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Abstract

What role do employee features play for the success of different personnel management practices for promoting high performance? Using data from a randomized survey experiment among 5,982 adult individuals of all ages, this article examines how gender conditions the compliance effects of different incentive treatments—each relating to the basic content of distinct types of personnel management practices. The findings indicate that males and females are more similar than different in terms of the effects of incentive treatments: Significant average effects are found for three of five incentive treatments, but gender does not appear to moderate these relationships.

Keywords

personnel management practices, compliance behavior, gender, survey experiment
More Similar Than Different: Experimental Evidence on the (In)Significance of Gender for the Effect of Different Incentives on Compliance Behavior

The successful management of human resources is crucial to the performance of any organization. A salient discussion in the management and organizational behavior literature thus revolves around the identification of the personnel management (PM) practices that effectively cultivate the direction, effort, and persistence of work activities that improve organizational performance (Arthur, 1994; Becker & Gerhart, 1996; Cutcher-Gershenfeld, 1991; Huselid, 1995; MacDuffie, 1995; Terpstra & Rozell, 1993).

Some research suggests the existence of “high performance work practices” in managing employees; “best practices” with universal, additive, and positive effects on performance (Applebaum & Batt, 1994; Osterman, 1994; Pfeffer, 1994). However, other research challenges the notion that the effectiveness of PM practices is universal across different organizations and sectors. In particular, this opposing line of research suggests that the effect of different PM practices is conditioned (or, in other words, moderated) by the features and environment of an organization (Butler, Ferris, & Napier, 1991; Gomez-Mejia & Balkin, 1992).

The scholarly debate regarding the validity of both of these perspectives is ongoing and unresolved. More research on the factors conditioning the consequences of different PM practices is thus warranted. To what extent do employee features moderate the effects of different PM practices? Which employee features? And for what types of PM practices?

To expand our knowledge on how the particular feature of gender moderates the effects of different PM practices, this article uses data from a randomized survey experiment to show how different incentive treatments—each relating to the basic content of distinct types of PM practices—affect the compliance behavior of males and females differently.
The focus on gender is pertinent for two reasons. First, gender role and stereotype theory suggests that a set of socially shared beliefs prescribes and designates men and women with different needs and desires (Basow, 1992; Eagly, 1995; Eagly & Wood, 1999). In this sense, males and females possibly hold different constellations of work motivations (Bright, 2005, 2009; DeHart-Davis, Marlowe, & Pandey, 2006; Gooderman, Nordhaug, Ringdal & Birkelund, 2004; Hofstede, 2001; Meece, Glienke, & Burg, 2006). Such gender differences can explain instances of gender-differentiated work behavior (Eagly, Beall, & Sternberg, 2004) while also suggesting that gender may moderate the effects of different PM practices. Inasmuch as work motivation is gender-distinct and given that different types of PM practices appeal to different types of work motivation (an assertion elaborated below), some PM practices may have a greater effect on the work behaviors of males relative to females, and vice versa.

Second, while horizontal gender segregation has diminished over time in some occupations, others remain male- or female-dominated (Blau, Brummund, & Liu, 2013; Meulders, Plasman, Rigo, & O’Dorchai, 2010). Examining the moderating role of gender on the effectiveness of PM practices may therefore yield important insights for practitioners. Say, for example, that the PM practices promoting an individual’s motivation for external rewards (e.g., use of economic incentives) mostly impact the behavior of males. Organizations with a predominance of female employees may then benefit from PM practices providing other types of motivation, such as non-pecuniary acknowledgment practices relating to the value of the employees’ work, thus impacting their work commitment, self-efficacy, and perceived task significance.

Specifically, this article tests how gender moderates the effects of five different incentive treatments on compliance behavior, using data from a randomized survey experiment among
5,982 Danish adults of all ages—all volunteer members of an existing survey panel. The treatments comprise different emails inviting them to participate in a survey. By random assignment, some panelists received a basic invitation email (control group). Among the remaining panelists, some received an economic response incentive triggering a motivation for external rewards (money); others a text treatment appealing to a basic human need for approval from the self and others. Finally, other panelists received treatments triggering a communal motivation that transgresses narrow self-interest. The survey compliance rate constitutes an indicator of behavioral task compliance; that is, a proxy of volitional time and effort allocation toward a well-defined, relatively simple task. Because of the panel setting, gender information is available for both responders and non-responders. Estimating whether some incentive treatments induce greater compliance than others among males relative to females (and vice versa) is thus feasible.

Given the merits of the experimental design, this article offers novel and relatively more rigorous evidence about whether gender is a conditioning factor for the compliance effect of different incentives. As the incentive treatments relate to the basic content of different types of PM practices, this article provides basic research findings on how employee gender may moderate the behavioral effects of different types of PM practices.

The following sections develop the underlying theory and expectations. First, I elaborate on the article’s research motivation. Next, I unpack the idea that employee features are likely to moderate the effects of different PM practices. I then specify the notion that males and females hold distinct constellations of work motivations. The next section presents hypotheses on how the effect of different incentives—capturing the basic content of distinct types of PM practices—
may differ for males relative to females. I then discuss the research design and data. The article concludes with a discussion of the results.

**The Moderating Role of Employee Features**

Why examine how employee features moderate the effects of different PM practices? Why expect employee features to be moderators of special saliency? To answer these questions, we begin by considering two axioms marking all of the scholarly efforts to advance our knowledge on PM practice effectiveness. First, PM is and can be conducted in numerous ways. Second, PM inevitably occurs in an organizational context. Together, these two fundamentals increase the complexity of identifying effective PM practices and signify important research implications. For example, some types of PM practices appear to yield positive results (Cadsby, Song, & Tapon, 2007; Lazear, 2000). However, because of the multiplicity of possible practices, some are bound to be superior to others. Despite the merit of studies of any one single practice (i.e., depth), more basic research examining different types of PM practices and their relative effectiveness is warranted (i.e., scope).

Moreover, because PM occurs in an organizational context, the consequences of different PM practices may differ across variations in organizational characteristics (Butler, Ferris, & Napier, 1991; Gomez-Mejia & Balkin, 1992). While the possible contingencies are numerous (e.g., external policy constraints, internal budget considerations, consumer or client characteristics, employee features), our knowledge on the subject is largely uninformed by experimental methods research with the capacity for causal inference.
Fueled by these research implications, this article suggests that employee features are likely moderators of the effectiveness of PM practices. Examining the basics of PM practices and how they function provides an explanation for this claim.


All PM practices, across their extensive variety in form and method, are conceptually unified by an underpinning of the role of employees and their work motivation. PM practice examples range from transactional-type policies linking employee work behavior with external rewards and sanctions (e.g., money, promotion, demotion, dismissal) to more transformational-type policies encouraging employees’ autonomous self-regulation more directly (e.g., their work commitment, self-efficacy, and perceived task significance). However, irrespective of the type and form of different practices, their underlying measure of success lies in aligning the employee work activity with the goals and missions of the organization. The effect of any PM practice is thus necessarily connected to the ability of that practice to direct, energize, and sustain employee work motivation.

Elaboration: Different People and Practices, Different Motivations

Importantly, however, different people are motivated differently to work and act. More than three decades of self-determination theory (SDT) research (Deci & Ryan, 1985, 2004; Gagné & Deci 2005) thus finds that “people have not only different amounts, but also different kinds of motivation” (Ryan & Deci, 2000, p. 54). At the overall level, SDT distinguishes between intrinsic motivation (doing something for its inherent satisfaction rather than for some separable outcome) and extrinsic motivation (doing something in order to attain a separable consequence).
However, SDT then identifies four forms of extrinsic motivation, varying in the extent to which they are autonomous (i.e., self-determined, volitional), and some representing active, agentic states. From the least to most autonomous, the four extrinsic motivations are external regulation, introjected regulation, identified regulation, and integrated regulation. *External regulation* refers to external pressure; that is, behavioral self-regulation to obtain an external reward (money, promotion) or avoid an external sanction (demotion, dismissal). *Introjected regulation* refers to internal pressure; that is, behavioral self-regulation based on internal feelings such as pride, guilt, or a need for approval from the self or others. *Identified regulation* refers to behavior that individuals carry out because of congruence with personal values and goals. Finally, *integrated regulation* refers to the identification with the value of a given activity to the extent that it becomes an internalized part of a person’s habitual functioning and self-identity.

SDT thus provides a theoretical framework for conceptualizing how PM practices operate and function: While PM practices are unified by a common underpinning of the role of employees and their work motivations, different types of practices relate to different types of work motivations. For example, transactional-type practices involving economic incentives contribute to an individual’s external extrinsic motivation. Examples of more transformational-type practices involve non-pecuniary managerial acknowledgment and feedback relating to an individual’s introjected extrinsic motivation. Similarly, other transformational-type practices include managerial emphasis of the societal benefit of the performed work (task significance), thus appealing to an individual’s identified or integrated extrinsic motivation relating to personal motives and self-identities that transgress narrow self-interest and have a communal component.

**Practice–Employee Work Motivations Fit**
Because people hold different levels of different types of motivation and different types of PM practices appeal to different types of human motivation, the effectiveness of any PM practice is connected to its “work motivations fit.” In other words, the extent of the fit between the specific type of motivation marking a given PM practice and the specific work motivation composition of a given employee is predictive of the effect of that PM practice on that employee’s work behavior. For example, an employee’s (high) level of external extrinsic motivation conditions the success of an economic incentive.

This notion of practice–person work motivations fit is in line with person–environment fit theory (Kristof-Brown, Zimmerman, & Johnson, 2005), particularly the notion of supplementary fit (Kristof, 1996, Kristof-Brown & Guay, 2011). Essentially, this line of research finds that high value congruence between person and organizational dimensions may translate into organizational benefits, such as reduced turnover, increased citizenship behaviors and organizational commitment (Andrews, Baker, & Hunt, 2011), and improved performance (Ostroff & Schulte, 2007).

In the person–environment fit theoretical framework (Kristof-Brown, Zimmerman, & Johnson, 2005), SDT (Deci & Ryan, 1985, 2004; Gagné & Deci, 2005) thus grounds the saliency of a research focus on employee features as likely moderators of the effectiveness of different PM practices. As opposed to other contextual factors, the case for examining employee features can be summarized as follows: (1) The effect of a PM practice is inevitably connected to its capacity for directing, energizing, and sustaining employee work motivation, but (2) different people hold different amounts of different types of motivation, and (3) different types of PM practices relate to different types of work motivation. Therefore, (4) the effectiveness of PM practices is a product of the fit between the type of motivation targeted by a specific practice and
the specific work motivations of the individuals the practice seeks to manage and influence. The effectiveness of different types of PM practices—engaging different types of work motivations—may thus differ inasmuch as some types of employees are differently work-motivated than others. Employee features are therefore a likely moderator of the effectiveness of PM practices.

In addition to the notion of supplementary fit (Kristof, 1996; Kristof-Brown & Guay, 2011) within person–environment fit theory (Kristof-Brown, Zimmerman, & Johnson, 2005), other research supports the centrality of the fit between practice and work motivations to the success of different PM practices. For example, Le Grand (2003, 2010) suggests that the high performance of any model of public service delivery depends on the motivation of the personnel. Similarly, situational leadership theory (Blanchard, Zigarmi, & Zigarmi, 1985; Hersey & Blanchard, 1977) emphasizes the absence of any single best style of leadership. Rather, successful leaders are those who adapt their practices to the “maturity” of the particular individual or group they are seeking to manage—“maturity” referring here to their abilities and work motivations.

Research thus supports that employee features may moderate the effects of different PM practices. But what employee features may signify systematic differences in relevant employee work motivations? According to gender role and stereotype theory, gender is a possible answer.

**Males and Females: Different Motivations?**

Gender role and stereotype theory suggests that a set of socially shared beliefs prescribes and designates men and women with different needs and desires (Basow, 1992; Eagly, 1995; Eagly & Wood, 1999)—in turn providing a sociocultural explanation for situations of gender-
differentiated behavior (Eagly, Beal, & Sternberg, 2004). Similar to other social stereotypes (e.g., ethnic, cultural, political, professional), gender stereotypes define and reflect how the features of a single group of people are perceived (in this case males and females), both in terms of how they perceive themselves and how others perceive them (Arnania-Kepuladze, 2010; Eagly, Beal, & Sternberg, 2004).

For the individual, the formation of gender stereotypes begins in early childhood (Cross & Markus, 1993; Simon & Nath, 2004). For example, children’s gender perceptions are socialized and shaped by the family environment in two ways (Eccles, Jacobs, & Harold, 1990; Meece, Glienke, & Burg, 2006; Parsons, Adler, & Kaczala, 1984): First, parents actively reproduce gender stereotypes by expressing different expectations and goals for boys and girls and encouraging them to engage in different play and learning activities. Second, children tend to copy the behavior of others, thus adopting their parents’ gender stereotype norms and behavior.

Gender stereotype beliefs and norms therefore socialize men and women toward different values, norms, and roles from an early age. In the workplace, gender stereotypes translate into different work preferences and motivations among males and females (Meece, Glienke, & Burg, 2006). Some gender research thus suggests that the satisfaction of needs related to economic success, autonomy, and achievement is more important for males than females. In contrast, females are more preoccupied with interpersonal relationships, family-related needs, and communal concerns. For example, Hofstede (2001) finds that males are more concerned with earnings, promotion, and work responsibility than females, while females are more motivated by a friendly work atmosphere and high task significance. Similarly, other research shows that males are more motivated by financial rewards and leadership aspirations than females (e.g., Bigoness, 1988; Bright, 2009; Gooderman et al., 2004; Major & Konar, 1984), whereas females
are more motivated by doing good for others and society (Bright, 2005, 2009; DeHart-Davis, Marlowe, & Pandey, 2006).

Based on gender role and stereotype expectations, males and females might therefore hold different constellations of work motivations. While males are more work-motivated by external extrinsic rewards (money, promotion), females are geared more toward self-regulated motivation pertaining to personal values of cooperation, interpersonal responsiveness, and the well-being of others and society. Gender role and stereotype theory thus suggests that gender may moderate the effectiveness of different types of PM practices. Given the notion of practice–person work motivations fit, this article tests the following hypotheses:

**Hypothesis 1**: The compliance effect of an incentive encouraging an individual’s external extrinsic motivation is greater among males than females.

**Hypothesis 2**: The compliance effect of an incentive encouraging an individual’s identified or integrated extrinsic motivation relating to personal motives that transgress narrow self-interest is greater among females than males.

**Hypothesis 3**: The compliance effect of an incentive encouraging an individual’s introjected extrinsic motivation relating to a basic psychological need for approval from the self or others is similar among males and females.

These hypotheses are in line with general gender role and stereotype expectations. Because males may hold higher external extrinsic motivation than females (Bigoness, 1988; Bright, 2009; Gooderman et al., 2004; Hofstede, 2001; Major & Konar, 1984), an incentive serving external extrinsic motivation may have a greater positive impact on male compliance behavior. Similarly, because females may be more motivated by communal values than males (Bright, 2005, 2009; DeHart-Davis, Marlowe, & Pandey, 2006), incentives serving an identified
or integrated extrinsic motivation relating to personal motives that transgress narrow self-interest may have a greater positive impact on female compliance behavior. Gender role and stereotype theory does not explicate any clear expectations for gender differences in an individual’s need for approval from the self or others. The third hypothesis therefore does not involve any gender moderation expectation.

Although much gender research finds gender differences in work motivations, there are contrasting views on the extent of these differences. Some research suggests that the individual differences within groups of males and females are more pronounced than the differences between the two groups (Wigfield, et al., 2002). Similarly, other research emphasizes that females and males are more marked by work motivation similarities than differences (Dubinsky et al., 1993; Pearson & Chatterjee, 2002). In terms of such similarity expectations, the effectiveness of PM practices may not be moderated by gender: Gender differences in work motivations may simply not be pronounced enough to significantly impact the effects of different PM practices.

Data
The sample population comprises more than 6,000 citizens—all volunteer members of an existing survey panel maintained and used for survey purposes by Kompas Kommunikation, a Danish communications agency with an organizational profile and setup typical of mid-sized communications firms. Panel enrollment is voluntary and panelists may terminate their panel membership at any time. Panel recruitment occurs via the Kompas Kommunikation advertising efforts. Usually, the panelists receive an invitation to participate in an e-survey on a monthly or bimonthly basis. The typical response rate is around 15–20% and thus relatively low.
Importantly, however, this sample feature does not reduce the internal validity of the findings.

The response rate serves as the dependent variable in this article (i.e., an indicator of compliance behavior) and, given the experiment design (i.e., the random assignment of control and treatments), the experiment groups should be balanced on all individual characteristics—observable and unobservable alike.³

The panel comprises Danish adults (18+) of all ages. It has a slight overrepresentation of women, individuals geographically located in Greater Copenhagen, and individuals below age 60. This sample skewness should not affect the internal validity of the results, but the generalized inferences to be drawn from this article’s findings should be interpreted with this minor caveat in mind.

The survey experiment was conducted at the beginning of August 2013. 6,162 individuals were enrolled in the panel at the time of data collection. The panelists received a two-week response deadline.

**Design**

Of the 6,162 panelists, 5,000 were randomly assigned one of five treatment groups (1,000 into each), henceforth referred to as T³EXT, T³INT, T³I⁻³TA, T³I⁻³D³, and T³I⁻³D³. The remaining 1,162 panelists comprised the control group, henceforth referred to as C⁰.

All of the panelists were sent an email encouraging participation in a short e-survey. The content of the survey (i.e., general survey satisfaction, suggestions for improvements, background information) was not revealed in the email and should therefore not bias the results. The C⁰ panelists received the following invitation text: “Dear Kompas Panel participant, we
kindly ask you to participate in a short survey. It takes 3 minutes to complete. You have until
August 16, 2013, 12:00 PM to answer the survey.”

The panelists in the five treatment groups received the same invitation text as the C⁰
panelists. In addition, however, they were also exposed to the following different text excerpts—
stated in bold font, after the sentence, “We kindly ask you to participate in a short survey:”

**Treatment T^{EXT}** (external regulation): “If you participate, you will be entered in a drawing
for a coupon redeemable for 300 DKK. Your chance of winning is 1 in 100.”

**Treatment T^{INT}** (introjected regulation): “You have been specifically selected from among
the Kompas Panel participants to take part in this survey.”

**Treatment T^{I/I-TA}** (identified/integrated regulation, text appeal): “Your participation will
contribute to new social knowledge and thus serve the public interest.”

**Treatment T^{I/I-D3}** (identified/integrated regulation, donation of 3 DKK): “We will donate
money to a charitable cause for each person participating. We donate 3 DKK to school projects
on anti-bullying if you participate.”

**Treatment T^{I/I-D10}** (identified/integrated regulation, donation of 10 DKK): “We will
donate money to a charitable cause for each person participating. We donate 10 DKK to school
projects on anti-bullying if you participate.”

As the panel was Danish, all monetary values were listed in Danish kroner (DKK). 100
DKK translates to roughly $18. The sizes of the incentives are comparable to those of other
survey response studies (Rose, Sidle, & Griffith, 2007; Teisl, Roe, & Vayda 2005).

Treatment T^{EXT} targets the activation of external extrinsic motivation related to monetary
rewards through a cash prize lottery incentive. This treatment thus reflects the basic content of
transactional-type PM practices linking employee work behavior with some sort of economic incentive (e.g., performance-based pay incentives)\textsuperscript{4}.

The $\text{T}^{\text{INT}}$ treatment targets the activation of an aspect of introjected extrinsic motivation; that is, a basic psychological need for approval from the self or others. This particular aspect of motivation is closely related to “ego involvement,” a classic form of self-regulation whereby a person acts so as to enhance or maintain their self-esteem and feeling of self-worth and self-importance (Nicholls, 1984; Ryan, 1982). The treatment thus reflects the basic content of transformational-type managerial behaviors involving non-pecuniary acknowledgments of employees, their work activity, and their unique value to the organization. Concrete examples include positive encouragement and feedback at manager–employee meetings and the open recognition of particular employees and their organizational indispensability (e.g., symbolic trophies, “employee of the month” endorsements).

In contrast to $\text{T}^{\text{EXT}}$ and $\text{T}^{\text{INT}}$, treatments $\text{T}^{\text{II-TA}}$, $\text{T}^{\text{II-D3}}$, and $\text{T}^{\text{II-D10}}$ constitute incentives in which the immediate beneficiary of compliance is not the individual respondent, but rather a greater social entity. These incentive treatments thus capture the basic content of transformational-type policies catering to employees’ identified and integrated extrinsic motivation relating to communal values that transgress narrow self-interest. In the field of public service delivery—whether served by public or private organizations—concrete examples include employee contact with the beneficiaries of their work and other interventions stimulating the extent to which employees feel that their work matters and is helpful to others (Belle, 2013; Grant, 2008). Treatment $\text{T}^{\text{II-TA}}$ involves text appeal to an individual’s motivation for serving the public interest, whereas $\text{T}^{\text{II-D3}}$ and $\text{T}^{\text{II-D10}}$ substantiate the public benefit of survey participation
by the promise of a donation to a good cause. Exploring the importance of the incentive size, \( T^{\text{I-I-D3}} \) and \( T^{\text{I-I-D10}} \) differ in the size of donation.

Irrespective of the assignment to control or treatments, survey compliance constitutes the dependent variable in this article. This measure captures the investment of time and energy resources in relation to survey completion, a task whose accomplishment requires an expenditure of attention and effort similar to clear and relatively simple tasks in a workplace setting. In general, the use of survey compliance as an indicator of behavioral work compliance is in line with the use of task completion exercises in other experimental management studies (e.g., Brewer & Brewer, 2008; Jenkins et al., 1998).

Because of the survey experiment design, the observed gender differences in compliance across the experiment groups are likely attributable to the moderating role of gender on the effect of the different incentive treatments. Given the random assignment, only the invitation text should differ systematically across the experiment groups. As the six experiment groups (\( C^0 \), \( T^{\text{EXT}} \), \( T^{\text{INT}} \), \( T^{\text{I-I-TA}} \), \( T^{\text{I-I-D3}} \), and \( T^{\text{I-I-D10}} \)) should be balanced on all characteristics, the treatment estimates should be unbiased. Any gender differences in the compliance effect of a given incentive treatment are thus a likely product of the male and female panelists’ different compliance behavior in response to that treatment.

At the time of data collection, 6,162 people were enrolled in the Kompas panel, but 61 of the survey invitation emails “bounced” (i.e., the email did not reach an email inbox). As those 61 individuals never received a survey invitation, these observations were dropped. Moreover, panelists provide information on gender, age, and regional location upon panel enrollment. The data thus hold information on gender for responders and non-responders alike. The provision of this background data is optional, however, and gender information is necessary for testing the
role of gender in the compliance effect of different incentives. Because of “missing” gender information, 119 observations were thus dropped, yielding a final sample size of 5,982. Importantly, dropping these 180 observations from the sample does not appear to induce bias: One-way analysis of variance (ANOVA) estimates reveal no significant difference in the distribution of the 61 “bouncers” (at \( p < .1 \)), neither across the six experiment groups nor across gender. Similarly, the 119 “missing gender” observations are equally distributed across the experiment groups (at \( p < .1 \)).

**Results**

Table 1 shows the distribution in the characteristics of gender, age, and regional location for the full sample (Column 1) and by experiment group (Columns 2–7). Column \( p > F \) shows the results of ANOVA tests for the difference in means across the six experiment groups.

[Table 1 here]

As shown in column \( p > F \), no significant differences mark the distribution in gender, age, and regional location across the groups (at \( p < .1 \)). The experiment groups thus appear balanced with respect to these covariates. For each variable, I also perform Bonferroni-Dunn tests (and two-sample t-tests), checking for differences in the means for all pairwise constellations of groups. Again, no differences in means are significant (at \( p < .1 \)).

Moreover, Table 1 (bottom) shows the survey compliance rate. Across the six experiment groups, the mean compliance rate ranges from .13 to .22. ANOVA estimates suggest that the difference in means is significant (\( p < .001 \)). Bonferroni-Dunn tests reveal a higher compliance rate among \( T^{EXT} \) panelists relative to \( T^{I-I-D3} \) (\( p = .089 \)) and \( T^{I-I-D10} \) (\( p = .004 \)) panelists. Similarly, \( T^{INT} \) panelists exhibit higher compliance than \( C^0 \) panelists (\( p = .054 \)) and \( T^{I-I-D3} \) and \( T^{I-I-} \).
D10 panelists \( (p < .001) \). Survey compliance is also higher among T^{I-T} panelists than T^{I-D10} panelists \( (p = .033) \).

Table 2 shows the results of logit regression analyses testing the compliance effect of each of the five treatments relative to the control group. Coefficient estimates are reported in terms of odds ratios with robust standard errors.

![Table 2 here]

The odds ratio estimates are similar in magnitude across Columns 1 and 2 (without and with controls). In line with the balancing tests, this finding supports that individual characteristics potentially affecting the panelists’ compliance behavior are equally distributed across the experiment groups.

Moreover, the results suggest a positive average treatment effect of the external economic motivation incentive (TEXT) and the introjected extrinsic motivation incentive (TINT). The odds of compliance are 1.211 times higher given treatment TEXT relative to the control group (C^0), and 1.335 higher given treatment TINT relative to the control group (C^0). In contrast, the communal motivation treatment TI/I-D10 reduces the odds of compliance relative to the control group (C^0).

However, none of the interaction term estimates (Columns 3 and 4) are statistically significant (at \( p < .1 \)). In other words, none of the incentive treatments appear to be associated with the compliance differences across males and females. The coefficients for the treatment variables, gender, and the treatment–gender interaction terms do not differ substantially across models without (Column 3) and with (Column 4) the inclusion of age and regional location covariates, in turn indicating that across-gender imbalance in age and regional location does not confound the results.
In terms of predicted probabilities, Table 3 shows the marginal effect of each incentive treatment for the full sample and by gender. The probabilities are computed using the model specification with treatment-gender interaction dummies and controls (Table 2, Column 4).

Table 3 here

The positive average treatment effects of the external extrinsic motivation incentive ($T^{\text{EXT}}$) and introjected extrinsic motivation incentive ($T^{\text{INT}}$) translate, respectively, to a 2.7% and 4.4% increase in the predicted probability of survey compliance. Treatment $T^{\text{I-I-D10}}$ reduces the probability of compliance by 3.6%. The results indicate a negative effect of $T^{\text{I-I-D3}}$ (negative 2.5%), but the coefficient estimate falls short of being statistically significant ($p = .105$).

Moreover, Table 3 shows that both $T^{\text{I-I-D3}}$ and $T^{\text{I-I-D10}}$ have a negative compliance effect for males. Similarly, $T^{\text{INT}}$ appears to have a positive compliance effect for females. As demonstrated by the insignificant interaction term estimates in Model 2, Column 4, however, these differences are not statistically significant across gender (at $p < .1$).

In sum, the results thus show that three of the five incentive treatments ($T^{\text{EXT}}$, $T^{\text{INT}}$, and $T^{\text{I-I-D10}}$) impact individual compliance; that is, they have a significant average treatment effect relative to the control group. However, these effects are not different for males and females. Similarly, gender does not appear to moderate the effectiveness of the two incentives that do not have any average compliance effect ($T^{\text{I-I-TA}}$ and $T^{\text{I-I-D3}}$).

In order to check the robustness of the gender moderation null results, I re-estimated the models using different subsample and alternative specification procedures. First, I estimated the models on subsamples; that is, excluding panelists below age 30, excluding panelists above age 60, excluding both groups, and using list-wise deletion for “missing” data on age and regional location. Second, I ran all of the models adding interaction terms for gender and age, gender and
regional location, age and regional location, and gender, age, and regional location. Third, I estimated all of the specifications substituting logit regression with linear probability modeling (OLS) and probit regression. In all cases, the results are qualitatively the same, both for the average treatment effects and gender moderation null findings.

Discussion and Conclusion

Our knowledge on how the particular employee feature of gender moderates the effectiveness of different PM practices is largely uninformed by experimental methods research. In line with the notion of supplementary fit in person–environment fit theory (Kristof, 1996, Kristof-Brown & Guay, 2011), this article employs data from a randomized survey experiment and shows how different types of incentive treatments—each relating to the basic content of distinct types of PM practices—affect male and female compliance behavior differently.

The findings do not support gender being a moderating factor for the effectiveness of different types of PM practices. Three of five treatments have a significant average treatment effect on compliance, supporting the assumption that the panelists read the survey recruitment email and that their compliance behavior was affected by the treatment texts. However, none of the treatments appear to have had a different effect for males versus females. Similarly, the effects of the two treatments that did not engender any average treatment effect also did not appear to differ by gender. The results are thus in line with the gender research that suggests that males and females possibly hold different constellations of work motivations but that they are most often more similarly than differently motivated at work.

As with most statistical null results, some methodological caveats mark these findings. First, the gender moderation null results may be a consequence of a lack of statistical power.
However, the use of a greater than normal sample size \( n = 5,982 \) minimizes this concern and suggests that undetected “true” moderation effects, if any, are small in size.

Second, while gender appears randomly assigned across the experimental groups, it is, per law of nature, not randomly assigned across panelists. However, this potential threat to internal validity necessarily challenges all gender moderation research—including even the best experimental study. Essentially, the random assignment of gender is unfeasible. In the present sample, the male and female panelists are unified by their volunteer panel enrollment. The gender moderation analyses also include age and regional location covariates, thus accounting for a gender imbalance in these characteristics. Moreover, the odds ratio estimates for the treatment variables, gender, and the treatment-gender interaction terms do not differ substantially across models with and without the age and regional location controls. This result minimizes the risk of unobserved characteristics correlating both with gender and compliance behavior:

Inasmuch as cross-gender age and regional location distribution do not confound the results, the likelihood increases that the findings are unbiased by confounding person characteristics across gender.

Moreover, a neighboring discussion relates to what it is that we really want to examine in empirical gender studies. For example, say that we could somehow attain a sample wherein male and female respondents were fully alike. Would we then expect to observe any behavioral gender differences? Probably not, because the males and females would be identical per definition. The study of gender moderation is thus interesting exactly because gender is a likely proxy for unobserved individual differences. Eliminating all of the gender differences in individual characteristics from a given sample thus devalues the research on gender moderation effects per
In other words, the unobserved ways in which males and females may differ are the very reason why gender moderation studies are of scholarly and societal interest.

Third, the gender moderation null results may be a partial product of treatment intensity. This particular notion does not relate to the general effects of the treatments. Given the significant average effect findings for three of five experiment treatments, the gender null findings are unlikely to be driven by ineffective or non-relevant treatments (or any similar concerns, e.g., that the treatment group panelists are unexposed to treatment because of the superficial skimming of the email invitations). Still, males and females may respond differently to higher-stakes rewards, such as incentive treatments employing monetary incentives of greater sizes. This view basically adds a third dimension to the notion of the practice–person work motivations fit: PM practice effectiveness may not only be a matter of practice–person fit in underlying work motivation dimensions; it may also be contingent on the low- to high-stakes character of the practice. However, and while treatment intensity may condition the gender moderation effect in relation to the other types of incentives, this issue is tested to some extent by the use of three treatments serving the same type of motivation (i.e., identified and integrated motivation pertaining to communal values that transgress narrow self-interest).

In sum, the internal validity of this article’s results may thus be further strengthened through research replicating its findings using bigger samples, possibly including more covariates, and operating with different sets of treatments for each of the different types of work motivation. In particular, future research is advised to conduct a pre-study in which a group of people are asked to read the treatments and match them to the type of motivation corresponding to them. This article’s lack of such a kind of test for treatment salience constitutes a substantial
weakness. Still, it provides robust experimental evidence suggesting that gender is not a significant contingency factor for the compliance effect of different incentives.

Future research should also test the external validity of the article’s findings. At the very least, its results should be interpreted in light of the generalization caveat imposed by the fact that the panel is not fully representative of the total population.

Another issue relates to the possibility for public practitioners to apply this article’s findings directly. The findings are based on a basic (as opposed to applied) research approach. For example, the moderating role of gender is not tested in relation to PM practices and employee behavior in real-life organizations. Similarly, the experimental treatments and outcome measure represent an abstract form of actual PM practices and behavioral work compliance. As noted by Wright and Grant (2010, p. 692), the choice of research design often entails “inherent trade-offs between the ability to make causal statements [internal validity], the ability to generalize those statements to other settings [external validity], and the ability of a broader audience to accept and apply them [contextual realism].” In terms of this notion, the present study emphasizes internal validity over contextual realism. In line with experimental studies making similar trade-offs (e.g., Brewer & Brewer, 2008; Christensen et al., 2013; Pedersen, 2014), however, this prioritization does not invalidate the value and contribution of the present article’s findings per se. Still, future research that adds contextual realism to the findings is encouraged—such as experimental or quasi-experimental research examining how managers conduct PM, their employees’ gender, and organizational performance data.

Until such additional evidence exists, however, this article’s findings provide important and more robust insights than normal concerning the role of gender in the compliance effect of different types of PM practices.
Notes

1. For the purpose of this article, “gender” refers to the meanings that people and society in general assign to female and male categories. Gender thus holds a distinct meaning from “sex,” referring to the biological grouping of humans into men and women.

2. Survey research literature suggests that people’s motivation to respond to surveys refers to an underlying fit between the perceived value of survey compliance and their personal needs and values (e.g., Dillman, Smyth, & Christian, 2009; Grooves et al., 2009). This notion parallels the notion of supplementary fit (Kristof, 1996, Kristof-Brown & Guay, 2011) in person–environment fit theory (Kristof-Brown, Zimmerman, & Johnson, 2005). At least to some extent, the present article’s underlying theoretical framework is, thus, conceptually comparable to the basic motivational theory explaining survey responses in survey research literature.

3. The experimental research design should entail that all panelist characteristics are equally distributed across the control and treatment groups (a notion supported by the balancing checks, Table 1). Because the article’s estimates should thus be unbiased by personal characteristics correlating both with treatment assignment and outcome (response behavior), the article’s results exhibit high internal validity.

4. As the panelists are informed that their chance of winning the 300 DKK is 1 in 100, the expected average pay-off of survey compliance is 3 DKK, corresponding to the 3 DKK in treatment T^{EXT}. A difference in the compliance of group T^{EXT} relative to T^{UI-D3} is thus a consequence of treatment type rather than monetary amount.

5. In order to increase the tangibility of the two donation incentives, I explicate the donation recipient: school projects on anti-bullying. I do not specify a particular organization or project in
order to minimize the risk of confounding effects of attitudes, feelings, and perceptions about a
given organization or projects. For example, had I explicated a particular organization, the
findings could be driven by organization-specific publicity and reputation concerns rather than
the panelists’ motivation for doing good for others and society. I chose anti-bullying projects,
because there are particular strong prevailing norms and values in Danish society according to
which most (if not all) Danes are likely to see childhood bullying as a societal phenomenon
worth minimizing, irrespective of their own experiences with bullying. For example, I
considered donation incentives relating to the Red Cross in Denmark and projects for helping
homeless people. In such cases, however, the estimates would likely be more vulnerable to bias
attributable to organization or project-specific attitudes, e.g., about foreign aid or homelessness.
References


Table 1. Sample Characteristics, Full Sample and by Experiment Groups. Mean and Standard Deviation

<table>
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<tr>
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<th>Full Sample</th>
<th>C⁰</th>
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<th>T&lt;sup&gt;INT&lt;/sup&gt;</th>
<th>T&lt;sup&gt;I/I&lt;/sup&gt;</th>
<th>T&lt;sup&gt;I/D&lt;/sup&gt;</th>
<th>T&lt;sup&gt;I/D10&lt;/sup&gt;</th>
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<td>.59 (.49)</td>
<td>.58 (.49)</td>
<td>.58 (.49)</td>
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Table 2. Effect of Treatments on Survey Compliance. Logistic Regression. Odds Ratios

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Note: *p < .1, **p < .05, ***p < .01. Robust standard errors in parentheses. The experiment control group (C)
and men, aged 18-29, who are located in Greater Copenhagen constitute the reference group. Models 2 and 4
include binary variables for “missing values” on age and region.

Table 3. Marginal Effect of Treatments on Survey Compliance, Full Sample and by Gender.

Predicted Probabilities

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<th>Δy/Δx</th>
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</tr>
<tr>
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<td>Treatment T^{I/I-D10}</td>
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Note: *p < .1, **p < .05, ***p < .01. Robust standard errors in parentheses.