Gender Disparity in the Perceived Fairness of Annual Bonus Payments: An Investigation among Managers of Italian Private SMEs

Master's Thesis of:

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ABSTRACT

The thesis analyzes whether the gender of the supervisor affects fairness perceptions of annual bonus payments for subordinates. A survey conducted among 112 managers of Italian private SMEs demonstrates that, for female employees, the gender of the supervisor matters in order to assess distributive and procedural justice of annual bonus payments. In fact, women exhibit lower distributive fairness perceptions when evaluated by male supervisors compared to when evaluated by female supervisors. In addition, this relation between gender of the superior and the perceived distributive fairness of annual bonus payments for female managers result to be mediated by the perceived procedural fairness and moderated by locus of control. On the other hand, the study suggests that the gender of the supervisor is not a factor considered by male subordinates in assessing distributive and procedural justice of their annual bonuses. Hence, gender disparity still appears to be a concrete issue in organizations, specifically at managerial levels. In fact, as the thesis demonstrates, female employees still perceive a different treatment regarding assignments of rewards compared to their male colleagues.

LIST OF CONTENTS

1. INTRODUCTION

The aim of this thesis is to analyze the relation between the gender of the supervisor and fairness perceptions of annual bonus payments for male and female subordinates, assuming the presence of subjectivity in the performance evaluation process. In particular, the study responds to the following research questions:

Research question$_1$: Does the gender of the supervisor affect the perceived distributive fairness of annual bonus payments for subordinates?

Research question$_2$: Is the relation between the gender of the supervisor and the perceived distributive fairness of annual bonus payments for subordinates mediated by the perceived procedural fairness of annual bonus payments for subordinates?

Research question$_3$: Is the relation between the gender of the supervisor and the perceived procedural fairness of annual bonus payments for subordinates moderated by locus of control of subordinates?

Past research has identified fairness perceptions as relevant criteria to assess employees' pay satisfaction, trust in supervisors, organizational commitment and turnover intentions, key variables organizations have to consider (Lee and Farh, 1999; Erdogan, 2002). In addition, Fisher (2010) has demonstrated that fairness concerns are also relevant because they can affect the so-called happiness at work, factor that is influenced by chronic conditions in the work place, such as fairness concerns, and by the fit between what the job provides and workers expectations, needs, and preferences (Saridakis et al, 2013). About the matter, Levy and Williams (2004) have stated that the perfect criterions to evaluate the accuracy and efficacy of a performance appraisals system are ratees' reactions, such as justice perceptions. Hence, provide an answer to the research questions cited above is important. In fact, firms, being aware of the effect the gender of supervisors has on employees' justice perceptions, can improve these perceptions for minimizing turnover costs, chances of losing valid human capital and costs for performance incentives that not truly compensate workers' effort. Moreover, realizing the effect the gender of superiors has on subordinates' fairness perceptions would help firms in implementing performance evaluation methods that ensure equality for men and women. Dealing with inequality issues would in fact be beneficial for organizations in order to maintain healthy relations between people within the firm, fundamental aspect to share a company culture of respect of the counterparties and to create a business that prospers over time.

Considering that management control research inspects how employees contribute to a specific organization and how their contribution is evaluated and rewarded, my study is therefore particularly relevant to the field of management control. In fact, distributive and procedural justice perceptions of annual bonus payments are fundamental factors to evaluate the efficacy of a discretionary bonus plan, considering that previous research has demonstrated that the success of a rewards system relies upon the confidence an employee has in being rewarded with the specific system (Levy and Williams, 2004).

In order to answer my research questions, I conduct a survey among 112 managers with an annual bonus in 2015 in Italian private small and medium-sized enterprises. Employees contacted were 60 male and 52 female, with both male and female supervisors and they were asked about distributive and procedural fairness perceptions of their annual bonus payments.

The thesis' results show that female employees present a lower perceived distributive fairness of annual bonus payments when the supervisor is male compared to when the supervisor is female. In addition, the relation between gender of the supervisor and distributive fairness perceptions of annual bonus payments for female subordinates is mediated by procedural fairness perceptions and moderated by locus of control. In particular, female employees with male superiors that present a less internal locus of control appear to perceive even lower distributive fairness of annual bonus payments compared to female employees with male superiors that present a more internal locus of control. On the other hand, the gender of the supervisor appears to not matter in assessing distributive fairness of annual bonus payments for male subordinates (and neither the mediation effect of procedural fairness perceptions of annual bonus payments and the moderation effect of locus of control of male managers).

My study contributes to the literature on gender bias in subjective performance evaluation processes, and in particular to the literature on the interaction effect between sex of the rater and sex of the ratee to evaluate gender discrimination in performance appraisals. In fact, while past research has analyzed whether the gender of the supervisor, in relation with the use of subjective performance evaluation systems, influences the accuracy of performance ratings (Terborg and Shingledecker, 1983; Davison and Burke, 2000; Levy and Williams, 2004), no prior study has considered ratees' reactions to these evaluation systems, such as distributive and procedural justice perceptions. Only Maas and Torres-González (2011) have directed their research to individual perceptions of organizational attractiveness and likelihood of receiving an above-average bonus in relation to the interaction effect between gender of the rater and gender of the ratee. However, their study was built in an experimental setting, while mine is built in real organizational contexts. Furthermore, Maas and Torres-González (2011) have treated locus of control as a control variable, while my study considers this construct a moderator of the relation between gender of the supervisor and justice perceptions of annual bonus payments for employees.

My research also contributes to the literature on fairness perceptions in subjective bonus plans. In fact, while past research has analyzed the relation between employees' fairness perceptions of performance assessment processes and related rewards and factor such as trust, organizational commitment and turnover intentions (Erdogan, 2002; Hartmann and Slapničar, 2009), no prior study has considered the perspective of gender disparities in assessing justice perceptions of annual bonus payments. In particular, Voußem et al (2015) have investigated whether the achievement of bonus targets and the weight on subjective performance measures influence distributive and procedural justice perceptions of annual bonus payments for managers. However, the authors have considered both benefits and distortions derived from the use of subjectivity in performance appraisals, while my study specifically focuses on reactions in the assessment of fairness perceptions a gender bias in the performance evaluation can create. Moreover, Voußem et al (2015) have treated perceived distributive and procedural justice as two separate concepts in managers' mind. Instead, my research develops a partial mediation effect of procedural fairness in the relation of the gender of the supervisor and distributive fairness perceptions of annual bonus payments for subordinates, exhibiting that employees' minds partially shape distributive justice perceptions on procedural justice perceptions.

As stated above, my research demonstrates that the gender of the supervisor matters in order to assess fairness of annual bonus payments for female but not for male employees: in fact, women clearly prefer being evaluated by other women rather than by men in the presence of a discretionary bonus plan. Therefore, these findings imply that gender disparity in the work environment represents a concrete issue, still rooted in organizations, specifically at managerial levels. In fact, female employees still perceive a different treatment regarding assignments of rewards compared to their male colleagues, treatment that is mirrored by justice perceptions of their bonus payments. Therefore, to reduce this disparity, the use of an objective assessment of performance in order to determine bonus amounts would be beneficial for women with male superiors, because the utilization of objective and quantitative performance measures would leave less room for male raters' discretion. Doing that, distributive and procedural fairness perceptions of annual bonus payments for female subordinates would be improved and consequently, also the efficacy of rewards systems and organizational attractiveness for female talents.

This thesis is structured as follows. Section 2 presents a review of the essential literature (in particular, a review in the research on gender bias in subjective performance evaluation processes and in the research on fairness perceptions in subjective bonus plans). Section 3 displays the development of my hypotheses. Section 4 presents the method, model and variables utilized for answering my research questions. Section 5 displays the findings of my thesis and the additional analyses conducted to support these findings. Finally, section 6 presents discussion, limitations and implications for further research.

2. LITERATURE REVIEW

This thesis is linked to two streams of literature. Firstly, it relates to the literature on gender bias in subjective performance evaluation processes. Secondly, it relates to the literature on fairness perceptions in subjective bonus plans.

2.1 *Gender bias in subjective performance evaluation processes*

Research has demonstrated that subjectivity in performance assessments implies high ambiguity in the performance criteria, ambiguity that increases the possibility of biased evaluations (Nieva and Gutek, 1980). In fact, evaluations of subordinates' performance that use subjective information could leave room for raters' discretion, causing inaccurate performance ratings and favoritism (Prendergast and Topel, 1993; Bol, 2011).

Previous literature has affirmed that subjectivity can enter the performance evaluation process in three stages: target setting, performance measurement and final assessment to assign performance-based rewards (Hartmann and Slapničar, 2009). Hartmann and Slapničar (2009) stated that, in regard to target setting, supervisors can explain performance targets in quantitative and formal terms (formality of target setting), or in qualitative and informal terms (informality of target setting, whose accomplishment cannot be assessed objectively). With respect to performance measurement, formality relies on quantitative and objective measures, such as financial numbers, while informality relies on qualitative and subjective measures, such as personality, social interaction and professionalism (Moers, 2005). Regarding the final assessment, formality depends on a strict formula-based approach for the final determination of rewards and bonuses, while informality depends on the discretional judgment of the supervisor.

Evidence of bias in performance evaluation has different origins.

Firstly, bias in performance appraisals can derive from inaccuracy in the performance ratings. For example, Prendergast and Topel (1993) found that organizations sometimes promise to reward employees on the base of subjective performance measures, but ex post the companies can follow reneging practices, considering the performance standards as not met to reduce the cost of wages. Bol (2011) suggested that inaccurate ratings are also the output of leniency bias (tendency to boost subordinates' ratings) and centrality bias (tendency of ratings' compression).

Secondly, supervisors can use their discretion strategically to reward specific employees, creating problems of favoritism (Prendergast and Topel, 1993). Race, age and gender biases in performance appraisals can arise in fact when performance evaluation systems are based on discretion (Arvey and Murphy, 1998). For example, Kraiger and Ford (1985), analyzing the effect of the ratee race on performance evaluations, showed that supervisors give higher ratings to subordinates of their own race; in particular, white raters evaluate white ratees extremely better than black ratees, meanwhile the opposite happens in case of black raters. Besides, Waldman and Avolio (1986) demonstrated that age presents a negative relation with performance ratings given by supervisors. Moreover, research has broadly discussed gender bias in subjective performance evaluation processes and has found in this bias the motive why women, even if equally competent, present less probability of success at work compared to men colleagues (Nieva and Gutek, 1980; Cotter et al, 2001). Nieva and Gutek (1980) have theorized that considering equivalent skills or performance, there is a tendency to provide male employees with more favorable appraisals than female colleagues. On the contrary, gender bias does not appear in performance evaluations when objective measures are utilized and performance is assessed accordingly (Deaux and Emswiller, 1974; Maas and Torres-González, 2011). Robbins and DeNisi (1993) have also demonstrated the existence of a pro-male bias in performance ratings, driven by the congruence of ratee's gender with the role suggested by the type of job. In fact, supervisors present stereotypes of ideal employees for a job, and their assessments mirror the perceptions they possess of the quality of fit of the subordinate evaluated in the job. Considering the negative stereotypes regarding female competence in managerial positions, women therefore receive deflated appraisals compared to men colleagues in these positions. Some research has approached the pro-male bias in performance ratings by finding support of higher performance appraisals when supervisors perceive subordinates to present similar characteristics to themselves, such as gender. However, this perceived similarity works only in case of female ratees, while for male ratees the gender of the rater has never mattered for differences in performance ratings. For example, Maas and Torres-González (2011) demonstrated that the higher is the probability for a female subordinate of being evaluated by a female supervisor that utilizes subjectivity in the evaluation, the higher is the perceived organizational attractiveness and perceived likelihood of receiving an above-average bonus amount. The opposite has been shown for female subordinates with male supervisors. No perceptions differences have been demonstrated for male ratees, who do not address importance to the gender of their raters. Likewise, Davison and Burke (2000) have investigated the relation between gender of the rater and ratings of male and female ratees, in the particular context of selection and hiring situations. The authors suggested that when the rater is a man, male applicants are characterized by higher ratings compared to female applicants. However, male applicants are also characterized by higher ratings compared to female applicants when the rater is a woman, demonstrating that there is a clear pro-male favoritism in selection and hiring situations. Similarly, Nieva and Gutek (1980) have argued that persistent bias is present in selection and promotions: in fact, in these cases supervisors have high discretion in the performance evaluation. In addition, an estimation of future employees' skills from present accessible information is needed: specifically, for hiring and promotions decisions, performance of a specific candidate has to be recognized as repeatable in the future, and therefore related to internal factors, such as ability. Deaux and Emswiller (1974) suggested that in masculine tasks, such as managerial responsibilities, performance by a man is considered as related to skill, while identical performance by a woman in equivalent tasks is attributed to luck. The opposite does not happen in female-related tasks: even in these situations, males are considered as more skillful, whereas female successful performance is again attributed to luck. Since performance of men is always recognized as a result of ability, a pro-male bias is then highly present in hiring and promotion situations. For example, male job applicants are preferred over female job applicants with equivalent qualifications and they gain a higher initial pay (Nieva and Gutek, 1980).

In particular, considering promotions, research has broadly investigated the so-called *glass ceiling*, a phenomenon that clearly proves that males are favored regarding career's advancements. The *glass ceiling* in fact is defined as a gender difference not caused by job relevant employee's attributes, but rather by attitudinal and organizational barriers to impede female advancement to top levels in organizations (Powell and Butterfield, 1994; Cotter et al, 2001).

Favoritism behaviors for men emerge beyond selection situations and promotions.

The relation between performance and relative pay can also be discretional and this gives supervisors an opportunity for discriminating. In fact, gender pay gap has been documented by past research, specifically in managerial positions. As more a woman advances in a specific organization, the bigger becomes the pay gap, reaching a value of 30% at top levels (Kulich et al, 2011). Arulampalam et al (2007) have investigated how the gender pay gap varies across the distribution of wages in eleven European countries. The authors demonstrated that women clearly receive lower wages compared to men. In particular, the gender pay gap results to be more emphasized at the top rather than at the bottom of the distribution of wages, demonstrating that the difference in pay is highly accentuated at managerial levels.

Moreover, according to Belman and Heywood (1988), supervisors can directly control and remunerate productivity by paying salaries that differ across employees' levels of output: when a particular employee is more productive, this employee will be compensated with higher returns; examples of such compensation systems consist of piece rates. Besides, when production depends upon complex processes or relies on quality dimensions, piece rates cannot be utilized. Alternatively, supervisors reward effort on the base of subjective measures of performance; examples of such reward systems are subjective bonus plans. As already stated above, in the case when performance is not evaluated on the base of an objective output, supervisors can easily discriminate, manipulating the scores resulting from the assessment of a specific worker's effort. Therefore, women present the tendency to self-select themselves in piece rates' job rather than in jobs rewarded from bonus schemes, because they feel there is less room for discrimination by their supervisor (Geddes and Heywood, 2003). About the matter, research has revealed that gender is a determinant for differences in individual performance compensation (Booth and Frank, 1999; Geddes and Heywood, 2003). In fact, women are expected to be compensated more by piece rates rather than by performance related pay (PRP), such as commissions and bonuses (Booth and Frank, 1999). In their study of the UK labor market, Booth and Frank (1999) demonstrated that female employees are 8% less likely to be rewarded by performance related pay and in the case when they are compensated on the base of PRP, this compensation system relates to almost 6% higher returns for females, compared to almost 9% higher returns for males. Kulich et al (2011) also suggested that bonuses granted to male employees are larger than bonuses awarded to female employees.

Summarizing, pro-male bias is an evident phenomenon that appears at each level of an employee's subjective performance evaluation: from performance ratings to related salary and rewards; from hiring situations to promotion opportunities.

2.2 *Fairness perceptions in subjective bonus plans*

Previous research has identified two different approaches to deal with the concept of justice in organizational settings; justice perceptions are in fact differentiated in distributive and procedural fairness perceptions (Greenberg, 1986). Distributive fairness expresses the perceived justice of the remuneration amounts, such as bonus amounts, that employees receive, while procedural fairness indicates the perceived justice of the evaluation procedures utilized to determine these remuneration amounts (Folger and Konovsky, 1989; Colquitt et al, 2001; Erdogan, 2002). Equity theory stated that in order to assess distributive justice perceptions, employees mentally calculate a ratio composed by effort put in the job and rewards get from it, such as bonus payments. Workers then compare the ratio calculated to a referent other (Adams, 1965). In particular, Greenberg et al (2007) have distinguished between internal comparisons and external ones. Internal comparisons include comparisons with a referent other with whom the subject presents a relationship (examples are colleagues in an organization), while external comparisons are made with external standards, who are not part of the subject's organization. Besides, according to referent cognition theory, individuals assess procedural justice perceptions by creating the so-called referent cognitions, mental reproductions in which the individual evaluates an unfair outcome as the result of a procedural injustice, because unfavorable evaluations bring in mind that more adequate procedures could have led to a more fair outcome (Folger and Martin, 1986; Greenberg et al, 2007). In addition, individuals evaluate whether the procedures utilized reflect normative principles, such as persistent application of the procedures across time and different subjects, adoption of correct information, absence of bias, clarity of evaluation standards used and possibility to express opinions throughout the procedures (Erdogan, 2002; Voußem et al, 2015).

Previous studies have found that fairness perceptions of performance assessment processes and related rewards are relevant criteria to determine organizational commitment, trust in supervisors, pay satisfaction and turnover intentions, key variables in organizational settings (Lee and Farh, 1999; Erdogan, 2002). In particular, McFarlin and Sweeney (1992) have exhibited that procedural fairness perceptions result to be important predictors to assess organizational commitment, while distributive justice perceptions result to be important predictors of personal results, such as pay satisfaction. Similarly, Folger and Konovsky (1989) have demonstrated that distributive justice perceptions are only related to a pure evaluation of pay satisfaction, whereas only procedural justice perceptions have direct consequences on trust in supervisors and organizational engagement. Moreover, Hartmann and Slapničar (2009) demonstrated that higher formality of performance appraisals systems relates to higher trust in supervisors, and that this relation is mediated by procedural fairness perceptions. In fact, employees shape their level of trust in superiors on the justice perceptions they have regarding the procedures utilized in order to evaluate their performance. In addition, fairness perceptions in the work setting have resulted to be fundamental for the efficient operation of structures in organizations, for workers' mental health, for their approach to supervisors and to the firm and for the prosperity of the business (Schmitt and Dörfel, 1999). High justice perceptions in organizations are also beneficial to avoid sabotage, theft and any other disruptive attitudes (Shrivastava and Purang, 2012).

According to Gibbs et al (2004), subjectivity in bonus contracts appears in several ways: (1) all or part of a bonus is based on subjective performance measures. (2) The weights on all or some objective performance measures are subjective (supervisors generally define measures used in the performance evaluation process without defining how each measure will be weighted). (3) A subjective performance target is utilized, in which case the evaluator discretionary determines whether paying a bonus on the base of performance and other elements. These three varieties of subjectivity in bonus contracts can be utilized in combination.

Voußem et al (2015) have demonstrated that distributive and procedural fairness perceptions of annual bonus payments vary across different levels of bonus plans' subjectivity. In fact, high justice perceptions relate to the benefits derived from discretion in performance appraisals, such as subjective adjustments for uncontrollables in financial accounting indicators, but only for low levels of discretion. On the contrary, low justice perceptions identify ambiguity in the performance assessment criteria, inaccuracy in the performance ratings and supervisors' favoritism when the weight on discretion is higher. Therefore, the authors have exhibited that there is a U-shaped relation between the emphasis placed on subjectivity and employees' distributive and procedural fairness perceptions of annual bonus payments.

About the matter, some benefits can derive from discretionary bonus payments. Subjectivity in bonus plans represents in fact an important tool to correctly assess employees' performance: it allows supervisors to rely on non-contractible information to measure employees' contribution to firm value, normally arduous to capture using objective performance measures (Voußem et al, 2015). Moreover, the adoption of subjectivity in bonus assignments mitigates the risk that managers sacrifice long-run performance to maximize short-term performance. This risk can arise when bonuses are only based on objective measures such as financial accounting numbers: these measures are in fact backward looking, do not perfectly represent consequences of employees' choices on future firm performance and can be subject to manipulation (Ittner et al, 2003). In addition, discretion can reduce noise of formula-based bonuses by eliminating the effect of uncontrollables (events whose impact on firm value cannot be influenced by the employees themselves) and allows the supervisor to employ additional information in performance appraisals that arises during the measurement period (Gibbs et al, 2004).

However, discretionary bonus payments involve superior's subjectivity, and therefore subjective assessments are not effective when the supervisor makes unfair and biased evaluations (Gibbs et al, 2004). In fact, discretion reduces the possibility to differentiate between workers, affects the reliability of performance appraisals that can be influenced by cognitive biases of superiors, and decreases mission clarity that consequently reduces motivation (Van Rinsum and Verbeeten, 2012). When superiors formally communicate targets, measure performance utilizing objective measures and reward employees on the base of transparent allocation rules, performance assessments appear as accurate and not biased, compared to when supervisors utilize implicit performance targets, measure performance using subjective measures and reward employees through personal judgment (Hartmann and Slapničar, 2012). Hence, bias in performance appraisals can result in negative reactions to the evaluation process, determining low levels of perceived justice of the outcome of the process and of the process itself (Levy and Williams, 2004).

3. HYPOTHESES DEVELOPMENT

Research in cognition and social behavior has demonstrated that individuals assign others to categories, and stereotypes result from the assignment to these categories (Feldman, 1981). According to the gender roles' theory (Eagly and Wood, 1991), men belong to the agentic dimension, and therefore they are expected to be more task oriented, masterful, competent and independent. On the other hand, women belong to the communal dimension, and therefore they are expected to be more interpersonal relations oriented, concerned with others, unselfish and friendly. These role expectations are related to the roles of men and women in society: the existence of such socially constructed rules about male and female behavior is reflected in gender stereotypes (for example, women's responsibility for children and other domestic work). In performance appraisal processes, supervisors tend to assign subordinates to gender categories, especially given that sex differences are not only simple stereotypes in people's mind, but they appear also in natural settings (Eagly and Wood, 1991). This categorization is highly probable in the work environment because superiors have often few direct information about employees' behavior, and their personal contact with subordinates is sometimes circumscribed to occasional situations (Feldman, 1981).

Prior studies have also shown that individuals recognize others as members of their own group, with whom are more familiar, or of another group (Maas and Torres-González, 2011). Members of another group are more sensitive to stereotyping: in fact, differentiation of out-group members is arduous compared to differentiation of in-group members, because characteristics of the in-group are not known (Davison and Burke, 2000). Moreover, since individuals create more contacts with members of their own group, it is more likely that they will favor in-group components rather than out-group, because members of their own group are assumed to present more favorable traits (Jussim et al, 1987). In addition, Davison and Burke (2000) attested that individuals are more inclined to favor members of their own group over members of the opposite group when competition is present between these two groups (for example, in the case of annual bonus assignments).

In agreement with the theoretical framework stated above, male supervisors may identify female subordinates as members of the out-group, considering also their belonging to different gender roles' categories. Under the assumption of informality of the performance appraisal process, where superiors can use discretion in evaluating employees for the assignment of rewards such as annual bonuses (Hartmann and Slapničar, 2009), female ratees could then feel they would be susceptible to stereotyping by male raters. Consequently, women could perceive that they would be discriminated and that they would receive lower ratings compared to their men colleagues: this perceived pro-male favoritism will be translated in lower distributive fairness perceptions, because female subordinates recognize that annual bonus payments' amounts reflect ratings based on probable biased judgments. On the other hand, female supervisors may identify female subordinates as members of the in-group. Female ratees could then feel they would be favored by female raters: this perceived favoritism will be therefore translated in a higher perceived distributive fairness of annual bonus payments.

Hypothesis 1: Male supervisors are related with a lower perceived distributive fairness of annual bonus payments, as compared to female supervisors, for female subordinates.

Male subordinates may perceive they would be identified as members of the in-group by male supervisors, and therefore they would not feel they would be subject to stereotyping. Men could perceive that they would be favored compared to women colleagues: male subordinates will consider annual bonus payments' amounts as a reflection of fair, or even favored judgments, and they will present higher distributive fairness perceptions. On the contrary, male subordinates may perceive they would be identified as members of the out-group by female supervisors, and therefore they would feel they would be subject to stereotyping. Male ratees with female raters will therefore present lower distributive fairness perceptions of annual bonus payments.

Hypothesis 2: Male supervisors are related with a higher perceived distributive fairness of annual bonus payments, as compared to female supervisors, for male subordinates.

3.1 *Gender of the supervisor, perceived distributive fairness and the mediating effect of perceived procedural fairness of annual bonus payments*

Prior research has treated perceived distributive fairness and perceived procedural fairness as two different, but correlated, constructs: in fact, these studies showed a correlation between the two justices of around 0.70 (Colquitt et al, 2001; Erdogan, 2002; Voußem et al, 2015).

In particular, referent cognition theory has demonstrated that procedural fairness perceptions influence distributive fairness perceptions. According to this theory, resentment, the moral consequence of an unfair outcome, plays a key role in shaping the relation between the two justices (Folger, 1987). The theory related resentment to two potential basis: (1) the consideration of a possible outcome that would have been more gratifying that the one obtained;

(2) a belief that someone with decision-making authority has behaved incorrectly and that therefore should have acted differently, basing for example the final outcome on different procedures (Folger, 1987). A procedural injustice produces an unfair outcome because unfavorable evaluations bring in mind that more adequate procedures could have led to a more fair outcome. Actual outcomes are therefore assumed to be inferior compared to what an unbiased procedure would have produced, and these injustice perceptions are more pronounced in real settings rather than in laboratory contexts (Folger and Martin, 1986).

Accordingly, I expect that in the assessment of fairness perceptions regarding annual bonus payments, subordinates will shape judgments of distributive justice on the base of procedural justice.

Hypothesis 3: Perceived procedural fairness of annual bonus payments for subordinates mediates the relation between gender of the supervisor and perceived distributive fairness of annual bonus payments for subordinates.

3.2 *Gender of the supervisor, perceived procedural fairness of annual bonus payments and the moderating effect of locus of control*

According to Rotter (1966), individuals react to rewards differently; an important source of this reaction is the degree to which a person identifies the reward as dependent on his own actions or on external forces, such as luck, fate or authoritative others. In particular, in work settings, these rewards can incorporate salary increments, such as bonus payments, or promotions (Spector, 1988). In the case that these rewards are perceived by the individual as subject to his own behavior, this belief is defined as internal locus of control; on the contrary, when the rewards are perceived by the individual as subject to external factors, this belief is defined as external locus of control (Rotter, 1966). Internals are confident and careful and they believe in a strong relation between their actions and the consequences, while externals are passive to the external environment and they think they are not executors of their own fate (Ng et al, 2006).

In particular, VanderZee et al (1997) analyzed the relation that locus of control presents with the concept of social support. In organizational settings, supervisors are a source of social support for employees and the absence of this specific support relates to workplace strains, such as job dissatisfaction and low commitment (Ganster et al, 1986). Social support by supervisors can appear in form of appraisal support, that is assistance in evaluations' feedbacks (Nelson and Quick, 1991).

Considering social support in relation to the personal trait locus of control, VanderZee et al (1997) stated that individuals that present an external locus of control feel the necessity of social support in order to cultivate a sense of well-being, since they perceive themselves as impotent and incapable of influencing their own achievements. In particular, sense of well-being is a key variable to assess fairness perceptions in organizations; Schmitt and Dörfel (1999) demonstrated that procedural injustice perceptions are negatively related with variables such as job satisfaction and sense of well-being: in fact, the perception of low procedural fairness originates negative emotions that are related with low job satisfaction and sense of well-being.

On the other hand, individuals that present an internal locus of control realize that they have control over any positive results they achieve, because this accomplishment is due to their own behavior; therefore, this belief makes internals less dependent on social support from others.

Conforming to the theoretical evidence above, I therefore expect that a lower internal locus of control (i.e. higher external locus of control) will strengthen the negative relation between male supervisors and perceived procedural fairness of annual bonus payments for female subordinates. In fact, when female employees present lower internality, they tend to believe that their rewards, like bonus payments, depend more on external factors, such as decisional power of their supervisors in assigning these rewards. They will then perceive even lower procedural fairness, due to the lower social support by the supervisor, caused by the possible stereotyping that they would be subject to.

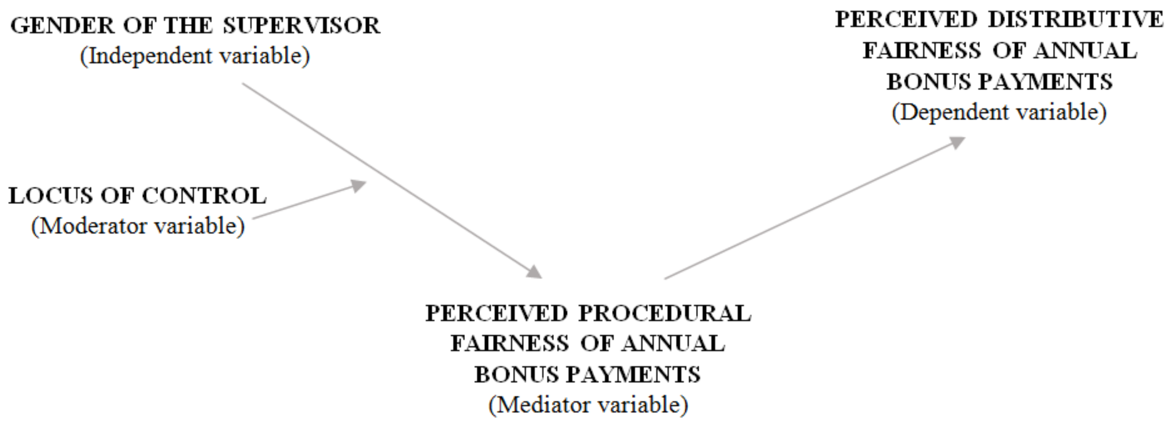
Hypothesis 4: The negative relation between male supervisors and perceived procedural fairness of annual bonus payments for female subordinates is stronger when internal locus of control of female subordinates is lower compared to when internal locus of control of female subordinates is higher.

I also expect that a lower internal locus of control (i.e. higher external locus of control) will strengthen the positive relation between male supervisors and perceived procedural fairness of annual bonus payments for male subordinates. In fact, the supposed favoritism from male supervisors is perceived by male employees even more strong in the case that rewards are expected to depend on the assigning power of male superiors rather than on subordinates' own capabilities. In addition, this favoritism relates to strong social support by the supervisor, perceived as more important for externals in order to assess high fairness perceptions.

Hypothesis 5: The positive relation between male supervisors and perceived procedural fairness of annual bonus payments for male subordinates is stronger when internal locus of control of male subordinates is lower compared to when internal locus of control of male subordinates is higher.

All the five hypotheses above are stated in alternative form.

Figure 1 – Theoretical framework



4. METHOD

4.1 *Sample*

The sample is constituted of managers of Italian private small and medium-sized enterprises. According to the standardized European Union definition, SMEs are firms that have less than 250 employees, a maximum of 50.000.000 euros of annual turnover and a maximum of 43.000.000 euros of annual balance-sheet total (European Commission, 2015). In my sample, I do not consider managers of micro-sized enterprises, realities with less than 10 employees, a maximum of 2.000.000 euros of annual turnover and a maximum of 2.000.000 euros of annual balance-sheet total, because extremely small companies in which performance rewards such as bonus payments are less likely.

The sample contains two different sub-samples. Sub-sample_1 consists of 52 female subordinates, 28 with male supervisors and 24 with female supervisors. Sub-sample_2 consists of 60 male subordinates, 41 with male supervisors and 19 with female supervisors. Table 1 reports sample characteristics.

Table 1 – Sample characteristics (full sample)

	Level of education	Industry
High School	23	
Bachelor Degree	11	
Master Degree	74	
Doctorate Degree	4	
Machinery and plant engineering		4
Chemicals and allied products		10
Automotive manufacturing		20
Metal production and fabricated material		7
Other manufacturing industry		29
Construction		1
Retail		3
Public administration and NPO		9
Other services		9
Media and IT		9
Other		11

The table reports level of education and industry of employment of the full sample.

The choice of the Italian context presents some strengths and some weaknesses. The strengths firstly relate to the fact that being Italy my country of origin, it has been easier for me to investigate my research question in a real organizational setting, since I have utilized some personal contacts of mine in order to reach, with my survey, actual managers. Choosing a sample from a different country would have obliged me to conduct my study among experiment participants such as students. In this case, findings of my thesis would have represented perceptions of not working individuals and therefore would have not captured whether the relation between gender of the supervisor and subordinates' fairness perceptions of annual bonus payments would have been significant also in natural settings. Secondly, the Italian context still presents rooted gender occupational and salary disparities in organizations. In 2014, Eurostat statistics have showed that the difference between the employment rates based on gender was 16 percentage points, displaying Italy as the second lowest level of female employment rate country in the European Union. In particular, considering small and medium-sized enterprises, Italy shows an actual gender pay gap of 20 percentage points in disfavor of women, a high dropout rate after maternity and a 45 minutes longer working day for female employees compared to male employees (data from the *Italian National Council for Economics and Labor*). Therefore, analyzing whether gender of the supervisor would be a factor to take into consideration in order to reduce these gender disparities, in particular in the context of SMEs, is extremely valuable in the Italian organizational context. Thirdly, collecting my data from a sample of a unique country has made my respondents a homogenous group of individuals, not characterized by cultural differences that could have maybe biased my findings.

The main weakness observed in choosing the Italian context is the generalizability of my results. In fact, while my model and the variables utilized are usable also for other territorial contexts, my findings cannot be generalizable. In fact, in countries were gender disparities are less present in organizations, I expect that employees would not perceive differences in justice perceptions of their annual bonus payments in accordance with the gender of their supervisors. In fact, in contexts characterized by a less evident gender disparity, I presuppose that performance appraisals would be the result of a not stereotyped judgment of performance in favor or disfavor of a particular gender group.

4.2 *Research Design*

I conduct a survey study among 112 employees, 60 male and 52 female, in Italian small and medium-sized private companies. I have decided to conduct a survey study for three main reasons. Firstly, there are no publicly available data on the constructs analyzed in the thesis. Secondly, my study focuses on the individual level of analysis. Thirdly, research in the field of fairness perceptions regards private information and therefore needs anonymity of the data collection.

4.2.1 *Survey development*

I distribute the questionnaire survey by email in order to make the process of a relatively large collection of data easier and faster. A representative of an Italian association of small and medium-sized enterprises, a personal contact of mine, has approached recipients. I utilize *Qualtrics* as data collection software, because it is widely used for surveys and it can therefore be considered as reliable by respondents; in addition, *Qualtrics* functions for Internet Explorer and Google Chrome, most common used browsers.

Emails sent are concise: in fact, concise emails are less likely to annoy the recipients and therefore assure higher response rates (Baatard, 2012). Emails consist of a brief introduction to the survey, a reference to how much time the survey would approximately take, a guarantee of anonymity and confidentiality and a thanks for the time dedicated and the support given. In particular, I make the survey introduction as vaguer as possible, but still descriptive in order to attract respondents; in the introduction, there is in fact no specific reference to justice perceptions of annual bonus payments but rather an indication of the more general topic annual bonus payments in the context of Italian small and medium-sized private firms. Taking this measure is a way to reduce self-selection bias, because a specific introduction regarding fairness perceptions would have maybe attracted more respondents with really low or really high fairness perceptions of their annual bonus payments, making the responding sample not representative of the underlying population.

I provide a link to the questionnaire in each email: therefore, in order to assure anonymity, recipients are not asked to return by email the responses.

Recipients are also invited to contact me by phone or email in case of doubts and questions.

I send every email to each recipient individually and not using a group message; individuals contacted cannot therefore identify email addresses of other respondents: this ensures confidentiality and avoids recipients to connect with other survey participants.

Research has proved that an important determinant of high response rates consists of multiple contacts (Schaefer and Dillman, 1998). In order to assure anonymity and increment the response rate, I therefore send two reminders with questionnaire to all recipients: the first after two weeks from the initial e-mailing, the second after a week from the first reminder; in the reminders employees are asked to fill out the questionnaire if they have not already completed it. After the second reminder, the survey remains accessible for four more days.

Podsakoff et al (2003) have stated that sometimes respondents tend to give rational answers in order to appear consistent with what they assume is expected by the researcher and this effect is more common in studies that analyze individuals' perceptions. In addition, the authors have affirmed that interviewed employees can create personal implicit correlations between investigated variables while responding to the questionnaire. These tendencies would lead to common method variance that, according to the definition given by Podsakoff et al (2003), is the variance that results from the measurement process rather than the variables the measures exemplify. This variance relates to distorted relations between constructs and to altered findings. In order to limit these biases, I guarantee anonymity and I inform recipients that there are not right or wrong responses to the questionnaire: these two remedies would probably convince employees to be more sincere as possible regarding their fairness perceptions of annual bonus payments and therefore less inclined to any consistency effect (Podsakoff et al, 2003). Further, I ask respondents about the gender of their supervisor (my independent variable) almost at the end of the survey, where information to measure control variables and demographics are collected. The positioning of this specific question far from questions about perceived distributive and procedural fairness is expected to reduce the probability of the creation of any possible correlation between these variables by recipients. Therefore, the likelihood that employees would understand that the objective of the research is to assess perceptions of gender discrimination in annual bonus payments is lower and lower is then the probability that they would respond in accordance to this perceived possible relation. Because I spread the questionnaire online, respondents cannot come back to questions they have already answered: this helps in controlling more for any possible relations that employees can create between measured variables while responding to the survey.

I underline and mark in bold key words that can help respondents to understand the difference between questions regarding perceived distributive and procedural fairness of annual bonus payments. This would help to avoid ambiguity and misunderstanding of questions regarding two important measures, such as my independent and mediator variables.

At the end of the questionnaire, I add a direct question that ask respondents which they think is the goal of the survey: in fact, respondents can directly express to which extent they understand the purpose of my study. This would help me understand in which proportion respondents were aware of the topic of my thesis after they have filled the questionnaire in.

Due to the sample, I firstly draft the questionnaire in English, and then I word it in Italian. The survey items in the English version are based on prior research, and therefore their validity and reliability have already been verified by past literature. Pre and pilot tests allow me to also verify validity and reliability of the Italian questionnaire before the final data collection.

A graduated master student in Italian linguistics checks the Italian version of the questionnaire in order to assure a correct grammatical formulation of the translated questions.

I make the questionnaire layout as clearer as possible.

4.2.2 *Pre and Pilot testing*

I perform pre and pilot tests in order to identify and solve possible issues of the questionnaire.

I run a pre-test using the Italian version of the survey. I ask three pre-test employees to respond to the questionnaire in my presence, and subsequently I interview them in person. Following the suggestions given by the pre-test respondents, I produce modifications to phrases' wording; these modifications increment the understandability of questions, in order to assure higher response rates and lower common method variance issues (Podsakoff et al, 2003). In particular, the pre-test is useful in order to correctly determine the placement of the question regarding the relative bonus amount; in fact, two out of three pre-test respondents have evaluated the question as critical, because it was recognized as a numerical justification of the scores they assigned to perceived distributive and procedural fairness' items. Therefore, positioning this specific question after the main variables could convince respondents of abandoning the survey in case their bonus amount would not truly reflect their fairness perceptions. Accordingly, I decide to position the question at the end of the questionnaire. In addition, pre-test respondents have suggested to specify at the beginning of the questionnaire that the term *supervisor* in the study is related to the respondent's direct supervisor in the specific organization.

I conduct a pilot test among a sample of 23 managers, 10 male and 13 female. I perform a factor analysis using the data collected from the pilot respondents; this analysis shows high convergent and discriminant validity of my variables. I also measure a good variables' reliability. None of the pilot respondents has correctly guessed the exact purpose of my study, as well as none of the final respondents (i.e. gender favoritism in relation to bonus justice perceptions).

4.2.3 *Survey distribution*

I distribute the survey to 350 employees of Italian small and medium-sized private companies. Respondents who have participated to the survey are 112. A number of 27 questionnaires received are not usable since incomplete. The response rate is 32%. After all the changes made based on the pre and pilot tests, I finally ask respondents to answer 17 questions.

No specific questions suffer from non-response bias, but as expected, some respondents have not completed the last two questions of the survey regarding the perceived probable goal of the survey and additional comments.

4.2.4 *Model*

I test my model under the assumption of performance evaluation process' informality.

According to Hartmann and Slapničar (2009), informality results from the presence of subjectivity in the performance appraisal process; in particular, subjectivity can enter the process in three stages: target setting, performance measurement and final assessment to assign performance-based rewards. When discretion is present in even only one of these stages, the performance evaluation process is informal. I assess the presence of informality through direct questions to respondents regarding how targets are set, which measures are used to evaluate performance and whether bonus amounts are based on a final personal judgment of the supervisor. Questions on these components of informality specifically regard the year 2015 in order to avoid noise in the responses; furthermore, these questions are better explained through examples in order to maximize respondents' understanding. The focus of my research, as also specified in the survey questions, is circumscribed to evaluations conducted by supervisors. I do not consider for my dataset questionnaires for which the condition of performance evaluation process' informality is not satisfied.

In order to test the hypotheses, I follow the steps for mediation and moderation theorized by Baron and Kenny (1986). Coefficients are estimated separately for each single OLS regression.

Firstly, I regress perceived distributive fairness of annual bonus payments for subordinates (the dependent variable) on gender of the supervisor (the independent variable), not including locus of control (the moderator). Performing this regression allows me to test hypothesis 1 and hypothesis 2, or rather testing the relation between gender of the supervisor and perceived distributive fairness of annual bonus payments for male and female subordinates.

$$\mathrm{DISTRI\_FAIR} = \beta_0 + \beta_1\mathrm{GENDER\_SUP} + \beta_2\mathrm{TRUST} + \beta_3\mathrm{TENURE} + \beta_4\mathrm{TASK\_UN} + \beta_5\mathrm{AGE} + \beta_6\mathrm{COUNTRY} + \beta_7\mathrm{BONUS} \quad (1)$$

Secondly, I regress perceived procedural fairness of annual bonus payments for subordinates (the mediator) on gender of the supervisor (the independent variable), including locus of control (the moderator). Performing this regression allows me to test hypothesis 4 and hypothesis 5, or rather testing whether locus of control of subordinates moderates the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for male and female subordinates. In addition, performing this regression allows me to test the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for subordinates, in order to demonstrate the first step to test the mediation effect (or rather, hypothesis 3).

$$\mathrm{PROCED\_FAIR} = \beta_0 + \beta_1\mathrm{GENDER\_SUP} + \beta_2\mathrm{LOC} + \beta_3\mathrm{GENDER\_SUP} * \mathrm{LOC} + \beta_4\mathrm{TRUST} + \beta_5\mathrm{TENURE} + \beta_6\mathrm{TASK\_UN} + \beta_7\mathrm{AGE} + \beta_8\mathrm{COUNTRY} + \beta_9\mathrm{BONUS} \tag{2}$$

Thirdly, I regress perceived distributive fairness of annual bonus payments for subordinates (the dependent variable) on both gender of the supervisor (the independent variable) and perceived procedural fairness of annual bonus payments for subordinates (the mediator). Performing this regression allows me to test the relation between perceived procedural fairness and perceived distributive fairness of annual bonus payments for subordinates, in order to demonstrate the second step to test the mediation effect (or rather, hypothesis 3), not including the effect of locus of control and of the corresponding interaction term. In fact, considering the wording of my hypotheses, valuable is to test whether the effect of the perceived procedural fairness (the mediator) is still significant on the perceived distributive fairness of annual bonus payments for subordinates (the dependent variable) even when locus of control (the mediator) is not considered.

$$\mathrm{DISTRI\_FAIR} = \beta_0 + \beta_1\mathrm{GENDER\_SUP} + \beta_2\mathrm{PROCED\_FAIR} + \beta_3\mathrm{TRUST} + \beta_4\mathrm{TENURE} + \beta_5\mathrm{TASK\_UN} + \beta_6\mathrm{AGE} + \beta_7\mathrm{COUNTRY} + \beta_8\mathrm{BONUS} \tag{3}$$

Fourthly, I regress perceived distributive fairness of annual bonus payments for subordinates (the dependent variable) on both gender of the supervisor (the independent variable) and perceived procedural fairness of annual bonus payments for subordinates (the mediator), including locus of control (the moderator). Performing this regression allows me to test the relation between perceived procedural fairness and perceived distributive fairness of annual bonus payments for subordinates, in order to demonstrate the second step to test the mediation effect (or rather, hypothesis 3), including the effect of locus of control and the corresponding interaction term.

$$\text{DISTRI\_FAIR} = \beta_0 + \beta_1\text{GENDER\_SUP} + \beta_2\text{PROCED\_FAIR} + \beta_3\text{LOC} + \beta_4\text{GENDER\_SUP} * \text{LOC} + \beta_5\text{TRUST} + \beta_6\text{TENURE} + \beta_7\text{TASK\_UN} + \beta_8\text{AGE} + \beta_9\text{COUNTRY} + \beta_{10}\text{BONUS} \quad (4)$$

I execute the four OLS regressions created to test the hypotheses two times in SPSS: the first time on sub-sample$_1$ (female sub-sample) and the second time on sub-sample$_2$ (male sub-sample).

In the four OLS regressions, the variables TRUST, TENURE, TASK_UN, AGE, COUNTRY and BONUS represent control variables. In particular, TRUST exemplifies the level of subordinates' trust in their supervisors. TENURE represents the number of years employees have worked in their organization. TASK_UN exemplifies the perceived uncertainty of the tasks workers have to perform in their jobs. AGE represents the subordinates' age in years, while COUNTRY exemplifies the country of origin of employees. BONUS represents the annual relative bonus amount subordinates have received in 2015. Operationalizations of the control variables are in details explained in the subsequent section of the thesis (section 4.3, *Variable measurement*).

4.3 *Variable measurement*

4.3.1 *Gender of the subordinate*

Gender of the subordinate is not a real variable in my model; however, it represents the cornerstone characteristic to identify whether a respondent belongs to sub-sample$_1$, the female sub-sample, or to sub-sample$_2$, the male sub-sample. As I have already stated in section 4.2.4, *Model*, I run my analysis separately for each sub-sample.

4.3.2 *Gender of the supervisor*

The independent variable gender of the supervisor (GENDER_SUP) is a dummy variable, which equals 1 whether the supervisor is male and 0 whether the supervisor is female.

4.3.3 *Distributive and procedural fairness perceptions of annual bonus payments*

The dependent variable perceived distributive fairness of annual bonus payments (DISTRI_FAIR) is operationalized using three items, such as "I think that the bonus amount I have received in 2015 is fair", scaled by 1 "strongly disagree" to 5 "strongly agree". This measurement was created by Voußem et al (2015).

The mediator variable perceived procedural fairness of annual bonus payments (PROCED_FAIR) is operationalized using four items, such as "I think that the way in which my bonus was determined is fair", scaled by 1 "strongly disagree" to 5 "strongly agree". This measurement was created by Voußem et al (2015). I formulate questions regarding perceived distributive and procedural fairness of annual bonus payments concerning the 2015 bonus in order to avoid discrepancies in respondents' answers that could lead to noise in the hypotheses testing. I measure both the independent and the moderator variables using a direct approach that investigates fairness perceptions of bonus amounts received and procedures applied by addressing explicit and direct questions to respondents. A direct measurement approach for justice perceptions is strongly suggested by prior studies: in fact, it guarantees a lower probability that responses will be affected by diversities in organizational contexts, that may impact the relevance of fairness rules (Voußem et al, 2015).

4.3.4 *Locus of control*

The moderator variable locus of control (LOC) is operationalized using Spector's Work Locus of Control scale (Spector, 1988). The scale reflects respondents' control credences in the work setting and consists of sixteen items, such as "A job is what you make of it", scaled by 1 "strongly disagree" to 6 "strongly agree". Spector's scale (1988) measures locus of control as a continuous variable: for example, low internal locus of control is the same as high external locus of control (Ng et al, 2006). Higher average scores of the scale represent lower internality (i.e. higher externality). Ng et al (2006) stated that the scale was used by 43 studies and presented an average reliability of 0.78 (on the basis of 40 samples).

4.3.5 *Control variables*

I control for trust (TRUST), operationalized using three items, such as "My superior will always act in my favor if he/she has the chance", scaled by 1 "strongly disagree" to 5 "strongly agree". This measurement was created by Hartmann and Slapničar (2009). These three items measure trust using a direct approach; employees are asked if they feel that their supervisors are inclined, with their actions, to pursue subordinates' interest. Trust represents a fundamental control variable. In fact, Lee and Farh (1999) and Hartmann and Slapničar (2009) demonstrated that there is a positive relation between fairness perceptions and employees' trust in their supervisors, because trust implies that subordinates have confidence in their superiors employing unbiased judgments in performance appraisals (higher justice perceptions of the incentive plan).

I control for tenure (TENURE), operationalized as the natural logarithm of the number of years respondents had worked in their organization (Lee and Farh, 1999; Voußem et al, 2015).

Tenure is a variable that controls for the trust effects of tenure (Hartmann and Slapničar, 2009). Gibbs et al (2004), in fact, stated that longer tenure increases the probability that employees and superiors have built a relation based on trust.

I control for task uncertainty (TASK_UN), operationalized using three items, such as "There is a clearly known way to do the major types of work I normally encounter", scaled by 1 "strongly disagree" to 5 "strongly agree". This measurement was created by Hartmann and Slapničar (2009). Hartmann and Slapničar (2012) demonstrated that procedural fairness perceptions are negatively affected by uncertainty of the tasks employees have to perform, because this uncertainty leads to inaccuracy of the effort's measurement. The authors suggested that not even formality of the performance appraisal process (that normally assures an evaluation of performance based on objective measures that cannot be biased by the discretion of the evaluator) results in high procedural fairness perceptions in case of task uncertainty.

I control for age (AGE), operationalized as the age in years of respondents (Sweeney et al, 1991; Maas and Torres-González, 2011). In fact, Bal et al (2011) demonstrated that older employees present a propensity for positive beliefs regarding their organization and supervisors, since they value more positive aspects of their relation with the firm and with superiors. This propensity for positive beliefs derives from the fact that older workers present higher ability in regulating their emotions and lower possibilities in the labor market. Therefore, older employees are expected to present higher fairness perceptions compared to younger ones.

I control for country of origin (COUNTRY), operationalized as a dummy variable, which equals 1 whether the respondent's country of origin is not Italy and 0 whether the respondent's country of origin is Italy (Maas and Torres-González, 2011).

I control for the 2015 relative bonus amount (BONUS), operationalized as the amount of the 2015 bonus, expressed as a percentage of the 2015 salary.

I also collect demographics of the respondents through the questionnaire survey, such as level of education and industry of work.

5. RESULTS

In order to test my hypotheses, I run OLS regressions 1, 2, 3 and 4 two times: the first time on sub-sample$_1$ (sub-sample of female subordinates) and the second time on sub-sample$_2$ (sub-sample of male subordinates). I use SPSS, version 24, to perform the statistical analyses. Before evaluating the main model, reliability and convergent and discriminant validity of constructs are assessed on the full sample.

Table 2 reports descriptive statistics for each construct item and Cronbach's alpha coefficients for each construct. Considering that a Cronbach's alpha of 0.70 is considered a modest level of reliability (Hartmann and Slapničar, 2009), DISTRI_FAIR, PROCED_FAIR and TRUST appear highly reliable constructs (Cronbach's alphas of 0.913, 0.934 and 0.831, respectively). On the other hand, the reliability of LOC and TASK_UN is modest, but still sufficient (Cronbach's alphas of 0.750 and 0.700, respectively). In particular, considering LOC, I remove item 4 and 15 from the scale in order to improve reliability to the actual value of 0.750. Therefore, in the main model, I measure LOC as the average of respondents agreement to fourteen statements instead of sixteen (item 4 and 15 eliminated from the calculation of this average).

Moreover, I assess convergent and discriminant validity only for reflective constructs by performing a factor analysis. I do not evaluate convergent and discriminant validity for LOC, being the construct formative. Table 3 reports the results of the factor analysis conducted on items of the constructs DISTRI_FAIR, PROCED_FAIR, TRUST and TASK_UN. Interesting is to notice that items of the perceived distributive and procedural fairness of annual bonus payments result in representing the same component, that is component 1. However, I do not consider this finding as an issue. In fact, prior literature has identified distributive and procedural justice perceptions as two different, but extremely correlated constructs (Colquitt et al, 2001; Erdogan, 2002; Voußem et al, 2015). Therefore, as expected from past studies, also in my research the variables DISTRI_FAIR and PROCED_FAIR are highly correlated: the Pearson correlation observed between the two justice perceptions is in fact 0.828. Furthermore, Appendix C, Table 12, reports the correlation matrix of each construct item for the full sample.

In addition, before running the four linear regressions for each sub-sample, I remove univariate and multivariate outliers from my dataset: in order to identify outliers I utilize Mahalanobis' distances and studentized residuals. This analysis conducts to the elimination of three respondents from the sample (one respondent from the female sub-sample and two respondents from the male sub-sample). The control variable COUNTRY is omitted from the analyses; in fact, it resulted in a constant for male subordinates (no male subordinates from

Table 2 – Descriptive statistics of singular construct items and constructs reliability (full sample)

	N	Minimum	Maximum	Mean	Std. Deviation	Reliability
DISTRI_FAIR	109					0.913
$DISTRI\_FAIR_1$		1	5	3.174	1.177	
$DISTRI\_FAIR_2$		1	5	3.055	1.201	
$DISTRI\_FAIR_3$		1	5	3.000	1.139	
PROCED_FAIR	109					0.934
$PROCED\_FAIR_1$		1	5	2.890	1.133	
$PROCED\_FAIR_2$		1	5	2.899	1.130	
$PROCED\_FAIR_3$		1	5	2.963	1.097	
$PROCED\_FAIR_4$		1	5	2.761	1.130	
LOC	109					0.750
LOC_1		1	5	2.679	1.154	
LOC_2		2	6	4.073	1.111	
LOC_3		1	6	3.422	1.264	
LOC_5		1	6	3.055	1.380	
LOC_6		1	6	2.927	1.310	
LOC_7		1	6	2.339	1.349	
LOC_8		1	6	3.294	1.321	
LOC_9		1	6	2.633	1.103	
LOC_{10}		1	6	3.385	1.232	
LOC_{11}		1	6	3.321	1.201	
LOC_{12}		1	6	3.431	1.403	
LOC_{13}		1	6	2.541	1.323	
LOC_{14}		1	6	3.174	1.231	
LOC_{16}		1	5	2.679	1.017	
TRUST	109					0.831
$TRUST_1$		1	5	3.055	1.216	
$TRUST_2$		1	5	2.881	1.168	
$TRUST_3$		1	5	3.128	1.241	
TASK_UN	109					0.700
$TASK\_UN_1$		1	5	3.083	1.090	
$TASK\_UN_2$		1	5	2.651	1.049	
$TASK\_UN_3$		1	5	2.817	1.107	

This table reports descriptive statistics for each construct item and Cronbach's alphas for each construct for the full sample. Appendix B contains the items and variables definition.

countries other than Italy) and in an irrelevant variable for female subordinates (only two female subordinates out of 51 were from countries other than Italy). I also test and verify the OLS regression assumptions.

Table 3 – Factor analysis of singular construct items (full sample)

	Component			
	1	2	3	4
DISTRI_FAIR1	0.861	0.248	-0.002	-0.050
DISTRI_FAIR2	0.896	0.221	-0.029	-0.035
DISTRI_FAIR3	0.808	0.183	-0.014	0.084
PROCED_FAIR1	0.854	0.180	-0.196	-0.187
PROCED_FAIR2	0.734	0.326	-0.183	-0.076
PROCED_FAIR3	0.852	0.205	-0.050	-0.233
PROCED_FAIR4	0.861	0.204	-0.113	-0.221
TRUST1	0.291	0.805	0.162	-0.229
TRUST2	0.356	0.828	-0.013	-0.056
TRUST3	0.243	0.778	-0.393	0.047
TASK_UN1	-0.143	-0.084	0.137	0.889
TASK_UN2	-0.106	-0.018	0.904	0.175
TASK_UN3	-0.120	-0.115	0.564	0.602

The table reports the factor analysis of items of the constructs DISTRI_FAIR, PROCED_FAIR, TRUST and TASK_UN for the full sample. The extraction method utilized is the principal component analysis, while the rotation method utilized is a Varimax with Kaiser normalization.
Appendix B contains the items definition.

5.1 *Descriptive Statistics*

The final full sample consists of 109 female and male employees from Italian private small and medium-sized enterprises who received an annual bonus payment in the year 2015. In order to test my hypotheses, I create two sub-samples. Sub-sample$_1$ consists of 51 female subordinates, while sub-sample$_2$ consists of 58 male subordinates.

Table 4, Panel A, reports the descriptive statistics for sub-sample$_1$ (female subordinates), while Table 4, Panel B, shows the descriptive statistics for sub-sample$_2$ (male subordinates). The descriptive statistics report minimum, maximum, mean and standard deviation for all the variables included in my model.

Table 4 – Descriptive statistics

Panel A – Descriptive statistics for sub-sample$_1$ (female subordinates)					
	N	Minimum	Maximum	Mean	Std. Deviation
DISTRI_FAIR	51	1.000	5.000	3.098	1.290
PROCED_FAIR	51	1.000	5.000	2.877	1.213
GENDER_SUP	51	0	1	0.549	0.503
LOC	51	2.000	4.571	3.150	0.656
TRUST	51	1.000	5.000	2.784	1.127
TENURE	51	-0.693	3.401	2.095	0.864
TASK_UN	51	1.000	5.000	2.869	0.917
AGE	51	22	62	43.157	10.825
BONUS	51	0.030	0.250	0.103	0.053
Panel B – Descriptive statistics for sub-sample$_2$ (male subordinates)					
	N	Minimum	Maximum	Mean	Std. Deviation
DISTRI_FAIR	58	1.000	4.667	3.057	0.870
PROCED_FAIR	58	1.000	4.250	2.879	0.838
GENDER_SUP	58	0	1	0.690	0.467
LOC	58	2.000	4.643	2.996	0.554
TRUST	58	1.000	5.000	3.230	0.927
TENURE	58	0.693	3.555	2.326	0.731
TASK_UN	58	1.000	5.000	2.833	0.805
AGE	58	30	63	47.914	8.722
BONUS	58	0.010	0.300	0.130	0.064

This table reports the descriptive statistics for all the variables in the model. Panel A reports the descriptive statistics for sub-sample$_1$ (female subordinates). Panel B reports the descriptive statistics for sub-sample$_2$ (male subordinates).
Appendix B contains the variables definition.

5.2 *Test of hypotheses*

In order to test hypotheses 1, 3 and 4, the four OLS regressions exhibited in section 4.2.4, *Model*, are performed on the female sub-sample. In addition, in order to test hypotheses 2, 3 and 5, the four OLS regressions are performed on the male sub-sample.

5.2.1 *Test of hypotheses for sub-sample$_1$ (female subordinates)*

Table 5 – OLS regressions results for sub-sample$_1$ (female subordinates)

Panel A - DISTRI_FAIR regressed on GENDER_SUP

	DISTRI_FAIR			
Variable	Coefficient	Std. Error	t	p-value
Constant	2.191	0.855	2.562	0.014
GENDER_SUP	-0.434	0.246	-4.535	0.000***
TRUST	0.389	0.113	3.954	0.000***
TENURE	0.026	0.205	0.189	0.851
TASK_UN	-0.004	0.133	-0.042	0.967
AGE	-0.171	0.019	-1.083	0.285
BONUS	0.435	2.560	4.137	0.000***

Panel B - PROCED_FAIR regressed on GENDER_SUP, including LOC

	PROCED_FAIR			
Variable	Coefficient	Std. Error	t	p-value
Constant	3.030	1.207	2.511	0.016
GENDER_SUP	-0.766	1.183	-1.563	0.063*
LOC	-0.062	0.246	-0.465	0.644
*GENDER_SUP*LOC*	0.452	0.358	0.959	0.171
TRUST	0.415	0.114	3.914	0.000***
TENURE	-0.180	0.212	-1.193	0.239
TASK_UN	-0.184	0.136	-1.792	0.080*
AGE	-0.039	0.019	-0.225	0.823
BONUS	0.346	2.631	3.010	0.004***

Panel C – DISTRI_FAIR regressed on GENDER_SUP and PROCED_FAIR

	DISTRI_FAIR			
Variable	Coefficient	Std. Error	t	p-value
Constant	0.422	0.682	0.618	0.540
GENDER_SUP	-0.230	0.197	-3.001	0.002***
PROCED_FAIR	0.653	0.110	6.327	0.000***
TRUST	0.118	0.096	1.406	0.167
TENURE	0.134	0.152	1.314	0.196
TASK_UN	0.119	0.100	1.665	0.103
AGE	-0.150	0.014	-1.303	0.200
BONUS	0.200	2.071	2.347	0.024**

Panel D - DISTRI_FAIR regressed on GENDER_SUP and PROCED_FAIR, including LOC

	DISTRI_FAIR			
Variable	Coefficient	Std. Error	t	p-value
Constant	-1.033	0.892	-1.157	0.254
GENDER_SUP	0.346	0.839	1.060	0.147
PROCED_FAIR	0.671	0.106	6.710	0.000***
LOC	0.210	0.170	2.425	0.020**
*GENDER_SUP*LOC*	-0.544	0.249	-1.760	0.043**
TRUST	0.106	0.092	1.318	0.195
TENURE	0.114	0.149	1.142	0.260
TASK_UN	0.099	0.097	1.429	0.161
AGE	-0.123	0.013	-1.107	0.275
BONUS	0.225	2.000	2.735	0.009***

The table reports the four OLS regressions performed in order to verify H1, H3 and H4 in sub-sample$_1$ (n=51). Since I have predicted negative coefficients for GENDER_SUP and GENDER_SUP*LOC (this second coefficient only in the second equation presented in Panel B) and a positive coefficient for PROCED_FAIR, the p-values for these variables are for one-tailed tests. All other p-values are for two-tailed tests to allow for effects that have possibly been forgone. ***, **, * denote significance at 1%, 5% and 10% confidence level, respectively. Appendix B contains variables definition.

In this section, the OLS regressions are executed on the female sub-sample (N=51), in order to test hypotheses 1, 3 and 4.

I firstly regress DISTRI_FAIR (the dependent variable) on GENDER_SUP (the independent variable) in order to test hypothesis 1 (Adj. R^2=0.650). Results are presented in Table 5, Panel A. The coefficient on GENDER_SUP is negative and significant at 1% level (β=-0.434, t=-4.535, one-tailed p=0.000). The p-value of 0.000 is a one-tailed p-value because I have predicted a negative relation between GENDER_SUP and DISTRI_FAIR for the female sub-sample. The finding indicates that female subordinates with male supervisors present a lower perceived distributive fairness of annual bonus payments compared to female subordinates with female supervisors. Therefore, **hypothesis 1 is supported**. The coefficient on TRUST is positive and significant at 1% level (β=0.389, t=3.954, two-tailed p=0.000), signifying that a higher level of trust in the supervisor is related with a higher perceived distributive fairness of annual bonus payments for female subordinates. Coefficients on TENURE, TASK_UN and AGE are not significant. The coefficient on BONUS is positive and significant at 1% level (β=0.435, t=4.137, two-tailed p=0.000), implying that higher relative bonus amounts are related with higher distributive fairness perceptions of annual bonus payments for female subordinates.

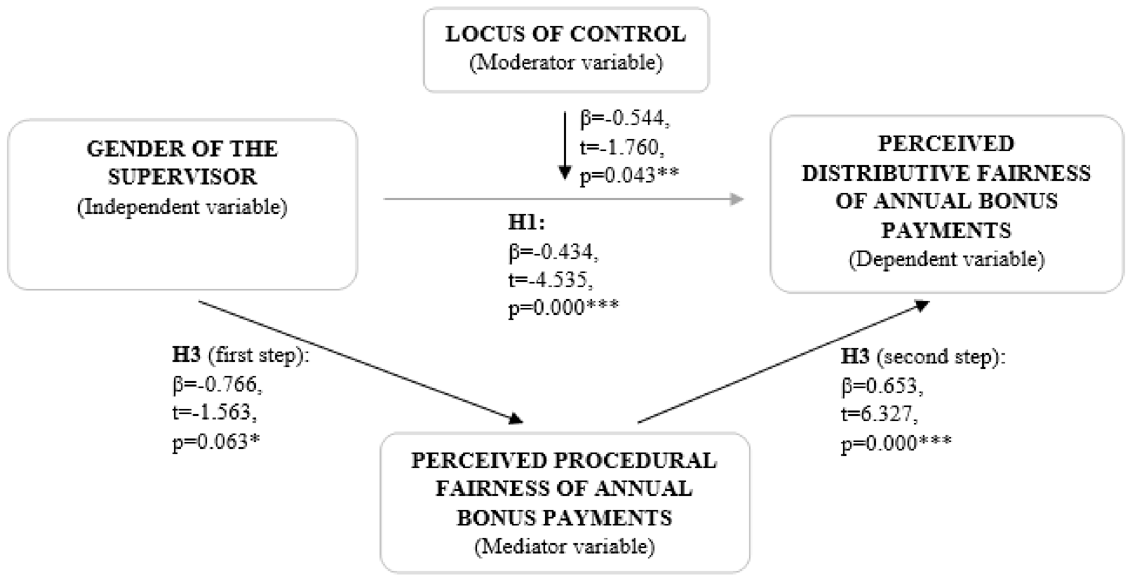
Secondly, I regress PROCED_FAIR (the mediator) on GENDER_SUP (the independent variable), including LOC (the moderator) in order to test hypothesis 4. In addition, performing this regression (Adj. R^2=0.595) allows me to test the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for female subordinates, in order to demonstrate the first step to test the mediation effect (or rather, hypothesis 3 for the female sub-sample). Results are presented in Table 5, Panel B. The coefficient on GENDER_SUP is negative and (marginally) significant at 10% level (β=-0.766, t=-1.563, one-tailed p=0.063). The p-value of 0.063 is a one-tailed p-value because I have predicted a negative relation between GENDER_SUP and PROCED_FAIR for the female sub-sample. The finding indicates that female subordinates with male supervisors present a lower perceived procedural fairness of annual bonus payments compared to female subordinates with female supervisors. Therefore, **the first step to test the mediation effect (or rather, hypothesis 3 for the female sub-sample) is supported**. The coefficient on LOC is not significant. The coefficient on GENDER_SUP*LOC is also not significant, indicating that locus of control does not moderate the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for female subordinates. Therefore, **hypothesis 4 is not supported**. The coefficient on TRUST is positive and significant at 1% level (β=0.415, t=0.114, two-tailed p=0.000), signifying that a higher level of trust in the supervisor is related with a higher perceived procedural fairness of annual bonus payments for female subordinates. The outcome confirms findings by Hartmann and Slapničar (2009), who have demonstrated a positive relation between procedural fairness perceptions and employees' trust in their supervisors; in fact, higher levels of trust imply that employees have confidence in their supervisors employing unbiased judgments in performance evaluations. The coefficient on TENURE is not significant. The coefficient on TASK_UN is negative and significant at 10% level (β=-0.184, t=-1.792, two-tailed p-value=0.080), indicating that higher levels of uncertainty in the tasks performed by employees are negatively related with perceived procedural fairness of annual bonus payments of the female employees themselves. The outcome confirms the results by Hartmann and Slapničar (2012), who have suggested a negative relation between procedural fairness perceptions and uncertainty of the tasks workers have to perform, because this uncertainty leads to inaccuracy of the effort's measurement. The coefficient on AGE is not significant. The coefficient on BONUS is positive and significant at 1% level (β=0.346, t=3.010, two-tailed p=0.004), implying that higher relative bonus amounts are related with higher procedural fairness perceptions of annual bonus payments for female subordinates.

Thirdly, I regress DISTRI_FAIR (the dependent variable) on both GENDER_SUP (the independent variable) and PROCED_FAIR (the mediator). Performing this regression (Adj. R^2=0.814) allows me to test the relation between perceived procedural fairness and perceived distributive fairness of annual bonus payments for female subordinates, not including the effect of locus of control and of the corresponding interaction term, in order to demonstrate the second step to test the mediation effect (or rather, hypothesis 3 for the female sub-sample). Results are presented in Table 5, Panel C. The coefficient on GENDER_SUP is negative and significant at 1% level (β=-0.230, t=-3.001, one-tailed p=0.002). The p-value of 0.002 is a one-tailed p-value because I have predicted a negative relation between GENDER_SUP and DISTRI_FAIR for the female sub-sample. The finding indicates that female subordinates with male supervisors present a lower perceived distributive fairness of annual bonus payments compared to female subordinates with female supervisors. The coefficient on PROCED_FAIR is positive and significant at 1% level (β=0.653, t=6.327, one-tailed p=0.000). The p-value of 0.000 is a one-tailed p-value because I have predicted a positive relation between PROCED_FAIR and DISTRI_FAIR for the female sub-sample. The finding indicates that higher procedural fairness perceptions are related with higher distributive fairness perceptions of annual bonus payments for female subordinates. Therefore, **the second step to test the mediation effect (or rather,**

hypothesis 3 for the female sub-sample), not including the effect of locus of control and of the corresponding interaction term, is supported. Therefore, considering that from Table 5, Panel B, the first step to test the mediation effect was supported, **hypothesis 3 is supported for the female sub-sample**. Coefficients on TRUST, TENURE, TASK_UN and AGE are not significant. The coefficient on BONUS is positive and significant at 5% level (β=0.200, t=2.071, two-tailed p=0.024), implying that higher relative bonus amounts are related with higher distributive fairness perceptions of annual bonus payments for female subordinates.

Fourthly, I regress DISTRI_FAIR (the dependent variable) on both GENDER_SUP (the independent variable) and PROCED_FAIR (the mediator), including LOC (the moderator). Performing this regression (Adj. R^2=0.830) allows me to test the relation between perceived procedural fairness and perceived distributive fairness of annual bonus payments for female subordinates, including the effect of locus of control and of the corresponding interaction term, in order to demonstrate the second step to test the mediation effect (or rather, hypothesis 3 for the female sub-sample). Results are presented in Table 5, Panel D. The coefficient on GENDER_SUP is not significant, implying that after inserting LOC and GENDER_SUP*LOC in the equation, the relation between GENDER_SUP and DISTRI_FAIR is not significant anymore. The coefficient on PROCED_FAIR is positive and significant at 1% level (β=0.671, t=6.710, one-tailed p=0.000). The p-value of 0.000 is a one-tailed p-value because I have predicted a positive relation between PROCED_FAIR and DISTRI_FAIR for the female sub-sample. The finding indicates that higher procedural fairness perceptions are related with higher distributive fairness perceptions of annual bonus payments for female subordinates. Therefore, **the second step to test the mediation effect (or rather, hypothesis 3 for the female sub-sample), including the effect of locus of control and of the corresponding interaction term, is supported**. Therefore, considering that from Table 5, Panel B, the first step to test the mediation effect was supported, **hypothesis 3 is supported for the female sub-sample**, also after having included LOC and GENDER_SUP*LOC in the equation. Coefficient on LOC is positive and significant at 5% level (β=0.210, t=2.425, two-tailed p=0.020), indicating that higher locus of control (a more external locus control) is related with a higher perceived distributive fairness of annual bonus payments for female subordinates. The result is unexpected because it does not confirm previous literature findings. In fact, past research has related a more external locus of control with lower fairness perceptions (Judge and Bono, 2001; Ng et al, 2006). The coefficient on GENDER_SUP*LOC is negative and significant at 5% level (β=-0.544, t=-1.760, two-tailed p=0.043), indicating that the relation between GENDER_SUP and DISTRI_FAIR is moderated by LOC. In fact, female subordinates with male supervisors present lower distributive fairness perceptions of annual bonus payments compared to female subordinates with female supervisors, and these distributive fairness perceptions are even lower when female subordinates with male supervisors present a more external locus of control compared to when they present a less external locus of control. Therefore, the moderation effect of LOC is not applicable to the relation between GENDER_SUP and PROCED_FAIR as predicted; instead, it is applicable to the relation between GENDER_SUP and DISTRI_FAIR. A possible explanation to this not expected result can be that procedural and distributive fairness perceptions are identified from past research as two different constructs, but still highly correlated (Colquitt et al, 2001; Erdogan, 2002; Voußem et al, 2015). Hence, employees can present difficulties in clearly differentiate the two constructs and can consider fairness perceptions as a whole, but still based on bonus amounts they receive (distributive fairness perceptions) instead of assessing the procedures with which they are evaluated (procedural fairness perceptions). The coefficients on TRUST, TENURE, TASK_UN and AGE are not significant. The coefficient on BONUS is positive and significant at 1% level (β=0.225, t=2.735, two-tailed p=0.009), signifying that higher relative bonus amounts are related with higher distributive fairness perceptions of annual bonus payments for female subordinates.

Figure 2 – Model results for sub-sample$_1$ (female subordinates)



***, **, * denote significance at 1%, 5% and 10% confidence level, respectively.
P-values are one-tailed. The p-value of 0.043 related to the moderation effect is two-tailed.
Appendix B contains variables definition.

5.2.2. *Test of hypotheses for sub-sample₂ (male subordinates)*

Table 6 – OLS regressions results for sub-sample$_2$ (male subordinates)

Panel A - DISTRI_FAIR regressed on GENDER_SUP				
		PROCED_FAIR		
Variable	Coefficient	Std. Error	t	p-value
Constant	0.663	0.807	0.821	0.415
GENDER_SUP	-0.086	0.233	-0.693	0.246
TRUST	0.396	0.112	3.309	0.002***
TENURE	-0.047	0.187	-0.301	0.765
TASK_UN	-0.116	0.126	-0.992	0.326
AGE	0.304	0.016	1.879	0.066*
BONUS	0.191	1.606	1.617	0.112
Panel B - PROCED_FAIR regressed on GENDER_SUP, including LOC				
		DISTRI_FAIR		
Variable	Coefficient	Std. Error	t	p-value
Constant	3.017	1.262	2.390	0.021
GENDER_SUP	-0.463	1.142	-0.729	0.235
LOC	-0.273	0.311	-1.329	0.190
*GENDER_SUP*LOC*	0.548	0.367	0.857	0.198
TRUST	0.344	0.107	2.910	0.005***
TENURE	-0.036	0.177	-0.231	0.818
TASK_UN	-0.303	0.119	-2.647	0.011**
AGE	0.214	0.015	1.330	0.190
BONUS	0.016	1.508	0.135	0.893
Adj. R^2	0.325			
Panel C - DISTRI_FAIR regressed on GENDER_SUP and PROCED_FAIR				
		DISTRI_FAIR		
Variable	Coefficient	Std. Error	t	p-value
Constant	-0.474	0.643	-0.738	0.464
GENDER_SUP	-0.134	0.178	-1.397	0.169
PROCED_FAIR	0.678	0.115	6.124	0.000***
TRUST	0.146	0.094	1.456	0.152
TENURE	-0.012	0.143	-0.099	0.921
TASK_UN	0.103	0.104	1.069	0.290
AGE	0.132	0.013	1.039	0.304
BONUS	0.183	1.226	2.026	0.048**
Panel D - DISTRI_FAIR regressed on GENDER_SUP and PROCED_FAIR, including LOC				
		DISTRI_FAIR		
Variable	Coefficient	Std. Error	t	p-value
Constant	-0.660	1.105	-0.597	0.553
GENDER_SUP	0.300	0.951	0.588	0.279
PROCED_FAIR	0.680	0.118	5.969	0.000***
LOC	0.065	0.262	0.388	0.699
*GENDER_SUP*LOC*	-0.443	0.306	-0.862	0.196
TRUST	0.132	0.096	1.291	0.203
TENURE	0.004	0.146	0.035	0.972
TASK_UN	0.093	0.106	0.956	0.344
AGE	0.112	0.013	0.855	0.397
BONUS	0.171	1.249	1.851	0.070*

The table reports the four OLS regressions performed in order to verify H2, H3 and H5 in sub-sample$_2$ (n=58). Since I have predicted positive coefficients for GENDER_SUP and GENDER_SUP*LOC (this second coefficient only in the second equation presented in Panel B) and a positive coefficient for PROCED_FAIR, the p-values for these variables are for one-tailed tests. All other p-values are for two-tailed tests to allow for effects that have possibly been forgone. ***, **, * denote significance at 1%, 5% and 10% confidence level, respectively. Appendix B contains variables definition.

In this section, the four OLS regressions are executed on the male sub-sample (N=58), in order to test hypotheses 2, 3 and 5.

I firstly regress DISTRI_FAIR (the dependent variable) on GENDER_SUP (the independent variable) in order to test hypothesis 2 (Adj. R^2=0.277). Results are presented in Table 6, Panel A. The coefficient on GENDER_SUP is not significant, indicating that there is no relation between gender of the supervisor and perceived distributive fairness of annual bonus payments for male subordinates. Therefore, **hypothesis 2 is not supported**. The coefficient on TRUST is positive and significant at 1% level (β=0.396, t=3.309, two-tailed p=0.002), suggesting that the level of trust in the supervisor is positively related with the perceived distributive fairness of annual bonus payments for male subordinates. Coefficients on TENURE and TASK_UN are not significant. The coefficient on AGE is positive and significant at 10% level (β=0.304, t=1.879, two-tailed p=0.066), indicating that older employees present higher perceptions of distributive fairness of annual bonus payments compared to younger employees. This finding supports the study by Bal et al (2011), in which older employees are expected to present higher fairness perceptions, due to the higher propensity they have for positive beliefs regarding their organization and supervisors, since older workers present a stronger ability in regulating their emotions and lower possibilities in the labor market. The coefficient on BONUS is not significant.

Secondly I regress PROCED_FAIR (the mediator) on GENDER_SUP (the independent variable), including LOC (the moderator) in order to test hypothesis 5. In addition, performing this regression (Adj. R^2=0.325) allows me to test the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for male subordinates, in order to demonstrate the first step to test the mediation effect (or rather, hypothesis 3 for the male sub-sample). Results are presented in Table 6, Panel B. The coefficient on GENDER_SUP is not significant, implying that there is no relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for male subordinates. Therefore, **the first step to test the mediation effect (or rather, hypothesis 3 for the male sub-sample) is not supported**. In addition, the coefficient on LOC is not significant. Moreover, the coefficient on GENDER_SUP*LOC is not significant, indicating that locus of control does not moderate the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for male subordinates. Therefore, **hypothesis 5 is not supported**. The coefficient on TRUST is positive and significant at 1% level (β=0.344, t=2.910, two-tailed p=0.005), suggesting that the level of trust in the supervisor is positively related with the perceived procedural fairness of annual bonus payments for male subordinates. The coefficient on

TENURE is not significant. The coefficient on TASK_UN is negative and significant at 5% level (β=-0.303, t=-2.647, two-tailed p=0.011), specifying that higher levels of uncertainty in the tasks performed by employees are negatively related with perceived procedural fairness of annual bonus payments of the employees themselves. Coefficients on AGE and BONUS are not significant.

Thirdly, I regress DISTRI_FAIR (the dependent variable) on both GENDER_SUP (the independent variable) and PROCED_FAIR (the mediator). Performing this regression (Adj. R^2=0.579) allows me to test the relation between perceived procedural fairness and perceived distributive fairness of annual bonus payments for male subordinates, <u>not including</u> the effect of locus of control and of the corresponding interaction term, in order to demonstrate the second step to test the mediation effect (or rather, hypothesis 3 for the male sub-sample). Results are presented in Table 6, Panel C. The coefficient on GENDER_SUP is not significant, implying that there is no relation between gender of the supervisor and perceived distributive fairness of annual bonus payments for male subordinates. The coefficient on PROCED_FAIR is positive and significant at 1% level (β=0.678, t=6.124, one-tailed p=0.000). The p-value of 0.000 is a one-tailed p-value because I have predicted a positive relation between PROCED_FAIR and DISTRI_FAIR for the male sub-sample. The finding indicates that higher procedural fairness perceptions are related with higher distributive fairness perceptions of annual bonus payments for male subordinates. Therefore, **the second step to test the mediation effect (or rather, hypothesis 3 for the male sub-sample), <u>not including</u> the effect of locus of control and of the corresponding interaction term, is supported**. However, considering that from Table 6, Panel B, the first step to test the mediation effect was <u>not</u> supported, **hypothesis 3 is not supported for the male sub-sample**. Coefficients on TRUST, TENURE, TASK_UN and AGE are not significant. The coefficient on BONUS is positive and significant at 5% level (β=0.183, t=2.026, two-tailed p=0.048), implying that higher relative bonus amounts are related with higher distributive fairness perceptions of annual bonus payments for male subordinates.

Fourthly, I regress DISTRI_FAIR (the dependent variable) on both GENDER_SUP (the independent variable) and PROCED_FAIR (the mediator), including LOC (the moderator). Performing this regression (Adj. R^2=0.570) allows me to test the relation between perceived procedural fairness and perceived distributive fairness of annual bonus payments for male subordinates, <u>including</u> the effect of locus of control and of the corresponding interaction term, in order to demonstrate the second step to test the mediation effect (or rather, hypothesis 3 for the male sub-sample). Results are presented in Table 6, Panel D. The coefficient on GENDER_SUP is not significant, implying that there is no relation between gender of the supervisor and perceived distributive fairness of annual bonus payments for male subordinates. The coefficient on PROCED_FAIR is positive and significant at 1% level (β=0.680, t=5.969, one-tailed p=0.000). The p-value of 0.000 is a one-tailed p-value because I have predicted a positive relation between PROCED_FAIR and DISTRI_FAIR for the male sub-sample. The finding indicates that higher procedural fairness perceptions are related with higher distributive fairness perceptions of annual bonus payments for male subordinates. Therefore, **the second step to test the mediation effect (or rather, hypothesis 3 for the male sub-sample), <u>including</u> the effect of locus of control and of the corresponding interaction term, is supported**. However, considering that from Table 6, Panel B, the first step to test the mediation effect was not supported, **hypothesis 3 is not supported for the male sub-sample**, also after having included LOC and GENDER_SUP*LOC in the equation. Coefficients on LOC, GENDER_SUP*LOC, TRUST, TENURE, TASK_UN and AGE are not significant. The coefficient on BONUS is positive and significant at 10% level (β=0.171, t=1.851, two-tailed p=0.070), implying that higher relative bonus amounts are related with higher levels of distributive fairness perceptions of annual bonus payments for male subordinates.

5.3 *Supplementary Analyses*

5.3.1 *Andrew F. Hayes Process Macro*

In order to confirm the results obtained running the four separate linear regressions for each sub-sample, I conduct supplementary analyses on sub-sample_1 and sub-sample_2 separately. In particular, I use the extension for SPSS *process* (release 2.15) for statistical mediation, moderation and conditional process analysis by Andrew F. Hayes to simultaneously test hypotheses 1,3 and 4 for the female sub-sample, and hypotheses 2,3 and 5 for the male sub-sample. I perform ordinary least squares using the *process* macro: in particular, I choose model number 7.

Results for sub-sample_1 (female sub-sample) are reported in Table 7. Findings derived by running the four separate regressions are confirmed for the female sub-sample in the additional analysis: **hypotheses 1 and 3 are in fact supported**, **while hypothesis 4 is not supported**. In particular, when PROCED_FAIR is the outcome variable, the coefficient observed on GENDER_SUP is negative and significant at 10% level (β=-1.848, one-tailed p=0.063), indicating that female subordinates with male supervisors present a lower perceived procedural fairness of annual bonus payments compared to female subordinates with female supervisors (**H3, first step, is supported**). The coefficient on LOC is not significant. The coefficient on GENDER_SUP*LOC is also not significant, indicating that locus of control does not moderate the relation between gender of the supervisor and perceived procedural fairness of annual bonus payments for female subordinates (**H4 is not supported**). When the outcome variable is DISTRI_FAIR, the coefficient on GENDER_SUP is negative and significant at 1% level (β=-0.592, one-tailed p=0.002), implying that female subordinates with male supervisors present a lower perceived distributive fairness of annual bonus payments compared to female subordinates with female supervisors (**H1 is supported**). Moreover, the coefficient on PROCED_FAIR is positive and significant at 1% level (β=0.694, one-tailed p=0.000), indicating that higher procedural fairness perceptions are related with higher distributive fairness perceptions of annual bonus payments for female subordinates (**H3, second step, is supported**). The direct effect of GENDER_SUP on DISTRI_FAIR (one-tailed p-value=0.002) is still (highly) significant at 1% level, indicating that the relation between GENDER_SUP and DISTRI_FAIR is partially mediated by PROCED_FAIR. Direction and significance of control variables coefficients are also confirmed.

Table 7 – Hayes model 7 for sub-sample$_1$ (female subordinates)

Panel A – Main model results

	PROCED_FAIR		DISTRI_FAIR	
Variable	Coefficient	p-value	Coefficient	p-value
Constant	3.030	0.016	0.422	0.540
GENDER_SUP	-1.848	0.063*	-0.592	0.002***
PROCED_FAIR			0.694	0.000***
LOC	-0.115	0.644		
*GENDER_SUP*LOC*	0.343	0.171		
TRUST	0.447	0.000***	0.134	0.167
TENURE	-0.253	0.239	0.199	0.196
TASK_UN	-0.243	0.080*	0.167	0.103
AGE	-0.004	0.823	-0.018	0.199
BONUS	7.920	0.004***	4.861	0.024**
Adj. R^2	0.660		0.841	
N	51			

Panel B - Direct effect of GENDER_SUP on DISTRI_FAIR

Effect	*p-value*
-0.592	0.002***

The table reports model 7 by Andrew F. Hayes *process* macro, performed in order to verify H1, H3 and H4 in sub-sample$_1$. Results derive from the performance of ordinary least squares. Since I have predicted negative coefficients for GENDER_SUP and GENDER_SUP*LOC and a positive coefficient for PROCED_FAIR, the p-values for these variables are for one-tailed tests. All other p-values are for two-tailed tests to allow for effects that have possibly been forgone.
***, **, * denote significance at 1%, 5% and 10% confidence level, respectively. Appendix B contains variables definition.

Results for sub-sample$_2$ (male sub-sample) are reported in Table 8. Findings derived by running the four separate regressions are confirmed for the male sub-sample in the additional analysis: **hypotheses 2, 3 and 5 are in fact not supported**. In particular, when PROCED_FAIR is the outcome variable, the coefficient on GENDER_SUP is not significant, indicating that the gender of the supervisor does not affect procedural fairness perceptions of annual bonus payments for male subordinates (**H3, first step, is not supported**). In addition, the coefficient on GENDER_SUP*LOC is not significant, implying that there is no moderation effect of locus of control in the relation between GENDER_SUP and PROCED_FAIR for male subordinates (**H5 is not supported**). When the outcome variable is DISTRI_FAIR, the coefficient on GENDER_SUP is also not significant, indicating that there is no relation between the gender of the supervisor and distributive fairness perceptions of annual bonus payments for male subordinates (**H2 is not supported**). Moreover, the coefficient on PROCED_FAIR is positive and significant at 1% level (β=0.704, one-tailed p=0.000), indicating that higher procedural fairness perceptions are related with higher distributive fairness perceptions of annual bonus payments for male subordinates (**H3, second step, is supported**; however **H3, first step is not supported**; therefore, **H3 is not supported**). Direction and significance of control variables are also confirmed.

Table 8 – Hayes model 7 for sub-sample$_2$ (male subordinates)

Panel A – Main model results

	PROCED_FAIR		DISTRI_FAIR	
Variable	Coefficient	p-value	Coefficient	p-value
Constant	3.017	0.021	-0.474	0.464
GENDER_SUP	-0.832	0.235	-0.249	0.134
PROCED_FAIR			0.704	0.000***
LOC	-0.413	0.190		
*GENDER_SUP*LOC*	0.315	0.198		
TRUST	0.311	0.005***	0.137	0.152
TENURE	-0.041	0.818	-0.014	0.921
TASK_UN	-0.315	0.011**	0.111	0.290
AGE	0.020	0.190	0.013	0.304
BONUS	0.203	0.893	2.483	0.048**
Adj. R^2	0.420		0.630	
N	58		58	

Panel B - Direct effect of GENDER_SUP on DISTRI_FAIR

Effect	*p-value*
-0.249	0.134

The table reports model 7 by Andrew F. Hayes *process* macro, performed in order to verify H2, H3 and H5 in sub-sample$_2$. Results derive from the performance of ordinary least squares. Since I have predicted positive coefficients for GENDER_SUP, PROCED_FAIR and GENDER_SUP*LOC, the p-values for these variables are for one-tailed tests. All other p-values are for two-tailed tests to allow for effects that have possibly been forgone. ***, **, * denote significance at 1%, 5% and 10% confidence level, respectively. Appendix B contains variables definition.

5.3.2 *Robustness Tests*

I conduct some robustness tests in order to assess the validity of my results.

Firstly, I run my model a second time for both the sub-samples after eliminating item 3 from the distributive fairness construct and item 2 from the procedural fairness construct. In fact, the reliability analysis I have conducted underlines a possible slight improvement in Cronbach's alphas if item 3 and item 2 would have been eliminated from DISTRI_FAIR and PROCED_FAIR, respectively. The expected improvement for the distributive fairness construct amounts to 0.007 (from a Cronbach's alpha of 0.913 to a Cronbach's alpha of 0.920), while the expected improvement for the procedural fairness construct amounts to 0.002 (from Cronbach's alpha of 0.934 to a Cronbach's alpha of 0.936). The findings of my model run with the adjusted measurements of perceived distributive and procedural fairness of annual bonus payments confirm the results already found.

Secondly, focusing on sub-sample_1 (female subordinates), I run my model for other two times. The first time I consider my model including all the items of the construct locus of control. In fact, as stated in Section 5, *Results,* I have removed item 4 and 15 from the LOC scale in order to improve its reliability. Considering the variable LOC with all its items, the findings that I have already demonstrated in the main analyses are confirmed for the female sub-sample. The second time, I consider my model including the outlier removed from the female sub-sample (as stated in Section 5, *Results*). Results found through this analysis reveal different and biased coefficients, indicating that the choice of eliminating that particular respondent was useful in improving the validity of my findings and of my study in general.

Table 9 – One-way ANOVA results (full sample)

Variable	*DISTRI_FAIR*	*PROCED_FAIR*	*LOC*	*TRUST*	*TENURE*	*TASK_UN*	*AGE*	*BONUS*
	p-value	*p-value*	*p-value*	*p-value*	*p-value*	*p-value*	*p-value*	*p-value*
RESP	0.818	0.384	0.864	0.745	0.697	0.216	0.706	0.605

The table reports a one-way ANOVA analysis, conducted in order to verify for no differences between the groups of early and late respondents. All the p-values are for two-tailed tests to allow for effects that have possibly been forgone. RESP is a dummy variable, which equals 1 when the respondent is an early respondent and 0 otherwise. Appendix B contains the other variables definition.

Thirdly, I conduct a one-way ANOVA analysis on the full sample that compares the group of early respondents with the group of later respondents in order to test for a possible self-selection bias. The independent variable RESP is a dummy variable, which equals 1 when the respondent is an early respondent, and therefore its response was recorded before any reminder was sent, while it equals 0 when the respondent is a late respondent, and therefore its response was recorded after the first or the second reminder. Results for the one-way ANOVA performed are presented in Table 9. Coefficients of the dependent variables DISTRI_FAIR, PROCED_FAIR, LOC, TRUST, TENURE, TASK_UN, AGE and BONUS are not significant, indicating that no differences appear between the groups of early and late respondents.

5.3.3 *Multicollinearity Analysis*

In order to avoid highly collinear predictors that can bias regression coefficients and results of my research, I implement multicollinearity tests on the full sample. Table 10 shows that multicollinearity coefficients are at an acceptable level, because no values above 3 appeared for any of the variables.

Table 10 – Multicollinearity analysis (full sample)

Variable	VIF
GENDER_SUP	1.096
PROCED_FAIR	1.823
LOC	1.089
TRUST	1.560
TENURE	2.401
TASK_UN	1.228
AGE	2.578
BONUS	1.253

The table reports the VIF values for independent, mediator, moderator and control variables.
Appendix B contains the variables definition.

6. CONCLUSION

6.1 *Research questions, hypotheses and related findings*

The goal of the thesis was to analyze gender disparities in fairness perceptions of annual bonus payments for employees. Particularly, the objective of my research was to investigate the role of these disparities in the Italian context of small and medium-sized private enterprises. In order to assess gender differences in bonus justice perceptions, my study has specifically analyzed the relation between the gender of the supervisor and fairness perceptions of annual bonus payments for male and female subordinates, assuming the presence of subjectivity in the performance evaluation process. I executed this analysis by conducting a survey among 112 male and female employees with an annual bonus in 2015 in Italian private SMEs: the respondents were particularly asked about their distributive and procedural fairness perceptions of annual bonus payments.

The thesis has responded to three research questions.

Firstly, the research has investigated whether the gender of the supervisor affect the perceived distributive fairness of annual bonus payments for subordinates. In particular, in relation to this research question, I have formulated two hypotheses. Hypothesis 1 has predicted that male supervisors were related with a lower perceived distributive fairness of annual bonus payments, as compared to female supervisors, for female subordinates. This hypothesis was supported, implying that female ratees perceive they are susceptible to stereotyping by male raters, because female subordinates with male superiors recognize that annual bonus payments' amounts reflect ratings based on probable biased judgments. On the other hand, hypothesis 2 has predicted that male supervisors were related with a higher perceived distributive fairness of annual bonus payments, as compared to female supervisors, for male subordinates. This hypothesis was rejected, indicating that for male employees the gender of superiors does not matter in order to assess justice of their bonus amounts. Therefore, the thesis has demonstrated that there is a relation between the gender of the supervisor and distributive fairness perceptions of annual bonus payments, but only for female subordinates. Hence, gender disparity in work settings still represents a concrete problem that leads to a perception of stereotyping in rewards' assignment for female managers but not for male ones. This finding is in line with prior research that has demonstrated that women always receive lower performance ratings compared to their men colleagues, in case of an evaluation based on the discretion of a male rater (Terborg and Shingledecker, 1983; Davison and Burke, 2000; Levy and Williams, 2004; Maas and Torres-González, 2011). At the same time, this finding goes beyond prior literature, demonstrating that these differences in ratings are actually perceived by female employees, giving rise to lower fairness perceptions in the case of a male superior, and consequently to lower levels of pay and job satisfaction for women.

Secondly, the research has investigated whether the relation between the gender of the supervisor and the perceived distributive fairness of annual bonus payments for subordinates was mediated by the perceived procedural fairness of annual bonus payments for subordinates. In particular, in relation to this research question, I have formulated one hypothesis, but I have tested it for each sub-sample (sub-sample$_1$ of female subordinates and sub-sample$_2$ of male subordinates). Hypothesis 3 has predicted that the perceived procedural fairness of annual bonus payments for subordinates mediates the relation between gender of the supervisor and the perceived distributive fairness of annual bonus payments for subordinates. This hypothesis was supported for the female sub-sample. In particular, the mediation role of the perceived procedural fairness of annual bonus payments was observed to be only partial: in fact, the direct effect of gender of the supervisor on the perceived distributive fairness of annual bonus payments resulted to be still highly significant (Section 5.3.1., *Andrew F. Hayes Process Macro*). An explanation to this partial and not full mediation effect can be derived from past literature. In fact, some studies have demonstrated that women attribute more importance to procedural than to distributive justice, indicating that they actually shape fairness perceptions of the bonus amounts they receive on fairness perceptions of the performance evaluation procedures utilized. In particular, for women, the relation between procedural justice perceptions and variables such as job satisfaction and organizational commitment was demonstrated to be stronger compared to the relation between distributive fairness perceptions and these variables (Nieva and Gutek, 1980; Erdogan, 2002). On the contrary, other studies have suggested that female workers value money as their male colleagues do in case of similar occupations, implying a strong direct focus on distributive justice perceptions to evaluate pay and promotions (Lee and Farh, 1999). Focusing on the male sub-sample, hypothesis 3 was rejected.

Thirdly, the research has investigated whether the relation between the gender of the supervisor and the perceived procedural fairness of annual bonus payments for subordinates was moderated by locus of control of subordinates. In particular, in relation to this research question, I have formulated two hypotheses. Hypothesis 4 has predicted that the negative relation between male supervisors and perceived procedural fairness of annual bonus payments for female subordinates was stronger when internal locus of control of female subordinates was lower compared to when internal locus of control of female subordinates was higher. This hypothesis was rejected. However, locus of control has resulted to be a moderator variable in the relation between gender of the supervisor and the perceived distributive fairness of annual bonus payments for female subordinates. An explanation for this unexpected outcome can be derived by past studies. Previous research has in fact identified procedural and distributive justice perceptions as two different constructs, but still highly correlated (Colquitt et al, 2001; Erdogan, 2002; Voußem et al, 2015). Hence, female managers can differentiate the two constructs with difficulty and can consider justice perceptions as a whole, but still based on bonus amounts they receive. In fact, bonus amounts are quantitative values, and therefore easily assessable; instead, procedures utilized in appraising performance, especially if subjective, represent criteria on the basis of which is difficult to evaluate justice. Furthermore, hypothesis 5 has predicted that the positive relation between male supervisors and perceived procedural fairness of annual bonus payments for male subordinates was stronger when internal locus of control of male subordinates was lower compared to when internal locus of control of male subordinates was higher. This hypothesis was rejected.

6.2 *Limitations of the research*

The thesis presents some limitations.

First, Podsakoff et al (2003) stated that common method variance can derive from the fact that independent and dependent variables are obtained from the same person. The authors added that this source of common method bias can lead to different limitations. Firstly, respondents' transient mood may result in artefactual covariance in the measured variables because individuals, responding to the questionnaire, may be in a particular emotional state. Secondly, people may be characterized by negative affectivity; negative affectivity results in general negative attitudes and emotional states that are independent from any specific situation or context. The two common method biases stated above, that derive from the fact that explanatory and explained variables in my research are measured through the same rater, represent a limitation of the study. However, my thesis could not derive the variables of interest from different raters (for example from employees but also from supervisors) because it only relates to subordinates' fairness perceptions of their annual bonus payments; in addition, the possible inclusion of superiors' opinions of their employees would have compromised the anonymity and confidentiality of responses.

Moreover, after conducting constructs reliability analyses, the Cronbach's alpha of the variable task uncertainty (TASK_UN) resulted in a value of 0.700, sufficient but modest coefficient. No improvements could have been made because the elimination of any of the construct items would have led to a higher level of reliability. Checks on the correct wording of the construct items were also made, but no errors were found.

Finally, considering that the sample chosen for my research is circumscribed to Italian small and medium-sized enterprises, the generalizability of the findings is arduous, even if the variables and model utilized can be applicable to any settings.

6.3 *Implications and recommendations*

From a practical perspective, the findings of the research imply that gender disparity in the work environment still represents a concrete issue, specifically at top levels in organizations. In fact, my study suggests that women perceive they are susceptible to stereotyping by male supervisors, because female subordinates with male superiors recognize that annual bonus payments' amounts reflect ratings based on biased performance judgments.

Hence, in order to reduce this disparity, firms should consider the gender of the supervisor when rewarding female talents through discretionary bonus plans. Firstly, when women are evaluated by the subjectivity of a male superior, companies have to clearly disclose standards and processes utilized in performance appraisals and tasks responsibilities, in order to limit room for male raters' discretion and, consequently, biases in evaluations. Secondly, firms should establish strict measures in order to control for any possible biased employment of performance evaluation standards, to avoid distortion in performance ratings. Thirdly, companies should utilize an objective assessment of performance in order to determine bonus amounts for women with male superiors, because the use of objective and quantitative performance measures would decrease the possibility of biased judgments of performance by male supervisors. Fourthly, considering that performance appraisals are evaluated as fair and accurate in case when superiors assess performance frequently (Landy et al, 1978), firms should provide more frequent performance feedbacks for female employees with male supervisors. Taking these measures, organizations would improve fairness perceptions of annual bonus payments of their female workers with male superiors and, consequently, the efficacy of a rewards system, efficacy that relies upon the confidence a worker has in being rewarded with the specific system (Levy and Williams, 2004).

From a theoretical perspective, the findings of the study are of interest to the management control research. In fact, management control inspects how employees contribute to a specific organization and how their contribution is evaluated and rewarded. Therefore, distributive and procedural justice perceptions of annual bonus payments are fundamental criteria to evaluate the efficacy of a discretionary bonus plan. Hence, the thesis has unified the more human scientific aspect of gender disparities with important factors of the management control research, such as perceived fairness and success or failure of rewards systems and has therefore given a new view to these fundamental aspects in the control field.

Future research should investigate the relation between gender of the supervisor and fairness perceptions of annual bonus payments for subordinates in other settings, specifically in bigger companies. In fact, I believe the effect discovered for female employees in SMEs could be less evident in big listed companies, since they normally present more standardized performance measurement systems, even if they evaluate performance using subjectivity. In addition, subsequent studies should consider other rewards perspectives, such as gender of the supervisor in relation with the likelihood of receiving a promotion. Finally, future research should consider the aspects of masculinity and femininity of employees, characteristics that could lead to different results regarding justice perceptions and gender disparities.

7. APPENDICES

7.1 *Appendix A*

Survey questions

<u>Subjectivity emphasis in target setting</u>

To what extent do you agree with the following statements regarding your bonus target? [Scaled by 1 “strongly disagree” to 6 “strongly agree”]

(1) My supervisor explicated the target I had to achieve in 2015 in explicit and written terms.
(2) My supervisor explicated the target I had to achieve in 2015 in qualitative terms [for example, saying “do your best”].
(3) My supervisor explicated the target I had to achieve in 2015 in quantitative terms [for example, in terms of achievement of financial numbers].
(4) My supervisor could measure the achievement of my target in 2015 objectively.

<u>Subjectivity emphasis in performance measures</u>

To what extent do you agree with the following statements regarding your performance evaluation for your bonus assignment? [Scaled by 1 “strongly disagree” to 6 “strongly agree”]

(1) My supervisor used his / her personal judgment in evaluating my performance in 2015.
(2) My supervisor evaluated my performance in 2015 in qualitative terms [for example, in terms of personality, professionalism, social interaction].
(3) My supervisor evaluated my performance in 2015 in quantitative terms [for example, in terms of financial numbers].
(4) My supervisor discretionary allocated different grades of importance to the quantitative measures used for my performance evaluation.

<u>Perceived distributive fairness of annual bonus payments</u> *(Voußem et al, 2015, p.43)*

To what extent do you agree with the following statements about the **<u>amount</u>** of your 2015 bonus? [Scaled by 1 “strongly disagree” to 5 “strongly agree”]

(1) I think that the bonus amount I have received in 2015 is fair.
(2) I think that the bonus amount I have received in 2015 matches completely what I deserved.
(3) I am very satisfied with the bonus amount I have received in 2015.

<u>Perceived procedural fairness of annual bonus payments</u> *(Voußem et al, 2015, p.43)*

To what extent do you agree with the following statements about the **<u>way</u>** in which your 2015 bonus was determined? [Scaled by 1 “strongly disagree” to 5 “strongly agree”]

(1) I think that the way in which my bonus was determined is fair.
(2) I have full confidence in the system with which the bonus was determined.
(3) I think that the criteria that were used to determine my bonus are fair.
(4) I am very satisfied with the way in which my bonus was determined.

<u>Locus of control</u> *(Spector, 1988, p.340)*

To what extent do you agree with the following statements? [Scaled by 1 “strongly disagree” to 6 “strongly agree”]

(1) A job is what you make of it.
(2) On most jobs, people can pretty much accomplish whatever they set out to accomplish.

(3) If you know what you want out of a job, you can find a job that gives it to you.
(4) If employees are unhappy with a decision made by their boss, they should do something about it.
(5) Getting the job you want is mostly a matter of luck.
(6) Making money is primarily a matter of good fortune.
(7) Most people are capable of doing their jobs well if they make the effort.
(8) In order to get a really good job you need to have family members or friends in high places.
(9) Promotions are usually a matter of good fortune.
(10) When it comes to landing a really good job, who you know is more important than what you know.
(11) Promotions are given to employees who perform well on the job.
(12) To make a lot of money you have to know the right people.
(13) It takes a lot of luck to be an outstanding employee on most jobs.
(14) People who perform their jobs well generally get rewarded for it.
(15) Most employees have more influence on their supervisors than they think they do.
(16) The main difference between people who make a lot of money and people who make a little money is luck.

<u>Gender of the subordinate</u>

Which is your gender?

- Male
- Female

<u>Gender of the supervisor</u>

Which is the gender of your supervisor?

- Male
- Female

<u>Trust</u> (*Hartmann and Slapničar, 2009, p.735)*

To what extent do you agree with the following statements? [Scaled by 1 “strongly disagree” to 5 “strongly agree”]

(1) My superior will always act in my favor if he /she has the chance.
(2) I am convinced that my superior will always fully and honestly keep me up to date of everything that is important to me.
(3) If my superior takes a decision that is against my interest, I am convinced that this decision is justified for other reasons.

<u>Tenure</u> *(Voußem et al, 2015, p.44)*

How long have you been working for your present organization [in years]?

<u>Task uncertainty</u> (*Hartmann and Slapničar, 2009, p.735)*

To what extent do you agree with the following statements? [Scaled by 1 “strongly disagree” to 5 “strongly agree”]

(1) There is a clearly known way to do the major types of work I normally encounter.
(2) There is a clearly defined body of knowledge of subject matter which can guide me in doing my work.
(3) There is an understandable sequence of steps that can be followed in doing my work.

<u>Age</u>

Which is your age [in years]?

Country of origin

Which is your country of origin?

Level of education

What is the highest degree or level of school you have completed?

- Elementary school
- Middle school
- High school
- Bachelor degree
- Master degree
- Doctorate degree

Industry *(Voußem et al, 2015, p.37)*

In which industry do you work?

- Consumer goods
- Machinery and plant engineering
- Chemicals and allied products
- Electrical engineering and equipment
- Automotive manufacturing
- Metal production and fabricated metal products
- Other manufacturing industry
- Construction
- Retail
- Transportation and communication services
- Credit business and insurance
- Public administration and NPO
- Other services
- Media and IT
- Other

Relative bonus amount

What approximately was your 2015 bonus amount expressed as a **percentage** of your 2015 salary [for example, 10-20% of your salary]?

7.2 *Appendix B*

Table 11 – Variables definition

Variable	*Definition*
Gender of the supervisor (GENDER_SUP)	Dummy variable, which equals 1 whether the supervisor is male and 0 whether the supervisor is female.
Perceived distributive fairness of annual bonus payments (DISTRI_FAIR) *(Voußem et al, 2015, p.43)*	Average of respondents' agreement to (1) I think that the bonus amount I have received in 2015 is fair. (2) I think that the bonus amount I have received in 2015 matches completely what I deserved. (3) I am very satisfied with the bonus amount I have received in 2015.
Perceived procedural fairness of annual bonus payments (PROCED_FAIR) *(Voußem et al, 2015, p.43)*	Average of respondents' agreement to (1) I think that the way in which my bonus was determined is fair. (2) I have full confidence in the system with which the bonus was determined. (3) I think that the criteria that were used to determine my bonus are fair. (4) I am very satisfied with the way in which my bonus was determined.
Locus of control (LOC) *(Spector, 1988, p.340)*	Average of respondents' agreement to (1) A job is what you make of it. (2) On most jobs, people can pretty much accomplish whatever they set out to accomplish. (3) If you know what you want out of a job, you can find a job that gives it to you. (4) If employees are unhappy with a decision made by their boss, they should do something about it. (5) Getting the job you want is mostly a matter of luck. (6) Making money is primarily a matter of good fortune. (7) Most people are capable of doing their jobs well if they make the effort. (8) In order to get a really good job you need to have family members or friends in high places. (9) Promotions are usually a matter of good fortune. (10) When it comes to landing a really good job, who you know is more important than what you know. (11) Promotions are given to employees who perform well on the job. (12) To make a lot of money you have to know the right people. (13) It takes a lot of luck to be an outstanding employee on most jobs. (14) People who perform their jobs well generally get rewarded for it. (15) Most employees have more influence on their supervisors than they think they do. (16) The main difference between people who make a lot of money and people who make a little money is luck. Items 1,2,3,4,7,11,14 and 15 are reverse scored.
Trust (TRUST) *(Hartmann and Slapničar, 2009, p.735)*	Average of respondents' agreement to (1) My superior will always act in my favor if he has the chance. (2) I am convinced that my superior will always fully and honestly keep me up to date of everything that is important to me. (3) If my superior takes a decision that is against my interest, I am convinced that this

	decision is justified for other reasons.
Tenure (TENURE) *(Voußem et al, 2015, p.44)*	Natural logarithm of the number of years respondents had worked in their organization.
Task uncertainty (TASK_UN) ***(****Hartmann and Slapničar, 2009, p.735)*	Average of respondents' agreement to (1) There is a clearly known way to do the major types of work I normally encounter. (2) There is a clearly defined body of knowledge of subject matter which can guide me in doing my work. (3) There is an understandable sequence of steps that can be followed in doing my work. Items 1,2 and 3 are reverse scored.
Age (AGE)	Age in years of respondents.
Country (COUNTRY)	Dummy variable which equals 1 whether the respondent's country of origin is not Italy and 0 whether the respondent's country of origin is Italy
Relative bonus amount (BONUS)	Amount of the 2015 bonus, expressed as a percentage of the 2015 salary.

7.3 *Appendix C*

Table 12 - Correlation matrix of each construct item (full sample)

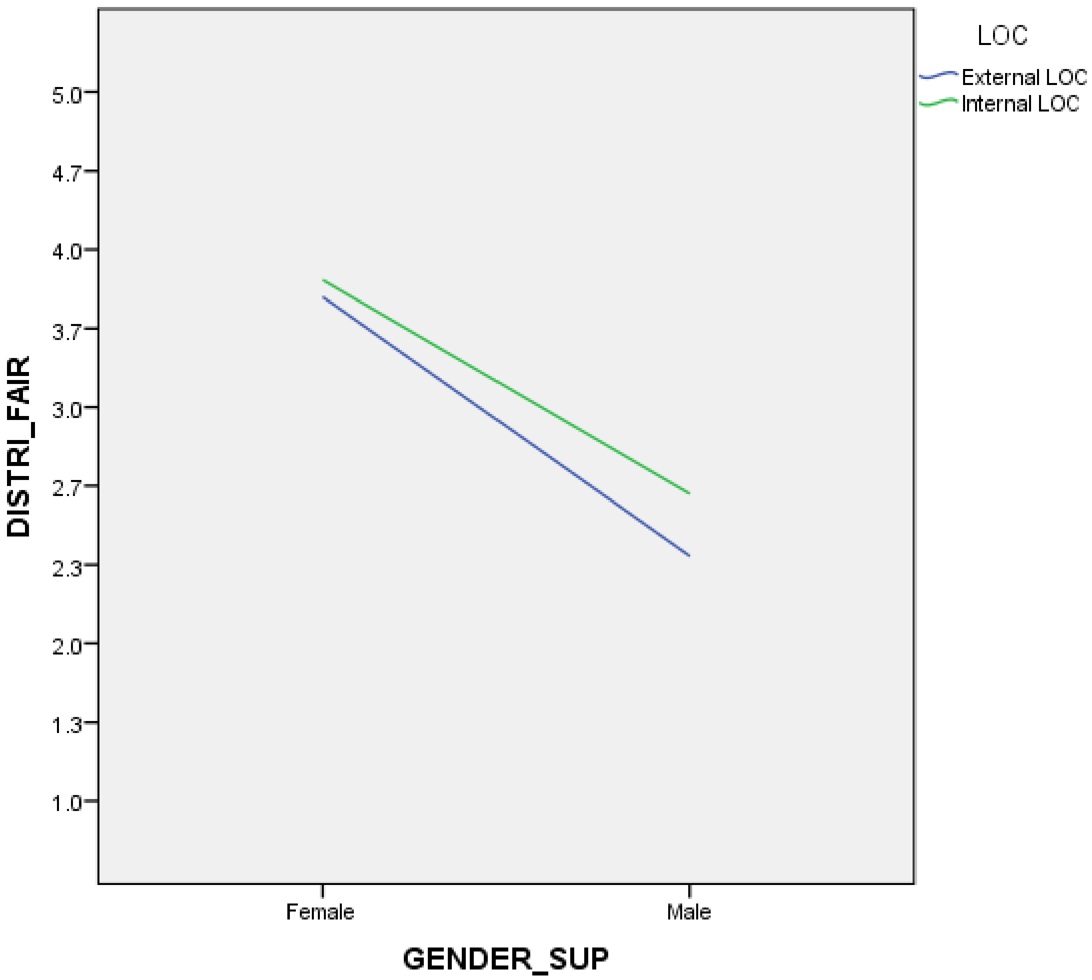
	DISTRI_ FAIR1	DISTRI_ FAIR2	DISTRI_ FAIR3	PROCED_ FAIR1	PROCED_ FAIR2	PROCED_ FAIR3	PROCED_ FAIR4	TRUST 1	TRUST 2	TRUST 3	TASK_ UN1	TASK_ UN2	TASK_ UN3
DISTRI_FAIR1	1.000	0.864	0.684	0.702	0.682	0.758	0.770	0.459	0.540	0.365	-0.177	-0.130	-0.203
DISTRI_FAIR2	0.864	1.000	0.779	0.767	0.659	0.775	0.774	0.436	0.500	0.418	-0.209	-0.139	-0.187
DISTRI_FAIR3	0.684	0.779	1.000	0.653	0.518	0.623	0.684	0.388	0.445	0.341	-0.149	-0.147	-0.037
PROCED_FAIR1	0.702	0.767	0.653	1.000	0.779	0.816	0.840	0.414	0.459	0.419	-0.315	-0.282	-0.319
PROCED_FAIR2	0.682	0.659	0.518	0.779	1.000	0.714	0.699	0.456	0.503	0.478	-0.189	-0.194	-0.304
PROCED_FAIR3	0.758	0.775	0.623	0.816	0.714	1.000	0.830	0.425	0.495	0.405	-0.331	-0.172	-0.273
PROCED_FAIR4	0.770	0.774	0.684	0.840	0.699	0.830	1.000	0.461	0.462	0.425	-0.307	-0.212	-0.346
TRUST1	0.459	0.436	0.388	0.414	0.456	0.425	0.461	1.000	0.682	0.535	-0.220	-0.007	-0.199
TRUST2	0.540	0.500	0.445	0.459	0.503	0.495	0.462	0.682	1.000	0.649	-0.196	-0.110	-0.160
TRUST3	0.365	0.418	0.341	0.419	0.478	0.405	0.425	0.535	0.649	1.000	-0.179	-0.307	-0.273
TASK_UN1	-0.177	-0.209	-0.149	-0.315	-0.189	-0.331	-0.307	-0.220	-0.196	-0.179	1.000	0.358	0.458
TASK_UN2	-0.130	-0.139	-0.147	-0.282	-0.194	-0.172	-0.212	-0.007	-0.110	-0.307	0.358	1.000	0.495
TASK_UN3	-0.203	-0.187	-0.037	-0.319	-0.304	-0.273	-0.346	-0.199	-0.160	-0.273	0.458	0.495	1.000

The table reports correlations for each construct item for the full sample.
Appendix B contains the items definition.

7.4 *Appendix D*

The figure presented below (Figure 3) represents the moderating role of locus of control in the relation between gender of the supervisor and perceived distributive fairness of annual bonus payments for female subordinates. In particular, these subordinates are identified as characterized by an internal locus of control when the specific score of LOC is inferior to the mean of the total scores, while they are identified as characterized by an external locus of control when the specific score of LOC is equal or superior to the mean of the total scores.

Figure 3 – Moderation effect of LOC on the relation between GENDER_SUP and DISTRI_FAIR (sub-sample1)



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