findings are consistent with our theory, suggesting that decision transparency and employees' voice increase managers' reference point for the level of the gift for employees.

4.1.1. Managers' gift-exchange intentions

We conduct additional analyses to further understand managers' decision processes. First, we investigate the extent to which managers intend to use their discretion in resource allocation to initiate gift exchange with employees. In the post-experimental questionnaire we ask manager-participants to indicate their agreement with the following three statements: 'I made the allocation decision with the purpose of influencing the employee's work level choice in stage two,' 'I wanted the employee to pay attention to my allocation to him/her,' and 'If I made the allocation decision in favor of the employee in stage one, the employee would choose a higher work level in stage two,' on a Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). We create a variable, labeled *Intention*, using the mean of these three ratings (Cronbach's $\alpha = 0.80$).[10] Panel B of Figure 1 depicts the mean *Intention* by condition. The figure reveals that *Intention* is higher under VOICE than under NO-VOICE in the OPEN condition and this difference is smaller in the CLOSED condition.

To examine *Intention* across conditions, we employ the same set of contrast analyses as in the tests of H1a and H1b. In Panel A of Table 3, an omnibus contrast shows that the overall pattern of *Intention* is consistent with our theory ($p < 0.001$), with non-significant unexplained residual variance ($p = 0.771$). We then decompose the omnibus contrast into two orthogonal contrasts. As shown in Panel B and C of Table 3, the first contrast ($[+2 + 2 \ -2 \ -2]$) is significant ($p = 0.001$) and the second contrast ($[+1 \ -1 \ 0 \ 0]$) is approaching conventional significance levels ($p = 0.117$). The residual variance not explained by the first contrast is non-significant ($p = 0.227$), suggesting that *Openness* has a major influence on *Intention*. Nonetheless, using Guggenmos et al.'s (2018) q-squared procedure, we find that the unexplained residual variance of the first contrast (0.20) can be further reduced by combining the two orthogonal contrasts (0.03), suggesting that the combination increases predictive power. These results are generally in line with our theory.

Moreover, we test whether *Intention* mediates the effect of employees' voice on managers' allocation decisions, conditional on the openness of the information policy. We conduct a structural-equations-based path analysis to simultaneously examine the relationships among these variables. The results are presented in Figure 2. The model exhibits a good fit with the data, as evidenced by a non-significant chi-squared Likelihood Ratio test ($p = 0.716$), a CFI of 1.00, and an SRMR of 0.01.[11] Consistent with our theory, there is a significantly positive relationship between employees' voice and *Intention* ($p = 0.041$, Link 1) under an open information policy, but this relationship is not significant ($p = 0.678$, Link 1) under a closed information policy. These results suggest that managers' intention to exchange gifts with employees mediates the effect of learning employees' preferences on their allocation decision, but only when the allocation decision is observable to employees. This mediation effect provides support for our theory that transparency and voice influence managers' short-term versus long-term tradeoff by shifting their attention to long-term considerations. Further, under both open and closed information policies, there is a significantly positive relationship between *Intention* and *Allocation-employee* (p-values ≤ 0.013, Link 2), providing reassurance that our *Intention* measure captures managers' thought process.

[10] A factor analysis shows that these three items load on a single factor (Eigenvalue = 2.16; proportion explained = 72%; rotated factor loadings > 0.74). The mean *Intention* is 5.8 in OPEN/VOICE, 5.2 in OPEN/NO-VOICE, 4.6 in CLOSED/VOICE, and 4.4 in CLOSED/NO-VOICE.

[11] A model is considered a good fit for the data if CFI is equal to or higher than 0.95 and SRMR is equal to or lower than 0.08 (Hu & Bentler, 1999; Kline, 2016).

Table 3. Managers' gift-exchange intentions.

Panel A: Omnibus Contrast [+ 3 + 1 − 2 − 2] (Dependent variable = *Intention*)					
	SS	df	MS	*F*-statistic	*p*-value
The contrast model	7761	1	7761	13.50	< 0.001
Error	48295.96	84	574.95		
Test of unexplained residual variance				0.26	0.771
Panel B: Contrast [+ 2 + 2 − 2 − 2] (Dependent variable = *Intention*)					
	SS	df	MS	*F*-statistic	*p*-value
The contrast model	6321.09	1	6321.09	10.99	0.001
Error	48295.96	84	574.95		
Test of unexplained residual variance				1.51	0.227
Panel C: Contrast [+ 1 − 1 0 0] (Dependent variable = *Intention*)					
	SS	df	MS	*F*-statistic	*p*-value
The contrast model	1439.16	1	1439.16	2.50	0.117
Error	48295.96	84	574.95		
Test of unexplained residual variance				0.58	0.447

Notes: *Intention* is the average of participants' ratings of the extent to which they agree with the following three statements: (1) 'I made the allocation decision with the purpose of influencing the employee's work level choice in stage two;' (2) 'I wanted to employee to pay attention to my allocation to him/her;' (3) 'If I made the allocation decision in favor of the employee in stage one, the employee would choose a higher work level in stage two.' Participants give a rating on a seven-point Likert scale where 1 = Strongly disagree and 7 = Strongly agree.
In all three panels, the contrast weights are assigned to the OPEN/VOICE condition, the OPEN/NO-VOICE condition, the CLOSED/VOICE condition, and the CLOSED/NO-VOICE condition, respectively. *P*-values are two-tailed.
See notes to Table 1 for the definitions of other variables.

4.1.2. Managers' impression concerns

The experimental results are consistent with our theory that, under an open information policy, managers use the resources allocated to employees as a gift and expect employees to reciprocate with high effort. However, there is a possible alternative explanation: compared to the CLOSED condition, managers in the OPEN condition may not allocate more resources to employees because they want to initiate a gift exchange but rather because they care about whether the allocation looks fair to employees (i.e., an impression concern). To address this issue, we design a supplemental condition, which is the same as the OPEN/NO-VOICE condition except that employees observe the allocation decision *after* they choose the effort level. Now managers cannot use the allocation decision as a signal of a gift, but if they do care about employees' impression of how fair they are, the allocation to employees should remain the same as in the OPEN/NO-VOICE condition.

We find that the amount allocated to employees in the supplemental condition (720) is not significantly different ($t_{45} = 0.27$; $p = 0.790$) from that in the CLOSED/NO-VOICE condition (721) but is significantly lower ($t_{42} = 2.24$; $p = 0.031$) than that in the OPEN/NO-VOICE condition (952). We also find that managers' intention to initiate gift exchanges in the supplemental condition does not differ ($t_{45} = 0.17$; $p = 0.867$) from that in the CLOSED/NO-VOICE condition but is significantly lower ($t_{42} = 1.96$; $p = 0.056$) than that in the OPEN/NO-VOICE condition. These results suggest that impression concerns cannot explain the observed patterns of managers' allocation decisions, lending credence to our theory.

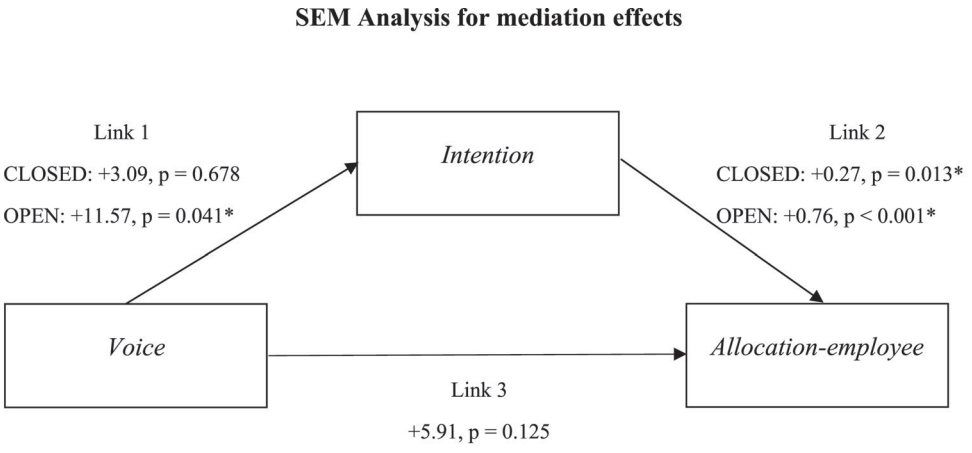


Figure 2. SEM Analysis for mediation effects.
Notes: This model presents a path analysis that simultaneously tests the relationship between *Voice*, *Openness*, *Intention*, and *Allocation-employee*. We report the path coefficient and corresponding *p*-value (an asterisk indicates a one-tailed test) for each path. The model provides a good fit for the data, as evidenced by a non-significant chi-squared Ratio test ($p = 0.716$), a Comparative Fit Index (CFI) of 1.00, and a Standardized Root Mean Square Residual (SRMR) of 0.01. *Openness* = one for the OPEN condition and zero for the CLOSED condition. *Voice* = one for the VOICE condition and zero for the NO-VOICE condition. *Intention* is the average of participants' ratings of the extent to which they agree with the following three statements: (1) 'I made the allocation decision with the purpose of influencing the employee's work level choice in stage two;' (2) 'I wanted to employee to pay attention to my allocation to him/her'; (3) 'If I made the allocation decision in favor of the employee in stage one, the employee would choose a higher work level in stage two.' Participants give a rating on a seven-point Likert scale where 1 = Strongly disagree and 7 = Strongly agree. *Allocation-employee* = the amount of resources allocated by the manager to the employee.

4.2. Tests of H2a and H2b

H2a and H2b focus on employees' behavior. H2a is a null hypothesis that employees' effort will not differ between open and closed information policies. As reported in Panel A of Table 4, a Tobit regression finds that the overall effort level is significantly lower ($p = 0.054$) in the OPEN condition than in the CLOSED condition, suggesting that an open information policy actually makes managers worse off despite their endeavor to exchange gifts with employees.[12] Thus, H2a is not supported. In the post-experimental questionnaire, we ask employee-participants to indicate the amount of allocation they perceive to be fair.[13] We find that the effort level chosen by employees who received *no less than* their perceived fair amount in the OPEN condition ($n = 25$, mean = 4.0) does not significantly differ ($t_{69} = 1.19$; $p = 0.237$) from the effort level in the CLOSED condition ($n = 45$, mean = 4.8).[14] By comparison, the effort level chosen by employees who received *less than* their perceived fair amount in the OPEN condition ($n = 17$, mean = 2.9) is significantly lower ($t_{61} = 2.11$; $p = 0.039$) than the effort level in the CLOSED condition ($n = 45$, mean = 4.8). These results suggest that the lower overall effort in the OPEN

[12]We use Tobit regression because the dependent variable, effort, is a censored value.
[13]One employee-participant in the OPEN/NO-VOICE condition did not turn in the post-experimental questionnaire, so the analysis related to employees' perceived fair amount does not include this participant.
[14]To shed light on why effort level is relatively high in the CLOSED condition, we note that, while employees' perceived fair amount does not significantly differ ($p = 0.433$) between the OPEN and CLOSED conditions, they have no information as to whether managers gave them the fair amount in the CLOSED condition. Therefore, as discussed earlier, employees might give managers the benefit of the doubt. Consistent with this reasoning, we find that employees' rating on the post-experimental item, 'I treated the manager fairly in stage two,' is marginally significantly higher ($p = 0.108$) in the CLOSED condition than in the OPEN condition.

Table 4. Results of tests of H2a and H2b.

Panel A: Tobit Regression (Dependent variable = *Effort*)

Independent variable	Coefficient	df	*t*-statistic	*p*-value
Openness	− 2.00	87	− 1.95	0.054

Panel B: Tobit Regression (Dependent variable = *Effort*)

Independent variable	Coefficient	df	t-statistic	*p*-value
Allocation-employee	− 0.003	20	− 1.10	0.285
Satisfy	4.59	20	2.09	0.049

Panel C: Tobit Regression (Dependent variable = *Effort*)

	Employees who received no less than the communicated amount in the OPEN/VOICE condition vs. all employees in the OPEN/NO-VOICE condition				Employees who received less than the communicated amount in the OPEN/VOICE condition vs. all employees in the OPEN/NO-VOICE condition			
	Coefficient	df	*t*-stat	*p*-value	Coefficient	df	*t*-stat	*p*-value
Allocation-employee	0.002	28	0.81	0.425	0.002	32	1.19	0.242
Voice	3.26	28	1.54	0.068*	0.46	32	0.31	0.759

Notes: *Allocation-employee* = the amount of resources allocated by the manager to the employee.
Openness = one for the OPEN condition and zero for the CLOSED condition.
Satisfy equals to one if *Allocation-employee* is higher than or equal to the communicated amount and zero otherwise.
Voice = one for the VOICE condition and zero for the NO-VOICE condition.
An asterisk indicates a one-tailed *p* value for the test of a directional prediction.
See notes to Table 1 for the definitions of other variables.

condition (as compared to the CLOSED condition) is likely driven by the negative reaction of employees who received less than their perceived fair amount.

H2b predicts that, when employees have a voice under an open information policy, their effort will be higher than when they have no voice only if the allocated resource equals or exceeds the communicated amount. Controlling for *Allocation-employee*, a Tobit regression shows that the overall effort level does not significantly differ ($t_{41} = 1.11$; $p = 0.271$) between the OPEN/VOICE and OPEN/NO-VOICE conditions. We further examine whether employees in the OPEN/VOICE condition react differently depending on whether their communicated preference is satisfied. We create a dummy variable, labeled *Satisfy*, which equals one if *Allocation-employee* is higher than or equal to the communicated amount and zero otherwise. As reported in Panel B of Table 4, a Tobit regression of effort on *Allocation-employee* and *Satisfy* finds that *Satisfy* is significantly positive ($p = 0.049$) whereas *Allocation-employee* is not significant ($p = 0.285$). Consistent with our theory, these results suggest that, when employees have a voice, they base effort decisions on whether their preference is satisfied rather than on the absolute amount allocated. Moreover, we calculate the difference of the communicated amount minus the amount allocated to the employee, labeled *Deviation*. We find that effort is negatively correlated with *Deviation* ($r = -0.46$; $p = 0.031$), suggesting that employees choose lower effort the more the allocation deviates from their preference.

We then divide employees in the OPEN/VOICE condition into two subsamples, *Satisfied* and *Unsatisfied*, based on whether they receive at least their desired amount. As shown in Panel C of Table 4, controlling for *Allocation-employee*, the effort level of *Satisfied* employees is marginally significantly higher ($p = 0.068$, one-tailed) than the effort level in the OPEN/NO-VOICE

condition, whereas the effort level of *Unsatisfied* employees is not significantly different ($p = 0.759$) from that in the OPEN/NO-VOICE condition. Taken together, these results support H2b, suggesting that communication only increases employees' effort if managers satisfied employees' preference.[15]

4.3. Procedural Fairness

As discussed earlier, organizations encourage decision transparency and employees' voice in order to promote procedural fairness. To examine whether these arrangements influence perceived procedural fairness in our setting, we collect additional data from Prolific, an online research platform (Palan & Schitter, 2018). In this online study, participants are randomly divided into four groups and, respectively, read materials similar to the experimental instructions used in the four conditions of the main experiment (without taking part in the experiment). Then, participants rate their agreement with the statement, 'I think the procedures used for making the allocation decision are fair for the employee,' on a seven-point scale (1 = Strongly Disagree and 7 = Strongly Agree).

A two-way ANOVA shows that the fairness rating is significantly higher ($F_{1,76} = 3.83$, $p = 0.054$) in the OPEN condition (4.2) than in the CLOSED condition (3.4), suggesting that an open information policy increases perceived procedural fairness. On the other hand, the fairness rating does not significantly differ ($F_{1,76} = 0.01$, $p = 0.908$) between VOICE (3.8) and NO-VOICE (3.9) conditions. A possible reason is that participants perceive the opportunity for employees to voice their preference as 'pseudo-participation,' as employees' voice may not be considered in managers' decision making (Libby, 1999; Pasewark & Welker, 1990). To further explore this issue, we conduct another online condition, which is the same as the CLOSED/VOICE online condition except for one modification of the experimental instructions: after the employee makes the request, the manager will allocate the requested amount to the employee. Consistent with our conjecture, the fairness rating is significantly higher ($t_{38} = 1.85$, $p = 0.072$) in this new condition (4.3) than in the CLOSED/VOICE online condition (3.3). Interestingly, this finding is consistent with the results of the main experiment that, once employees voice their preference, they will assess the allocation decision based on whether their preference is satisfied. Overall, the results of our online experiment suggest that simply allowing for employees' voice may not be sufficient to improve perceived procedural fairness because fairness perceptions are more influenced by the actual impact of the voice on managers' decisions.

5. Conclusion

In hierarchical organizations, managers may act as both an agent for owners and a principal for employees. To fulfill their dual roles, managers need to balance the firm's long-term and short-term interests. We focus on organizational settings where managers need to distribute limited resources between employees' compensation program, which influences employees' morale in the long run, and business projects that boost owners' current-period return. We conduct a laboratory experiment to investigate whether managers' resource-allocation decisions are influenced

[15]For completeness, we compare owners' total payoff across conditions. Owners' total payoff is significantly lower ($t_{86} = 4.57$; $p < 0.001$) under an open information policy (1003) than under a closed information policy (1298). Furthermore, owners' total payoff is marginally significantly lower ($t_{41} = 1.68$; $p = 0.101$) when employees have a voice (933) than when they have no voice (1077) under an open information policy, but does not significantly differ ($t_{43} = 1.11$; $p = 0.274$) between voice and no voice (1263 vs 1329) under a closed information policy. However, these results should be interpreted with caution because they may be subject to the influences of contextual factors such as the specific structure of agency relationships and the choice of parameters.

by the observability of the allocation decision to employees and employees' ability to communicate their personal preferences to managers. We also examine employees' effort responses to managers' allocation decisions.

As predicted, we find that managers allocate more resources to employees when the allocation decision is observable to employees than when it is not observable. Moreover, when the allocation decision is observable, managers allocate more resources to employees when employees have an opportunity to communicate their preferred allocation outcome to managers than when communication is not available, but this effect is attenuated when the allocation decision is unobservable. Consistent with our theory, managers' intention to initiate gift exchanges with employees underlies these results. Supplemental data suggest that our results are not attributable to managers' concerns about employees' impressions of the fairness of their allocation. We also find that, when the allocation decision is observable, employees react negatively if the allocation does not meet their perceived fair amount. When employees have a voice, their effort choices largely depend on whether the communicated preference is satisfied rather than on the absolute amount allocated. In addition, we find that whether the communicated preference is satisfied has a pronounced effect on employees' perceptions of procedural fairness.

Our study significantly extends the accounting literature on managerial behavior in multi-level organizations. Our results suggest that, when managers are charged with the responsibility for balancing the firm's long-term and short-term interests, their decision may be influenced by the contextual features of the task environment. More importantly, we show that organizational policies that promote procedural justice may have spillover effects on managers' behavior, making them more inclined to allocate resources toward accommodating employees' needs. These findings provide useful insight for updating managers' decision model and improving its predictive power. Our study also has important implications for management control practices. To the extent that managers' dual roles may interactively affect their decisions, owners need to be aware of these effects and adjust control systems accordingly to maximize their overall benefits.

Some limitations of this study could be addressed in future research. In stage one of the experiment, we let the manager's bonus be deducted from the employee's payoff to mimic organizational settings where a fixed divisional bonus pool is divided between the manager and other employees. However, this payoff structure could appear unfair to employees and, in turn, influence their effort choices. Future research can explore the potential effects of compensation schemes and relative payoffs on employees' behavior in hierarchical organizations. We focus on a single-period setting where participants in different roles interact only once; yet in practice individuals at different hierarchical levels may interact repeatedly and, thus, their decision making may be influenced by reputation concerns. It would be interesting to investigate how individuals' behavior may change in multi-period settings with periodic feedback and opportunities for renegotiation and/or re-contracting. For example, we find that employees react negatively if the manager's allocation does not meet the level they perceive as fair or desire to receive. Future research can examine whether, in multi-period settings, managers may learn these effects over time and adjust allocation decisions accordingly to induce higher effort. Our supplemental laboratory experiment suggests that our main results are not likely to be caused by managers' impression concerns and our supplemental online experiment provides insight into how transparency and voice influences employees' perception of procedural fairness. However, these results need to be interpreted with caution because the supplemental experiments are conducted separately from the main experiment and do not fully satisfy the random assignment assumption.

In our experiment, the fact that the manager is unable to impose formal controls over the employee's effort choice (i.e., the manager and employee interact in an incomplete contracting environment) may contribute to the manager's tendency to satisfy the employee's expectation

under an open information policy. While incomplete contracts are commonplace in organizations, future research can explore whether managers' decision might be different if some sort of controls could be implemented over employees' behavior. However, to the extent that formal controls are costly, whether such controls (if possible) are in owners' best interest may be an empirical question, and the answer to this question may vary across organizations. Because our study focuses on managers' trade-offs between the firm's long-term and short-term interests, we do not examine owners' attitude toward these trade-offs (e.g., whether owners prefer increasing current return or increasing employees' compensation for long-term benefits). However, this issue is important because owners' attitude influences the firm's policy making and control effectiveness. Future research can investigate how owners' attitude may differ from managers' and how such differences affect managers' decision making, especially when owners and managers have conflicting interests. Despite these potential limitations, the findings of our study make significant contributions to the research literature on multi-level agency and also have important implications for management control practices. The issues discussed above provide ample avenues for future research.

Acknowledgements

We thank Victor Maas (Editor), two anonymous reviewers, Jeremy Douthit, Krista Fiolleau, Kun Huo, Khim Kelly, Matthias Mahlendorf, Michael Majerczyk, Steve Smith, and workshop participants at the AAA Annual Meeting, MAS Midyear Meeting, ABO Midyear Meeting, AAA Southeast Region Meeting, the 22nd Annual Ethics Research Symposium, and the 9th Conference on Performance Measurement and Management Control for helpful comments. We are grateful for the support of the National Natural Science Foundation of China (71902128) and the Cecil B. Day Program for Business Ethics at Scheller College of Business, Georgia Tech. Additional materials are available in an Online Supplement at the journal's Taylor and Francis website.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Supplemental Data and Research Materials

Supplemental data for this article can be accessed on the Taylor & Francis website, https://doi.org/10.1080/09638180.2021.1896370

References

Abernethy, M. A., Bouwens, J., & van Lent, L. (2013). The role of performance measures in the intertemporal decisions of business unit managers. *Contemporary Accounting Research*, *30*(3), 925–961. https://doi.org/10.1111/j.1911-3846.2012.01178.x

Abernethy, M. A., Hung, C. Y., & van Lent, L. (2020). Expertise and discretionary bonus decisions. *Management Science*, *66*(1), 415–432. https://doi.org/10.1287/mnsc.2018.3172

Abowd, J. M. (1989). The effect of wage bargains on the stock market value of the firm. *American Economic Review*, *79*(4), 774–800.

Ahrens, T., & Chapman, C. S. (2004). Accounting for flexibility and efficiency: A field study of management control systems in a restaurant chain. *Contemporary Accounting Research*, *21*(2), 271–301. https://doi.org/10.1506/VJR6-RP75-7GUX-XH0X

Ambrose, M. L., & Schminke, M. (2003). Organization structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust. *Journal of Applied Psychology*, *88*(2), 295–305. https://doi.org/10.1037/0021-9010.88.2.295

Anderson, C., & Brown, C. E. (2010). The functions and dysfunctions of hierarchy. *Research in Organizational Behavior*, *30*, 55–89. https://doi.org/10.1016/j.riob.2010.08.002

Balogun, J. (2003). From blaming the middle to harnessing its potential: Creating change intermediaries. *British Journal of Management*, *14*(1), 69–83. https://doi.org/10.1111/1467-8551.00266

Benmelech, E., Bergman, N. K., & Enriquez, R. J. (2012). Negotiating with labor under financial distress. *The Review of Corporate Finance Studies*, *1*(1), 28–67. https://doi.org/10.1093/rcfs/cfr001

Birkinshaw, J., & Cable, D. (2017, February). The dark side of transparency. *McKinsey Quarterly*, 88–95.

Brochet, F., Loumioti, M., & Serafeim, G. (2015). Speaking of the short-term: Disclosure horizon and managerial myopia. *Review of Accounting Studies*, *20*(3), 1122–1163. https://doi.org/10.1007/s11142-015-9329-8

Buckless, F. A., & Ravenscroft, S. P. (1990). Contrast coding: A refinement of ANOVA in behavioral analysis. *Accounting Review*, 933–945.

Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review*, *73*(3), 305–333.

Bushee, B. J. (2001). Do institutional investors prefer near-term earnings over long-run value? *Contemporary Accounting Research*, *18*(2), 207–246. https://doi.org/10.1506/J4GU-BHWH-8HME-LE0X

Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993). Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personnel Psychology*, *46*(4), 823–847. https://doi.org/10.1111/j.1744-6570.1993.tb01571.x

Cardinaels, E., Dierynck, B., & Zhang, X. (2018). *Managing identities in multi-tier organizations: The joint effect of social distance and social value orientation on budget reporting*. (Working paper). Tilburg University and Cornell University.

Chapman, C. S., & Kihn, L. A. (2009). Information system integration, enabling control and performance. *Accounting, Organizations and Society*, *34*(2), 151–169. https://doi.org/10.1016/j.aos.2008.07.003

Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, *28*(2-3), 127–168. https://doi.org/10.1016/S0361-3682(01)00027-7

Chiang, F. F., & Birtch, T. (2007). The transferability of management practices: Examining cross-national differences in reward preferences. *Human Relations*, *60*(9), 1293–1330. https://doi.org/10.1177/0018726707082849

Cho, T. S., & Hambrick, D. C. (2006). Attention as the mediator between top management team characteristics and strategic change: The case of airline deregulation. *Organization Science*, *17*(4), 453–469. https://doi.org/10.1287/orsc.1060.0192

Chung, R., Lee, B. B., Lee, W., & Sohn, B. C. (2016). Do managers withhold good news from labor unions? *Management Science*, *62*(1), 46–68. http://dx.doi.org/10.1287/mnsc.2014.2075

Colella, A., Paetzold, R. L., Zardkoohi, A., & Wesson, M. J. (2007). Exposing pay secrecy. *Academy of Management Review*, *32*(1), 55–71. https://doi.org/10.5465/amr.2007.23463701

Collier, J., & Esteban, R. (1999). Governance in the participative organisation: Freedom, creativity and ethics. *Journal of Business Ethics*, *21*(2-3), 173–188. https://doi.org/10.1023/A:1006250627410

Crilly, D. (2017). Time and space in strategy discourse: Implications for intertemporal choice. *Strategic Management Journal*, *38*(12), 2370–2389. https://doi.org/10.1002/smj.2687

Cropanzano, R., Bowen, D. E., & Gilliland, S. W. (2007). The management of organizational justice. *Academy of Management Perspectives*, *21*(4), 34–48. https://doi.org/10.5465/amp.2007.27895338

Cropanzano, R., Prehar, C. A., & Chen, P. Y. (2002). Using social exchange theory to distinguish procedural from interactional justice. *Group & Organization Management*, *27*(3), 324–351. https://doi.org/10.1177/1059601102027003002

Currall, S. C., Towler, A. J., Judge, T. A., & Kohn, L. (2005). Pay satisfaction and organizational outcomes. *Personnel Psychology*, *58*(3), 613–640. https://doi.org/10.1111/j.1744-6570.2005.00245.x

DeAngelo, H., & DeAngelo, L. (1991). Union negotiations and corporate policy: A study of labor concessions in the domestic steel industry during the 1980s. *Journal of Financial Economics*, *30*(1), 3–43. http://dx.doi.org/10.1016/0304-405X(91)90025-F

Demski, J. (2013). *Managerial uses of accounting information*. Springer Science & Business Media.

Demski, J. S., & Sappington, D. E. (1989). Hierarchical structure and responsibility accounting. *Journal of Accounting Research*, *27*(1), 40–58. https://doi.org/10.2307/2491206

Douthit, J. D., & Stevens, D. E. (2015). The robustness of honesty effects on budget proposals when the superior has rejection authority. *The Accounting Review*, *90*(2), 467–493. https://doi.org/10.2308/accr-50937

Emmanuel, C., Otley, D., & Merchant, K. (1990). *Accounting for management control* (2nd ed.). Springer-Science + Business Media, BV.

Erickson, D., Hewitt, M., & Maines, L. A. (2017). Do investors perceive low risk when earnings are smooth relative to the volatility of operating cash flows? *Discerning Opportunity and Incentive to Report Smooth Earnings. The Accounting Review*, *92*(3), 137–154. http://dx.doi.org/10.2308/accr-51568

Ethisphere and Jones Lang LaSalle. (2011). Survey on the influence of workplace design and practices on the ethical environment. Retrieved September 2016, from https://www.jll.com/Documents/csr/Workplace-design-and-practices-on-the-ethical-environment.pdf

Evans III, J. H., Moser, D. V., Newman, A. H., & Stikeleather, B. R. (2016). Honor among thieves: Open internal reporting and managerial collusion. *Contemporary Accounting Research*, *33*(4), 1375–1402. https://doi.org/10.1111/1911-3846.12181

Falk, A., & Fischbacher, U. (2006). A theory of reciprocity. *Games and Economic Behavior*, *54*(2), 293–315. https://doi.org/10.1016/j.geb.2005.03.001

Farrell, A. M., Kadous, K., & Towry, K. L. (2012). Does the communication of causal linkages improve employee effort allocations and firm performance? An experimental investigation. *Journal of Management Accounting Research*, *24*(1), 77–102. https://doi.org/10.2308/jmar-50149

Farrell, A. M., Luft, J., & Shields, M. D. (2007). Accuracy in judging the nonlinear effects of cost and profit drivers. *Contemporary Accounting Research*, *24*(4), 1139–1169. https://doi.org/10.1506/car.24.4.4

Fehr, E., & Gächter, S. (2000). Fairness and retaliation: The economics of reciprocity. *Journal of Economic Perspectives*, *14*(3), 159–182. https://doi.org/10.1257/jep.14.3.159

Fehr, E., Gächter, S., & Kirchsteiger, G. (1997). Reciprocity as a contract enforcement device: Experimental evidence. *Econometrica: Journal of the Econometric Society*, *65*(4), 833–860. https://doi.org/10.2307/2171941

Fehr, E., Goette, L., & Zehnder, C. (2009). A behavioral account of the labor market: The role of fairness concerns. *Annual Review of Economics*, *1*(1), 355–384. https://doi.org/10.1146/annurev.economics.050708.143217

Fehr, E., Kirchsteiger, G., & Riedl, A. (1993). Does fairness prevent market clearing? An experimental investigation. *The Quarterly Journal of Economics*, *108*(2), 437–459. https://doi.org/10.2307/2118338

Fischbacher, U. (2007). z-Tree: Zurich toolbox for ready-made economic experiments. *Experimental Economics*, *10*(2), 171–178. https://doi.org/10.1007/s10683-006-9159-4

Floyd, S. W., & Lane, P. J. (2000). Strategizing throughout the organization: Managing role conflict in strategic renewal. *Academy of Management Review*, *25*(1), 154–177. https://doi.org/10.5465/amr.2000.2791608

Folger, R., & Konovsky, M. A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal*, *32*(1), 115–130. http://dx.doi.org/10.5465/256422

Futrell, C. M., & Jenkins, O. C. (1978). Pay secrecy versus pay disclosure for salesmen: A longitudinal study. *Journal of Marketing Research*, *15*(2), 214–219. https://doi.org/10.1177/002224377801500204

Goldhaber, G. M. (1993). *Organizational communication*. Brown & Benchmark.

Gorden, W. I., & Infante, D. A. (1991). Test of a communication model of organizational commitment. *Communication Quarterly*, *39*(2), 144–155. https://doi.org/10.1080/01463379109369792

Greenberg, J. (1986). Determinants of perceived fairness of performance evaluations. *Journal of Applied Psychology*, *71*(2), 340–342. https://doi.org/10.1037/0021-9010.71.2.340

Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, *16*(2), 399–432. https://doi.org/10.1177/014920639001600208

Greenberg, J., & Tyler, T. R. (1987). Why procedural justice in organizations? *Social Justice Research*, *1*(2), 127–142. https://doi.org/10.1007/BF01048012

Guggenmos, R. D., Piercey, M. D., & Agoglia, C. P. (2018). Custom contrast testing: Current trends and a new approach. *The Accounting Review*, *93*(5), 223–244. https://doi.org/10.2308/accr-52005

Guzzo, R. A., & Noonan, K. A. (1994). Human resource practices as communications and the psychological contract. *Human Resource Management*, *33*(3), 447–462. https://doi.org/10.1002/hrm.3930330311

Hales, J., & Williamson, M. G. (2010). Implicit employment contracts: The limits of management reputation for promoting firm productivity. *Journal of Accounting Research*, *48*(1), 51–80. https://doi.org/10.1111/j.1475-679X.2009.00352.x

Hannan, R. L. (2005). The combined effect of wages and firm profit on employee effort. *The Accounting Review*, *80*(1), 167–188. https://doi.org/10.2308/accr.2005.80.1.167

Hannan, R. L., Kagel, J. H., & Moser, D. V. (2002). Partial gift exchange in an experimental labor market: Impact of subject population differences, productivity differences, and effort requests on behavior. *Journal of Labor Economics*, *20*(4), 923–951. https://doi.org/10.1086/342894

Harrison, T. M. (1985). Communication and participative decision making: An exploratory study. *Personnel Psychology*, *38*(1), 93–116. https://doi.org/10.1111/j.1744-6570.1985.tb00543.x

Hopfensitz, A., & Wranik, T. (2008). *Psychological and environmental determinants of myopic loss aversion*. (Working paper). University of Toulouse and University of Geneva.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. http://dx.doi.org/10.1080/10705519909540118

Ittner, C. D., & Larcker, D. F. (1998). Are nonfinancial measures leading indicators of financial performance? *An Analysis of Customer Satisfaction. Journal of Accounting Research*, *36*(Suppl.), 1–35.

Johnston, K. (2009). Extending the marketing myopia concept to promote strategic agility. *Journal of Strategic Marketing*, *17*(2), 139–148. https://doi.org/10.1080/09652540902879292

Jones, G. R. (1984). Task visibility, free riding, and shirking: Explaining the effect of structure and technology on employee behavior. *Academy of Management Review*, *9*(4), 684–695. https://doi.org/10.5465/amr.1984.4277404

Kagel, J. H., Kim, C., & Moser, D. (1996). Fairness in ultimatum games with asymmetric information and asymmetric payoffs. *Games and Economic Behavior*, *13*(1), 100–110. https://doi.org/10.1006/game.1996.0026

Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. *Organizational Behavior and Human Decision Processes*, *51*(2), 296–312. https://doi.org/10.1016/0749-5978(92)90015-Y

Kaptein, M. (2008). Developing and testing a measure for the ethical culture of organizations: The corporate ethical virtues model. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *29*(7), 923–947. http://dx.doi.org/10.1002/job.520

Kashmiri, S., Nicol, C. D., & Arora, S. (2017). Me, myself, and I: Influence of CEO narcissism on firms' innovation strategy and the likelihood of product-harm crises. *Journal of the Academy of Marketing Science*, *45*(5), 633–656. https://doi.org/10.1007/s11747-017-0535-8

Kernan, M. C., & Hanges, P. J. (2002). Survivor reactions to reorganization: Antecedents and consequences of procedural, interpersonal, and informational justice. *Journal of Applied Psychology*, *87*(5), 916–928. https://doi.org/10.1037/0021-9010.87.5.916

Kidwell, R. E., & Scherer, P. M. (2001). Layoffs and their ethical implications under scientific management, quality management and open-book management. *Journal of Business Ethics*, *29*(1-2), 113–124. https://doi.org/10.1023/A:1006455228312

Kim, S. (2002). Participative management and job satisfaction: Lessons for management leadership. *Public Administration Review*, *62*(2), 231–241. https://doi.org/10.1111/0033-3352.00173

Klasa, S., Maxwell, W. F., & Ortiz-Molina, H. (2009). The strategic use of corporate cash holdings in collective bargaining with labor unions. *Journal of Financial Economics*, *92*(3), 421–442. https://doi.org/10.1016/j.jfineco.2008.07.003

Klein, B. (1983). Contracting costs and residual claims: The separation of ownership and control. *The Journal of Law and Economics*, *26*(2), 367–374. https://doi.org/10.1086/467040

Kleiner, M. M., & Bouillon, M. L. (1988). Providing business information to production workers: Correlates of compensation and profitability. *Industrial and Labor Relations Review*, *41*(4), 605–617. https://doi.org/10.1177/001979398804100409

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). The Guilford Press.

Konovsky, M. A. (2000). Understanding procedural justice and its impact on business organizations. *Journal of Management*, *26*(3), 489–511. https://doi.org/10.1177/014920630002600306

Koonce, L., Williamson, M. G., & Winchel, J. (2010). Consensus information and nonprofessional investors' reaction to the revelation of estimate inaccuracies. *The Accounting Review*, *85*(3), 979–1000. https://doi.org/10.2308/accr.2010.85.3.979

Kuang, X., & Moser, D. V. (2009). Reciprocity and the effectiveness of optimal agency contracts. *The Accounting Review*, *84*(5), 1671–1694. https://doi.org/10.2308/accr.2009.84.5.1671

Laverty, K. J. (1996). Economic "short-termism": The debate, the unresolved issues, and the implications for management practice and research. *Academy of Management Review*, *21*(3), 825–860. http://dx.doi.org/10.5465/amr.1996.9702100316

Lazear, E. P. (1986). Salaries and piece rates. *The Journal of Business*, *59*(3), 405–431. https://doi.org/10.1086/296345

Leavitt, H. J. (2003). Why hierarchies thrive. *Harvard Business Review*, *81*(3), 96–102.

Lee, J., & Taylor, M. S. (2014). Dual roles in psychological contracts: When managers take both agent and principal roles. *Human Resource Management Review*, *24*(1), 95–107. https://doi.org/10.1016/j.hrmr.2013.03.001

Libby, T. (1999). The influence of voice and explanation on performance in a participative budgeting setting. *Accounting, Organizations and Society*, *24*(2), 125–137. https://doi.org/10.1016/S0361-3682(98)00043-9

Lindquist, T. M. (1995). Fairness as an antecedent to participative budgeting: Examining the effects of distributive justice, procedural justice and referent cognitions on satisfaction and performance. *Journal of Management Accounting Research*, *7*, 122–147.

MacLeod, W. B., & Parent, D. (2012). Job characteristics and the form of compensation. In *35th anniversary retrospective* (pp. 607–672). Emerald Group Publishing Limited.

Maggian, V., Montinari, N., & Nicolò, A. (2018). Backscratching in hierarchical organizations. *The Journal of Law, Economics, and Organization*, *34*(2), 133–161. https://doi.org/10.1093/jleo/ewy006

Marginson, D., & McAulay, L. (2008). Exploring the debate on short-termism: A theoretical and empirical analysis. *Strategic Management Journal*, *29*(3), 273–292. https://doi.org/10.1002/smj.657

Maximiano, S., Sloof, R., & Sonnemans, J. (2013). Gift exchange and the separation of ownership and control. *Games and Economic Behavior*, *77*(1), 41–60. https://doi.org/10.1016/j.geb.2012.07.004

McAfee, R. P., & McMillan, J. (1995). Organizational diseconomies of scale. *Journal of Economics & Management Strategy*, *4*(3), 399–426. https://doi.org/10.1111/j.1430-9134.1995.00399.x

McCabe, D. M., & Lewin, D. (1992). Employee voice: A human resource management perspective. *California Management Review*, *34*(3), 112–123. https://doi.org/10.2307/41167427

Merchant, K. A., & Manzoni, J. (1989). The achievability of budget targetes in profit centers: A field study. *The Accounting Review*, *64*(3), 539–558.

Miller, K. D. (2002). Knowledge inventories and managerial myopia. *Strategic Management Journal*, *23*(8), 689–706. http://dx.doi.org/10.1002/smj.245

Nadkarni, S., & Barr, P. S. (2008). Environmental context, managerial cognition, and strategic action: An integrated view. *Strategic Management Journal*, *29*(13), 1395–1427. https://doi.org/10.1002/smj.717

Nelson, B. (2000). Are performance appraisals obsolete? *Compensation & Benefits Review*, *32*(3), 39–42. https://doi.org/10.1177/08863680022097803

Nichol, J. E. (2019). The effects of contract framing on misconduct and entitlement. *The Accounting Review*, *94*(3), 329–344. https://doi.org/10.2308/accr-52260

Nikolov, A. N. (2018). Managerial short-termism: An integrative perspective. *Journal of Marketing Theory and Practice*, *26*(3), 260–279. https://doi.org/10.1080/10696679.2018.1450633

Nilakant, V., & Rao, H. (1994). Agency theory and uncertainty in organizations: An evaluation. *Organization Studies*, *15*(5), 649–672. https://doi.org/10.1177/017084069401500501

Norman, S. M., Avolio, B. J., & Luthans, F. (2010). The impact of positivity and transparency on trust in leaders and their perceived effectiveness. *The Leadership Quarterly*, *21*(3), 350–364. https://doi.org/10.1016/j.leaqua.2010.03.002

Ouchi, W. G. (1977). The relationship between organizational structure and organizational control. *Administrative Science Quarterly*, *22*(1), 95–113. https://doi.org/10.2307/2391748

Palan, S., & Schitter, C. (2018). Prolific.ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, *17*, 22–27. https://doi.org/10.1016/j.jbef.2017.12.004

Parzefall, M. R. (2008). Psychological contracts and reciprocity: A study in a Finnish context. *The International Journal of Human Resource Management*, *19*(9), 1703–1719. https://doi.org/10.1080/09585190802295272

Pasewark, W., & Welker, R. (1990). A Vroom-Yetton evaluation of subordinate participation in budgetary decision making. *Journal of Management Accounting Research*, *2*(1), 13–126.

Peccei, R., Bewley, H., Gospel, H., & Willman, P. (2010). Antecedents and outcomes of information disclosure to employees in the UK, 1990–2004: The role of employee voice. *Human Relations*, *63*(3), 419–438. https://doi.org/10.1177/0018726709348933

Rajan, M. V., & Reichelstein, S. (2006). Subjective performance indicators and discretionary bonus pools. *Journal of Accounting Research*, *44*(3), 585–618. https://doi.org/10.1111/j.1475-679X.2006.00212.x

Rawlins, B. L. (2008a). Measuring the relationship between organizational transparency and employee trust. *Public Relations Journal*, *2*(2), 1–21.

Rawlins, B. (2008b). Give the emperor a mirror: Toward developing a stakeholder measurement of organizational transparency. *Journal of Public Relations Research*, *21*(1), 71–99. https://doi.org/10.1080/10627260802153421

Rees, C., Alfes, K., & Gatenby, M. (2013). Employee voice and engagement: Connections and consequences. *The International Journal of Human Resource Management*, *24*(14), 2780–2798. https://doi.org/10.1080/09585192.2013.763843

Robson, M. J., Katsikeas, C. S., & Bello, D. C. (2008). Drivers and performance outcomes of trust in international strategic alliances: The role of organizational complexity. *Organization Science*, *19*(4), 647–665. https://doi.org/10.1287/orsc.1070.0329

Rousseau, D. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Sage Publications.

Sappington, D. E. (1991). Incentives in principal-agent relationships. *Journal of Economic Perspectives*, *5*(2), 45–66. https://doi.org/10.1257/jep.5.2.45

Schminke, M., Ambrose, M. L., & Cropanzano, R. S. (2000). The effect of organizational structure on perceptions of procedural fairness. *Journal of Applied Psychology*, *85*(2), 294–304. https://doi.org/10.1037/0021-9010.85.2.294

Schnackenberg, A. K., & Tomlinson, E. C. (2016). Organizational transparency: A new perspective on managing trust in organization-stakeholder relationships. *Journal of Management*, *42*(7), 1784–1810. https://doi.org/10.1177/0149206314525202

Schneider, S. L. (1992). Framing and conflict: Aspiration level contingency, the status quo, and current theories of risky choice. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *18*(5), 1040–1057. https://doi.org/10.1037/0278-7393.18.5.1040

Schumpeter. (2012, November). Corporate burlesque: The case for stripping away the secrecy surrounding firms' finances. *The Economists*. https://www.economist.com/business/2012/11/03/corporate-burlesque

Scott, D., McMullen, T., & Royal, M. (2011). Reward fairness: Slippery slope or manageable terrain? *Research Report*. WorldatWork. www.worldatwork.org

Searle, R., Den Hartog, D. N., Weibel, A., Gillespie, N., Six, F., Hatzakis, T., & Skinner, D. (2011). Trust in the employer: The role of high-involvement work practices and procedural justice in European organizations. *The International Journal of Human Resource Management*, *22*(5), 1069–1092. https://doi.org/10.1080/09585192.2011.556782

Shapiro, S. P. (2005). Agency theory. *Annual Review of Sociology*, *31*(1), 263–284. https://doi.org/10.1146/annurev.soc.31.041304.122159

Siegel, S. (1957). Level of aspiration and decision making. *Psychological Review*, *64*(4), 253–262. https://doi.org/10.1037/h0049247

Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, *69*(1), 99–118. https://doi.org/10.2307/1884852

Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *American Economic Review*, *49*(3), 252–283.

Simon, H. A. (1991). Organizations and markets. *Journal of Economic Perspectives*, *5*(2), 25–44. https://doi.org/10.1257/jep.5.2.25

Smidts, A., Pruyn, A. T. H., & Van Riel, C. B. (2001). The impact of employee communication and perceived external prestige on organizational identification. *Academy of Management Journal*, *44*(5), 1051–1062. http://dx.doi.org/10.5465/3069448

Tirole, J. (1986). Hierarchies and bureaucracies: On the role of collusion in organizations. *Journal of Law, Economics. & Organization*, *2*, 181–214.

Topinka, J. (2015). Making transparency a core competency. *Blog at Heller Search Associates, Inc.*https://www.hellersearch.com/blog/make-transparency-a-core-competency

Tremblay, M., Sire, B., & Pelchat, A. (1998). A study of the determinants and of the impact of flexibility on employee benefit satisfaction. *Human Relations*, *51*(5), 667–688. http://dx.doi.org/10.1177/001872679805100505

Uhl-Bien, M., & Maslyn, J. M. (2003). Reciprocity in manager-subordinate relationships: Components, configurations, and outcomes. *Journal of Management*, *29*(4), 511–532. https://doi.org/10.1016/S0149-2063_03_00023-0

Van Rinsum, M., & Hartmann, F. (2007). *Performance measurement system properties and managerial time orientation: Survey and experimental evidence*. (Working paper). RSM Erasmus University.

Whitener, E. M., Brodt, S. E., Korsgaard, M. A., & Werner, J. M. (1998). Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, *23*(3), 513–530. https://doi.org/10.5465/amr.1998.926624

Williamson, O. E. (1988). The logic of economic organization. *Journal of Law, Economics, & Organization*, *4*, 65–93.

Wood, S. J., & Wall, T. D. (2007). Work enrichment and employee voice in human resource management-performance studies. *The International Journal of Human Resource Management*, *18*(7), 1335–1372. https://doi.org/10.1080/09585190701394150

Yin, H. (2017). *Can employees exercise control over managers? The role of employees' knowledge of manager behavior and manager discretion*. (Working paper). Nanyang Technological University.

Yoon, J. (1996). Fairness issues and job satisfaction among Korean employees: The significance of status value and procedural justice in work orientation. *Social Justice Research*, *9*(2), 121–143. https://doi.org/10.1007/BF02198076