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Perceived Organizational Justice and Trust as Mediators Between Perceived Gender Discrimination and Organizational Outcomes

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PERCEIVED ORGANIZATIONAL JUSTICE AND TRUST AS MEDIATORS BETWEEN PERCEIVED GENDER DISCRIMINATION AND ORGANIZATIONAL OUTCOMES

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ABSTRACT

Many people, especially women, have experienced gender discrimination in their work lives (e.g., Eagly & Diekman, 2005; Morrison et al., 1987). Gaining an understanding of how perception of gender discrimination is related to organizational outcomes is very important for organizations. In this study, I reviewed extant literatures on perceived gender discrimination, perceived organizational justice, perceived external organizational justice, trust in organization, trust in supervisor, job satisfaction, organizational commitment, turnover intention, and corporate social responsibility. I proposed and used structural equation modeling to test the models of the relationships among these constructs to understand how people's perceived gender discrimination is related to turnover intention through the other constructs based on a sample of 880 U.S. participants. Results showed that employees' perception of gender discrimination was related to turnover intention indirectly through distributive, procedural, and interactional perceived organizational justice, perceived interactional external organizational justice, trust in organization, trust in supervisor, job satisfaction, and organizational commitment. I also studied how COVID-19 impacted people's work and life. I discuss the implications, limitations, and directions for future study based on the findings of this study.

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DEDICATION

I dedicate my dissertation and the entire process of graduate study to my family members and friends. They have provided support and enhanced my courage for starting and continuing the graduate study in the U.S.

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CHAPTER 1

INTRODUCTION

Gender discrimination has been a widely-researched topic in today's workplace (e.g., Eagly & Karau, 2002; Ensher et al., 2001; Foley et al., 2005; Gutek et al., 1996; Koenig et al., 2011; Madera et al., 2012; Shaffer et al., 2000). Many people, especially women, have experienced gender discrimination in their work life (e.g., Eagly & Diekman, 2005; Morrison et al., 1987). Although the wage gap between women and men decreased in past decades, women continued to earn less than men (Institute for Women's Policy Research, 2020). As of 2015, women still had fewer career opportunities than men (Wynen et al., 2015). While gender discrimination may have most often been directed against women, men may also be discriminated against and negatively affected if they violate some gender-stereotypic traits (e.g., Booth & Leigh, 2010; Moss-Racusin et al., 2010). Furthermore, LGBT (lesbian, gay, bisexual, & transgendered) groups have also been discriminated against because of gender-related factors (e.g., Badgett et al., 2009; Ragins & Cornwell, 2001). Perception of gender discrimination plays a big role in the workplace and has been shown to be related to different organizational outcomes. Research has shown that perceived gender discrimination was negatively related to job satisfaction (Ensher et al., 2001; Foley et al., 2005; Madera et al., 2012; Shaffer et al., 2000) and organizational commitment (Ensher et al., 2001; Foley et al., 2005), and

positively related to turnover intention (Foley et al., 2005; Gutek et al., 1996; Madera et al., 2012; Shaffer et al., 2000). Therefore, gaining an understanding of how perceived gender discrimination is related to organizational outcomes is very important for organizations. Although much empirical research has been done to study the relationships between perceived gender discrimination and various organizational outcomes (e.g., Ensher et al., 2001; Foley et al., 2005; Kim et al., 2013; Shaffer et al., 2000), none has studied potentially how perceived gender discrimination is related to employees' turnover intention through its relations with other constructs.

The main purpose of this study is to fill in the conceptual gap between perceived gender discrimination and organizational outcomes by building a model of relationships among them with perceived organizational justice and trust as mediators. Additionally, the study has also researched on how the relatively new construct, external organizational justice, plays its role in the paths from perceived gender discrimination to turnover intention.

The study helps researchers and practitioners understand the mechanism by which people's perception of gender discrimination is related to turnover intention. This study opens up new directions for future study on relationships between gender discrimination and other constructs such as organizational justice and trust in organization.

CHAPTER 2

REVIEW OF LITERATURE

Gender Discrimination

Gender Discrimination was defined by Lenhart and Evans (1991) to be "those behaviors, policies, and other activities, which adversely affect either women or men because of disparate treatment, disparate impact, or the creation of a hostile environment" (as cited in Stratton et al., 2005, p. 401).

There has been a long history of women facing gender discrimination in workplace. For instance, before the 1972 amendments to Title VII Civil Rights Act of 1964 was made, organizations such as fire and police departments excluded women along with racial minorities from their employment, that is, they were not considered for these jobs (Colker, 1985). Even after the 1972 amendments were announced, these organizations started to impose minimum requirements for height and weight, and to use rank-order physical tests focusing on strength and speed in applicant selections, which adversely affected the test performance or likelihood of getting referred for interview and hired for women applicants (Colker, 1985). Sometime later, Heilman et al. (2004) conducted three studies to investigate how research participants reacted to successful women in the workplace. They found that men were rated to be more competent, more likeable, more achievement-oriented, and more interpersonally hostile than women unless it was clearly specified that both men and women had been successful for the job. Women were rated to be less likeable and more interpersonally hostile than men for male-dominated jobs,

whereas, women were rated to be more likeable and less interpersonally hostile than men for female-dominated and neutral jobs. Further, ratings of likeability were associated with job outcomes: those who were rated higher in likability or competence received higher ratings in overall evaluation from participants; those who were rated higher in likability were also perceived positively as managers only when they were rated to be highly competent; among those who were rated as highly competent, only those who were rated higher in likability received recommendation for special career opportunities; and those who were rated higher in likability received recommendation for higher salary regardless of competence ratings. The results of a meta-analysis conducted by Koch et al. (2015) revealed that men received higher employment ratings than women for a list of male-dominated jobs (more than 65% men in the job; e.g., police officer, CEO of a supermarket chain, factory manager), whereas women did not receive different ratings than men did for a list of female-dominated jobs (more than 65% women in the job; e.g., nurse, accountant, secretary). Furthermore, they found that men received higher ratings than women from male raters but not from female raters for male-dominated jobs, whereas, men received higher ratings than women from both male and female raters for female-dominated jobs. The results showed no difference across either publication years or study design (between-subject vs. within-subject). However, there were differences across sample type. Those professionals (i.e., having experience in the tasks of performance evaluations and hiring decision-making) were less likely to rate men and women differently than working adults (i.e., without task experience) or undergraduates for male-dominated jobs, but there was no difference for female-dominated jobs. In a survey of undergraduate female students in physics major, 68% of respondents reported

they had experienced some forms of gender discrimination, for instance being treated differently because of gender or receiving suggestion that women were not good at physics or mathematics as men were (Aycock et al., 2019). There is still a wage gap between women and men, and by 2018, the gender gap in wage was 18% (Institute for Women's Policy Research, 2020). Besides, women also perceived that they had fewer career opportunities than men do. For example, Wynen et al. (2015) found that women were less satisfied with their career opportunities than men were in the U.S. federal government, and this satisfaction even declined from 2006 to 2013. Furthermore, they also found that degree of training and perceived fairness of performance appraisal were positively related to satisfaction with career opportunities. Although women do not lack career ambition (in a survey of 1068 working women on their career ambition, 54% chose “very ambitious” and 35% chose “somewhat ambitious”), only 6% of CEO positions in S&P 500 companies are occupied by women (Connley, 2019).

Research showed that men may also be discriminated against in employment if they violate the gender prescriptions (should) or proscriptions (should not) applicable to them. In a study conducted by Moss-Racusin et al. (2010), paid actors and actresses were trained to act as applicants for a manager position that required both strong technical and social skills, and they were asked to act as competent but modest in the videotaped interviews for the position, in which being modest violated both gender prescriptions (e.g., being dominating) and proscriptions (e.g., avoiding being weak) for men. The participants of this study were asked to rate the extent to which they thought the applicants were competent for the job, whether they liked and would hire them, and how much of certain gender-stereotypic traits they thought the applicants possessed after

watching the interview videos. As results, by acting modest, both male and female applicants were rated to show equally high level in women's prescribed traits (e.g., being supportive) and equally low level in women's proscribed traits (e.g., being dominating); male participants were rated to show higher level in men's proscribed traits (e.g., being weak) and lower level in men's prescribed traits (e.g., leadership) than female participants. Male applicants were rated as less likable than female applicants by both male and female participants. Mediation analyses showed that men's prescriptions and proscriptions mediated the relationship between gender and ratings of likeability: modest male applicants were rated as less likable (i.e., backlash) than modest female applicants because they were perceived to violate gender prescriptions and proscriptions for men, i.e., were perceived to be too weak for being a man. However, the study did not show any difference in the ratings of competence or hireability between male applicants and female applicants.

Similarly, men may be discriminated against in women-dominated jobs because of violation of their gender prescription and proscription. Booth and Leigh (2010) conducted a study to compare the number of callbacks for an interview between men and women applicants after their submissions of job applications. They used fake resumes in job applications for four women-dominated jobs with women workers ranging from 65% to 85% (waitstaff, data-entry, customer service, and sale) via a major job-searching website. Results showed that in some of the women-dominated jobs such as data-entry and waitstaff jobs, women applicants received statistically more callbacks than men applicants. For data-entry jobs, in which 85% workers were women, women applicants received callbacks 33% of the time, whereas men applicants received callbacks for 19%

of the time. For waitstaff jobs, in which 80% workers were women, women applicants received callbacks 40% of the time, whereas men applicants received callbacks 30% of the time. For customer service (68% workers were women) and sales (69% workers were women) jobs, the difference in the numbers of callbacks received by women and men was not statistically significant.

Employees may also be discriminated against in the workplace because of sexual orientation. I will talk about a 2017 study (Coffman et al.) later, but let me first discuss Badgett et al. (2009), who summarized previous research on workplace discrimination against lesbian, gay, and bisexual (LGB) as well as transgendered employees. They examined 35 survey studies on workplace discrimination against LGB people published from 1992 to 1999 and found that 16% to 68% of survey respondents reported experience of discrimination such as getting fired, being denied employment and promotion, and low performance evaluations because of their sexual orientation. Survey studies based on national LGB samples from 2002 to 2006 showed that 7% to 41% respondents reported experiencing discrimination. Furthermore, 12% to 30% of heterosexuals surveyed in previous research reported witnessing discrimination against LGB coworkers in the workplace, including discrimination in hiring, harassment, and unfairness in work assignment. As to transgender samples, Badgett et al. (2009) found that 15% to 57% transgender people surveyed in previous studies reported experiencing some sorts of workplace discrimination, for instance, difficulty in getting hired, being fired, and being harassed. The average number of complaints filed by LGB people (4.7 per 10,000) was roughly equal to those filed by women (5.4 per 10,000) for gender discrimination (Badgett et al., 2009). Badgett et al. (2009) also examined income disparity between LGB

and heterosexual individuals in past studies based on data from 1989 to 2001, and they found that there was a wage gap. The biggest gap has been found for homosexual and bisexual men, for example, for those who have similar qualification and work in the same occupation and rank, homosexual and bisexual men earned 10%-23% less than heterosexual men. However, the wage differences between homosexual and heterosexual women and between bisexual and heterosexual women were not statistically significant. As for transgender people, past studies based on data from 1996 to 2006 revealed that 6% to 60% of transgender people surveyed reported unemployment, and earned wages much lower than the national average (Badgett et al., 2009).

Ragins and Cornwell (2001) conducted a survey study of 534 homosexual and bisexual employees on antecedents and outcomes of perceived discrimination in the workplace. They found that where the organization was mainly comprised of heterosexual supervisors and coworkers, no supportive organizational policy and practice, or no protective legislation based on sexual orientation, homosexual and bisexual employees were more likely to perceive discrimination; the increased perception of discrimination would ultimately decrease the employees' job satisfaction, organizational commitment, career commitment, organizational self-esteem, opportunity for promotion, and promotion rate, and would increase turnover intention.

However, it may not be easy to accurately measure people's attitudes toward LGBT population. Coffman et al. (2017) measured sexuality and opinions towards LGBT population on 2516 U.S. participants. They compared a control group, in which participants directly answered sensitive questions, and a treatment group, which hides identifying participant information by using item count technique. The results showed

that, compared to the control group, the participants in the treatment group revealed a 65% increase ($p < .05$) in reporting themselves as being non-heterosexual, a 59% increase ($p < .01$) in reporting having had a sexual experience with same-sex people, a 69% increase ($p < .01$) in reporting negative attitudes towards having a LGBT-manager, a 46% increase ($p < .01$) in reporting opposition to adoption by LGBT couples, and a 47% decrease ($p < .05$) in agreement with that sexual orientation is changeable. Thus, people underreported both their sexual orientation as LGBT population and sentiment towards LGBT population when asked to answer directly. According to the authors, the findings of this study revealed two social norms about sexuality: it is better to stay closeted as LGBT, and also it is better to not show nonacceptance of LGBT people.

The Equal Employment Opportunity Commission (EEOC) has updated interpretation of Title VII's prohibition of sex discrimination to include coverage of LGBT-related sex discrimination. However, in 2017, after the Trump administration announced the transgender military ban, the department of justice, in a major case, *Altitude Express, Inc. v. Zarda*, interpreted that Title VII's prohibition of sex discrimination does not cover discrimination because of sexual orientation (Green, 2017), which seems to bring uncertainty to the occurrence of discrimination based on sexual orientation. Finally, on June 15, 2020, the supreme court ruled for three cases, *Bostock v. Clayton County, Georgia, Altitude Express, Inc. v. Zarda, and R.G. & G.R. Harris Funeral Homes Inc. v. Equal Employment Opportunity Commission*, that discrimination based on sexual orientation and gender identity is prohibited under Title VII of the Civil Rights Act.

Theories of Gender Discrimination

Three theories related to gender discrimination will be introduced here, including the role congruity theory (RCT; Eagly & Karau, 2002), the lack-of-fit model (Heilman, 1995), and the status incongruity hypothesis (SIH; Rudman et al., 2012).

Role Congruity Theory

The first theory is the role congruity theory (RCT; Eagly & Karau, 2002). This theory focuses on whether there is congruence between the characteristics of a social group and their social roles (Eagly & Karau, 2002). This theory is based on the social role theory, which theorizes that people believe a person's behavior reflects their inner qualities (Eagly & Karau, 2002). People infer gender roles, that is, what women or men usually do or should do in a social role (e.g., men as breadwinners, and women as homemakers), by linking the behaviors of a man or woman to their inner qualities (Eagly & Karau, 2002). There are two aspects of gender roles (referred as stereotype, norm, or expectation in various literatures): descriptive and prescriptive (Cialdini & Trost, 1998). The former one refers to people's beliefs of what a specific social group actually do; the latter one refers to what people believe a certain social group should do (Cialdini & Trost, 1998). For descriptive norms or stereotypes for different genders, women are believed to possess more communal attributes such as being kind and sympathetic, and fewer agentic attributes (being confident, controlling, or assertive), whereas men are believed to possess more agentic attributes and fewer communal attributes (Eagly & Karau, 2002). For prescriptive norms for different genders, people believe that women ought to possess more communal attributes and fewer agentic attributes, and men ought to possess more agentic attributes and fewer communal attributes (Eagly & Karau, 2002). If there is a

difference between the perception of typical attributes for certain social roles and the norms of a social group, perception of incongruity happens (Eagly & Karau, 2002). This incongruence will have a negative influence, and perceivers of the incongruity will lower their evaluations on the potential or actual performance of that person for the social role (Eagly & Karau, 2002). For example, a common situation is the perception of incongruity between the stereotype of a woman and attributes of a leader, putting women in a disadvantageous position when applying for or working in a leadership role (Eagly & Karau, 2002).

Therefore, the RCT predicted that people would favor men over women for both leaders and leader candidates (Eagly & Karau, 2002). Past research showed some support for this theory. For example, Rudman and Kilianski (2000) conducted laboratory studies to assess automatic associations of attitudes with gender authority (i.e., gender gap in power), gender roles, and gender traits using implicit and explicit measures. To assess the implicit attitudes towards gender authority, the participants were asked to memorize pictures showing a woman or a man in different occupations (e.g., doctor as an example of high-status authority occupation, and waiter/waitress as an example of low-status authority occupation) right before they were asked to judge the meaning of a positive (e.g., intelligent) or negative adjective word (e.g., annoying). They used four combinations of gender and status of authority: high-authority woman, high-authority man, low-authority woman, and low-authority man. The results showed more negative attitude toward women with high status of authority: regardless of the gender of the participants, when they were shown a picture with a high-authority woman in it, they spent significantly longer in making judgments of the meaning of a positive than a

negative adjective word; however, for those who were shown a picture with a high-authority man, a low-authority woman, or a low-authority man, there was no difference. To further study the participants' implicit attitudes toward gender authority, as well as gender roles and gender stereotypes, participants were assessed implicitly on their automatic association between gender and roles (career vs. domestic), authority (high- vs. low-status), and stereotype (agentic vs. communal), separately. The results showed that regardless of gender, all participants spent more time completing a task when female names (e.g., Ann) were paired with career-meaning words (e.g., office) and male names (e.g., Kevin) were paired with domestic-meaning words (e.g., kitchen) than when male names were paired with career-meaning words and female names were paired with domestic-meaning words. It was found that the participants also spent more time completing the task when female names were paired with occupations in high status of authority (e.g., professor) and male names were paired with occupations in low status of authority (e.g., assistant) than when male names were paired with occupations in high status of authority and female names were paired with occupations in low status of authority, and the difference was bigger for male participants than for female participants. Additionally, all the participants spent more time completing tasks when female names were paired with agentic words (e.g., competitive) and male names were paired with communal words (e.g., supportive) than when male names were paired with agentic words and female names were paired with communal words. Additionally, the authors used self-report measures to measure the participants' explicit attitudes toward the same constructs. The results revealed similar patterns as those measured implicitly. Male participants expressed significantly more negative attitudes for women in high status of

authority than female participants did; however, there was no difference in explicit attitudes toward gender roles and gender stereotypes between male and female participants, which is the same as the results from the implicit measures.

Burgess and Borgida (1999) proposed that descriptive and prescriptive gender stereotypes resulted in different types of gender discrimination, respectively. Adverse impact may occur when decision-making on hiring and promotion is affected by descriptive gender stereotypes (Burgess & Borgida, 1999). For example, communion is usually related more to women, and agency more to men (Eagly & Karau, 2002). Since agency is usually perceived to be associated with leadership as well, there will be a congruence between men and leadership because they fall into similar stereotypes; however, there will be incongruence between women and leadership because they fall into different stereotypes, which puts women into a position of disadvantage for leadership (Eagly & Karau, 2002). Whereas, prescriptive gender stereotypes may result in disparate treatment and whoever violates the prescribed stereotypes would get punished in the form of, for instance, hostile work environment or lower ratings in performance evaluation (Burgess & Borgida, 1999). Women in leader positions may face disadvantages as results of these two types of stereotypes: they are perceived as less capable for their leader positions and receive lower evaluations than their male counterparts (Eagly & Karau, 2002). People will also consider their agentic behaviors as less appropriate than those of male leaders (Koenig et al., 2011). The glass ceiling is one consequential phenomenon of the discrimination women usually face in their ways of climbing up the ladder of leader positions: they are usually excluded from upper-level leadership positions (Morrison et al., 1987). Even if there are equal numbers of

employees for both genders in the workplace, there are still many fewer women than men in leadership positions (Eagly & Karau, 2002).

RCT predicts that the greater the perception of incongruity between the perception of typical attributes for certain social roles and the norms of a social group, the greater the bias (Eagly & Karau, 2002; Koch et al., 2015). The results of the meta-analysis conducted by Koch et al. (2015), which was mentioned earlier in this paper, that women received lower employment ratings than men for male-dominated jobs but not for female-dominated jobs, supported RCT because there is incongruity between gender stereotypes of women and gender stereotypes of male-dominated jobs.

Lack-of-Fit Model

Similar to RCT, the lack-of-fit model focuses on whether there is any discrepancy between a person's attributes and the requirement of the position (Heilman, 1995). The model is also based on the two types of gender stereotypes: descriptive (i.e., how men and women are) and prescriptive (i.e., how men and women should be; Heilman, 2001). This model theorizes that the expectation of whether a person would perform well at a job determines personnel decisions (Heilman, 1995). The expectations of job performance are affected by descriptive gender stereotypes (Heilman, 2001). If there is a fit between a person's attributes and the requirement of the position, then an expectation of successful performance will be formed; if there is not a fit, this person will not be expected to perform well at the position (Heilman, 1995). The expectation of one's performance will affect the result of performance evaluation (Heilman, 1995). For example, for those jobs that are traditionally perceived as male jobs (e.g., police), being agentic is considered a requirement, and women will be expected to fail because there is a

lack of fit with regard to the stereotypes between gender and the requirement of those jobs; therefore, there is usually bias in evaluation for women on their job competence (Heilman, 2001). And finally, the effects will have a negative influence on women applying for and getting selected into an organization because men will be usually recommended for those male-type jobs, for example, upper-level manager (Heilman, 2001). Male applicants will be favored for those jobs, even when female applicants demonstrate the same qualifications (Heilman, 2001). These descriptive-stereotypes-based biases cause a couple of negative consequences (Heilman, 2001). For instance, because the long-held belief that women could not get the work done as well as men do, women may receive worse evaluation for their job performance even when they are doing the work equally well as men do (Heilman, 2001). Additionally, women may not be given the credit for the work they have done, even they do deserve the credit (Heilman, 2001).

Additionally, Heilman (2001) stated that although a woman may demonstrate some masculine traits and might be initially considered to be a fit for a traditionally male-type position, her successful performance at the job may be perceived to violate the prescriptive gender stereotype of women. That is, although there is a fit between what this woman is doing and what this job requires, there is not a fit between what this woman is doing and what this woman should do (Heilman, 2001). They are not allowed to not behave like a woman, and they might be penalized for not behaving like a woman (Heilman, 2001). They might be associated with negative perceptions (e.g., being considered cold, bitter, or a “bitch”) and disliked by others, only because their successful performance in the male-type jobs violates the prescriptive gender stereotypes of a

woman (Heilman, 2001). Therefore, a woman working at a traditionally male-type job tends to be discriminated against no matter whether there is a fit between her characteristics and those of the job.

Heilman and Okimoto (2008) conducted two experimental studies to measure how the gender (man or woman) and parent status (parent or nonparent) of a job applicant for a manager-level job would influence participants' ratings of anticipated job commitment, anticipated competence, and screening recommendations for the job applicant. In the first and second study, they used student and full-time worker samples as participants, respectively. The results of both studies provided some support for the lack-of-fit model. In both studies, there was no main or interactional effect related to the participant gender on any of the outcome variables, therefore, the authors combined the results from participants from both genders. The results of the first study revealed that women were anticipated to be less committed to their jobs than men, parents were anticipated to be less committed to their jobs than nonparents, and there was no interaction between gender and parent status for anticipated job commitment. For anticipated competence, there was an interaction between gender and parent status: female parents were anticipated to be less competent than female nonparents, whereas there was no difference between parents and nonparents for men; female parents were anticipated to be less competent than male parents, however, there was no difference between female and male nonparents. For screening recommendations, there was also an interaction between gender and parent status: female parents received lower ratings in screening recommendations than female nonparents, but there was no difference between male parents and male nonparent; female parents received lower ratings in screening recommendations than male parents,

however, there was no difference between female and male nonparents. Further chi-square analysis showed that participants would be more likely to eliminate those job applicants who are female parents than all other three types of job applicants, and there was no difference in participants' consideration of elimination among female nonparent, male parents, and male nonparents.

In their second study, in addition to the three outcome variables measured in the first study, the authors added three other measures to assess three new outcome variables: anticipated achievement striving, expected dependability, and expected agentic behavior. The results showed that parents were anticipated to be less committed to their jobs than nonparents, however, there was no main effect for gender of job applicants, and also no interaction between gender and parent status on anticipated job commitment. For anticipated competence, the results were consistent with those in study 1. There was an interaction between gender and parent status: female parents were anticipated to be less competent than female nonparents, whereas there was no difference between parents and nonparents for men; female parents were anticipated to be less competent than male parents, but there was no difference between female and male nonparents. For screening recommendations, the results were also consistent with those in study 1. There was an interaction between gender and parent status: female parents received lower ratings in screening recommendations than female nonparents, but there was no difference between male parents and male nonparents; female parents received lower ratings in screening recommendations than male parents, but there was no difference between female and male nonparents. For anticipated achievement striving, only a main effect was found for parent status: parents were anticipated to have less achievement striving than nonparents.

For expected dependability, only a main effect was found for parent status: parents were expected to be less dependable than nonparents. And for expected agentic behavior, there was an interaction between gender and parent status: female parents were expected to be less agentic than female nonparents, whereas there was no difference between male parents and male nonparents; female parents were expected to be less agentic than male parents, but there was no difference between female and male nonparents. Results of additional mediational analyses showed that anticipated competence partially mediated the relationship between motherhood and screening recommendation, whereas neither anticipated achievement striving nor anticipated job commitment were mediators of the relationship between motherhood and screening recommendation. Finally, expected agentic behavior was shown to have partially mediated the relationship between motherhood and anticipated competence, whereas expected dependability was not a mediator of the relationship between motherhood and anticipated competence.

In summary, the results of the two studies conducted by Heilman and Okimoto (2008) indicated that with all other conditions equal, being a parent might lead to more bias than being a nonparent, and being a woman might lead to more bias than being a man; and being both a parent and woman led to the most negatively influenced: people anticipated a mother to be less competent and less likely be recommended for a job, because a mother was anticipated to show fewer agentic traits, which resulted in a perception of a lack of fit between a mother and a manager-level job, which is a traditionally male-type job.

A more recent experimental study also supported that people would be considered less suitable for a job when there is perception of lack of fit between person and the job.

Horvath and Sczesny (2016) studied the effect of wording differences in German language in an advertisement of leadership positions on participants' perception of applicant-job fit in hiring-simulation scenarios using business student samples from Austrian universities. In this study, participants were asked to evaluate suitability of fake job applicants for two levels of leadership positions (higher level: CEO vs. lower level: project leader) across three forms of wording for the job titles (masculine form vs. masculine form with (m/f) vs. masculine/feminine forms in word pairs). The results showed that female applicants were rated to be less suitable for the CEO positions when the masculine form was used for the job title than male applicants; however, there was no difference in suitability ratings for the CEO positions between female and male applicants when masculine form with (m/f) or masculine/feminine forms in word pair was used for the job title. For the project leader position, there was no difference in suitability ratings between female and male applicants regardless of which form of wording was used.

Status Incongruity Hypothesis

In contrast to RCT (Eagly & Karau, 2002), Rudman et al. (2012) proposed the status incongruity hypothesis (SIH) that stated that it was the incongruity between people of a gender and their status in the organization, not the incongruity between people of a gender and social roles taken by them that led to negative influence on them. According to SIH (Rudman et al., 2012), gender stereotypes determine what traits women and men should exhibit (prescriptions), and what traits they should not have (proscriptions). The prescribed traits for women and the proscribed traits for men are usually communal traits, whereas the prescribed traits for men and the proscribed traits for women are usually

agentic traits. Examples of prescribed traits for women include being supportive, warm, and kind; whereas examples of prescribed traits for men include being agentic, independent, and assertive. Examples of proscribed traits for women include being arrogant and controlling, whereas examples of proscribed traits for men include being naive and weak. According to this hypothesis, men are supposed to be in high status, whereas women are supposed to be in low status. Anyone who behaves to threaten the status quo will get backlash. For example, if a woman exhibits an agentic trait, or a man exhibits a weak trait, they exhibit their gender proscriptions, which might lead to backlash because the behaviors threaten the status hierarchy.

Rudman et al. (2012) conducted five studies to support SIH. In the first study, they examined which stereotypes were associated with men and women, and which gender stereotypes were associated with high status. They listed the prescriptive traits rated to be much more desirable for women than for men, which they named female communality prescriptions, and those prescriptive traits rated to be much more desirable for men than for women, which they named male agency prescriptions. Examples of the former list of traits included friendly, warm, and sensitive to others; whereas examples of the latter list of traits included independent, leadership ability, and business sense. In this study, they also found that all the agency prescriptions for men were rated to be linked to high status; however, for women, some of their communality prescriptions were rated to be linked to low status (e.g., emotional, warm), some to high status (e.g., enthusiastic, cheerful), and others to neutral status (e.g., sensitive to others, or supportive). The authors also listed the less desirable traits for men than for women (e.g., emotional, weak, or naive), which they named male weakness proscriptions, and they named those less desirable traits for

women than for men (e.g., intimidating, dominating, or arrogant) female dominance proscriptions. The majority of weakness proscriptions for men were rated to be associated with low status, and none of these traits were rated to be associated with high status. The majority of dominance proscriptions for women were rated to be associated with high status, only two traits (angry & rebellious) were rated to be associated with low status, and one trait (cynical) was rated to be neutral. In summary, the results of this study showed that, generally, prescriptions for men and proscriptions for women were usually agentic and more likely to be associated with high status, whereas, prescriptions for women and proscriptions for men were usually communal and more likely to be associated with low status.

In their second study, Rudman et al. (2012) manipulated traits of candidates to be communal and agentic for a job promotion, and asked participants to rate them on competency, liking, hireability, and gender prescriptions and proscriptions. Results showed that there was no difference in the ratings of competency of candidates among communal women, communal men, agentic women, and agentic men. There was no difference in ratings of liking and hireability between communal men and communal women. However, agentic women were rated as less likable and hireable than agentic men. Agentic women were rated to possess more female dominant proscriptions than agentic men, but there was no difference between agentic women and agentic men in ratings on male agentic prescriptions, female communal prescriptions, or male weak proscriptions. There was no difference between communal women and communal men in ratings on male agentic prescriptions, female communal prescriptions, female dominant proscriptions, or male weak proscriptions. Furthermore, mediational analyses showed that

ratings of liking fully mediated the relationship between candidate gender and ratings of hireability; the relationship between candidate gender and liking ratings was partially mediated by ratings of dominant proscriptions, but communal prescription did not mediate the gender-liking relationship. In summary, results of the second study showed that agentic women candidates would suffer from backlash because they exhibited the agentic traits that they were not supposed to have.

In the third study, participants conducted mock interviews for a marketing manager position described to require both communality and agency, and the interviewees were confederates who were trained ahead to answer interview questions with agentic responses based on scripts prepared by the researchers. Participants were asked to rate the interviewees on competency, liking, hireability, gender prescriptions and proscriptions, and justification for gender hierarchy. Results showed that there was no interaction between participants' gender and confederate interviewees' gender in all ratings. There was no difference in the competency ratings that agentic women and men received; however, agentic men were given higher ratings in liking and hireability than agentic women. Similar to the results in the second study, this study revealed that agentic female confederate interviewees were rated to be higher in dominant proscriptions than male confederate interviewees; however, for ratings in agentic prescriptions, communal prescriptions, and weak proscriptions, there was no gender difference. Mediational analyses showed that liking fully mediated the relationship between interviewee gender and hireability ratings, and dominant proscriptions fully mediated the relationship between interviewee gender and liking; whereas, communal prescription did not mediate the relationship between interviewee gender and liking. Results of regression analyses

revealed that after controlling for gender of the participants, there was an interaction between gender of confederate interviewees and justification belief for gender hierarchy on ratings of female dominant proscriptions. For female interviewees, there was a positive relationship between justification belief for gender hierarchy and female dominant proscriptions; however, for male interviewees, the relationship was not significant. Furthermore, participants who supported gender hierarchy rated agentic women to be more dominant than agentic men, whereas the ratings from those participants who did not support gender hierarchy did not show any difference between agentic women and men. There was no interaction between gender of confederate interviewees and justification belief for gender hierarchy on ratings of female communal prescription. Results also showed that there was an interaction between interviewee gender and justification belief for gender hierarchy on hireability. For agentic women, the relationship between justification belief for gender hierarchy and hireability was negative; whereas for agentic men, the relationship was nonsignificant. There was no interaction between interviewee gender and justification belief for gender hierarchy on liking. Participants who supported gender hierarchy rated agentic men more hireable and likable than agentic women, whereas the ratings from those participants who did not support gender hierarchy did not show any difference between agentic women and men. In summary, results of study 3 revealed that agentic women would suffer from employment discrimination as a result of a penalty for their exhibition of dominance, and those who support gender hierarchy would be more likely to penalize agentic women.

In the fourth study, the researchers used the same promotion candidates from the second study and asked participants to rate the candidates' competency, liking,

hireability, and gender prescriptions and proscriptions in high-threat (America in decline), low-threat (America on the rise), and control contexts (none). The results showed that there was no difference in the ratings of competency, male agentic prescription, male weak proscriptions, and female communal prescriptions across candidate gender and the three contexts. However, there were differences in ratings of other variables. Agentic male candidates were rated higher in liking and hireability than agentic female candidates. For male candidates, there was no difference in ratings across the three contexts; however, for female candidates, there were some differences. They were rated lower in liking under high-threat than low-threat and control contexts respectively, and they were rated lower in hireability under high threat than low threat. Agentic female candidates were rated to be more dominant than agentic male candidates. Agentic female candidates were rated to be more dominant under high threat than low threat; for agentic male candidates, there was not any difference in ratings of dominance across the three contexts. In summary, study 4 revealed that agentic women were viewed as more agentic and less likable and hireable under a high-threat condition.

In the last study, the researchers manipulated confederates to be leaders of either high or low agency and put participants into roles of subordinates and gave them the choice to sabotage the leaders. Participants were asked to rate confederates in competence as a leader, likability, and dominance, and then completed the sabotage task. Results showed that there was an interaction between confederate gender and their level of agency on ratings of competence as leader. For confederates who were high in agency, men and women were rated equal in competence as a leader; however, for confederates who were low in agency, men were rated higher than women in competence as a leader.

Male confederates were rated to be more likable than female confederates. Results also showed that male confederates were rated to be more dominant than female confederates. The authors explained that because female confederates were not active in competing for leadership, participants might rely on gender stereotypes to give ratings in dominance. For the sabotage task, results showed that for confederates who were high in agency, women were sabotaged more than men; actually, high-agentic female confederates were sabotaged more than any low-agentic confederates regardless of their gender; whereas, for confederates who were low in agency, there was no gender difference in sabotage. In summary, results of this study revealed that women needed to be high in agency to be considered as an equally good leader as men; whereas men did not have such a need. Also, agentic female leaders might suffer from more sabotage than male leaders because when behaving agentically, female leaders challenged the gender hierarchy.

In summary, results of the five studies supported SIH in one way or another. Women who challenge the gender hierarchy (i.e., men are in higher status than women) by behaving agentically in the workplace may be penalized by those who want to defend the gender hierarchy (Rudman et al., 2012).

Gender Discrimination and Perceived Gender Discrimination

When there is gender discrimination, the extent to which people perceive the gender discrimination may vary person by person (Kobrynowicz & Branscombe,1997). A few factors may influence the relationship between gender discrimination and perceived gender discrimination. For instance, compared with women, men are more likely to exaggerate their perception of gender discrimination personally (Crocker & Major, 1989, 1994). When devalued, men, as the traditional group of privilege, attributed their

experienced negative outcomes to prejudice and discrimination in order to attenuate the decrease of self-esteem (Crocker et al., 1991); whereas women, as the traditionally disadvantaged group, tend to reject the reality they have been discriminated against personally because they view admitting the discrimination as a painful experience (e.g., Crosby, 1982; Crosby et al., 1989), and worry that admitting the discrimination might reinforce their positions of disadvantage (Kobrynowicz & Branscombe,1997). Additionally, Kobrynowicz and Branscombe (1997) found that different individual factors influenced perception of gender discrimination across men and women. Men with lower self-esteem and higher assertiveness tended to perceive higher levels of personal gender discrimination, whereas women with lower need for approval and more depression experience tended to perceive higher levels of personal gender discrimination. In summary, perceived gender discrimination may not be equal to gender discrimination.

In this study, I focus on people's perception of gender discrimination instead of the incidence of gender discrimination, because I think that it is the perception of gender discrimination instead of incidence of gender discrimination that leads people to finally decide to leave or stay in the organization. I wanted to examine whether and how people's perceived discrimination might be related to their turnover intention through their perception of organizational justice and their trust in their supervisor and/or organization.

The Relationship between Perceived Gender Discrimination and Organizational Outcomes

According to RCT (Eagly & Karau, 2002), the lack-of-fit model (Heilman, 1995), and the status incongruity hypothesis (SIH; Rudman et al., 2012), people are sometimes

perceived to be less capable of their jobs because of their genders, which is gender discrimination. I think that when people perceived gender discrimination, they will be more likely to feel dissatisfied with their job and less committed to their organization and may finally decide to leave the organization because there is incongruence or lack-of-fit between their genders and the perceived perfect genders for their jobs.

Job satisfaction has been defined as whether an employee likes his or her job after an overall evaluation (Locke, 1976). According to the job characteristics theory (Hackman & Oldham, 1980), job satisfaction is largely influenced by their jobs or the organizations they work for. Employees compare what the job can offer them and what they prefer the job to offer, and based on the difference, they determine whether they are satisfied with the job. If employees perceive what the job is offering to be equal to or more than what they prefer they should be receiving, then they should be satisfied with their job; if not, they will feel dissatisfied. When an employee perceives that she/he is discriminated against because of her/his gender, she/he is being treated differently although she/he is contributing to the organization with equal quantity and/or quality of work. Based on the results of comparison with others' work, they will tend to feel dissatisfied.

Organizational commitment has been defined as the degree to which employees feel they bond with the organization psychologically, as represented by whether they feel they attach with the organization affectively, whether they internalize the values and goals of the organization into their own, and whether they want to make efforts to support the organization (Solinger et al., 2008). When employees perceive that they are discriminated against based on their gender, they will feel that the organization is not supportive for

them, which will undermine their feelings of bond with the organization, and they are less likely to support the organization to the degree they used to. Therefore, generally, they will have less commitment to their organization.

According to the social dominance theory, which focuses on one factor called social dominance orientation (SDO), people who are high in social dominance will prefer hierarchy-enhancing policies and systems, whereas those who are low in social dominance will prefer the opposite, trying to support hierarchy-attenuating policies and systems (Kehn & Ruthig, 2013; Pratto et al., 1994). Thus, SDO can be a factor that helps predict whether a person will accept or reject those policies on group relations. For people who take on different social roles, SDO will be a factor that influences which type of organizations to which they will choose to apply and at which they will choose to stay. For those who are high in social dominance, they will choose to apply to and stay in those organizations that maintain a social hierarchy; whereas, for those who are low in social dominance, they will choose those organizations that diminish group difference on social hierarchy. According to the SIH (Rudman et al., 2012), people, in most situations, women, may be discriminated against when they challenge the gender hierarchy in workplace, and they may more likely consider leaving the organization when they have perceived gender discrimination.

Past studies revealed a positive relationship between perceived gender discrimination and turnover intention, and negative relationships between perceived gender discrimination and both job satisfaction and organizational commitment. For instance, Foley et al. (2005) conducted an empirical study on 877 participants to measure the relationships between people's perceived gender discrimination and each of job

satisfaction, organizational commitment, and intention to leave, and they found that perceived gender discrimination was negatively related to job satisfaction and organizational commitment and positively related to intention to leave. Additionally, a few other studies also showed the positive relationship between perceived gender discrimination and turnover intention (Gutek et al., 1996; Madera et al., 2012; Shaffer et al., 2000).

Hypothesis 1a: Perceived gender discrimination will be negatively related to job satisfaction.

Hypothesis 1b: Perceived gender discrimination will be negatively related to organizational commitment.

Hypothesis 1c: Perceived gender discrimination will be positively related to turnover intention.

Empirical studies showed that there were statistically significant relationships between perceived gender discrimination and these organizational outcomes, and it also makes sense generally that when people perceive they have been discriminated against because of their gender, they might become less satisfied with their job, less committed with their organizations, and more likely to consider leaving the organization. However, people might actually go through a much more complex psychological process starting from the time when they perceive gender discrimination to the time when they feel a lower level of job satisfaction and organizational commitment and a higher level of turnover intention. Therefore, in this study, I want to theorize and build a model of the intermediate processes, or connection, between people's perception of gender discrimination and these organizational outcomes, and statistically test the model.

The Relationship between Perceived Gender Discrimination and Perceived Organizational Justice

Organizational Justice

Organizational justice was defined to "describe and explain the role of fairness as a consideration in the workplace" (Greenberg, 1990, p. 400). There are three dimensions of organizational justice (Cropanzano et al., 2002). They are distributive justice, procedural justice, and interactional justice. I will introduce each of them and discuss them hereinafter.

Simpson and Kaminski (2007) conducted a survey study to examine the effect of gender on how people prioritized each of the three dimensions of organizational justice, and they found no gender difference after controlling factors including age, race, education, occupational group, income, and union status.

Distributive Justice. Distributive justice has been defined to be the fairness of outcomes one receives (Cropanzano et al., 2002). Before 1975, distributive justice was the only area on which research of organizational justice focused (Colquitt et al., 2001). Many of the researchers used social exchange theory after Adams (1965) started to use this theory to evaluate fairness (Colquitt et al., 2001). According to Adams (1965), people cared about the fairness of their outcomes more than they cared about the amount of their outcomes. To determine the fairness of outcomes, people could first calculate the ratio of their own contributions to their outcomes, and then compare the results with another worker's contribution-outcome ratio. According to the social exchange theory, one exchanges their work for pay (Cropanzano et al., 2002).

Social exchange in an organization may start with the fair treatments that employees receive from the organization (Aryee et al., 2002); therefore, as a form of unfair treatment, gender discrimination may result in employees questioning the fairness of outcomes they receive from the organization. Gender discrimination theories may help explain how this happens. For instance, according to RCT (Eagly & Karau, 2002), when one person in an occupation that is dominated by people of the other gender, an incongruence will probably be formed and it will ultimately negatively influence the rating of work performance that this person will receive. Similarly, according to the lack-of-fit model (Heilman, 1995), if there is lack of fit between a person's attributes and the requirement of a job, this person will not be expected to perform well on the job, and will get a lower score in the performance evaluation than he/she should. Additionally, according to the SIH (Rudman et al., 2012), when women challenge the gender hierarchy (i.e., men are in higher status than women) by behaving agentically in the workplace, they may be penalized by those who want to defend the gender hierarchy. For example, a woman in a leadership position will likely receive a lower rating in performance appraisal than her male co-workers in the same position because of incongruence between her gender and the perceived gender for the leadership position. Therefore, when people perceive that people of one gender have been discriminated against in policies and/or activities in an organization, they will assume that people of different genders will not be paid fairly if the amount of pay is tied to their work performance. Thus, perceived gender discrimination in organizations will have a negative relationship with people's perception of distributive justice in the organizations.

Hypothesis 2a: Perceived gender discrimination will be negatively related to perceived distributive organizational justice.

Procedural Justice. The second dimension of organizational justice is procedural justice, which is defined as the fairness of the process of decision-making (Konovsky, 2000). The concept of procedural justice was first introduced by Thibaut and Walker (1975) and was used in research on disputants' perception of fairness in legal procedures. Their research revealed that disputants would be willing to sacrifice their control in the decision stage of legal procedures to that in the process stage. That means, they cared more about the fairness in the process than the ultimate decision. Leventhal (1980) broadened the use of procedural justice from legal context to non-legal context and presented six criteria of fairness of a procedure. The six criteria included: (a) consistency, (b) nonexistence of bias, (c) accuracy, (d) ability to correct flaws, (e) conformity to ethics, and (f) inclusion of diverse opinions (Colquitt et al., 2001). Procedural justice is more about the exchange between an individual and the organization that he or she works for, during which the organization establishes all of the formal procedures for everyone to follow during the process of the individual-organization exchange (Cropanzano et al., 2002).

The perception of gender discrimination may result in lower level of perception of procedural organizational justice, and gender discrimination theories may help to explain it. When there is incongruence in social roles or lack of fit between the characteristics of a person and the role or status of the position, personnel practices will be affected (Eagly & Karau, 2002; Heilman, 1995; Rudman et al., 2012). When people of different genders are treated differently, personnel decisions made on them will differ based on their

gender. For example, for a woman in a leadership position, she is not perceived to fit into the stereotype or the status of a leadership position because women are usually perceived as more communal and less agentic than men (de Lemus et al., 2014; Fiske et al., 2002). Fewer women than men will be promoted or hired into leadership positions and a glass-ceiling phenomenon takes place (Morrison et al., 1987). In this situation, some of these criteria of procedural justice given by Leventhal (1980) such as (b) nonexistence of bias and (c) accuracy are not met, thus, there may be lack of procedural justice in the organization and people's perception of procedural justice will be more likely to be lowered. Therefore, perceived gender discrimination will be negatively related to people's perception of procedural justice in organizations.

Hypothesis 2b: Perceived gender discrimination will be negatively related to perceived procedural organizational justice.

Interactional Justice. The third dimension is interactional justice, which was introduced by Bies and Moag (1986) and has been defined to be the quality of the interpersonal interaction between people in the process of organizational procedures (Cropanzano et al., 2002). There are two types of interactional justice (Greenberg, 1990, 1993). The first one is interpersonal justice, which focuses on how fair the treatment is that people receive during interactions with others in the organization. The second one is informational justice, which focuses on whether people receive explanations as to the reason why procedures or outcome distributions are conducted in a certain way. Compared to distributive justice and procedural justice, which are more on the relationship between individual and the organization, interactional justice is more about interpersonal relationships, especially between individuals and their supervisors

(Cropanzano et al., 2002; Masterson et al., 2000). When there is incongruence in social roles or lack of fit between the characteristics of a person and the role or status of the position, the person may be treated with bias or even get penalized (Eagly & Karau, 2002; Heilman, 1995; Rudman et al., 2012). For example, because of incongruence and lack of fit between the gender stereotypes of them and leadership positions (Eagly & Karau, 2002; Heilman, 1995; Rudman et al., 2012), women supervisors will be more likely to be sexually harassed than their male counterparts (McLaughlin et al., 2012). Once gender discrimination is perceived, people will assume that people of different genders will be treated differently in their interactions with others in the organization. Therefore, perceived gender discrimination will be negatively related to people's perception of interactional justice in organizations.

Hypothesis 2c: Perceived gender discrimination will be negatively related to perceived interactional organizational justice.

The Relationships among Perceived Organizational Justice, Trust, and Organizational Outcomes

Trust

Trust has been defined as that a party is willing to accept some vulnerability based on expectations of the actions taken by another party (Mayer et al., 1995), and usually this expectation is positive (Rousseau et al., 1998). The vulnerability originates in the degree of risk that one party is willing to take related to the actions of another party, and the degree of vulnerability increases as the interdependence between the two parties increases (Aryee et al., 2002). Trust in organization and trust in supervisor are distinct types of trust (Aryee et al., 2002). Aryee et al. (2002) conducted a confirmatory factor

analysis on trust and found that a two-factor model was a better fit than a one-factor model, supporting the notion that trust in organization and trust in supervisor are distinctive constructs.

Trust as a Mediator between Perceived Organizational Justice and Organizational Outcomes

Fairness in treatment can initiate social exchange in relationships between employees and their organization or supervisors (Aryee et al., 2002). Employees want to keep a balance in the exchange and consider reciprocating the inputs of the organization as an obligation because of the goodwill they receive from organizations (Aryee et al., 2002). Social exchange leads to trust through the investment and mutual support in the relationship (Blau, 1964). Fairness of compensation and recognition of contribution influence individuals' trust in their organizations (Tan & Tan, 2000), indicating a relationship between employees' perception of distributive organizational justice and their trust in organization. Therefore, there should be a positive relationship between perceived distributive organizational justice and trust in organization. And if an employee believes the organization is fair in the procedures of making decisions, for example, on compensation, then she/he tends to believe there is a balance between what she/he contributes to and receives from the organization, therefore, she/he is more likely to trust in the organization. Thus, there should be a positive relationship between perceived procedural organizational justice and trust in organization. And if an employee believes the organization is fair in the interaction with employees, then she/he tends to believe they are supported by the organization, thus, are experiencing a balance between investment into the organization and support received from the organization; therefore,

she/he is more likely to trust in the organization and the supervisor with whom she/he directly interacts. Therefore, there should be positive relationships between perceived interactional organizational justice and trust in organization and supervisor.

According to the social information processing (SIP) theory (Salancik & Pfeffer, 1978), employees may look back at their past behaviors and in order to make sense of those behaviors, they will determine whether they are satisfied with their job or not. When an employee looks back at the reciprocal relationship between her/himself with the organization built upon trust, she/he tends to believe she/he is satisfied with the job because if she/he is not satisfied with the job, why did she/he trust the organization? When an employee trusts the organization, she/he tends to believe that the organization will be supportive and helpful to her/him. And perceived organizational support tends to increase organizational commitment (Meyer et al., 2002), since the employee will be more likely to have affective attachment with the organization, internalize its values and goals, and support the organization.

Wong et al. (2006) examined the relationship between perceived organizational justice and trust in a Chinese sample, and they found that as antecedents, perceived distributive and procedural organizational justice were positively related to trust in organization, perceived interactional organizational justice was positively related to trust in supervisor, and trust in supervisor was positively related to trust in organization.

Aryee et al. (2002) conducted a study on the relationships among trust, organizational justice, and several organizational outcomes. They found significant positive correlational relationships between each of the three dimensions of perceived organizational justice and both job satisfaction and organizational commitment, and

significant negative correlational relationships between each of the three dimensions of perceived organizational justice and turnover intention. There were significant positive correlational relationships between each of the three dimensions of perceived organizational justice and trust in organization, whereas only interactional organizational justice was found to be significantly related to trust in supervisor, and the relationship was positive. They also found significant positive correlational relationships between trust in organization and both job satisfaction and organizational commitment, and significant negative correlational relationship between trust in organization and turnover intention; however, they did not find any significant relationship between trust in supervisor and any of job satisfaction, organizational commitment, or turnover intention. Additionally, the authors conducted structural equation modeling to test the fit of different mediational models that included trust in organization as a mediator between all three dimensions of perceived organizational justice and each of job satisfaction, organizational commitment, and turnover intention, and the best fit model revealed that trust in organization partially mediated the relationships between perceived distributive organizational justice and each of job satisfaction, organizational commitment, and turnover intention; trust in organization fully mediated the relationships between perceived procedural organizational justice and each of job satisfaction and organizational commitment; and trust in organization fully mediated the relationships between perceived interactional organizational justice and each of job satisfaction, organizational commitment, and turnover intention. Therefore, so far, I can hypothesize:

Hypothesis 3: Trust in organization will mediate the relationships between each of the three dimensions of perceived organizational justice (distributive, procedural,

and interactional) and job satisfaction: perceived organizational justice will be positively related to trust in organization, and trust in organization will be positively related to job satisfaction.

Hypothesis 4: Trust in organization will mediate the relationships between each of the three dimensions of perceived organizational justice (distributive, procedural, and interactional) and organizational commitment: perceived organizational justice will be positively related to trust in organization, and trust in organization will be positively related to organizational commitment.

Hypothesis 5: Perceived interactional organizational justice will be positively related to trust in supervisor.

Hypothesis 6: Trust in supervisor will be positively related to trust in organization.

Trust as a Mediator between Perceived External Organizational Justice and Organizational Outcomes

Toaddy and Pond (2012) researched on a relatively new construct, perceived external organizational justice (EJ), which was defined as "perceptions by an employee of the degree to which her or his organization behaves fairly, equitably, and ethically when interacting with entities outside of the organization" (p. 1). Similar to perceived organizational justice, perceived external organizational justice is also a three-dimensional construct, including perceived distributive external organizational justice (DEJ), perceived procedural external organizational justice (PEJ), and perceived interactional external organizational justice (IEJ), which correspond to the perceptions of external organizational justice in the context of distribution of resources, the manner of decision-makings, and communications, respectively (Toaddy, 2012).

Since the three dimensions of perceived external organizational justice correspond to the three dimensions of perceived organizational justice, I can reasonably hypothesize that trust in organization will mediate the relationships between all three dimensions of perceived external organizational justice (distributive, procedural, and interactional) and each of job satisfaction and organizational commitment. If an employee perceives that the organization is fair in distribution of resources to, decision-makings of interaction with, and communications with other entities outside the organization, the employee tends to trust that the organization will be fair in other actions and she/he is more likely to accept whatever the organization requests without questioning it. Increased trust in the organization will lead to increase in the employee's satisfaction with the job and commitment to the organization.

Hypothesis 7: Trust in organization will mediate the relationships between each of the three dimensions of perceived external organizational justice (distributive, procedural, and interactional) and job satisfaction: perceived external organizational justice will be positively related to trust in organization, and trust in organization will be positively related to job satisfaction.

Hypothesis 8: Trust in organization will mediate the relationships between each of the three dimensions of perceived external organizational justice (distributive, procedural, and interactional) and organizational commitment: perceived external organizational justice will be positively related to trust in organization, and trust in organization will be positively related to organizational commitment.

The Relationship between Corporate Social Responsibility and Perceived External Organizational Justice

Corporate social responsibility (CSR) has been defined by Waldman et al. (2006) as "actions on the part of the firm that appear to advance, or acquiesce in the promotion of some social good, beyond the immediate interests of the firm and its shareholders and beyond that which is required by law" (p. 1703). Aguinis (2011) defined CSR as "context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance" (p. 855). When operationalizing CSR, researchers usually objectively assess the actions taken by an organization that reflect corporate social performance (CSP; Morgeson et al., 2013), which has been defined as "a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships" (Wood, 1991, p. 693).

If an employee perceives that her/his organization promotes some social good beyond the direct organizational interests and the responsibilities required by law (Waldman et al., 2006), and takes factors such as expectations of stakeholders and economic, social, and environmental responsibilities into consideration (Aguinis, 2011), the employee will believe that the organization will be fair with distribution of resources to, in the decision-making of interaction with, and in communications with other entities outside the organization. Previous research showed that CSR was positively related to all three dimensions of perceived external organizational justice (Toaddy, 2012).

I am including CSR in this model because previous work showed the relationships between CSR and all dimension of perceived external organizational justice, and as antecedents of perceived external organizational justice, CSR might account in the relationships among the constructs in the model and it needs to be controlled for in other analyses.

Hypothesis 9: Perceived corporate social responsibility will be positively related to each of the three dimensions of perceived external organizational justice (distributive, procedural, and interactional).

The Relationships among Job Satisfaction, Organizational Commitment, and Turnover Intention

If an employee is not satisfied with her/his current job after evaluation of the job, she/he will think about leaving the organization. According to the Mobley model of turnover (1977), employees go through multiple stages after they evaluate their jobs and become dissatisfied with them: they think about quitting, evaluate the cost of quitting, search for other jobs, compare other jobs with their current jobs, have turnover intention, and finally quit the job. Also, if an employee does not have a psychological bond with the organization (Solinger et al., 2008), she/he will more likely intend to leave the organization compared to those who have a strong psychological bond with the organization. Organizational commitment had a negative relationship with turnover intention (Meyer et al., 2002). Kammeyer-Mueller et al. (2005) conducted longitudinal research on predictors of turnover over a 2-year period and found that organizational commitment predicted turnover over time. Aryee et al. (2002) found that turnover

intention was negatively related to job satisfaction and organizational commitment, and job satisfaction was positively related to organizational commitment.

Hypothesis 10: Job satisfaction will be negatively related to turnover intention.

Hypothesis 11: Organizational commitment will be negatively related to turnover intention.

A Proposed Model of Relationships among Perceived Gender Discrimination, Corporate Social Responsibility, Perceived Organizational Justice, Perceived External Organizational Justice, Trust in Supervisor, Trust in Organization, Job Satisfaction, Organizational Commitment, and Turnover Intention

So far, I have reviewed literatures and hypothesized on the relationships among perceived gender discrimination, corporate social responsibility, perceived organizational justice, perceived external organizational justice, trust in organization, trust in supervisor, job satisfaction, organizational commitment, and turnover intention. Additionally, there was a study conducted on the mediations by job satisfaction and organizational commitment of the relationship between perceived organizational justice and turnover intention. Foley et al. (2005) conducted a study to examine whether job satisfaction and organizational commitment mediated the relationship between perceived gender discrimination and turnover intention, and between perceived distributive and procedural organizational justice and turnover intention. They found that job satisfaction and organizational commitment mediated the relationship between both perceived distributive and procedural organizational justice and turnover intention, but they did not mediate the relationship between perceived gender discrimination and turnover intention. The results indicated that the constructs of job satisfaction and organizational commitment might

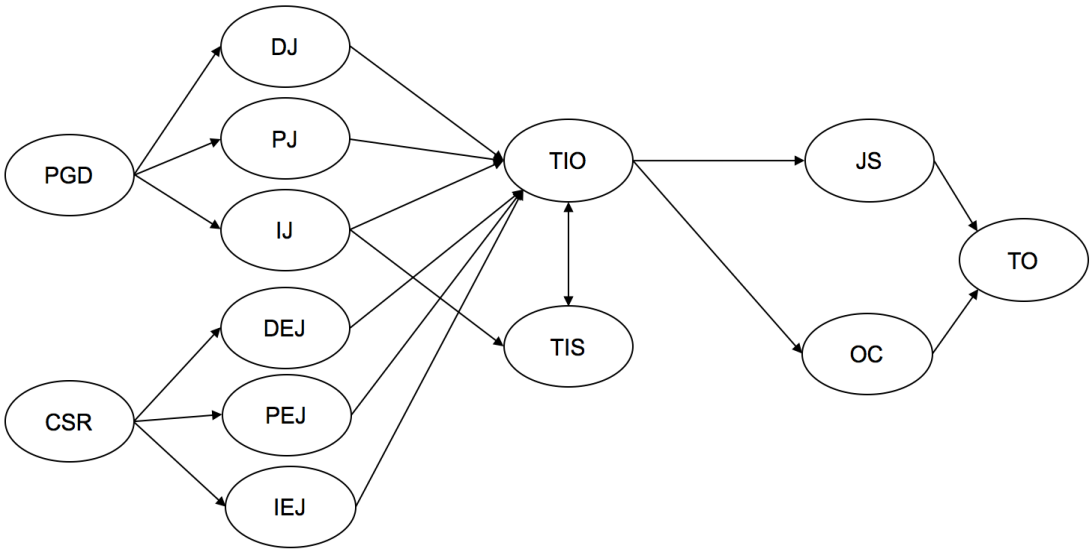
possibly act as mediators in the path from perceived organizational justice to trust to job satisfaction and organizational commitment and finally to turnover intention.

Based on the literature review of theories and empirical studies, I propose a model of the relationships among all the constructs I mentioned above (see Figure 1): When employees perceive that they have been discriminated against because of gender, they will assume that their organization is not fair in the distribution of outcomes, in the process of decision-making, and in interpersonal interaction inside the organization, which then will reduce employees' trust in their organization, and then their satisfaction with their job and their commitment to the organization, which will ultimately increase their intention to leave the organization. When employees perceive that their organization is not doing good to society, they will assume that their organization is not fair in the distribution of outcomes, in the process of decision-making, and in interpersonal interactions with external entities outside the organization, which then will reduce employees' trust in their organization, and then their satisfaction with their job and their commitment to the organization, which will ultimately increase their intention to leave the organization. Meanwhile, when employees assume that their organization is not fair in interpersonal interactions inside the organization after perception of gender discrimination, they will be less likely to trust their supervisor(s). Additionally, the more the employee trusts in their supervisor, the more the employee trusts in the organization, and vice versa.

Hypothesis 12: The proposed model 1 will adequately represent the relationships between the involved variables.

Figure 1

Model 1



Note. PGD = Perceived Gender Discrimination. CSR = Corporate Social Responsibility. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

An Alternative Model

According to SIP theory (Salancik & Pfeffer, 1978), employees may look back at their past behaviors and determine whether they are satisfied with their job. When an employee looks back at the reciprocal relationship between her/himself and her/his supervisor built upon trust, she/he tends to believe she/he is satisfied with the job because if she/he is not satisfied with the job, why did she/he trust the organization? And when employees trust their supervisors, they tend to also trust the organization (Wong et al.,

2006). And perceived organizational support tends to increase organizational commitment, especially affective and normative commitment (Meyer et al., 2002), since the employee will be more likely to have affective attachment with the organization, internalize its values and goals, and support the organization.

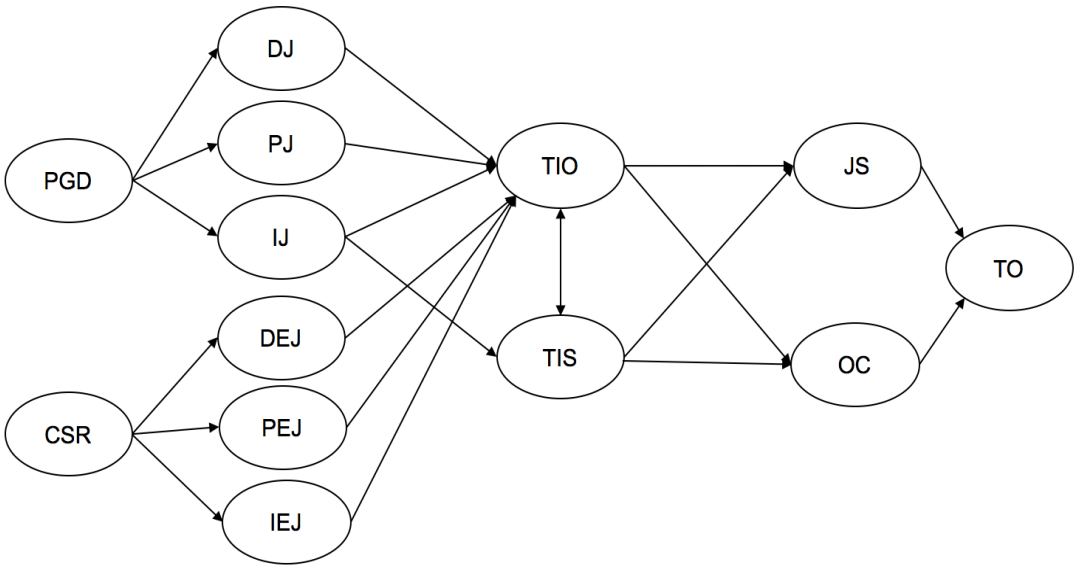
Although Aryee et al. (2002) did not find any significant relationship between trust in supervisor and any of job satisfaction, organizational commitment, or turnover intention, Dirks and Ferrin (2002) found significant relationships between trust in supervisor and each of job satisfaction and organizational commitment in a meta-analytical study on trust in leadership. They used meta-analysis to analyze multiple constructs as antecedents (including distributive, procedural, and interactional organizational justice) and outcomes (including job satisfaction, organizational commitment, and turnover intention) of trust in supervisor. They found significant results: trust in supervisor was positively related to all three dimensions of organizational justice, job satisfaction, and organizational commitment, and was negatively related to turnover intention.

Therefore, the more the employee trusts in their supervisor, the more likely it is that the employee will be satisfied with their job. If there are significant relationships between trust in supervisor and each of job satisfaction, organizational commitment, and/or turnover intention based on the data in this study, the corresponding paths from trust in supervisor to each of job satisfaction and organizational commitment will be added into the proposed model to form the alternative model 2 (see Figure 2), and I expect this model 2 will be a good fit.

Hypothesis 13: If there are significant relationships between trust in supervisor and job satisfaction, organizational commitment, and/or turnover intention based on the data, model 2 will adequately represent the relationships between the involved variables.

Figure 2

Model 2



Note. PGD = Perceived Gender Discrimination. CSR = Corporate Social Responsibility. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

CHAPTER 3

METHOD

Participants

There are different recommendations on sample size for conducting structural equation modeling. For instance, general conservative rules recommend 10 or 20 cases per measured variable (Schumacker & Lomax, 2010), whereas researchers using two to three cases per measured variable also obtained satisfactory model fit in practice (Bagozzi & Yi, 2012). Additionally, research showed that when the number of measured variables of a latent variable increased, the required sample size decreased (Wolf et al., 2013). I went with the rule of 10 cases per measured variable and collected data from a total number of 880 participants in this study because there are 88 variables in total (76 measured variables & 12 potential control variables) that I will examine in this study.

I recruited participants through the Amazon Mechanical Turk (MTurk). Studies found that participants recruited via MTurk were more representative of the U.S. population than student and convenience samples; and they were also more diverse than student samples, convenience samples, standard Internet samples, or traditional paper-and-pencil samples (Berinsky et al., 2012; Buhrmester et al., 2011; Gosling et al., 2004). Furthermore, the reliability of the data obtained via MTurk was at least as good as the reliability of those data gathered via traditional methods (Buhrmester et al., 2011) or from college student samples (Behrend et al., 2011). Although the sample recruited via MTurk could be a decent representation of the national population, there are still some

differences in demographics and attitudes between MTurk samples and those in national probability surveys (Berinsky et al., 2012).

Survey respondents I recruited are all United States citizens. In order to conduct this study using a more representative sample of the national population, I used quota sampling based on gender and age. Because by the time I launched the survey study, the most recent population data were updated in 2019, I used the 2019 data. According to the detailed data on the United States Census Bureau (2019), by the end of 2019, among the population aged 18 and older, 6.05% are men from 18 to 24, 5.79% are women from 18 to 24, 9.15% are men from 25 to 34, 8.85% are women from 25 to 34, 8.15% are men from 35 to 44, 8.18% are women from 35 to 44, 7.90% are men from 45 to 54, 8.11% are women from 45 to 54, 17.47% are men at 55 or older, and 20.35% are women at 55 or older. In this study, the number of participants for each group I recruited depends on the percentage of each group based on a combination of gender and age. For example, I recruited approximately 880 × 6.05% (53.24) men in the age range of 18 to 24; thus, I recruited 53 men from 18 to 24 (age: $M = 22.64$, $SD = 1.73$). In like form, I recruited, 51 women from 18 to 24 (age: $M = 22.63$, $SD = 1.51$), 81 men from 25 to 34 (age: $M = 30.43$, $SD = 2.81$), 78 women from 25 to 34 (age: $M = 30.59$, $SD = 2.55$), 72 men from 35 to 44 (age: $M = 40.22$, $SD = 2.36$), 72 women from 35 to 44 (age: $M = 41.10$, $SD = 2.27$), 70 men from 45 to 54 (age: $M = 51.16$, $SD = 2.30$), 71 women from 45 to 54 (age: $M = 50.51$, $SD = 2.18$), 153 men at 55 or older (age: $M = 64.18$, $SD = 6.29$), and 179 women at 55 or older (age: $M = 64.27$, $SD = 4.68$).

Among the respondents recruited, one person chose “female” as the answer to the question “Which gender would you choose when the U.S. Census Bureau asks about your

gender?" and chose "male" as the answer to the question "Which gender do you most identify with?" I counted this person as a female in quota sampling, but as a male for data analysis. All of the other respondents gave the same answers to these two questions. There are no people who are transgender or belong to other gender groups. Most of the respondents are White (85.23% White, 8.30% Black/African American, 2.05% American Indian/Alaska Native, 5.80% Asian, and 0.23% Native Hawaiian/Pacific Islander). Most respondents are not Hispanic or Latino (94.55%).

Procedure

After the institutional review board (IRB) at Louisiana Tech University approved the research application, I used the cross-sectional convenience sampling method to collect data. I distributed two surveys online via Qualtrics. I used the first survey to screen participants (see Appendix A). Based on the recommendation given by Springer et al. (2016), I included a description to inform participants what task they would be required to complete in the following survey if they were chosen to participate; however, in order to prevent survey respondents from guessing, I kept the description general by informing them that they would need to complete an attitude survey. I screened participants on demographic factors including country of citizenship, gender, age, and work experience; I only allowed those who are U.S. citizens, at least 18 years old, and have work experience (can be any type of work including full-time, part-time, and internship, etc.) to fill out the second survey. The first survey takes 15-25 seconds to complete and I paid each participant $0.05 (five cents) to complete this survey based on the minimum wage of $7.25 per hour.

The second survey included all the focal measures I administered in this study and it took approximately 8-14 minutes to complete. I included a consent form in the online survey, and prior to participation in the research project, I asked participants to indicate informed consent by checking the appropriate box on it (see Appendix B). In the online survey, I informed participants that the purpose of the study is their thoughts about their jobs and organization. I included contact information in the consent form as well. After the participants gave their consent, I asked them to complete the survey and instructed them to answer the questions truthfully and to the best of their abilities. I thanked participants at the end of the online survey. Only researchers were allowed to access the survey results. I kept records of all participants' IP addresses in order to check whether any participants participated in the online survey repeatedly, and I will delete the record of IP addresses after I complete the research. I paid each participant $1.00 for them to complete this survey based on minimum wages $7.25 per hour. The survey includes demographic information (see Appendix C) and instruments mentioned below (see detailed scale items in tables 1 to 8 in Appendix D).

Instruments

Perceived Gender Discrimination

I adapted a four-item Likert-type scale with six-point anchors from "*Strongly Disagree"* to "*Strongly Agree*" that was originally developed by Sanchez and Brock (1996) to measure ethical discrimination and revised by Foley et al. (2005) for use in measuring participants' perception of gender discrimination in the workplace (see Appendix D). The Cronbach's alpha of the scale was .87 (Foley et al., 2005). This measure was used to study the relationships among perceived gender discrimination,

perceived distributive and procedural organizational justice, job satisfaction, organizational commitment, and turnover intention in the occupation of Protestant clergy (Foley et al., 2005). More recently, Sia et al. (2015) used this measure to study moderation of future time perspective on the relationship between perceived gender discrimination and work engagement, and the Cronbach's alpha calculated was .84. The Cronbach's alpha of the scale calculated is .93 in this study.

Perceived Organizational Justice

I used an 18-item Likert-type scale with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree*" directly adapted from Moorman (1991) to measure the perceived organizational justice (see Appendix D). It includes three subscales. The first one is a five-item subscale (Cronbach's alpha = .94) originally adapted from Price and Mueller (1986) to measure participants' perception of distributive organizational justice; the perceived procedural organizational justice subscale consists of seven items (Cronbach's alpha = .94); and the perceived interactional organizational justice subscale consists of six items (Cronbach's alpha = .93). More recently, Toaddy (2012) used this measure to study the relationships among corporate social responsibility, perceived external organizational justice, organizational identity, organizational engagement, work effort, work quality, organizational commitment, intent to stay, job satisfaction, and perceived organizational justice. The Cronbach's alpha obtained for distributive, procedural, and interactional organizational justice was .94, .93, and .91, respectively. In this study, the Cronbach's alpha calculated for each subscale is .96, .95, and .94, respectively. And the Cronbach's alpha of the whole scale calculated is .97.

Perceived External Organizational Justice

I used Toaddy's (2012) measure to measure perceived external organizational justice (see Appendix D). It is 11-item Likert-type scale with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree,*" with a four-item subscale to measure perceived distributive external organizational justice, a four-item subscale to measure perceived procedural external organizational justice, and a three-item subscale to measure perceived interactional external organizational justice (Toaddy, 2012). The internal consistency reliability for each subscale was .95, .95, and .94, respectively (Toaddy, 2012). The internal consistency reliability for the whole scale was .97 (Toaddy, 2012). In this study, the Cronbach's alpha calculated for each subscale is .96, .96 and .96, respectively. And the Cronbach's alpha of the whole scale calculated is .98.

Perceived Corporate Social Responsibility

I used the measure of corporate social responsibility (CSR) that was originally developed by Maignan et al. (1999) (alpha = .92) to measure corporate citizenship and revised by Toaddy (2012) to measure perceived corporate social responsibility by adding one item to cover the environmental efforts in CSR that were missing in the original corporate citizenship measure (see Appendix D). It is a 10-item Likert-type scale with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree.*" It includes five subscales, each with two items, to measure an organization's customer concern, law- and contract-abiding, participation in charitable or community activities, concern for local businesses or families, and environmental efforts, respectively. The Cronbach's alpha of the scale calculated is .88 in this study.

Trust

I measured trust in supervisor using an eight-item scale adapted from Nyhan and Marlowe (1997; see Appendix D). The response options from the original scales range from (1) "nearly zero" to (7) "nearly 100 percent." The Cronbach's alpha of this scale was reported to be .95 (Aryee et al., 2002). In a more recent study by Erat et al. (2012) testing the relationship between trust in supervisor and job performance, and between trust in supervisor and turnover intention using a sample of Turkish academic workers, the Cronbach's alpha of this scale was reported to be .97. In this study, the Cronbach's alpha of the scale calculated is .98.

I used a seven-item Likert-type scale with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree*" adapted by Robinson and Rousseau (1994) from Gabarro and Athos (1976) to measure trust in organization (see Appendix D). The Cronbach's alpha of this scale was reported to be .93 (Robinson & Rousseau, 1994) and .84 (Aryee et al., 2002). More recently, Bal et al. (2010) used this measure in a study to test the moderation of trust in organization on the relationship between psychological contract breach and job performance, and between psychological contract breach and organizational citizenship behavior; the Cronbach alpha of this scale was .80. In this study, the Cronbach's alpha of the scale calculated is .91.

Job Satisfaction

I used the Abridged Job In General Scale (AJIG; Russell et al., 2004), which consists of eight items (Cronbach's alpha = .95) with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree,*" to measure job satisfaction. This scale asks respondents to indicate the descriptiveness of words like "good" and "enjoyable" for their job (see

Appendix D). This measure has also been used in Toaddy (2012) and obtained a Cronbach's alpha of .95. In this study, the Cronbach's alpha of the scale calculated is .94.

Organizational Commitment

I used a seven-item scale of employee commitment (Cronbach's alpha = .89) from Jaworski and Kohli (1993) with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree*" to measure organizational commitment (see Appendix D). This measure has also been used in Toaddy (2012) and obtained a Cronbach's alpha of .94. In this study, the Cronbach's alpha of the scale calculated is .94.

Turnover Intention

I used a three-item scale of intent to leave with five-point anchors from "*Strongly Disagree"* to "*Strongly Agree*" (Cronbach's alpha = .78) adapted from Jones (2010), which was based on Cropanzano et al. (1993), to measure turnover intention (see Appendix D). In this study, the Cronbach's alpha of the scale calculated is .70.

To make readers less confused when interpreting the survey results, I have revised all the scales that are not originally in a seven-point format so that they can be rated in a seven-point Likert scale format. Matell and Jacoby (1971) compared internal consistency reliability, test-retest reliability, concurrent validity, and predictive validity among Likert scale items with two to 19 points in their study, and they didn't find a relationship between the number of scale points and the coefficients of reliability and validity; therefore, they concluded that converting the number of points in a scale wouldn't significantly affect the reliability or validity associated with use of the scale.

There is no universal cutoff value for reliability but generally a value of at least .70 is considered acceptable (Christmann & Van Aelst, 2006; George & Mallery, 2003; Hair

et al., 2010; Nunnally, 1978 & Bernstein). The Cronbach's alpha values of all the scales calculated in this study are equal to or above .70; therefore, these measures show adequate reliability.

Coronavirus/COVID-19 Questions

Additionally, I included a list of Coronavirus/COVID-19 questions in the survey to examine how the recruited sample has been impacted by the COVID-19 pandemic (see Appendix C).

Attention Check Questions

Because attention check questions (ACQ) could effectively flag careless respondents (Meade & Craig, 2012), I incorporated ACQ in the survey to test whether participants paid attention when they answered the questions. Meade and Craig (2012) recommended creating and/or using items with an explicitly conveyed correct answer (e.g., choose "Agree" for this item) rather than using those question with a natural correct answer (e.g., "All my friends are aliens") as used in their study that might cause concerns such as misinterpretation or choosing an answer out of fun. They also recommended incorporating one attention check item for every 50-100 items with a maximum of three items for the whole survey to avoid annoyance from respondents. Berinsky et al. (2013) recommended using multiple ACQs throughout a survey rather than relying on a single ACQ because respondents might pass an ACQ at a point of time but fail another ACQ at another point of time. I adapted two ACQs from Peer et al. (2014) and placed them at separate locations in the survey (see Appendix D).

The original sample recruited was 935, among which 55 respondents (5.88%) failed the ACQs. For each gender X age group, five of the 58 men from 18 to 24 (8.62%), five

of the 56 women from 18 to 24 (8.93%), 10 of the 91 men from 25 to 34 (10.99%), four of the 82 women from 25 to 34 (4.88%), six of the 78 men from 35 to 44 (7.69%), five of the 77 women from 35 to 44 (6.49%), four of the 74 men from 45 to 54 (5.41%), five of the 76 women from 45 to 54 (6.58%), six of the 159 men at 55 or older (3.77%), and five of the 184 women at 55 or older (2.72%) failed the ACQs. I used chi-square tests and Fisher's exact tests (when more than 20% cells have an expected count of less than five) to examine whether passing or failing ACQs is associated with gender, race, ethnicity, and sexual orientation, and found it is associated with race and ethnicity. There is a higher percentage of minority respondents among those who failed ACQs (34.55%) than those who passed ACQs (17.27%), Pearson's Chi-square = 10.334, $p = .001$. There is a higher percentage of Hispanic or Latino respondents among those who failed ACQs (14.55%) than those who passed ACQs (5.45%), p (Fisher's exact tests) = .013. I used a Mann–Whitney U test to examine the age difference between those passing and those failing the ACQs and found that there were more younger people (Age Median = 40) who failed the ACQs and more older people (Age Median = 49) who passed the ACQs, U ($N_{passed} = 880$, $N_{failed} = 55$) = 18709.00, $z = -2.83$, $p = .005$. Additionally, there is no difference in the time spent on completing the survey between those passing and those failing the ACQs. I excluded those respondents who failed any of the ACQs in the process of sample recruitment and only kept the cases who have passed both ACQs.

Control Variables

Previous studies showed that some of the demographic variables might be related to some of the focal variables in the models. Therefore, it is necessary to check, list, and control demographic variables that might affect any of the endogenous variables in the

models. Bernerth and Aguinis (2016) conducted a review study on how researchers could determine the inclusion or exclusion of a control variable, based on which they recommended that in order to include a control variable, there should be at least some theoretical rationale (could be theories or reasoning) indicating a relationship between a control variable and focal variable(s); if there is not, then the control variable should be excluded. After meeting this prerequisite, if the relationship has been shown by previous empirical study and there is a reliable measure for it, this control variable should be included; or if there is no empirical study, however this variable is integral to the model and there is a reliable measure for it, the control variable should be included as a focal or exploratory variable. Since all the demographic variables have been commonly used in past research, I do not have doubt on the reliability of their measures. Therefore, I mainly looked into theories, past empirical studies, and/or integrity to the models.

Because of the violations of assumptions of normality and absence of outliers (which would be discussed in more details in the data screening section), I used robust regression M-estimation with Huber weighting and bisquare weighting instead of OLS regressions in all analyses in this section (Fox, 1991; Li, 1985). I have listed the R codes in Appendix E.

Gender, Age, Race, Ethnicity, Job Tenure, Organizational Tenure, Year of Work Experience, and Perception of Organizational Justice

For the relationships between perception of organizational justice and the demographic variables including gender, age, race, ethnicity, job tenure, organizational tenure, and year of work experience, I did not find strong theoretical rationale. Additionally, a meta-analysis conducted by Cohen-Charash and Spector (2001) showed

that gender, age, education, race, and organizational/job tenure had little impact on perception of organizational justice. Therefore, I did not regress perception of organizational justice on gender, age, race, organizational tenure, ethnicity, job tenure, or year of work experience.

Gender, Age, Race, Ethnicity, Job Tenure, Organizational Tenure, Year of Work Experience, and Perception of External Organizational Justice

According to the definition of external organizational justice, it corresponds to organizational justice, but it is in the interaction with entities outside of the organization. Therefore, theoretically, its relationship with these demographic variables should be similar to the relationship between organizational justice and these demographic variables. Thus, I did not regress perception of external organizational justice on gender, age, race, ethnicity, organizational tenure, job tenure, or year of work experience.

Demographic Variables and Trust

Gender, Race, Ethnicity, Organizational Tenure, Job Tenure, and Trust. Dirks and Ferrin (2002) theorized that two attributes of trustors might affect trust in the direct leader (e.g., supervisor) and organizational leadership (e.g., executive or overall leadership). The first attribute is trustor's propensity to trust, which refers to the degree of which they trust others in general. The second attribute is the length of a relationship between trustor and trustee. And they conducted a meta-analysis to test the theorized relationship, and found that propensity to trust significantly impacted trust in direct leader and organizational leadership, whereas length of relationship was not related to either of these two types of trust. The findings were consistent across studies. Therefore, demographic variables that are strongly related to propensity to trust might impact trust in

supervisor and trust in organization, and organizational tenure and job tenure would have little impact on trust in supervisor and trust in organization. Thus, I did not regress trust in supervisor and trust in organization on organizational tenure or job tenure.

Based on U.S. data of the General Social Survey from 1974 to 1994, Alesina and La Ferrara (2002) found that minorities and women are significantly less likely to trust. They explained that because trust is impacted by past experience, and these social groups have commonly experienced being treated unfairly and discriminated against in history, therefore, they are less likely to trust in general. More recent findings on a U.S. sample showed that men are more likely to trust than women, and whites are more likely to trust than nonwhites (Irwin and Berigan, 2013). Therefore, I tested race, ethnicity, and gender to see whether they impact trust in supervisor and trust in organization. I created dummy variables for the race minority groups (i.e., Black/African American, American Indian/Alaska Native, Asian, & Native Hawaiian/Pacific islander) versus race majority group (i.e., White) and ran regressions with these race dummy variables as predictors and trust in supervisor and trust in organization as outcomes respectively. For trust in supervisor, the result of Huber weighting was significant only for American Indian/Alaska Native versus White (B = -0.694, SE = 0.280, t = -2.484, p = .013), however, the result of bisquare weighting was not significant. For trust in organization, the result of Huber weighting was significant only for American Indian/Alaska Native versus White (B = -1.066, SE = 0.358, t = -2.978, p = .003), and the result of bisquare weighting was also significant only for American Indian/Alaska Native versus White (B = -1.048, SE = 0.350, t = -2.999, p = .003). Compared to White people, those who are American Indian or Alaska Native were less likely to trust in supervisor and organization.

I ran regressions for ethnicity as a predictor and trust in supervisor and trust in organization as outcomes, respectively; neither result was significant. Similarly, I ran regressions for gender as a predictor and trust in supervisor and trust in organization as outcomes, respectively. The results showed gender predicted trust in organization (Huber weighting: B = -0.268, SE = 0.097, t = -2.759, p = .006; bisquare weighting: B = -0.270, SE = 0.100, t = -2.716, p = .007) but not trust in supervisor. Women were less likely to trust in organization than men. Therefore, I regressed trust in supervisor on the race dummy variables; and regressed trust in organization on both the race dummy variables and gender.

Age, Year of Work Experience, and Trust. Previous studies consistently found a significant relationship between the age of trustors and their trust in others. However, some research found the relationship is linear and positive, whereas other research found the relationship is nonlinear. For example, Li and Fung (2013) found a positive and linear relationship between the age of trustors and their generalized trust in others across 38 countries, including the U.S. They explained that as people age, they may want to increase connectedness with others because of limited time of future life or may need to rely more on others because of a worse condition of health as a result of aging. A three-wave (2006, 2008, & 2010) longitudinal study conducted by Poulin and Haase (2015) on General Social Survey samples in the U.S. also showed a positive and linear relationship between age and generalized trust (Smith et al., 2013). However, a large empirical study using samples from 15 countries in Europe found the relationship is quadratic, trust declines first and then increases (McCloskey & Leppel, 2010). Because year of work experience would reasonably be related to age, it would have a similar relationship with

trust. Empirical study showed age and work experience had a positive relationship with propensity to trust (Zeffane, 2018). Therefore, in this study, I ran regressions for age and year of work experience to see whether they predicted trust in supervisor and trust in organization respectively. None of these relationships was significant. Therefore, I did not regress trust in supervisor and trust in organization on age or year of work experience.

Demographic Variables and Job Satisfaction

Gender and Job Satisfaction. Previous studies consistently showed that women have higher job satisfaction than men, which has been seen as a "paradox" because women usually earn less than men (Bender et al., 2005). A study by Bender et al (2005) revealed that women tend to self-select into those jobs with higher flexibility because they need the flexibility for them to manage family issues; and it is the flexibility that provides them job satisfaction. Regression analysis showed gender predicted job satisfaction (Huber weighting: B = -0.256, SE = 0.090, t = -2.835, p = .005; bisquare weighting: B = -0.69, SE = 0.094, t = -2.855, p = .004). Women were less likely to be satisfied with their jobs than men. Therefore, I regressed job satisfaction on gender in this study.

Age, Organizational Tenure, Job Tenure, Year of Work Experience, and Job Satisfaction. A meta-analytic research showed a positive relationship between age and job satisfaction (Ng & Feldman, 2010); additionally, a meta-analysis showed people of older generations tend to be more likely to be satisfied with their job than those of younger generations (Costanza et al., 2012). Therefore, I had expected in this study, older people would be more satisfied with their jobs than younger people. Younger employees might differ from older employees in the nature of their job positions and the level of

how realistic are their expectations of their jobs, which impact job satisfaction (Rhodes, 1983). Also, because age and tenure covary (Costanza et al., 2012), and the relationship between age and job satisfaction decreased when adding tenure as a predictor; therefore, tenure should be related to job satisfaction. Additionally, year of work experience would reasonably be related to age and tenure, and empirical study showed a positive relationship between age and year of work experience (Chung et al., 2015), therefore, it should also be related to job satisfaction. Therefore, I ran regressions to test these relationships. Job tenure predicted job satisfaction (Huber weighting: $B = 0.021$, SE = 0.006, $t = 3.657$, $p < .001$; bisquare weighting: $B = 0.021$, SE = 0.006, $t = 3.573$, $p < .001$). Those who worked longer at their job were more likely to be satisfied with the job. Organizational tenure predicted job satisfaction (Huber weighting: $B = 0.021$, SE = 0.005, $t = 3.959$, $p < .001$; bisquare weighting: $B = 0.022$, SE = 0.006, $t = 3.887$, $p < .001$). Those who had worked longer for their organization were more likely to be satisfied with the organization. Therefore, I regressed job satisfaction on job tenure and organizational tenure. However, neither work experience nor age predicted job satisfaction, therefore, I did not regress job satisfaction on work experience or age.

Race, Ethnicity, and Job Satisfaction. A meta-analysis showed differences in job satisfaction between black and white employees (Koh et al., 2016). There might be differences between majority and other minority groups. A couple of reasons could explain the differences in job satisfaction. White people might be less ambitious in promotion than black people, or people from different racial and ethnic groups might place importance on different aspects of a job, for example, black people need more structure in a job whereas white people care more about communication (Lambert et al.,

2016). I created dummy variables for the race groups like I did above and ran regressions to see whether they predicted job satisfaction. None of these relationships was significant. Regression analysis also showed ethnicity was not related to job satisfaction. Therefore, I did not regress job satisfaction on race or ethnicity.

Demographic Variables and Organizational Commitment

Gender, Age, Job Tenure, Organizational Tenure, Year of Work Experience, and Organizational Commitment. Meyer et al. (2002) conducted a meta-analysis to analyze the relationships between multiples variables and organizational commitment. They found age, job tenure, and organizational tenure were consistently related to organizational commitment, whereas gender was not related to organizational commitment. They explained that age and tenure were related to organizational commitment because as employees stay in an organization longer and get older, they tend to think more about the costs if they leave the organization, and hence are more committed with the organization. Additionally, another meta-analysis conducted at a later time also showed a consistent relationship between age and organizational commitment (Ng & Feldman, 2010). Because year of work experience would reasonably be related to age and tenure, it may also be related to organizational commitment. Therefore, I ran regressions to examine those relationships. Job tenure predicted organizational commitment (Huber weighting: $B = 0.044$, SE = 0.007, $t = 6.341$, $p < .001$; bisquare weighting: $B = 0.044$, SE = 0.007, $t = 6.434$, $p < .001$). Those who worked longer at their job were more likely to be committed to their organization. Organizational tenure predicted organizational commitment (Huber weighting: $B = 0.039$, SE = 0.007, $t = 5.976$, $p < .001$; bisquare weighting: $B = 0.039$, SE = 0.007, $t = 6.088$, $p < .001$). Those

who worked longer for their organization were more likely to be committed to their organization. Year of work experience predicted organizational commitment (Huber weighting: $B = 0.009$, SE= 0.004, $t = 2.397$, $p = .017$; bisquare weighting: $B = 0.009$, SE = 0.004, $t = 2.285$, $p = .023$). Those who had longer work experience were more likely to be committed to their organization. Neither gender nor age predicted organizational commitment. Therefore, I regressed organizational commitment on job tenure, organizational tenure, and year of work experience, but not on gender or age.

Race, Ethnicity, and Organizational Commitment. A meta-analysis conducted by Triana et al. (2015) showed that racial discrimination was negatively related to job attitudes (e.g, organizational commitment, job satisfaction, & reverse-coded turnover intention), and the relationship is stronger for studies published after 1991 because of the Civil Rights Act of 1991. The authors explained that when employees perceive they are discriminated against, they have a feeling of deprivation, which negatively impacts their job attitudes. Because of more experience of discrimination in history, minorities would be more likely to perceive discrimination and react strongly to it (Triana et al., 2015), therefore, minories might be less committed to organization. Therefore, there might also be a relationship between ethnicity and organizational commitment. However, regression analyses showed neither of the relationships was significant; therefore, I did not regress organizational commitment on race or ethnicity.

Demographic Variables and Turnover Intention

Gender, Race, Ethnicity, and Turnover Intention. The meta-analysis conducted by Triana et al. (2015) also showed that a positive relationship between between racial discrimination and turnover intention (included in job attitudes), therefore minorities

might be likely to consider turnover because they are historically discriminated against. Additionally, Triana et al. (2015) also found that the more women in research samples, the larger effect size of the relationship between racial discrimination and turnover intention, however they did not find a moderation effect for gender. The results indicated women, like racial minorities, might have a stronger turnover intention because they are also historically discriminated against. Therefore, gender would be related to turnover intention. Regression analysis showed Black/African American versus White race dummy variable was significantly related to turnover intention (Huber weighting: B = 0.491, SE = 0.212, t = 2.316, p = .021; bisquare weighting: B = 0.439, SE = 0.202, t = 2.179, p = .030). Compared to White people, Black/African American were more likely to consider turnover. However, neither gender nor ethnicity was significantly related to turnover intention Therefore, I regressed turnover intention on race dummy variables, but not on gender or ethnicity.

Age, Job Tenure, Organizational Tenure, Year of Work Experience, and Turnover Intention. A meta-analysis conducted by Griffeth et al. (2000) showed that age and organizational tenure predict turnover. Those who are older and have stayed longer in the organization are less likely to leave the organization (Griffeth et al., 2000). Because turnover intention is one of the best proximal predictors of turnover (Griffeth et al., 2000), age and organizational tenure would reasonably influence turnover intention. Because job tenure and year of work experience would reasonably be related to age and organizational tenure, they would also influence turnover intention. I ran regressions to test these relationships. Results showed job tenure predicted turnover intention (Huber weighting: B = -0.033, SE = 0.007, t = -4.661, p < .001; bisquare weighting: B = -0.034,

SE = 0.007, t = -4.827, p < .001). Those who have worked longer at the job were less likely to consider turnover. Organizational tenure predicted turnover intention (Huber weighting: B = -0.040, SE = 0.007, t = -6.015, p < .001; bisquare weighting: B = -0.040, SE = 0.007, t = -6.202, p < .001). Those who have stayed longer in their organization were less likely to consider turnover. However, turnover intention was not significantly related to age or year of work experience. Therefore, I regressed turnover intention on job tenure and organizational tenure, but not on age or year of work experience.

Previous Layoff Experience and Endogenous Variables

Previous Layoff Experience, Trust, Organizational Commitment, Perception of Organizational Justice, and Perception of External Organizational Justice. Previous study showed that psychological contract violation because of layoff by a former employer would be related to an employee's trust in an employee's new employer (Pugh et al., 2003). Mediation analysis showed that employees tend to worry whether they will be treated by a new employer in an unfair way as their former employer, therefore, they are less likely to trust their new employer than those without previous layoff experience (Pugh et al., 2003). Because employees worry about whether they will be treated unfairly by their new employer, they are less likely to be committed to their new employers. Additionally, a meta-analysis showed that psychological contract breach was significantly related to psychological contract violation, trust, and organizational commitment (Zhao et al., 2007). Therefore, previous layoff experience should have an influence on trust and organizational commitment. Because organizational justice refers to the perception of fairness concerning different aspects of the employer (Cropanzano et al., 2002), if the layoff victims are less likely to trust in their new employer, they might

also experience less perception of organizational justice in their new employer. Additionally, external organizational justice corresponds to organizational justice in the context of interaction with entities outside of the organization, therefore theoretically, its relationship with these demographic variables should be similar to the relationship between organizational justice and these demographic variables. Previous layoff experience should also impact perception of external organizational justice. Regression analysis showed previous layoff experience predicted trust in organization (Huber weighting: $B = 0.253$, SE = 0.097, $t = 2.604$, $p = .009$; bisquare weighting: $B = 0.262$, SE = 0.099, $t = 2.645$, $p = .008$) and trust in supervisor (Huber weighting: $B = 0.193$, SE = 0.085, $t = 2.269$, $p = .026$; bisquare weighting: $B = 0.235$, SE = 0.085, $t = 2.780$, $p = .006$). Those who had experienced layoff previously were less likely to trust in organization and supervisors. Therefore, trust in organization and trust in supervisor were regressed on previous layoff experience. Previous layoff experience predicted perception of distributive organizational justice (Huber weighting: $B = 0.263$, SE = 0.112, $t = 2.350$, $p = .019$; bisquare weighting: $B = 0.265$, SE = 0.114, $t = 2.332$, $p = .020$), perception of interactional organizational justice (Huber weighting: $B = 0.214$, SE = 0.088, $t = 2.437$, $p = .015$; bisquare weighting: $B = 0.236$, SE = 0.087, $t = 2.711$, $p = .007$), and perception of interactional external organizational justice (Huber weighting: $B = 0.259$, SE = 0.105, $t = 2.460$, $p = .014$; bisquare weighting: $B = 0.264$, SE = 0.105, $t = 2.521$, $p = .012$). Those who had experienced layoff previously were less likely to perceive justice in distributive and interactional organizational justice, and interactional external organizational justice. Therefore, I regressed perception of distributive organizational justice, perception of interactional organizational justice, and perception of interactional external

organizational justice on previous layoff experience. No significant relationship was found between previous layoff experience and the other variables, and I did not regress these variables on previous layoff experience.

Previous Layoff Experience, Job Satisfaction, and Turnover Intention. Analysis on a longitudinal study based on a series of national surveys revealed that previous layoff experience increased voluntary turnover in subsequent jobs through partial mediation of decreased job satisfaction with subsequent jobs (Davis et al., 2015). There could be a couple of ways that previous layoff experience negatively impacts current job satisfaction: previous unemployment could have a scarring impact on life satisfaction (Clark et al., 2001), or it could decrease job satisfaction because it increases people's worry about future employment (Lange, 2013). Regression analyses showed previous layoff experience predicted job satisfaction (Huber weighting: $B = 0.182$, SE = 0.090, $t = 2.029$, $p = .042$; bisquare weighting: $B = 0.197$, SE = 0.095, $t = 2.082$, $p = .040$) and turnover intention (Huber weighting: $B = -0.289$, SE = 0.116, $t = -2.505$, $p = .012$; bisquare weighting: $B = -0.267$, SE = 0.111, $t = -2.397$, $p = .017$). Those who had experienced layoff previously were less satisfied with their jobs and were more likely to consider turnover. Therefore, I regressed job satisfaction and turnover intention on previous layoff experience.

Work Status and Endogenous Variables

Additionally, I looked into literature on the relationship between work status and the endogenous variables in the models. A meta-analysis showed there was no difference between part-time and full-time workers in job satisfaction, organizational commitment, or turnover intention (Thorsteinson, 2003). Stamper et al. (2009) pointed out that it is the

social exchange between employees and their employers instead of work status (full-time or part-time) that makes differences in employees' job attitudes and performance. A previous empirical study found that there was no significant difference between full-time and part-time workers in the ways of their social exchange with their employers, mutual obligations between them and their employers, and their organizational commitment to their employers (Gakovic & Tetrick, 2003). Therefore, simply being a full-time or part-time worker would not be related to how employees perceive organizational justice and external organizational justice, trust in their organization and supervisor, satisfaction with their jobs, commitment to their organizations, or their turnover intention. Work status would not be related to the endogenous variables in the models in this study, therefore I did not include it as a control variable in the models.

In summary, I regressed perception of distributive organizational justice, perception of interactional organizational justice, and perception of interactional external organizational justice on previous layoff experience; I regressed trust in supervisor on race dummy variables and previous layoff experience; I regressed trust in organization on race dummy variables, gender, and previous layoff experience; I regressed job satisfaction on gender, job tenure, organizational tenure, and previous layoff experience; I regressed organizational commitment on job tenure, organizational tenure, and year of work experience; and I regressed turnover intention on race dummy variables, job tenure, organizational tenure, and previous layoff experience.

Data Analysis

I used structural equation modeling (SEM) to test the fit of the models on the sample data in this study. I followed the five steps of SEM recommended by Foster et al.

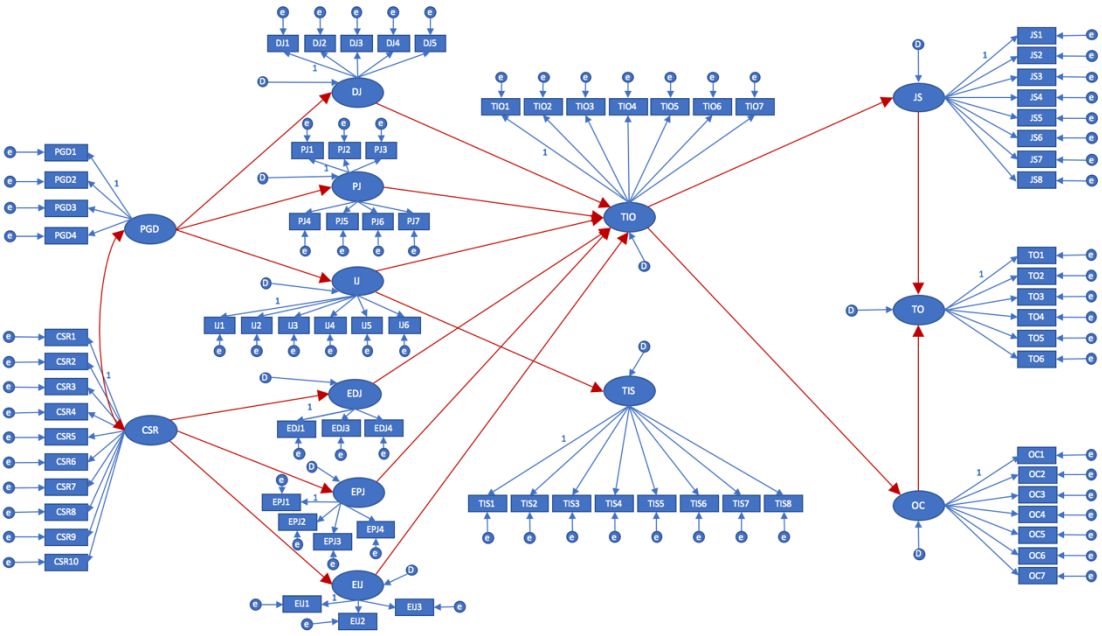
(2006), Kline (2010), and Schumacker and Lomax (2010) in this study: the first step is specification of model; the second step is model identification; the third step is measure selection, data collection, and data screening (the former two have been introduced in previous sections, thus only data screening is described in this section); the fourth step is model estimation; the fifth step is model respecification. I used SPSS and R to carry out SEM analysis: SPSS for data screening and cleaning; R for model estimation and respecification.

Model Specification

I specified the proposed SEM model in a diagram to represent the hypotheses (see Figure 3; Foster et al., 2006; Kline, 2010; Tabachnick & Fidell, 2006). Because exogenous variables have been always specified to covary with each other and endogenous variables are not free to covary with each other (Kline, 2010), in the proposed SEM models, perceived gender discrimination and perceived corporate social responsibility are specified to be in covariance and trust in organization and trust in supervisor are not specified to be correlated with each other. I used R to specify the equations representing the relationships among variables in the model (see Appendix E).

Figure 3

SEM Diagram of Model 1



Note. PGD = Perceived Gender Discrimination. CSR = Corporate Social Responsibility. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

Model Identification

For an SEM analysis to run, a model must meet two general requirements (Kline, 2010). First, there should be at least equal (just-identified) or more (over-identified) observations than free parameters in the model (Kline, 2010). For the proposed model in this study to be identified, both the measurement (i.e., standard confirmatory factor analysis model) and structural parts of this model should be identified (Bollen, 1989;

Kline, 2010). In order for the measurement parts of the model to be over-identified, which is ideal, the model must meet the requirement of more than three indicators when there is only one latent variable, or more than two indicators for each latent variable when there are two or more latent variables (Kline, 2010). In both model 1 and model 2 in this study, there are more than two latent variables and more than two indicators for each latent variable. For the structural part of the model to be identified, a model is always identified if it is recursive, that is, unidirectional causation and no correlated disturbance (Kline, 2010). The model in this study meets all the requirements above, thus, the model is identified. Second, the measurement error terms of each latent variable need to be assigned a scale (Kline, 2010). There are two common ways to scale a latent variable: fixing the unstandardized coefficient of direct effect on one of its indicators to 1.0, or fixing its variance to 1.0 (Kline, 2010). I choose the former, because it is more common and the latter standardizes the latent variable, which imposes limitations such as only applying to exogenous variables and estimating correlations (Kline, 2010).

Data Screening and Cleaning

Before submitting the data for correlational analysis and SEM analysis, I checked the sample data for issues including missing data, univariate and multivariate outliers, univariate and multivariate normality, homoscedasticity, linearity, and multicollinearity/singularity (Kline, 2010; Schumacker & Lomax, 2010; Tabachnick & Fidell, 2006).

Missing data. There were no missing data.

Outliers, Normality, Homoscedasticity, and Linearity. I examined multivariate outliers, univariate and multivariate normality, homoscedasticity, and linearity (Kline,

2010; Schumacker & Lomax, 2010; Tabachnick & Fidell, 2006; See SPSS steps and syntax in Appendix E). I found that the distributions of data points were not normal. The assumptions of absence of outlier, homoscedasticity, and linearity were not met because they were all impacted by non-normality (Kline, 2010). To remedy non-normality, I first tried logarithmic transformations to normalize the variables, but it did not work. Finally, I chose to use the Satorra-Bentler test method and robust standard error in SEM analysis (Kline, 2010; Rosseel, 2012).

Multicollinearity/Singularity. I used variance inflation factor (VIF) (greater than 10.0 indicates multicollinearity) and tolerance (less than .10 indicates multicollinearity) when checking multicollinearity/singularity (Kline, 2010; Tabachnick & Fidell, 2006). The SPSS steps and syntax are in Appendix E. The results indicated one item of distributive external organizational justice ("I feel good about the way my organization gives out money to other groups outside of itself."; named EDJ2) might have multicollinearity with other variables (VIF = 11.35, tolerance = 0.09). I ran a correlation analysis and found this item highly correlated with two other distributive external organizational justice items EDJ1 "I am satisfied with the way my organization gives out money to other groups outside of itself." (Spearman's *rho* = .92) and EDJ3 "I feel good about the way my organization distributes resources to other groups outside of itself." (Spearman's *rho* = .91). Usually it is recommended to delete redundant variables or create composite variables if there is multicollinearity or singularity (Tabachnick & Fidell, 2006). I deleted the item EDJ2.

Model Estimation

Evaluation of model fit. Two commonest types of model-fit criteria were used to determine the model fit: Chi-square (χ^2) good-of-fit statistics and fit indexes (Hu & Bentler, 1999). Chi-square (χ^2) tests measure global fit, which indicates a good fit between the theoretical model and the model based on the sample data when the χ^2 value comes close to zero; therefore, the result indicates a model fit if there is not statistically significant difference (Schumacker & Lomax, 2010). However, the chi-square statistic tends to become significant when sample size increases to be larger than 200 (Schumacker & Lomax, 2010). Because I have a sample of 880, it is not a good idea to rely on the chi-square statistic in this study. So, I mainly looked at fit indexes. There are two categories of them (Hu & Bentler, 1999). The first category is absolute fit indexes, which measures how well the tested model reproduces the sample data. This type of fit index does not use any reference model. Root-mean-square error of approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) are both this type of fit indexes. The second type of fit indexes is incremental fit indexes. It measures the fit improvement of the target model by comparing it with a baseline model. Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) both belong to this type of fit indexes. The recommended cut-off scores for a good model-fit (Foster et al., 2006; Kline, 2010) are listed in Table 1.

Table 1

Model-Fit Criteria and Recommended Cut-off Scores for Good Fit

Model-Fit Criteria	Value of Good Fit
Chi-square	$p > .05$
Comparative Fit Index (CFI)	= or > .90
Tucker–Lewis Index (TLI)	= or > .90
root-mean-square error of approximation (RMSEA)	= or < .05, with .05 to .08 is acceptable
Standardized Root Mean Square Residual (SRMR)	= or < .08

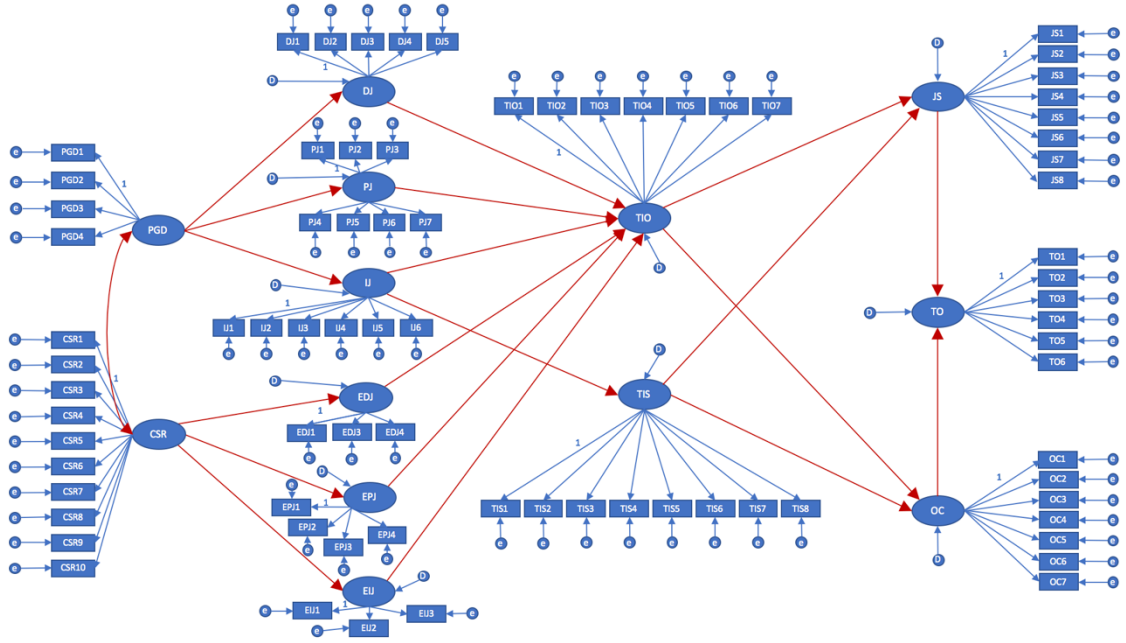
Equivalent model. Equivalent or near-equivalent models are those with same covariances or correlations but with different paths (Kline, 2010). As an equivalent model of model 1, model 2 is presented in Figure 4. It was also evaluated for model fit (see Appendix E for R codes).

Model Respecification

I respecified the model based on theory or empirical results (Kline, 2010). Modification indices (MI) were inspected to see expected parameter changes (EPC) values (Rosseel, 2012; see R codes in Appendix E). Rationales adopted and changes made are described in detail in the result sections.

Figure 4

SEM Diagram of Model 2



Note. PGD = Perceived Gender Discrimination. CSR = Corporate Social Responsibility. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

CHAPTER 4

RESULTS

Hypothesis Testings

I ran correlation matrices, path analyses, and SEMs to test the hypotheses. I have included all the R codes used in this section in Appendix E.

Correlational Hypotheses

Because of violation of normality, instead of using Pearson's correlation coefficient, I used Spearman's rho and Kendall's tau-*b* to test the hypotheses 1a, 1b, 1c, 2a, 2b, 2c, 5, 6, 9, 10, and 11. The results showed that all focal variables were significantly related to each other at level of $p < .01$ (see Table 2). Perceived gender discrimination was negatively related to job satisfaction and organizational commitment, and positively related to turnover intention. Hypothesis 1a, 1b, and 1c were supported. Perceived gender discrimination was negatively related to perceived distributive, procedural, and interactional organizational justice. Hypothesis 2a, 2b, and 2c were supported. Perceived interactional organizational justice was positively related to trust in supervisor. Hypothesis 5 was supported. There was a positive relationship between trust in supervisor and trust in organization. Hypothesis 6 was supported. Perceived corporate social responsibility was positively related to perceived distributive, procedural, and interactional external organizational justice. Hypothesis 9 was supported. Job satisfaction was negatively related to turnover intention. Hypothesis 10 was supported.

Organizational commitment was negatively related to turnover intention. Hypothesis 11 was supported.

Table 2

Descriptive Statistics, Reliabilities of and Correlations between Focal Variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1- PGD	2.28	1.50	.93												
2-DJ	4.78	1.62	-.23	.96											
			-.18												
3-PJ	4.73	1.43	-.24	.67	.95										
			-.18	.53											
4-Ij	5.07	1.35	-.35	.67	.79	.94									
			-.26	.53	.62										
5-EDJ	4.62	1.39	-.13	.45	.53	.55	.96								
			-.10	.35	.41	.42									
6-EPJ	4.78	1.41	-.22	.49	.64	.66	.83	.96							
			-.17	.38	.49	.51	.71								
7-EIJ	4.82	1.51	-.25	.51	.65	.69	.74	.88	.96						
			-.19	.40	.51	.54	.62	.77							
8-CSR	5.08	1.08	-.19	.51	.67	.68	.68	.73	.70	.88					
			-.14	.38	.51	.52	.53	.57	.55						
9-TIS	5.32	1.35	-.31	.49	.54	.65	.41	.47	.52	.52	.98				
			-.23	.37	.40	.50	.31	.35	.40	.39					
10-TIO	4.88	1.41	-.38	.58	.64	.75	.49	.58	.62	.60	.67	.91			
			-.29	.44	.48	.60	.37	.44	.48	.44	.52				
11-JS	5.08	1.39	-.33	.60	.61	.69	.48	.54	.56	.60	.60	.77	.94		
			-.25	.46	.45	.53	.35	.41	.43	.45	.46	.62			
12-OC	4.66	1.57	-.13	.55	.60	.66	.52	.60	.61	.60	.50	.61	.69	.94	
			-.10	.42	.44	.50	.39	.46	.47	.45	.37	.45	.52		
13-TO	3.68	1.57	.20	-.48	-.49	-.54	-.38	-.44	-.45	-.47	-.43	-.54	-.60	-.65	.70
			.15	-.36	-.36	-.41	-.28	-.33	-.34	-.34	-.32	-.40	-.45	-.49	

Note. $N = 880$. All correlations were significant at $p < .01$. Spearman's rho is at the upper side of cells, and Kendall's tau-*b* is at the lower side of cells. Cronbach's alpha is on the diagonal. PGD = Perceived Gender Discrimination. CSR = Corporate Social Responsibility. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ =

Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

Hypothesis 3

I ran a path analysis for each dimension of perceived organizational justice to see whether they are related to job satisfaction through mediation of trust in organization. The results are presented in Table 3. Trust in organization partially mediated the relationship between each dimension of perceived organizational justice and job satisfaction. Hypothesis 3 was supported.

Table 3

Path Analysis Result for Organizational Justice - Trust in Organization - Job Satisfaction Path

Path	Unstandardized	SE	*p*	95%CI
Direct Path: DJ → JS	0.188	0.024	< .001	[0.139, 0.233]
Indirect Path: DJ → TIO → JS	0.334	0.021	< .001	[0.293, 0.376]
Direct Path: PJ → JS	0.164	0.029	< .001	[0.112, 0.224]
Indirect Path: PJ → TIO → JS	0.432	0.027	< .001	[0.381, 0.486]
Direct Path: IJ → JS	0.265	0.039	< .001	[0.191, 0.346]
Indirect Path: IJ → TIO → JS	0.469	0.033	< .001	[0.405, 0.536]

Note. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. TIO = Trust in Organization. JS = Job Satisfaction.

Hypothesis 4

I ran a path analysis for each dimension of perceived organizational justice to see whether they are related to organizational commitment through mediation of trust in organization. The results are presented in Table 4. Trust in organization partially

mediated the relationship between each dimension of perceived organizational justice and organizational commitment. Hypothesis 4 was supported.

Table 4

Path Analysis Result for Organizational Justice - Trust in Organization - Organizational Commitment Path

Path	Unstandardized	SE	*p*	95%CI
Direct Path: DJ → OC	0.252	0.035	< .001	[0.186, 0.316]
Indirect Path: DJ → TIO → OC	0.272	0.025	< .001	[0.225, 0.319]
Direct Path: PJ → OC	0.307	0.043	< .001	[0.218, 0.389]
Indirect Path: PJ → TIO → OC	0.321	0.032	< .001	[0.255, 0.386]
Direct Path: IJ → OC	0.482	0.054	< .001	[0.371, 0.582]
Indirect Path: IJ → TIO → OC	0.274	0.046	< .001	[0.193, 0.371]

Note. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. TIO = Trust in Organization. OC = Organizational Commitment.

Hypothesis 7

I ran a path analysis for each dimension of perceived external organizational justice to see whether they are related to job satisfaction through mediation of trust in organization. The results are presented in Table 5. Trust in organization partially mediated the relationship between each dimension of perceived external organizational justice and job satisfaction. Hypothesis 7 was supported.

Table 5

Path Analysis Result for External Organizational Justice - Trust in Organization - Job Satisfaction Path

Path	Unstandardized	SE	*p*	95%CI
Direct Path: EDJ → JS	0.130	0.027	< .001	[0.076, 0.183]
Indirect Path: EDJ → TIO → JS	0.385	0.026	< .001	[0.339, 0.437]
Direct Path: EPJ → JS	0.148	0.029	< .001	[0.089, 0.207]
Indirect Path: EPJ → TIO → JS	0.422	0.027	< .001	[0.381, 0.486]
Direct Path: EIJ → JS	0.133	0.029	< .001	[0.365, 0.473]
Indirect Path: EIJ → TIO → JS	0.415	0.026	< .001	[0.364, 0.467]

Note. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. JS = Job Satisfaction.

Hypothesis 8

I ran a path analysis for each dimension of perceived external organizational justice to see whether they are related to organizational commitment through the mediation of trust in organization. The results are presented in Table 6. Trust in organization partially mediated the relationship between each dimension of perceived external organizational justice and organizational commitment. Hypothesis 8 was supported.

Table 6

Path Analysis Result for External Organizational Justice - Trust in Organization – Organizational Commitment Path

Path	Unstandardized	SE	*p*	95%CI
Direct Path: EDJ → OC	0.289	0.038	< .001	[0.218, 0.367]
Indirect Path: EDJ → TIO → OC	0.297	0.026	< .001	[0.247, 0.346]
Direct Path: EPJ → OC	0.366	0.041	< .001	[0.286, 0.441]
Indirect Path: EPJ → TIO → OC	0.292	0.029	< .001	[0.238, 0.350]
Direct Path: EIJ → OC	0.351	0.040	< .001	[0.272, 0.426]
Indirect Path: EIJ → TIO → OC	0.276	0.028	< .001	[0.221, 0.330]

Note. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. OC = Organizational Commitment.

Hypothesis 12

Because distributive, procedural, and interactional justice are three dimensions of organizational justice, I want to test whether it is better to combine them into one variable or keep them as separate variables. I created model 1 in which I kept distributive, procedural, and interactional justice as separate variables, and created model 2 in which I combined all these dimensions into one variable. Then I ran CFAs to test the fit of these two models, and compared them. Results showed that model 1, i.e., keeping distributive, procedural, and interactional justice as separate variables was a better fit. Similarly, to test whether it is better to combine the three dimensions of external organizational justice into one variable or keep them as separate variables, I created model 3 in which I combined all these dimensions into one variable and compared it to model 1. Results

showed that model 1, i.e., keeping distributive, procedural, and interactional external organizational justice as separate variables was a better fit.

Table 7

CFA Model Fit Measures

Model-Fit Criteria	Model 1	Model 2	Model 3
Chi-square *p* value	$p < .001$	$p < .001$	$p < .001$
CFI	.908	.847	.892
TLI	.903	.839	.887
RMSEA	.054	.069	.058
SRMR	.054	.061	.054

Note. CFI = Comparative Fit Index. TLI = Tucker–Lewis Index. RMSEA = root-mean-square error of approximation. SRMR = Standardized Root Mean Square Residual.

To test the hypothesis 12, I ran a SEM analysis to test the fit of the proposed model, titled model 1 (see Figure 3), and the result showed it was not a good fit, $\chi 2(3329) = 11310.525$, $p < .001$, CFI = .861, TLI = .856, RMSEA = .059, SRMR = .246. Hypothesis 12 was not supported.

Hypothesis 13

Equivalent models. Model 2 (see Figure 4) is an equivalent model of model 1. I ran a SEM analysis to test the model fit, and the result showed it was not a good fit either, $\chi 2(3327) = 11301.378$, $p < .001$, CFI = .861, TLI = .856, RMSEA = .059, SRMR = .245. Hypothesis 13 was not supported.

Model Respecification

To see how I can modify the model, I deleted the nonsignificant paths of model 2 and inspected the modification indices to get some ideas on what paths I could add into the model. Because I created model 1 and model 2 based on the assumption that perceived gender discrimination is related to turnover intention through full mediations,

which might not be ideal, in the new model, titled model 3, I added all the paths I have discussed in the literature review, including perceived gender discrimination-turnover intention path, perceived gender discrimination-job satisfaction path, all of the justice-job satisfaction paths, perceived gender discrimination-trust in organization and supervisor paths, perceived gender discrimination-organizational commitment path, and all of the justice-organizational commitment paths. I also added all of the perceived gender discrimination-external organizational justice paths and all of the corporate social responsibility-organizational justice paths, since if perceived gender discrimination influences perceived organizational justice, it should also influence perceived external organizational justice; and if perceived corporate social responsibility influences perceived external organizational justice, it might also influence perceived organizational justice. And I also added paths from procedural justice to distributive justice and from interactional justice to distributive justice, because if an employee believes the process of decision making is fair and they receive fair treatment, then they will be more likely to believe the outcome is fair. For the same reason, I added a path from procedural external justice to distributive external justice and a path from interactional external justice to distributive external justice. Additionally, it is reasonable to believe job satisfaction should be positively related to organizational commitment. Vandenberg and Lance (1992) conducted a longitudinal study to test the causal order between job satisfaction and organizational commitment, and the results supported the organizational commitment-job satisfaction causal order. Therefore, I also added an organizational commitment-job satisfaction path into model 3.

I ran a SEM analysis to test the fit of model 3, and the result showed it was not a good fit, $\chi 2(3299) = 9483.990$, $p < .001$, CFI = .892, TLI = .887, RMSEA = .052, SRMR = .060. The parameter estimations (see R outputs in Appendix E) showed that perceived gender discrimination and perceived corporate social responsibility significantly each predicted both perceived procedural and interactional organizational justice; perceived procedural and interactional organizational justice significantly predicted perceived distributive organizational justice; perceived procedural external organizational justice significantly predicted perceived distributive external organizational justice; perceived corporate social responsibility significantly predicted perceived procedural external organizational justice; perceived gender discrimination and perceived corporate social responsibility significantly predicted interactional external justice; perceived interactional organizational justice and perceived interactional external organizational justice significantly predicted trust in organization; perceived interactional organizational justice significantly predicted trust in supervisor; trust in organization, trust in supervisor, perceived gender discrimination, perceived distributive organizational justice, and organizational commitment significantly predicted job satisfaction; trust in organization and perceived distributive organizational justice significantly predicted organizational commitment; and job satisfaction and organizational commitment significantly predicted turnover intention.

However, the perceived gender discrimination-turnover intention path, perceived gender discrimination-perceived distributive organizational justice path, perceived gender discrimination-perceived procedural external organizational justice path, perceived gender discrimination-trust in organization path, perceived distributive organizational

justice-trust in organization path, perceived procedural organizational justice-trust in organization path, perceived distributive external organizational justice-trust in organization path, perceived procedural external organizational justice-trust in organization path, perceived gender discrimination-trust in supervisor path, perceived procedural organizational justice-job satisfaction path, perceived interactional organizational justice-job satisfaction path, all of the perceived external organizational justice-job satisfaction paths, trust in supervisor-organizational commitment path, perceived procedural organizational justice-organizational commitment path, perceived interactional organizational justice-organizational commitment path, perceived distributive external organizational justice-organizational commitment path, perceived interactional external organizational justice-perceived distributive external organizational justice path, perceived corporate social responsibility-perceived distributive external organizational justice path, and perceived corporate social responsibility-perceived procedural external organizational justice path were not significant.

Unexpectedly, I found the relationship between perceived gender discrimination and organizational commitment was positive, $B = 0.138$, $SE = 0.025$, $p < .001$. Because hypothetically the relationship between these two constructs should be negative and the correlation analysis also showed the relationship was negative. I realized there may be other reasons that would explain the change of the relationship sign. I checked other predictors of organizational commitment, and found trust in organization might be the construct relative to this issue. I ran a simple robust regression (Huber weighting) with perceived gender discrimination as the predictor and organizational commitment as the outcome, and the result showed their relationship was negative, $B = -0.145$, $SE = 0.036$, t

= -3.988, $p < .001$. I ran a simple robust regression (Huber weighting) with trust in organization as the predictor and organizational commitment as the outcome, and the result showed their relationship was positive, $B = 0.743$, $SE = 0.028$, $t = 26.501$, $p < .001$. However, when I ran a multiple robust regression (Huber weighting) with both perceived gender discrimination and trust in organization as the predictors and organizational commitment as the outcome, the result showed a positive relationship between perceived gender discrimination and organizational commitment, $B = 0.159$, $SE = 0.027$, $t = 5.812$, $p < .001$, along with a positive relationship between trust in organization and organizational commitment, $B = 0.812$, $SE = 0.029$, $t = 27.885$, $p < .001$. It indicates there should be some external construct(s) that influence(s) both perceived gender discrimination and trust in organization, which opens for a direction for future study. Therefore, I deleted the path from perceived gender discrimination to organizational commitment and correlated error terms between perceived gender discrimination and trust in organization.

I also found the relationship between perceived gender discrimination and perceived distributive external organizational justice was positive, $B = 0.061$, $SE = 0.017$, $p < .001$. Because hypothetically the relationship between these two constructs should be negative and the correlation analysis also showed the relationship was negative. There may be other reasons that would explain the change of the relationship sign. I checked other predictors of perceived distributive external organizational justice, and found perceived procedural external organizational justice might be the construct relative to this issue. I ran a simple robust regression (Huber weighting) with perceived gender discrimination as the predictor and perceived distributive external organizational justice

as the outcome, and the result showed their relationship was negative, B = -0.106, SE = 0.031, t = -3.385, p < .001. I ran a simple robust regression (Huber weighting) with perceived procedural external organizational justice as the predictor and perceived distributive external organizational justice as the outcome, and the result showed their relationship was positive, B = 0.912, SE = 0.013, t = 72.334, p < .001. However, when I ran a multiple robust regression (Huber weighting) with both perceived gender discrimination and perceived procedural external organizational justice as the predictors and perceived distributive external organizational justice as the outcome, the result showed a positive relationship between perceived gender discrimination and perceived distributive external organizational justice, B = 0.043, SE = 0.012, t = 3.525, p < .001, along with a positive relationship between trust in organization and perceived distributive external organizational justice, B = 0.922, SE = 0.013, t = 70.768, p < .001. It indicates there should be some external construct(s) that influence(s) both perceived gender discrimination and perceived procedural external organizational justice, which opens for a direction for future study. Therefore, I deleted the path from perceived gender discrimination to perceived distributive external organizational justice and correlated error terms between perceived gender discrimination and perceived procedural external organizational justice.

Race as one of control variables also showed an inconsistent relationship with trust in supervisor in model 3 compared to the relationship tested with regression. Race (Native Hawaiian/Pacific islander versus White) was positively related to trust in supervisor in model 3, B = 0.601, SE = 0.232, β = 0.021, p = .010. However, the result of the previous Huber weighting robust regression showed a nonsignificant relationship. It

might be because the number of Native Hawaiian/Pacific islanders are too few (N = 2) in this sample. Therefore, I deleted race as a control variable of trust in supervisor.

I deleted all the nonsignificant relationships from the model and then inspected modification indices for residual covariances because they indicate that those variances would be explained by other external factors (e.g., method) not included in this model (Gerbing & Anderson, 1984). If there are external factor(s) that could reasonably explain those correlated item error terms, they should be correlated in the model (Gerbing & Anderson, 1984; Kline, 2010). Modification indices with a value larger than 3.84 were recommended for consideration (Bagozzi & Yi, 1988). For job satisfaction items, the three items with correlated error terms are JS2 (“Undesirable”), JS4 (“Disagreeable”), and JS8 (“Poor”). All three items are reverse coded, which might explain why their error terms are correlated. Similarly, for the two turnover intention items TO1 and TO2 (“The chances of me quitting my job in the next year are low.” & “I would like to remain employed at my current job for as long as I can.”) with correlated error terms, both of them are reverse coded. The three items TIO1, TIO5, and TIO6 (“I am not sure I fully trust my employer.”; “My employer is not always honest and truthful.”; & “I don’t think my employer treats me fairly.”) with correlated error terms with each other from the trust in organization, they are all reverse coded as well.

For other items with correlated errors, it might be because they share with each other the same topic/construct. For the two organizational commitment items OC1 (“I feel as though my future is intimately linked to that of the company.”) and OC2 (“The bond between my organization and me is very strong.”), they both describe the same topic: strong connection. For the two organizational commitment items OC3 (“I would be

happy to make personal sacrifices if such sacrifices were important for the company's well-being.") and OC5 ("I often go above and beyond the call of duty to ensure the company's well-being."), they seem to also describe organizational citizenship behaviors. For the corporate social responsibility items, CSR1 ("My organization uses customer satisfaction as an indicator of business performance.") and CSR2 ("My organization has a procedure in place to respond to every customer complaint.") both describe customer service; CSR3 ("The managers of my organization try to comply with the law.") and CSR4 ("My organization's contractual obligations are always honored.") both describe legal obligation; CSR6 ("My organization encourages employees to join civic organizations that support our community.") and CSR7 ("My organization encourages partnerships with local businesses and schools.") both describe partnership with external local organizations; and CSR9 ("A program is in place to reduce the amount of energy and materials wasted in my organization.") and CSR10 ("My organization supports employee efforts to protect the environment.") both describe environmental protection.

I correlated these errors among those related items and ran a SEM analysis to test the model. The direct relationship between organizational commitment and both procedural and interactional external justice became nonsignificant. I deleted these two paths and ran the model again. The model was a good fit, $\chi 2(3105) = 6849.473$, $p < .001$, CFI = .933, TLI = .930, RMSEA = .042, SRMR = .060. I named this model model 4. All of the model-fit indexes are presented in Table 8. In model 4, all the correlated item errors were significant and the standardized disturbance variances (i.e., variances unexplained) of the endogenous variables ranged from .147 to .493 (see details of R

outputs in Appendix E). The unstandardized coefficients, standard errors, and standardized coefficients are displayed with model 4 in Figure 5.

Table 8

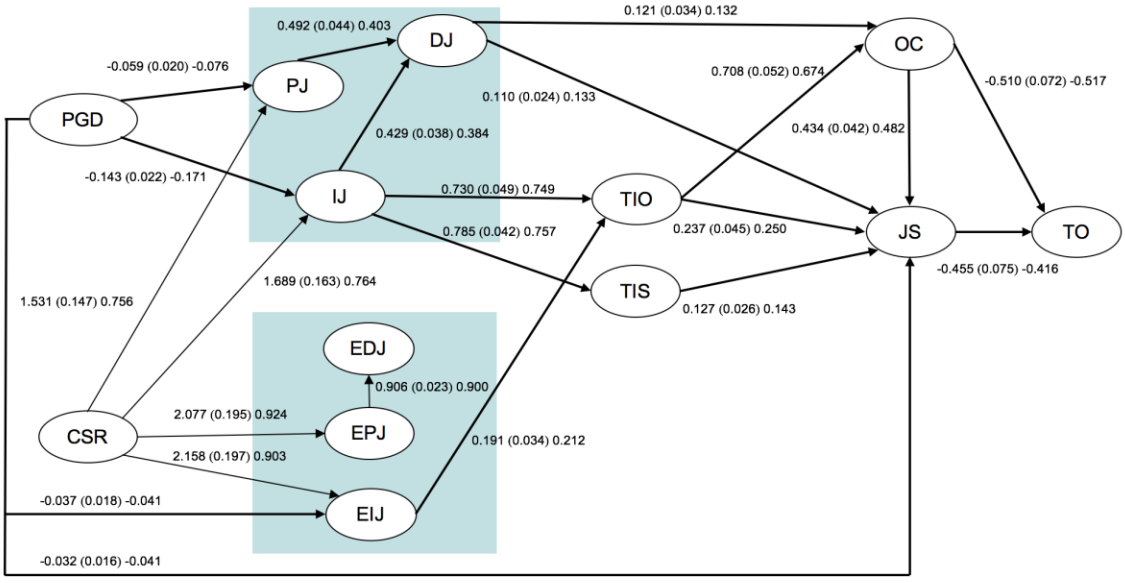
Model-Fit Indexes

	Model 1	Model 2	Model 3	Model 4
Chi-square	11310.525	11301.378	9483.990	6849.473
df	3329	3327	3299	3105
CFI	.861	.861	.892	.933
TLI	.856	.856	.887	.930
RMSEA	.059	.059	.052	.042
SRMR	.246	.245	.060	.060

Note. CFI = Comparative Fit Index. TLI = Tucker–Lewis Index. RMSEA = root-mean-square error of approximation. SRMR = Standardized Root Mean Square Residual.

Figure 5

Model 4 with Unstandardized Coefficients, Standard Errors, and Standardized Coefficients



Note. Unstandardized Coefficients (Standard Errors) Standardized Coefficients. PGD = Perceived Gender Discrimination. CSR = Corporate Social Responsibility. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EDJ = Distributive External Organizational Justice. EPJ = Procedural External Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

According to model 4, an employee's perception of gender discrimination was not directly related to turnover intention, but it was related to turnover intention through 14 paths. By calculating the product of all the covariances along the pathway for each path, I got unstandardized and standardized coefficients for each path; by summing all these product values, I got the total covariance between perceived gender discrimination and turnover intention (Grace & Bollen, 2005). I listed all the values along with the paths in Table 9. Turnover intention would increase by 0.101 points (0.120 standard deviations) with 1 point (1 standard deviation) increase in perceived gender discrimination. Among the 14 paths, path 10 (PGD → IJ → TIO → OC → TO) contributed the largest amount of covariances, and path 1 (PGD → JS → TO) and path 9 (PGD → IJ → TIO → OC → JS → TO) the second largest amount of covariances.

Table 9

All Paths from Perceived Gender Discrimination to Turnover Intention

Path	Unstandardized	Standardized
Path 1: PGD → JS → TO	0.015	0.017
Path 2: PGD → PJ → DJ → JS → TO	0.001	0.002
Path 3: PGD → PJ → DJ → OC → TO	0.002	0.002
Path 4: PGD → PJ → DJ → OC → JS → TO	0.001	0.001
Path 5: PGD → IJ → DJ → JS → TO	0.003	0.004
Path 6: PGD → IJ → DJ → OC → TO	0.004	0.004
Path 7: PGD → IJ → DJ → OC → JS →TO	0.001	0.002
Path 8: PGD → IJ → TIO → JS → TO	0.011	0.013
Path 9: PGD → IJ → TIO → OC → JS → TO	0.015	0.017
Path 10: PGD → IJ → TIO → OC → TO	0.038	0.045
Path 11: PGD → IJ → TIS → JS → TO	0.006	0.008
Path 12: PGD → EIJ → TIO → OC → TO	0.003	0.003
Path 13: PGD → EIJ → TIO → JS → TO	0.001	0.001
Path 14: PGD → EIJ → TIO → OC→ JS →TO	0.001	0.001
Total	0.101	0.120

Note. PGD = Perceived Gender Discrimination. DJ = Distributive Organizational Justice. PJ = Procedural Organizational Justice. IJ = Interactional Organizational Justice. EIJ = Interactional External Organizational Justice. TIO = Trust in Organization. TIS = Trust in Supervisor. OC = Organizational Commitment. JS = Job Satisfaction. TO = Turnover Intention.

COVID-19

I included a list of COVID-19 questions (e.g., “Got sick / had COVID-19”) in the survey (see details in Appendix C), and most of the survey respondents (730 out of the total 880) reported they experienced at least one of the COVID-19 item/situations. The number and percentage of respondents having experienced each COVID-19 item/situation are presented in Table 10.

Table 10

Number and Percentages of Respondents Impacted by COVID-19 Items

COVID-19 Items	Impacted
Lost job	112 (12.73%)
Lost income	286 (32.50%)
Kids kept home from school or daycare	157 (17.84%)
Unable to pay rent or mortgage	69 (7.84%)
Unable to access food or critical household goods	73 (8.30%)
Working in an essential job	221(25.11%)
Previously subject to a stay at home order that is now lifted	343 (38.98%)
Currently subject to a stay at home order	94 (10.68%)
Examine household budget to look for opportunities to save money on monthly expenses	351(39.89%)
Got sick / had COVID-19	82 (9.32%)

I used chi-square tests and Fisher's exact tests (when more than 20% cells have an expected count of less than five) to examine whether gender, race, ethnicity, and sexual orientation were independent of COVID-19 impact, and found gender was not, Pearson's Chi-square = 11.252, $p = .001$. Among men, 338 out of 430 (78.60%) were impacted by COVID-19; among women, 392 out of 450 (87.11%) were impacted by COVID-19. Results of chi-square tests showed that there were gender differences in four of the 10 COVID-19 items. For each of these four items, more women than men were impacted. Numbers and percentages of respondents in each gender category choosing each item are presented in Table 11.

Table 11

Gender Differences in COVID-19 Impact

COVID-19 Items	Men (N = 430)	Women (N = 450)
Kids kept home from school or daycare	61 (14.19%)	96 (21.33%)
Unable to access food or critical household goods	19 (4.42%)	54 (12.00%)
Previously subject to a stay at home order that is now lifted	141 (32.79%)	202 (44.89%)
Examine household budget to look for opportunities to save money on monthly expenses	152 (35.35%)	199 (44.22%)

I used a Mann–Whitney U test to examine the age difference between those who were impacted by at least one of the COVID-19 situations and those were not, and found there were more younger people (Median = 47) in those who were impacted and more older people (Median = 60) in those who were not impacted, U ($N_{Impacted}$ = 730, $N_{NotImpacted}$ = 150) = 36027.50, z = -6.61, p < .001. Results of Mann–Whitney U tests showed that age was related to COVID-19 impact in nine of the 10 individual COVID-19 items. For all of the nine items, there were more younger people in those who were impacted and more older people in those who were not impacted. Medians of respondent ages in years for those who were impacted and those who were not impacted are presented in Table 12.

Table 12

Age Medians in COVID-19-Impacted versus Not Impacted Groups

COVID-19 Items	Impacted	Not Impacted
Lost job	37.5	50
Lost income	44	50
Kids kept home from school or daycare	41	51
Unable to pay rent or mortgage	39	50
Working in an essential job	43	51
Previously subject to a stay at home order that is now lifted	44	50
Currently subject to a stay at home order	44	49
Examine household budget to look for opportunities to save money on monthly expenses	45	51
Got sick / had COVID-19	41.5	49.5

To explore whether the COVID-19 influences the respondents' answers of the focal variables, I ran Mann–Whitney U tests to compare the responses between those who reported having been impacted by the COVID-19 and those who were not, and found differences in some of the survey items. Among those survey items with group differences, generally, those who have been impacted by the COVID-19 reported higher levels of perception of gender discrimination and turnover intention, and lower level of perceived organizational justice, trust in organization, and job satisfaction than those who were not impacted by the COVID-19. Percentages of respondents choosing each option of each item are presented in Figure 6 to Figure 10. I have also included the COVID-19 as a control variable in model 4 and retested the model fit, however, it was not significantly related to any of these endogenous variables.

Figure 6

Comparisons in Perceived Gender Discrimination Items between Groups Impacted versus Not Impacted by the COVID-19

Figure 7

Comparisons in Perceived Organizational Justice Items between Groups Impacted versus Not Impacted by the COVID-19

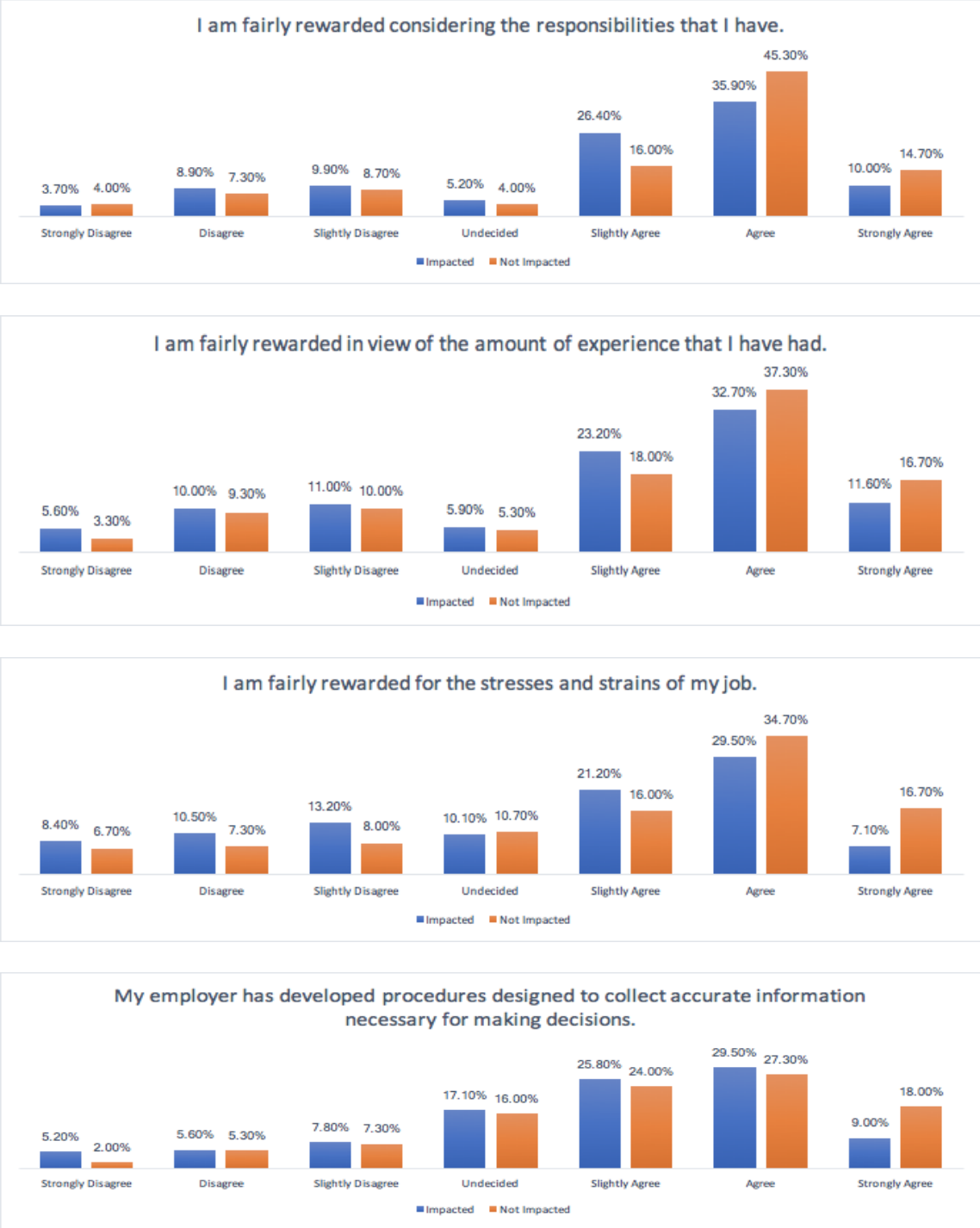


Figure 8

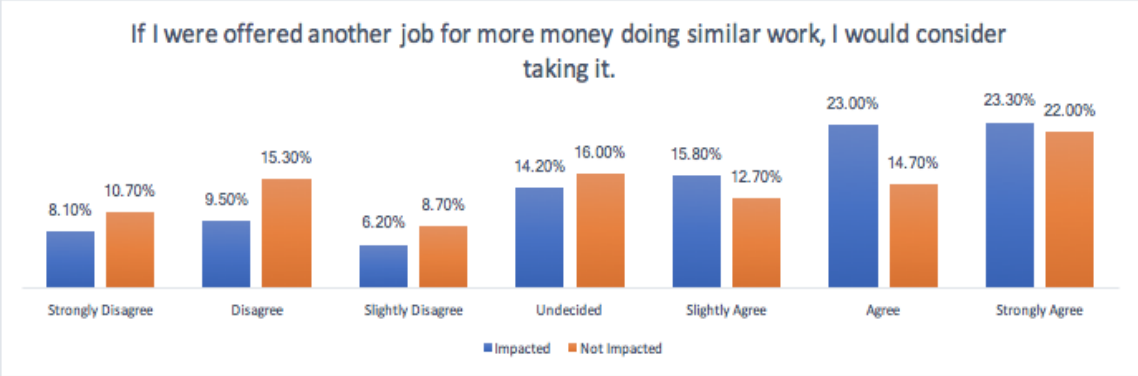
Comparisons in Trust in Organization Items between Groups Impacted versus Not Impacted by the COVID-19

Figure 9

Comparisons in Job Satisfaction Items between Groups Impacted versus Not Impacted by the COVID-19

Figure 10

Comparisons in Turnover Intention Item between Groups Impacted versus Not Impacted by the COVID-19

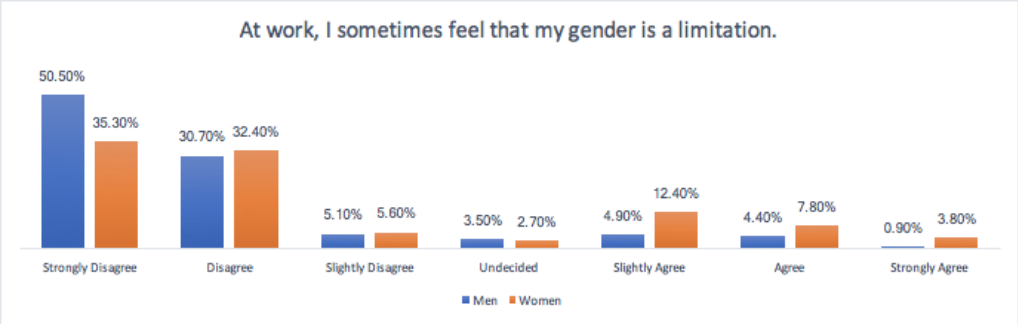


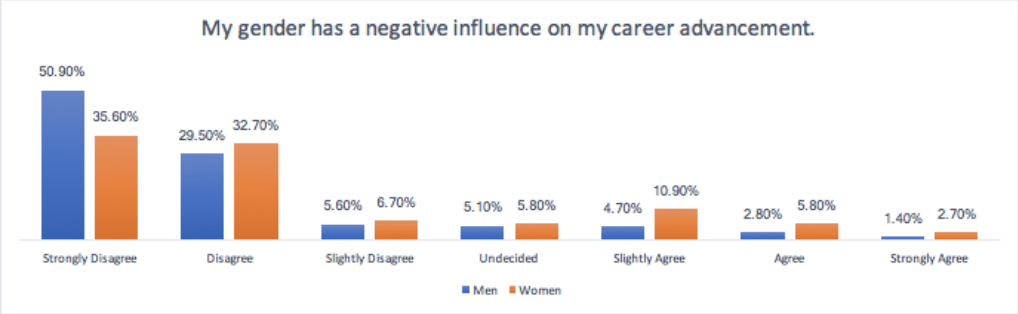
Perception of Gender Discrimination

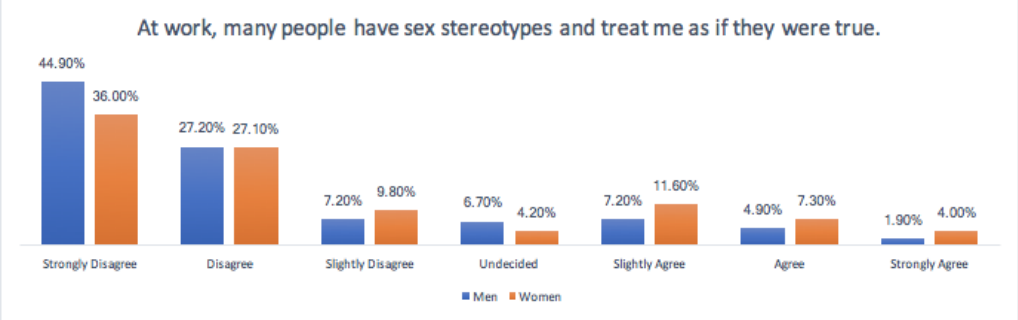
Because perception of gender discrimination is the main topic of this study, I examined the relationships between perception of gender discrimination and demographic variables. There was a significant difference between men (N = 430) and women (N = 450), $U = 81103.50$, $z = -4.25$, $p < .001$. Women experienced more gender discrimination than men. There was also a significant difference between heterosexuals (N = 798) and non-heterosexuals (N = 78), $U = 23330.50$, $z = -3.74$, $p < .001$. Non-heterosexuals experienced more gender discrimination than heterosexuals. Group comparisons of gender and sexual orientation in the percentages of respondents choosing each option for each gender discrimination survey item are presented in Figure 11 and Figure 12 respectively. Result of robust regression (Huber weighting) showed that perception of gender discrimination was also significantly related to age, B = -0.011, SE = 0.003, $t = -4.136$, $p < .001$. Older people report less gender discrimination. However, perception of gender discrimination was not significantly related to race or ethnicity.

Figure 11

Gender and Perception of Gender Discrimination







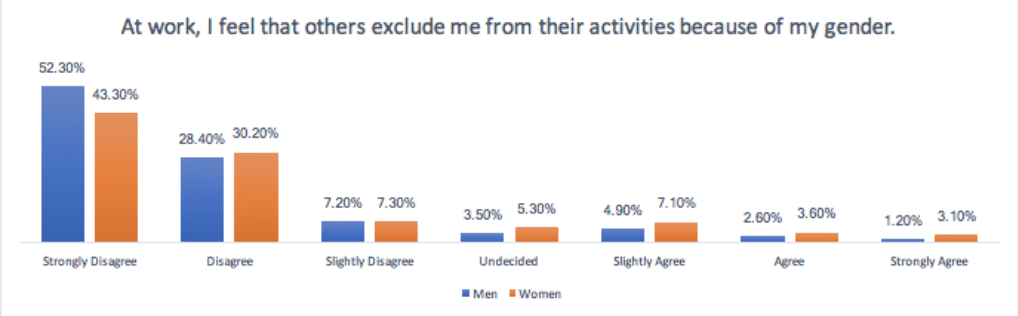


Figure 12

Sexual Orientation and Perception of Gender Discrimination

I also examined the relationships between perception of gender discrimination and job relative variables. Results of robust regression (Huber weighting) showed that it was significantly related to year of work experience (B = -0.013, SE = 0.003, t = -4.351, p < .001) and organizational tenure (B = -0.011, SE = 0.006, t = -2.112, p = .035), but not significantly related to previous layoff experience, full time/part time job, current/last job, or job tenure. Those who had longer work experience and worked longer in the organization experienced reported less gender discrimination.

CHAPTER 5

DISCUSSION

I built a model based on theoretical reasoning and SEM analysis on a sample of 880 U.S. citizens, demonstrating that perception of gender discrimination has an indirect relationship with turnover intention through intermediate variables including distributive, procedural, and interactional perceived organizational justice; perceived interactional external organizational justice; trust in organization; trust in supervisor; job satisfaction; and organizational commitment. This finding helps researchers and practitioners understand the mechanism by which employees' perceptions of gender discrimination are related to turnover intention. According to this model, an employee's perception of gender discrimination could be related to their turnover intention indirectly through 14 paths. The top three paths with the largest covariances are: perceived gender discrimination → perceived interactional organizational justice → trust in organization → organizational commitment → turnover intention, perceived gender discrimination → job satisfaction → turnover intention, and perceived gender discrimination → perceived interactional organizational justice → trust in organization → organizational commitment → job satisfaction → turnover intention. These three paths all together account for 67.33%/66.10% (unstandardized/standardized) of all the amount of covariances.

The result of this study has shown that perceived gender discrimination is negatively related to job satisfaction and organizational commitment, which is consistent

with previous research (Ensher et al., 2001; Foley et al., 2005; Madera et al., 2012; Shaffer et al., 2000). The result has shown that perceived gender discrimination is positively related to turnover intention, which is consistent with previous research (Foley et al., 2005; Gutek et al., 1996; Madera et al., 2012; Shaffer et al., 2000); and furthermore, the relationship is indirect in this study, which is a new finding.

The result of this study has shown that perceived gender discrimination is negatively related to all three dimensions of perceived organizational justice as I proposed. According to the results of correlation analysis, perceived gender discrimination is more strongly related to the interactional dimension than the other two dimensions of perceived organizational justice. And according to model 4, perceived gender discrimination is directly related to the interactional and procedural dimensions of perceived organizational justice and indirectly related to the distributive dimension of perceived organizational justice. Based on both statistical results and theories, an employee's perception of gender discrimination has a direct and strong relationship with their perception of interactional organizational justice. This is consistent with what model 4 has presented: perceived interactional organizational justice sits in the top two paths with the most amount of covariances and half of all 14 paths from perceived gender discrimination to turnover intention.

The result of this study has shown that perceived gender discrimination is negatively related to all three dimensions of perceived external organizational justice as I proposed. According to the results of correlation analysis, perceived gender discrimination is most strongly related to the interactional dimension, then the procedural dimension, and then a much weaker relationship with the distributive dimension of

external organizational justice. And according to model 4, perceived gender discrimination is directly related to the perceived interactional external organizational justice; however, it is not directly related to procedural and distributive dimensions of perceived external organizational justice, which indicates that perceived gender discrimination might be related to these two dimensions through their covariances with interactional dimension of perceived external organizational justice.

The result of path analysis and model 4 has shown that trust in organization partially mediates the relationship between perceived interactional organizational justice and organizational commitment, as well as that between perceived interactional organizational justice and job satisfaction. The mediational relationships are consistent with previous research conducted by Aryee et al. (2002), except that their study showed full mediations. The result of path analysis and model 4 has also shown, as I proposed, that trust in organization partially mediates the relationship between perceived interactional external organizational justice and organizational commitment, and between perceived interactional external organizational justice and job satisfaction, respectively. This study shows that trust in organization is a very important variable in the paths from perceived gender discrimination to turnover intention. The result of correlation analysis shows it has the strongest relationship with perceived gender discrimination among all the focal variables. And according to model 4, trust in organization sits in the top two paths with the most amount of covariances and six out of 14 paths from perceived gender discrimination to turnover intention that together account for 68.32%/67.25% (unstandardized/standardized) of the total amount of covariances. The result of correlation analysis has shown that perceived interactional organizational justice is

positively related to trust in supervisor and trust in supervisor is positively related to trust in organization, which is consistent with the previous study (Aryee et al., 2002); however, the result of the significant relationships between trust in supervisor and each of job satisfaction, organizational commitment, and turnover intention found in this study is consistent with Dirks and Ferrin's (2002) study. However, the result is not consistent with the study by Aryee et al. (2002); it may be because Aryee et al. (2002) only focused their study on a single organization whereas the responses in this study have been gathered across various organizations. According to model 4, trust in supervisor is directly related to job satisfaction, and indirectly related to turnover intention through its relationship with job satisfaction; it is not directly to organizational commitment, but it might be related to organizational commitment through its covariances with other variables such as trust in organization and job satisfaction. Compared with trust in organization, trust in supervisor plays a less important role in the relationship between perceived gender discrimination and turnover intention. It sits in only one of the 14 paths from perceived gender discrimination to turnover intention that accounts for 5.94%/6.39% (unstandardized/standardized) of the total amount of covariances. Statistically, the results of path analysis show trust in organization partially mediates the relationship between both perceived distributive and procedural organizational justice and organizational commitment, and between both perceived distributive and procedural organizational justice and job satisfaction. However, according to model 4, perceived distributive and procedural organizational justice might be related to trust in organization through their covariances with perceived interactional organizational justice. Instead of mediation via trust in organization, perceived distributive organizational justice is

directly related to organizational commitment and job satisfaction; additionally, perceived procedural organizational justice is indirectly related to organizational commitment and job satisfaction through its relationship with perceived distributive organizational justice. For external organizational justice, similarly, although the results of path analysis show that trust in organization partially mediate the relationship between both perceived distributive and procedural external organizational justice and organizational commitment, and between both perceived distributive and procedural external organizational justice and job satisfaction; according to model 4, perceived distributive and procedural external organizational justice might be related to trust in organization through their covariances with perceived interactional external organizational justice.

The result of this study has shown that women have experienced more gender discrimination than men, which is consistent with previous research (Eagly & Diekman, 2005; Morrison et al., 1987). The result has also shown that non-heterosexuals have experienced more gender discrimination than heterosexuals, which is consistent with previous research (Badgett et al., 2009; Ragins & Cornwell, 2001). Additionally, the results have shown that older people and those who have longer work experience and have worked longer in the organization reported less gender discrimination. It may be that, because people of the older generations have grown up during the time when people were more used to traditional gender roles (Kehn & Ruthig, 2013), they are less likely to be aware of gender discrimination than those younger people who have grown up being exposed to the viewpoint of gender equality. People of the older generations are also those who have had longer work experience (in this study: Spearman's *rho* = .887;

Kendall's *tau-b* = .732), they tend to adopt a similar point of view. The result that those who have worked longer in the organization reported less gender discrimination can be explained by the attraction-selection-attrition theory (De Cooman et al., 2009; Schneider, 1987): as an employee stays longer in an organization, they either tend to agree with their organization's values after socialization, or, if not, they leave the organization; if an employee perceives gender discrimination and cannot change their perception, they will choose to leave the organization. Therefore, if a person stays long enough in an organization, they should be less likely to perceive gender discrimination.

Most respondents to the survey reported being impacted by COVID-19. I found gender differences in the impacts by COVID-19. Women experienced more impacts than men on four items: "Kids kept home from school or daycare"; "Unable to access food or critical household goods"; "Previously subject to a stay at home order that is now lifted"; and "Examine household budget to look for opportunities to save money on monthly expenses." The results show that women have been impacted more with kids and household issues than men, which is consistent with what social role theory states: the role of women belongs to home (Eagly & Karau, 2002). I also found age differences in the impacts by COVID-19: more younger people have been impacted. This is reasonable, because more younger people usually work in those industries (e.g., leisure & hospitality) that are more negatively impacted by COVID-19; they used to have a higher rate of unemployment; and some young people were in the job-seeking process when COVID-19 hit (Gould & Kassa, 2020).

This study also showed that those who have been impacted by COVID-19 report higher levels of perception of gender discrimination and turnover intention and lower

level of perceived organizational justice, trust in organization, and job satisfaction than those who have not been impacted by COVID-19. Because women have been impacted more by COVID-19 than men and women have experienced more gender discrimination than men, it is reasonable those who been impacted more by the COVID-19 are also those who experience more gender discrimination. And according to model 4, perceived gender discrimination is related to turnover intention through constructs including perceived organizational justice, trust in organization, and job satisfaction. Therefore, these differences seem reasonable.

Implications, Limitations, and Directions for Future Studies

The results of this study indicate that perception of gender discrimination is indirectly related to turnover intention through intermediate variables including distributive, procedural, and interactional perceived organizational justice, perceived interactional external organizational justice, trust in organization, trust in supervisor, job satisfaction, and organizational commitment, which helps researchers and practitioners understand the mechanisms of how perception of gender discrimination is related to turnover intention. Researchers should consider relationships among these constructs when conducting research in the future. When employees report gender discrimination, in addition to dealing with the gender discrimination per se, practitioners could also consider taking actions to enhance employees' perception of organizational justice, trust in organization, trust in supervisor, job satisfaction, and organizational commitment. Organizations could use approaches such as surveys and interviews to obtain information of what factors enhance or undermine their employees' perception of these variables, and then work on those factors to make improvements.

This study also shows women have experienced more gender discrimination and have been more negatively impacted by COVID-19 than men; younger workers experienced more negative impacts by COVID-19 than older workers. To help employees to cope with negative impacts from COVID-19, organizations could offer additional supports such as offering flexibility in office hours and locations and providing childcare for parents who need to maintain work-family balance, providing resources in training and development to help employees increase job autonomy to meet the additional requirements of working from home, and in additional to virtual meeting, having virtual forms of lunch and coffee hours to maintain social relationships (Carnevale, & Hatak, 2020).

There are several potential limitations. The first limitation is the sample representativeness of the population. Although I have used quota sampling in the combinations of age and gender based on the corresponding composition of the U.S. national population, no respondents are older than 79 in my data. According to the United States Census Bureau (2019), among the national population aged 55 or above, there are 5.24% people who are older than 79. However, in practice, it would be difficult to have people of that age range to work online on MTurk and then fill out a survey online. It would also be difficult to make sure people remember things correctly from their last job a long time after retirement. According to the statistics provided by the Center for Retirement Research at Boston College, by 2018, the average retirement age was 64.6 for men and 62.3 for women (Rutledge, 2018). For those who are into their 80s, they may need to recall their work experience from more than ten years ago. Additionally, I used only U.S. respondents to build the model, which may make the model not apply to other

populations. One direction for future study is to test the fit of the model across other populations. The second limitation is that I have conducted this study during the COVID-19 pandemic and most respondents have been impacted by it; therefore, the results may be different than if it were to have been conducted before the pandemic. This is another direction for future study. I could test the model outside of the immediate context of the pandemic in the future and compare the differences. The third limitation is that due to practical issues, I did not use a longitudinal research design. Instead, I relied on theories and previous research (including longitudinal research) to assume and infer the relationships among the constructs. In the future, I can use a longitudinal research design to retest the model. The fourth limitation is the existence of common-method variance (CMV). It may influence the relationships among variables and then affect how a conclusion can be drawn about them (Reio, 2010). Although I have detected some of the items may have CMV because they are all reverse coded or share some same topics and controlled them by correlating error terms, it is almost impossible to ensure all of those items with CMV be detected and controlled. Future work will be needed to research on the CMV issues.

Additionally, as I have mentioned in the results section, there are two other directions for future study. The first one is to research on other construct(s) that influence(s) both perceived gender discrimination and trust in organization. The other is to research on other construct(s) that influence(s) both perceived gender discrimination and perceived procedural external organizational justice.

CHAPTER 6

CONCLUSION

Many people have experienced gender discrimination in their work life (e.g., Eagly & Diekman, 2005; Morrison et al., 1987). This study shows that people from some of the demographic groups (e.g., women, non-heterosexuals, & young workers) experienced more gender discrimination than others. Gaining an understanding of how perception of gender discrimination is related to organizational outcomes is very important for organizations. The study reveals that employees' perception of gender discrimination might be related to their turnover intention indirectly through distributive, procedural, and interactional perceived organizational justice; perceived interactional external organizational justice; trust in organization; trust in supervisor; job satisfaction; and organizational commitment. Researchers and practitioners should consider these relationships in their future work. This study also shows women and young workers were more negatively impacted by COVID-19, which implies that practitioners should take actions to provide support to help them attenuate the additional negative impacts from COVID-19.

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APPENDIX A: SCREENING QUESTIONNAIRE

Instruction: Please fill out all the demographic information. Anyone who meets requirements of qualifications will be contacted to complete an attitude survey at a later time. In order to take this survey, you must be **at least 18 years old and a United States Citizen, and have work experience** (can be any type of work including full-time, part-time, and internship, etc.).

Country of Citizenship: _____;

Which gender would you choose when the U.S. Census Bureau asks about your gender?
Male
Female

Which gender do you most identify with?
Male
Female
Transgender
Others
I prefer not to say

Age (in years): _____;

Which of the following ethnicities do you most identify with?
Hispanic or Latino
Not Hispanic or Latino
Note: This question is included because it is a commonly asked demographics question, and I don't want respondents to figure out what I really want to know.

Race (You can choose more than one option):
White
Black or African American
American Indian or Alaska Native
Asian
Native Hawaiian or Pacific Islander
Other

Branching questions:

Do you have a job now?

Yes (go to N1)
No (go to N2)

N1:
How long have you worked in your current job?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.

Year(s) _____
Month(s) _____

How long have you worked for your current employer?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.

Year(s) _____
Month(s) _____

Is it a full-time or part-time job?
Full time
Part time

N2:
How long did you work in your most recent/last job?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.
Year(s) _____
Month(s) _____

How long did you work for your most recent/last employer?
Instruction:
For example,

If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.

Year(s) _____
Month(s) _____

Was it a full-time or part-time job?
Full time
Part time

Considering all the jobs you have held, how much working experience do you have?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.

Year(s) _____
Month(s) _____

Have you been laid off before?
Yes
No

APPENDIX B: CONSENT FORMS

HUMAN SUBJECTS CONSENT FORM

The following is a brief summary of the project in which you are asked to participate. Please read this information before signing the statement below.
TITLE OF PROJECT: Perception of Job and Organization
PURPOSE OF STUDY/PROJECT: The purpose is to study your thoughts about your job and organization.
PROCEDURE: You will fill out an online survey consisting of demographic items and self-report scales. The survey will take approximately 8-14 minutes to complete.

INSTRUMENTS: An online survey.

RISKS/ALTERNATIVE TREATMENTS: The participant understands that Louisiana Tech is not able to offer financial compensation nor to absorb the costs of medical treatment should you be injured as a result of participating in this research.

The following disclosure applies to all participants using online survey tools: This server may collect information and your IP address indirectly and automatically via "cookies"; At the beginning of the survey, the survey code you are asked to enter is not unique to you and it is only used to ensure you are invited by the researcher to answer the survey; Your MTurk worker ID will be used to confirm your completion of the online survey and may be used to contact you for clarifying your answers on the survey if needed.

EXTRA CREDIT: None

BENEFITS/COMPENSATION: You will be paid US $1.00 for participation.

By clicking "I agree" below, I attest that I have read and understood the description of the study, "Perception of Job and Organization," and its purposes and methods. I understand that my participation in this research is strictly voluntary. Upon completion of the study, I understand that the results will be freely available to me upon request. I understand that the results of my survey will be confidential, accessible only to the principal investigators, myself, or a legally appointed representative. I have not been requested to waive nor do I waive any of my rights related to participating in this study.

□ **I agree.**

CONTACT INFORMATION: The principal experimenter listed below may be reached to answer questions about the research, subjects' rights, or related matters.

Qin Cai (qca002@latech.edu)

Members of the Human Use Committee of Louisiana Tech University may also be contacted if a problem cannot be discussed with the experimenters:

Dr. Richard Kordal, Director, Office of Intellectual Property & Commercialization Ph: (318) 257-2484, Email: rkordal@latech.edu

APPENDIX C: DEMOGRAPHICS QUESTIONNAIRE

Instruction: This is a survey that follows a pre-survey. Only those who have been invited are allowed to complete it. In order to take this survey, you must be **at least 18 years old and a United States Citizen, and have work experience** (can be any type of work including full-time, part-time, and internship, etc.).

Please enter the survey code: _____;
Note: This survey code is not unique to each participant, and it cannot make each participant be identified.

Please fill out the following information:

Which gender would you choose when the U.S. Census Bureau asks about your gender?
Male
Female

Which gender do you most identify with?
Male
Female
Transgender
Others
I prefer not to say

What sexual orientation do you most identify with?
- Heterosexual
- Homosexual
- Bisexual
- Pansexual
- Asexual

Others
I prefer not to say

Age (in years): _____;

Which of the following ethnicities do you most identify with?
Hispanic or Latino
Not Hispanic or Latino

Race (You can choose more than one option):
White
Black or African American
American Indian or Alaska Native
Asian
Native Hawaiian or Pacific Islander
Others

Considering all the jobs you have held (can be any type of work including full-time, part-time, and internship, etc.), how much working experience do you have ?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.
Year(s) _____
Month(s) _____

Have you been laid off before?
Yes
No

Which of the following impacts of Coronavirus / COVID-19 have you or your household experienced? Please select all that apply.
1. Lost job
2. Lost income
3. Kids kept home from school or daycare
4. Unable to pay rent or mortgage
5. Unable to access food or critical household goods
6. Working in an essential job
7. Previously subject to a stay at home order that is now lifted
8. Currently subject to a stay at home order
9. Examine household budget to look for opportunities to save money on monthly expenses
10. Got sick / had COVID-19
11. None of the above

Instruction: Please answer all the following questions in this survey based on your **current, or most recent/last job if you are currently unemployed, and answer all questions based on that same job.**
Do you choose to answer the questions based on your current or most recent/last job?
Current Job
Most Recent/Last Job

How long have you worked in your current or last job?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.
Year(s) _____
Month(s) _____

How long have you worked for your current or your last employer?
Instruction:
For example,
If you have worked one year, please enter "1" after Year and "0" after Month; DO NOT enter "0" after Year and "12" after Month.
If you have worked two and a half years, please enter "2" after Year and "6" after Month.
If you have no work experience, please enter "0" after both Year and Month.
Year(s) _____
Month(s) _____

Is the job a full-time or part-time job?
Full time
Part time

APPENDIX D: MEASURES

Instruction: Please answer all the following questions in this survey based on your current job or most recent/last job you held (the job you have chosen in the last question in previous page), and **answer all questions based on that same job.**

Perceived Gender Discrimination Measure (Foley et al., 2005; Sanchez & Brock, 1996)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below.
1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Undecided
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

Item Wording
At work, I sometimes feel that my gender is a limitation.
My gender has a negative influence on my career advancement.
At work, many people have sex stereotypes and treat me as if they were true.
At work, I feel that others exclude me from their activities because of my gender.

Perceived Organizational Justice Measure (Moorman, 1991; Price & Mueller, 1986)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Undecided
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

Subscale	Item Wording
Distributive (Price & Mueller, 1986)	I am fairly rewarded considering the responsibilities that I have. I am fairly rewarded in view of the amount of experience that I have had. I am fairly rewarded for the amount of effort that I put forth. I am fairly rewarded for the work that I have done well. I am fairly rewarded for the stresses and strains of my job.
Procedural (Moorman, 1991)	My employer has developed procedures designed to collect accurate information necessary for making decisions. My employer has developed procedures designed to provide opportunities to appeal or challenge decisions. My employer has developed procedures designed to have all sides affected by the decisions represented. My employer has developed procedures designed to generate standards so that decisions could be made with consistency. My employer has developed procedures designed to hear the concerns of all those affected by decisions. My employer has developed procedures designed to provide useful feedback regarding the decisions and their implementations. My employer has developed procedures designed to allow for requests for clarification or additional information about decisions.

Interactional (Moorman, 1991)	In general, representatives of my company consider my viewpoint. In general, representatives of my company are able to suppress personal biases. In general, representatives of my company provide me with timely feedback about decisions and their implications. In general, representatives of my company treat me with kindness and consideration. In general, representatives of my company show concern for my rights as an employee. In general, representatives of my company take steps to deal with me in a truthful manner.

Perceived External Organizational Justice Measure (Toaddy, 2012)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below.
1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Undecided
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

Subscale	Item Wording
ACQ 1: I would prefer to live in a warm city rather than a cold city. Please choose "Disagree" as the answer for this question.	
Distributive	I am satisfied with the way my organization gives out money to other groups outside of itself. I feel good about the way my organization gives out money to other groups outside of itself. I feel good about the way my organization distributes resources to other groups outside of itself. My organization gives out money to other groups outside of itself justly.
Procedural	My organization uses fair procedures to decide how to treat other groups outside of itself. The degree to which my organization considers everyone's needs when determining how to treat other groups outside of itself is just. I feel good about the procedures my organization uses in determining how to treat other groups outside of itself. I feel good about the policies that my organization has in place to determine how to treat other groups outside of itself.
Interactional	I feel good about the amount of honesty that my organization displays when interacting with other groups outside of itself. I am satisfied with the way my organization gives explanations for its actions to outside groups.

I feel good about the way my organization gives explanations for its actions to outside groups.

Corporate Social Responsibility Measure (Maignan et al., 1999; Toaddy, 2012)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below. 1 = Strongly Disagree 2 = Disagree 3 = Slightly Disagree 4 = Undecided 5 = Slightly Agree 6 = Agree 7 = Strongly Agree
Item Wording
My organization uses customer satisfaction as an indicator of business performance.
My organization has a procedure in place to respond to every customer complaint.
The managers of my organization try to comply with the law.
My organization's contractual obligations are always honored.
My organization gives adequate contributions to charities.
My organization encourages employees to join civic organizations that support our community.
My organization encourages partnerships with local businesses and schools.
Flexible company policies enable employees of my organization to better coordinate work and personal life.
A program is in place to reduce the amount of energy and materials wasted in my organization.
My organization supports employee efforts to protect the environment.

Trust Measure (Nyhan & Marlowe, 1997; Robinson & Rousseau, 1994)

Subscale	Item Wording
Trust in Supervisor (Nyhan & Marlowe, 1997) Instructions: After reading each of the following statements, with respect to your own feelings about the particular job you are now working or once worked, select the number from the following scale that is closest to your opinion: 1 = Nearly Zero 2= Very Low 3= Low 4= 50-50 5= High 6= Very High 7= Near 100%	My level of confidence that my supervisor is technically competent at the critical elements of his or her job is____. My level of confidence that my supervisor will make well thought out decisions about his or her job is____. My level of confidence that my supervisor will follow through on assignments is____. My level of confidence that my supervisor has an acceptable level of understanding his or her job is____. My level of confidence that my supervisor will be able to do his or her job in an acceptable manner is____. When my supervisor tells me something, my level of confidence that I can rely on what they tell me is____. My level of confidence in my supervisor to do the job without causing other problems is____. My level of confidence that my supervisor will think through what he or she is doing on the job is____.
ACQ2: I would prefer to live in a city with many parks, even if the cost of living was higher. Please choose "Slightly Agree" as the answer for this question.	
Trust in Organization (Robinson & Rousseau, 1994) Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below.	I am not sure I fully trust my employer (R). My employer is open and upfront with me. I believe my employer has high integrity. In general, I believe my employer's motives and intentions are good. My employer is not always honest and truthful (R). I don't think my employer treats me fairly (R).

1 = Strongly Disagree 2 = Disagree 3 = Slightly Disagree 4 = Undecided 5 = Slightly Agree 6 = Agree 7 = Strongly Agree	I can expect my employer to treat me in a consistent and predictable fashion.

Note. (R) indicates reverse-scored items.

Abridged Job in General Scale (Russell et al., 2004)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the job for which they work. With respect to your own feelings about the particular job for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below. 1 = Strongly Disagree 2 = Disagree 3 = Slightly Disagree 4 = Undecided 5 = Slightly Agree 6 = Agree 7 = Strongly Agree
Item Wording
Good
Undesirable (R)
Better than most
Disagreeable (R)
Makes me content
Excellent
Enjoyable
Poor (R)

Note. (R) indicates reverse-scored items.

Organizational Commitment Measure (Jaworski & Kohli, 1993)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below. 1 = Strongly Disagree 2 = Disagree 3 = Slightly Disagree 4 = Undecided 5 = Slightly Agree 6 = Agree 7 = Strongly Agree
Item Wording
I feel as though my future is intimately linked to that of the company.
The bond between my organization and me is very strong.
I would be happy to make personal sacrifices if such sacrifices were important for the company's well-being.
In general, I am proud to work for the company.
I often go above and beyond the call of duty to ensure the company's well-being.
I am very committed to this company.
It is clear that I am very fond of the company.

Turnover Intention Measure (Cropanzano et al., 1993; Jones, 2010)

Instruction: Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working or once worked, please indicate the degree of your agreement or disagreement with each statement by choosing a number from 1 to 7 using the scale below. 1 = Strongly Disagree 2 = Disagree 3 = Slightly Disagree 4 = Undecided 5 = Slightly Agree 6 = Agree 7 = Strongly Agree
Item Wording
The chances of me quitting my job in the next year are low. (R)
I would like to remain employed at my current job for as long as I can. (R)
If I were offered another job for more money doing similar work, I would consider taking it.

Note. (R) indicates reverse-scored items.

APPENDIX E: PROCEDURES, CODES OF STATISTICAL ANALYSES, AND OUTPUTS

Control Variables

```
# use MASS package (Venables & Ripley, 2002)
install.packages("MASS")
library(MASS)

# read in the dataset
SEMData <- read.csv("SEMData.csv", header = TRUE)

# Regressions
# race & trust in supervisor
racetis.huber <- rlm(TIS ~ black + ameindian + asian + pacific, data = SEMData)
summary(racetis.huber)
racetis.bisquare <- rlm(TIS ~ black + ameindian + asian + pacific, data = SEMData, psi =
psi.bisquare)
summary(racetis.bisquare)

# race & trust in organization
racetio.huber <- rlm(TIO ~ black + ameindian + asian + pacific, data = SEMData)
summary(racetio.huber)
racetio.bisquare <- rlm(TIO ~ black + ameindian + asian + pacific, data = SEMData, psi
= psi.bisquare)
summary(racetio.bisquare)

# ethnicity & trust in supervisor
ethnicitytis.huber <- rlm(TIS ~ ethnicity, data = SEMData)
summary(ethnicitytis.huber)
ethnicitytis.bisquare <- rlm(TIS ~ ethnicity, data = SEMData, psi = psi.bisquare)
summary(ethnicitytis.bisquare)

# ethnicity & trust in organization
ethnicitytio.huber <- rlm(TIO ~ ethnicity, data = SEMData)
summary(ethnicitytio.huber)
ethnicitytio.bisquare <- rlm(TIO ~ ethnicity, data = SEMData, psi = psi.bisquare)
summary(ethnicitytio.bisquare)

# gender & trust in supervisor
```

```
gendertis.huber <- rlm(TIS ~ gender, data = SEMData)
summary(gendertis.huber)
gendertis.bisquare <- rlm(TIS ~ gender, data = SEMData, psi = psi.bisquare)
summary(gendertis.bisquare)

# gender & trust in organization
gendertio.huber <- rlm(TIO ~ gender, data = SEMData)
summary(gendertio.huber)
gendertio.bisquare <- rlm(TIO ~ gender, data = SEMData, psi = psi.bisquare)
summary(gendertio.bisquare)

# age & trust in supervisor
agetis.huber <- rlm(TIS ~ age, data = SEMData)
summary(agetis.huber)
agetis.bisquare <- rlm(TIS ~ age, data = SEMData, psi = psi.bisquare)
summary(agetis.bisquare)

# age & trust in organization
agetio.huber <- rlm(TIO ~ age, data = SEMData)
summary(agetio.huber)
agetio.bisquare <- rlm(TIO ~ age, data = SEMData, psi = psi.bisquare)
summary(agetio.bisquare)

# workexp & trust in supervisor
workexptis.huber <- rlm(TIS ~ workexp, data = SEMData)
summary(workexptis.huber)
workexptis.bisquare <- rlm(TIS ~ workexp, data = SEMData, psi = psi.bisquare)
summary(workexptis.bisquare)

# workexp & trust in organization
workexptio.huber <- rlm(TIO ~ workexp, data = SEMData)
summary(workexptio.huber)
workexptio.bisquare <- rlm(TIO ~ workexp, data = SEMData, psi = psi.bisquare)
summary(workexptio.bisquare)

# gender & job satisfaction
genderjs.huber <- rlm(JS ~ gender, data = SEMData)
summary(genderjs.huber)
genderjs.bisquare <- rlm(JS ~ gender, data = SEMData, psi = psi.bisquare)
summary(genderjs.bisquare)

# jobtenure & job satisfaction
jobtenurejs.huber <- rlm(JS ~ jobtenure, data = SEMData)
summary(jobtenurejs.huber)
jobtenurejs.bisquare <- rlm(JS ~ jobtenure, data = SEMData, psi = psi.bisquare)
summary(jobtenurejs.bisquare)
```

```
# orgtenure & job satisfaction
orgtenurejs.huber <- rlm(JS ~ orgtenure, data = SEMData)
summary(orgtenurejs.huber)
orgtenurejs.bisquare <- rlm(JS ~ orgtenure, data = SEMData, psi = psi.bisquare)
summary(orgtenurejs.bisquare)

# workexp & job satisfaction
workexpjs.huber <- rlm(JS ~ workexp, data = SEMData)
summary(workexpjs.huber)
workexpjs.bisquare <- rlm(JS ~ workexp, data = SEMData, psi = psi.bisquare)
summary(workexpjs.bisquare)

# age & job satisfaction
agejs.huber <- rlm(JS ~ age, data = SEMData)
summary(agejs.huber)
agejs.bisquare <- rlm(JS ~ age, data = SEMData, psi = psi.bisquare)
summary(agejs.bisquare)

# race & job satisfaction
racejs.huber <- rlm(JS ~ black + ameindian + asian + pacific, data = SEMData)
summary(racejs.huber)
racejs.bisquare <- rlm(JS ~ black + ameindian + asian + pacific, data = SEMData, psi =
psi.bisquare)
summary(racejs.bisquare)

# ethnicity & job satisfaction
ethnicityjs.huber <- rlm(JS ~ ethnicity, data = SEMData)
summary(ethnicityjs.huber)
ethnicityjs.bisquare <- rlm(JS ~ ethnicity, data = SEMData, psi = psi.bisquare)
summary(ethnicityjs.bisquare)

# job tenure & organizational commitment
summary(rlm(OC ~ jobtenure, data = SEMData))
summary(rlm(OC ~ jobtenure, data = SEMData, psi = psi.bisquare))

# organizational tenure & organizational commitment
summary(rlm(OC ~ orgtenure, data = SEMData))
summary(rlm(OC ~ orgtenure, data = SEMData, psi = psi.bisquare))

# work experience & organizational commitment
summary(rlm(OC ~ workexp, data = SEMData))
summary(rlm(OC ~ workexp, data = SEMData, psi = psi.bisquare))

# gender & organizational commitment
genderoc.huber <- rlm(OC ~ gender, data = SEMData)
```

```
summary(genderoc.huber)
genderoc.bisquare <- rlm(OC ~ gender, data = SEMData, psi = psi.bisquare)
summary(genderoc.bisquare)

# age & organizational commitment
ageoc.huber <- rlm(OC ~ age, data = SEMData)
summary(ageoc.huber)
ageoc.bisquare <- rlm(OC ~ age, data = SEMData, psi = psi.bisquare)
summary(ageoc.bisquare)

# race & organizational commitment
summary(rlm(OC ~ black + ameindian + asian + pacific, data = SEMData))
summary(rlm(OC ~ black + ameindian + asian + pacific, data = SEMData, psi =
psi.bisquare))

# ethnicity & organizational commitment
summary(rlm(OC ~ ethnicity, data = SEMData))
summary(rlm(OC ~ ethnicity, data = SEMData, psi = psi.bisquare))

# race & turnover intention
summary(rlm(TO ~ black + ameindian + asian + pacific, data = SEMData))
summary(rlm(TO ~ black + ameindian + asian + pacific, data = SEMData, psi =
psi.bisquare))

# gender & turnover intention
summary(rlm(TO ~ gender, data = SEMData))
summary(rlm(TO ~ gender, data = SEMData, psi = psi.bisquare))

# ethnicity & turnover intention
summary(rlm(TO ~ ethnicity, data = SEMData))
summary(rlm(TO ~ ethnicity, data = SEMData, psi = psi.bisquare))

# job tenure & turnover intention
summary(rlm(TO ~ jobtenure, data = SEMData))
summary(rlm(TO ~ jobtenure, data = SEMData, psi = psi.bisquare))

# organizational tenure & turnover intention
summary(rlm(TO ~ orgtenure, data = SEMData))
summary(rlm(TO ~ orgtenure, data = SEMData, psi = psi.bisquare))

# age & turnover intention
summary(rlm(TO ~ age, data = SEMData))
summary(rlm(TO ~ age, data = SEMData, psi = psi.bisquare))

# work experience & turnover intention
summary(rlm(TO ~ workexp, data = SEMData))
```

```
summary(rlm(TO ~ workexp, data = SEMData, psi = psi.bisquare))

# previous layoff experience & trust in organization
summary(rlm(TIO ~ layoff, data = SEMData))
summary(rlm(TIO ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & trust in supervisor
summary(rlm(TIS ~ layoff, data = SEMData))
summary(rlm(TIS ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & distributive organizational justice
summary(rlm(DJ ~ layoff, data = SEMData))
summary(rlm(DJ ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & procedural organizational justice
summary(rlm(PJ ~ layoff, data = SEMData))
summary(rlm(PJ ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & interactional organizational justice
summary(rlm(IJ ~ layoff, data = SEMData))
summary(rlm(IJ ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & distributive external organizational justice
summary(rlm(EDJ ~ layoff, data = SEMData))
summary(rlm(EDJ ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & procedural external organizational justice
summary(rlm(EPJ ~ layoff, data = SEMData))
summary(rlm(EPJ ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & interactional external organizational justice
summary(rlm(EIJ ~ layoff, data = SEMData))
summary(rlm(EIJ ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & Organizational Commitment
summary(rlm(OC ~ layoff, data = SEMData))
summary(rlm(OC ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & job satisfaction
summary(rlm(JS ~ layoff, data = SEMData))
summary(rlm(JS ~ layoff, data = SEMData, psi = psi.bisquare))

# previous layoff experience & turnover intention
summary(rlm(TO ~ layoff, data = SEMData))
summary(rlm(TO ~ layoff, data = SEMData, psi = psi.bisquare))
```

Testing Univariate Outliers: SPSS Steps and Syntax and R Codes

SPSS Steps and Syntax

Step 1: Create z scores: Analyze > Descriptive Statistics > Descriptives > Save standardized values as variables

```
DESCRIPTIVES VARIABLES=PGD1 PGD2 PGD3 PGD4 DJ1 DJ2 DJ3 DJ4 DJ5 PJ1
PJ2 PJ3 PJ4 PJ5 PJ6 PJ7 IJ1 IJ2
   IJ3 IJ4 IJ5 IJ6 EDJ1 EDJ2 EDJ3 EDJ4 EPJ1 EPJ2 EPJ3 EPJ4 EIJ1 EIJ2 EIJ3 CSR1
CSR2 CSR3 CSR4 CSR5
   CSR6 CSR7 CSR8 CSR9 CSR10 TIS1 TIS2 TIS3 TIS4 TIS5 TIS6 TIS7 TIS8 TIO1
TIO2 TIO3 TIO4 TIO5 TIO6
   TIO7 JS1 JS2 JS3 JS4 JS5 JS6 JS7 JS8 OC1 OC2 OC3 OC4 OC5 OC6 OC7 TO1 TO2
TO3 jobtenure orgtenure
   workexp
 /SAVE
 /STATISTICS=MEAN STDDEV MIN MAX.
```

Step 2: Look for z scores with extreme values: Analyze > Descriptive Statistics > Descriptives

```
DESCRIPTIVES VARIABLES=ZPGD1 ZPGD2 ZPGD3 ZPGD4 ZDJ1 ZDJ2 ZDJ3
ZDJ4 ZDJ5 ZPJ1 ZPJ2 ZPJ3 ZPJ4 ZPJ5
   ZPJ6 ZPJ7 ZIJ1 ZIJ2 ZIJ3 ZIJ4 ZIJ5 ZIJ6 ZEDJ1 ZEDJ2 ZEDJ3 ZEDJ4 ZEPJ1
ZEPJ2 ZEPJ3 ZEPJ4 ZEIJ1 ZEIJ2
   ZEIJ3 ZCSR1 ZCSR2 ZCSR3 ZCSR4 ZCSR5 ZCSR6 ZCSR7 ZCSR8 ZCSR9
ZCSR10 ZTIS1 ZTIS2 ZTIS3 ZTIS4 ZTIS5
   ZTIS6 ZTIS7 ZTIS8 ZTIO1 ZTIO2 ZTIO3 ZTIO4 ZTIO5 ZTIO6 ZTIO7 ZJS1 ZJS2
ZJS3 ZJS4 ZJS5 ZJS6 ZJS7 ZJS8
   ZOC1 ZOC2 ZOC3 ZOC4 ZOC5 ZOC6 ZOC7 ZTO1 ZTO2 ZTO3 Zjobtenure
Zorgtenure Zworkexp
 /STATISTICS=MEAN STDDEV MIN MAX.
```

Step 3: Sort the scores in order if any extreme value is found in step 2

Testing Multivariate Outliers: SPSS Steps and Syntax and R Codes

SPSS Steps and Syntax

Step 1: Analyze>Regression>Linear>Save>Mahalanobis, Cook's, Leverage Values

```
# Create a random variable: Transform > Compute > Random Numbers
COMPUTE Random=RV.CHISQ(7).
EXECUTE.
# Enter all variables into Independents, and enter the random variable into Dependent
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Random
  /METHOD=ENTER PGD1 PGD2 PGD3 PGD4 DJ1 DJ2 DJ3 DJ4 DJ5 PJ1 PJ2 PJ3 PJ4
PJ5 PJ6 PJ7 IJ1 IJ2 IJ3 IJ4
    IJ5 IJ6 EDJ1 EDJ2 EDJ3 EDJ4 EPJ1 EPJ2 EPJ3 EPJ4 EIJ1 EIJ2 EIJ3 CSR1 CSR2
CSR3 CSR4 CSR5 CSR6 CSR7
    CSR8 CSR9 CSR10 TIS1 TIS2 TIS3 TIS4 TIS5 TIS6 TIS7 TIS8 TIO1 TIO2 TIO3
TIO4 TIO5 TIO6 TIO7 JS1 JS2
    JS3 JS4 JS5 JS6 JS7 JS8 OC1 OC2 OC3 OC4 OC5 OC6 OC7 TO1 TO2 TO3
  /SAVE MAHAL COOK LEVER.
```

Step 2: Check Chi Square table at *df* = 76 (the number entered into the dependent box), alpha < .001 for cutoff score using online Critical Chi-Square Value Calculator on https://www.danielsoper.com/statcalc/calculator.aspx?id=12, the maximum value of Mahalanobis' D should be smaller than the cut off score; Cook's maximum value should be less than 1.00; the maximum value of centered leverage value should be smaller than *3p/n* (*p* = number of variables = 76, *n* = sample size = 880).

Testing Normality: SPSS Steps and Syntax and R Codes

SPSS Steps and Syntax

Step 1: Analyze > Regression > Linear > Plots > Histogram, Normal probability plot

```
# Create a variable with random numbers
COMPUTE Random=RV.CHISQ(7).
EXECUTE.
# Enter all variables into Independents, and enter the random variable into Dependent
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Random
  /METHOD=ENTER PGD1 PGD2 PGD3 PGD4 DJ1 DJ2 DJ3 DJ4 DJ5 PJ1 PJ2 PJ3 PJ4
 PJ5 PJ6 PJ7 IJ1 IJ2 IJ3 IJ4
    IJ5 IJ6 CSR1 CSR2 CSR3 CSR4 CSR5 CSR6 CSR7 CSR8 CSR9 CSR10 EDJ1 EDJ2
3 EDJ4 EIJ1 EIJ2 EIJ3 EPJ1
    EPJ2 EPJ3 EPJ4 TIO1 TIO2 TIO3 TIO4 TIO5 TIO6 TIO7 TIS1 TIS2 TIS3 TIS4 TIS5
 TIS6 TIS7 TIS8 JS1 JS2
    JS3 JS4 JS5 JS6 JS7 JS8 TO1 TO2 TO3 OC1 OC2 OC3 OC4
    OC5 OC6 OC7
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).
```

Step 2: Check multivariate normality in Histogram to see whether it is distributed evenly between -2 and 2; if it is not normal, then go to check univariate normality for each variable.

Step 3: e.g. PGD variables

Analyze>Descriptive Statistics>Explore>Plots>Distribution: Histogram, Normality plots with tests

```
EXAMINE VARIABLES=PGD1 PGD2 PGD3 PGD4
  /PLOT BOXPLOT HISTOGRAM NPPLOT
  /COMPARE VARIABLES
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.
```

Step 4: Check kurtosis, Skewness, Test of Normality, Histogram, Normal Q-Q Plot, and Boxplot

Testing Linearity: SPSS Steps and Syntax and R Codes

SPSS Steps and Syntax

Step 1: Analyze>Regression>Linear>Plots> Y: ZRESID; X: ZPRED

```
# Create a variable with random numbers
COMPUTE Random=RV.CHISQ(7).
EXECUTE.
# Enter all variables into Independents, and enter the random variable into Dependent
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Random
  /METHOD=ENTER PGD1 PGD2 PGD3 PGD4 DJ1 DJ2 DJ3 DJ4 DJ5 PJ1 PJ2 PJ3 PJ4
PJ5 PJ6 PJ7 IJ1 IJ2 IJ3 IJ4
    IJ5 IJ6 EDJ1 EDJ2 EDJ3 EDJ4 EPJ1 EPJ2 EPJ3 EPJ4 EIJ1 EIJ2 EIJ3 CSR1 CSR2
CSR3 CSR4 CSR5 CSR6 CSR7
    CSR8 CSR9 CSR10 TIS1 TIS2 TIS3 TIS4 TIS5 TIS6 TIS7 TIS8 TIO1 TIO2 TIO3
TIO4 TIO5 TIO6 TIO7 JS1 JS2
    JS3 JS4 JS5 JS6 JS7 JS8 OC1 OC2 OC3 OC4 OC5 OC6 OC7 TO1 TO2 TO3
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).
```

Step 2: Check Normal P-P Plot

or

Scatterplot: e.g., between PGD1 and PGD2
Graphs > Legacy Dialogs > Scatter/Dot > Simple Scatter

```
GRAPH
  /SCATTERPLOT(BIVAR)=PGD2 WITH PGD1
  /MISSING=LISTWISE.
```

Testing Homoscedasticity: SPSS Steps and Syntax and R Codes

SPSS Steps and Syntax
e.g., between PGD1 and PGD2

Step 1: Analyze>Regression>Linear>Plots> Y: ZRESID; X: ZPRED

```
# Create a variable with random numbers
COMPUTE Random=RV.CHISQ(7).
EXECUTE.
# Enter all variables into Independents, and enter the random variable into Dependent
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Random
  /METHOD=ENTER PGD1 PGD2 PGD3 PGD4 DJ1 DJ2 DJ3 DJ4 DJ5 PJ1 PJ2 PJ3
PJ4 PJ5 PJ6 PJ7 IJ1 IJ2 IJ3 IJ4
    IJ5 IJ6 EDJ1 EDJ2 EDJ3 EDJ4 EPJ1 EPJ2 EPJ3 EPJ4 EIJ1 EIJ2 EIJ3 CSR1 CSR2
CSR3 CSR4 CSR5 CSR6 CSR7
    CSR8 CSR9 CSR10 TIS1 TIS2 TIS3 TIS4 TIS5 TIS6 TIS7 TIS8 TIO1 TIO2 TIO3
TIO4 TIO5 TIO6 TIO7 JS1 JS2
    JS3 JS4 JS5 JS6 JS7 JS8 OC1 OC2 OC3 OC4 OC5 OC6 OC7 TO1 TO2 TO3
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).
```

Step 2: Check scatterplot in the output to see whether scores are spread like in a circle.

Testing Multicollinearity/Singularity: SPSS Steps and Syntax and R Codes

SPSS Steps and Syntax

Step 1: Analyze>Regression>Linear>Statistics>Collinearity diagnostics

```
# Create a random variable: Transform > Compute > Random Numbers
COMPUTE Random=RV.CHISQ(7).
EXECUTE.
# Enter all variables into Independents, and enter the random variable into Dependent
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Random
  /METHOD=ENTER PGD1 PGD2 PGD3 PGD4 DJ1 DJ2 DJ3 DJ4 DJ5 PJ1 PJ2 PJ3 PJ4
PJ5 PJ6 PJ7 IJ1 IJ2 IJ3 IJ4 IJ5
    IJ6 EDJ1 EDJ2 EDJ3 EDJ4 EPJ1 EPJ2 EPJ3 EPJ4 EIJ1 EIJ2 EIJ3 CSR1 CSR2 CSR3
CSR4 CSR5 CSR6 CSR7 CSR8
    CSR9 CSR10 TIS1 TIS2 TIS3 TIS4 TIS5 TIS6 TIS7 TIS8 TIO1 TIO2 TIO3 TIO4
TIO5 TIO6 TIO7 JS1 JS2 JS3
    JS4 JS5 JS6 JS7 JS8 OC1 OC2 OC3 OC4 OC5 OC6 OC7 TO1 TO2 TO3.
```

Step 2: Check VIF and Tolerance

SEM R Codes and Outputs

```
# use lavaan package (Rosseel, 2012)
install.packages("lavaan")
library(lavaan)

# read in the dataset
SEMData <- read.csv("SEMData.csv", header = TRUE)
# check data
head(SEMData)
View(SEMData)
# attach the dataset
attach(SEMData)

# change maximum of print
options(max.print=1000000)

# CFAs
model1 <- '
PGD =~ PGD1+PGD2+PGD3+PGD4
DJ =~ DJ1+DJ2+DJ3+DJ4+DJ5
PJ =~ PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7
IJ =~ IJ1+IJ2+IJ3+IJ4+IJ5+IJ6
CSR =~ CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EDJ =~ EDJ1+EDJ3+EDJ4
EPJ =~ EPJ1+EPJ2+EPJ3+EPJ4
EIJ =~ EIJ1+EIJ2+EIJ3
TIO =~ TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
OC =~ OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ TO1+TO2+TO3'
fit1 <- cfa(model1, data = SEMData, test = "Satorra-Bentler")
summary(fit1, fit.measures = TRUE)
round(fitmeasures(fit1)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "cfi.robust",
"tli.robust", "rmsea.robust","srmr_bentler")], 3)
chisq.scaled     df.scaled pvalue.scaled    cfi.robust    tli.robust  rmsea.robust  srmr_bentler
    7462.553      2622.000         0.000         0.908         0.903         0.054         0.054

model2 <- '
PGD =~ PGD1+PGD2+PGD3+PGD4
OJ =~
1*DJ1+DJ2+DJ3+DJ4+DJ5+PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7+IJ1+IJ2+IJ3+IJ4+IJ5+IJ
6
CSR =~ CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EDJ =~ EDJ1+EDJ3+EDJ4
```

```
EPJ =~ EPJ1+EPJ2+EPJ3+EPJ4
EIJ =~ EIJ1+EIJ2+EIJ3
TIO =~ TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
OC =~ OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ TO1+TO2+TO3'
fit2 <- cfa(model2, data = SEMData, test = "Satorra-Bentler")
summary(fit2, fit.measures = TRUE)
round(fitmeasures(fit2)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "cfi.robust",
"tli.robust", "rmsea.robust","srmr_bentler")], 3)
chisq.scaled     df.scaled pvalue.scaled    cfi.robust    tli.robust  rmsea.robust  srmr_bentler
   10746.700      2645.000         0.000         0.847         0.839         0.069         0.061

#compare model 1 and 2
anova(fit1, fit2, method = "satorra.bentler.2001")

      Df    AIC    BIC Chisq Chisq diff Df diff Pr(>Chisq)
fit1 2622 184985 186075 10255
fit2 2645 189455 190435 14771     3205.5      23  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

model3 <- '
PGD =~ PGD1+PGD2+PGD3+PGD4
DJ =~ DJ1+DJ2+DJ3+DJ4+DJ5
PJ =~ PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7
IJ =~ IJ1+IJ2+IJ3+IJ4+IJ5+IJ6
CSR =~ CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EJ =~ EDJ1+EDJ3+EDJ4+EPJ1+EPJ2+EPJ3+EPJ4+EIJ1+EIJ2+EIJ3
TIO =~ TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
OC =~ OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ TO1+TO2+TO3'
fit3 <- cfa(model3, data = SEMData, test = "Satorra-Bentler")
summary(fit3, fit.measures = TRUE)
round(fitmeasures(fit3)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "cfi.robust",
"tli.robust", "rmsea.robust","srmr_bentler")], 3)
chisq.scaled     df.scaled pvalue.scaled    cfi.robust    tli.robust  rmsea.robust  srmr_bentler
    8366.191      2645.000         0.000         0.892         0.887         0.058         0.054

#compare model 1 and 3
anova(fit1, fit3, method = "satorra.bentler.2001")
Scaled Chi-Squared Difference Test (method = “satorra.bentler.2001”)
```

```
      Df    AIC    BIC Chisq Chisq diff Df diff Pr(>Chisq)
fit1 2622 184985 186075 10255
fit3 2645 186147 187127 11463     1328.6      23  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

## Hypothesis testing
# h3 OJ-TIO-JS
# DJ
modelh3DJ <- '
# direct effect
JS ~ c*DJ
# mediator
TIO ~ a*DJ
JS ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
DJ ~~ DJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
JS ~~ JS
'
fith3DJ <- lavaan(modelh3DJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith3DJ) # 95% CI

# PJ
modelh3PJ <- '
# direct effect
JS ~ c*PJ
# mediator
TIO ~ a*PJ
JS ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
PJ ~~ PJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
JS ~~ JS
'
fith3PJ <- lavaan(modelh3PJ, data = SEMData, se = "bootstrap")
```

```
parameterEstimates(fith3PJ) # 95% CI

# IJ
modelh3IJ <- '
# direct effect
JS ~ c*IJ
# mediator
TIO ~ a*IJ
JS ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
IJ ~~ IJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
JS ~~ JS
'
fith3IJ <- lavaan(modelh3IJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith3IJ) # 95% CI

# h4 OJ-TIO-OC
# DJ
modelh4DJ <- '
# direct effect
OC ~ c*DJ
# mediator
TIO ~ a*DJ
OC ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
DJ ~~ DJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
OC ~~ OC
'
fith4DJ <- lavaan(modelh4DJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith4DJ) # 95% CI

 # PJ
modelh4PJ <- '
# direct effect
```

```
OC ~ c*PJ
# mediator
TIO ~ a*PJ
OC ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
PJ ~~ PJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
OC ~~ OC
'
fith4PJ <- lavaan(modelh4PJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith4PJ) # 95% CI

# IJ
modelh4IJ <- '
# direct effect
OC ~ c*IJ
# mediator
TIO ~ a*IJ
OC ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
IJ ~~ IJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
OC ~~ OC
'
fith4IJ <- lavaan(modelh4IJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith4IJ) # 95% CI

# h7 EJ-TIO-JS
# EDJ
modelh7EDJ <- '
# direct effect
JS ~ c*EDJ
# mediator
TIO ~ a*EDJ
JS ~ b*TIO
# indirect effect (a*b)
```

```
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
EDJ ~~ EDJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
JS ~~ JS
'
fith7EDJ <- lavaan(modelh7EDJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith7EDJ) # 95% CI

# EPJ
modelh7EPJ <- '
# direct effect
JS ~ c*EPJ
# mediator
TIO ~ a*EPJ
JS ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
EPJ ~~ EPJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
JS ~~ JS
'
fith7EPJ <- lavaan(modelh7EPJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith7EPJ) # 95% CI


# EIJ
modelh7EIJ <- '
# direct effect
JS ~ c*EIJ
# mediator
TIO ~ a*EIJ
JS ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
EIJ ~~ EIJ
```

```
# estimate the residual variances of endogenous variables
TIO ~~ TIO
JS ~~ JS
'
fith7EIJ <- lavaan(modelh7EIJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith7EIJ) # 95% CI

# h8 EJ-TIO-OC
# EDJ
modelh8EDJ <- '
# direct effect
OC ~ c*EDJ
# mediator
TIO ~ a*EDJ
OC ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
EDJ ~~ EDJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
OC ~~ OC
'
fith8EDJ <- lavaan(modelh8EDJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith8EDJ) # 95% CI

# EPJ
modelh8EPJ <- '
# direct effect
OC ~ c*EPJ
# mediator
TIO ~ a*EPJ
OC ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
EPJ ~~ EPJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
OC ~~ OC
'
fith8EPJ <- lavaan(modelh8EPJ, data = SEMData, se = "bootstrap")
```

```
parameterEstimates(fith8EPJ) # 95% CI

# EIJ
modelh8EIJ <- '
# direct effect
OC ~ c*EIJ
# mediator
TIO ~ a*EIJ
OC ~ b*TIO
# indirect effect (a*b)
ab := a*b
# total effect
total := c + (a*b)
# estimate the variances of exogenous variables
EIJ ~~ EIJ
# estimate the residual variances of endogenous variables
TIO ~~ TIO
OC ~~ OC
'
fith8EIJ <- lavaan(modelh8EIJ, data = SEMData, se = "bootstrap")
parameterEstimates(fith8EIJ) # 95% CI

#H12 model 1: proposed model 1
# control variables
SEMData$female <- as.numeric(SEMData$gender == 2)
SEMData$layoffyes<- as.numeric(SEMData$layoff == 1)
SEMData$ameindianyes<- as.numeric(SEMData$ameindian == 1)
SEMData$blackyes<- as.numeric(SEMData$black == 1)
SEMData$asianyes<- as.numeric(SEMData$asian == 1)
SEMData$pacificyes<- as.numeric(SEMData$pacific == 1)
SEMData$workstatus<- as.numeric(SEMData$current.last == 1)
SEMData$fullhalf<- as.numeric(SEMData$full.half == 1)

SEM.model1 <- '
# latent variables
PGD =~ 1*PGD1+PGD2+PGD3+PGD4
DJ =~ 1*DJ1+DJ2+DJ3+DJ4+DJ5
PJ =~ 1*PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7
IJ =~ 1*IJ1+IJ2+IJ3+IJ4+IJ5+IJ6
CSR =~ 1*CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EDJ =~ 1*EDJ1+EDJ3+EDJ4
EPJ =~ 1*EPJ1+EPJ2+EPJ3+EPJ4
EIJ =~ 1*EIJ1+EIJ2+EIJ3
TIO =~ 1*TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ 1*TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ 1*JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
```

```
OC =~ 1*OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ 1*TO1+TO2+TO3
# Regressions
DJ ~ PGD + layoffyes + workstatus
PJ ~ PGD + workstatus
IJ ~ PGD + layoffyes + workstatus
EDJ ~ CSR + workstatus
EPJ ~ CSR + workstatus
EIJ ~ CSR + layoffyes +workstatus
TIO ~ DJ + PJ + IJ + EDJ + EPJ + EIJ + female + blackyes + ameindianyes + asianyes +
pacificyes + layoffyes + workstatus
TIS ~ IJ + blackyes + ameindianyes + asianyes + pacificyes + layoffyes +workstatus
JS ~ TIO + female + jobtenure + orgtenure + layoffyes +workstatus
OC ~ TIO + jobtenure + orgtenure + workexp + workstatus
TO ~ JS + OC + blackyes + ameindianyes + asianyes + pacificyes + jobtenure +
orgtenure + layoffyes + workstatus
# estimate the covariances of exogenous variables
PGD ~~ CSR
'
fit1 <- lavaan(SEM.model1, data = SEMData, auto.var = TRUE, se = "robust", test =
"Satorra-Bentler")
# check fit measures
round(fitmeasures(fit1)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "cfi.robust",
"tli.robust", "rmsea.robust","srmr_bentler")], 3)

# H13
# model 2: alternative model
SEM.model2 <- '
# latent variables
PGD =~ 1*PGD1+PGD2+PGD3+PGD4
DJ =~ 1*DJ1+DJ2+DJ3+DJ4+DJ5
PJ =~ 1*PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7
IJ =~ 1*IJ1+IJ2+IJ3+IJ4+IJ5+IJ6
CSR =~ 1*CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EDJ =~ 1*EDJ1+EDJ3+EDJ4
EPJ =~ 1*EPJ1+EPJ2+EPJ3+EPJ4
EIJ =~ 1*EIJ1+EIJ2+EIJ3
TIO =~ 1*TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ 1*TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ 1*JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
OC =~ 1*OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ 1*TO1+TO2+TO3
# Regressions
DJ ~ PGD + layoffyes
PJ ~ PGD
IJ ~ PGD + layoffyes
```

```
EDJ ~ CSR
EPJ ~ CSR
EIJ ~ CSR + layoffyes
TIO ~ DJ + PJ + IJ + EDJ + EPJ + EIJ + female + blackyes + ameindianyes + asianyes +
pacificyes + layoffyes
TIS ~ IJ + blackyes + ameindianyes + asianyes + pacificyes + layoffyes
JS ~ TIO + TIS + female + jobtenure + orgtenure + layoffyes
OC ~ TIO + TIS + jobtenure + orgtenure + workexp
TO ~ JS + OC + blackyes + ameindianyes + asianyes + pacificyes + jobtenure +
orgtenure + layoffyes
# estimate the covariances of exogenous variables
PGD ~~ CSR
'
fit2 <- lavaan(SEM.model2, data = SEMData, auto.var = TRUE, se = "robust", test =
"Satorra-Bentler")
# check fit measures
round(fitmeasures(fit2)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "cfi.robust",
"tli.robust", "rmsea.robust","srmr_bentler")], 3)

SEM.model3 <- '
# latent variables
PGD =~ 1*PGD1+PGD2+PGD3+PGD4
DJ =~ 1*DJ1+DJ2+DJ3+DJ4+DJ5
PJ =~ 1*PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7
IJ =~ 1*IJ1+IJ2+IJ3+IJ4+IJ5+IJ6
CSR =~ 1*CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EDJ =~ 1*EDJ1+EDJ3+EDJ4
EPJ =~ 1*EPJ1+EPJ2+EPJ3+EPJ4
EIJ =~ 1*EIJ1+EIJ2+EIJ3
TIO =~ 1*TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ 1*TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ 1*JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
OC =~ 1*OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ 1*TO1+TO2+TO3
# Regressions
DJ ~ PGD + layoffyes + CSR + PJ + IJ
PJ ~ PGD + CSR
IJ ~ PGD + layoffyes + CSR
EDJ ~ CSR + PGD + EPJ + EIJ
EPJ ~ CSR + PGD
EIJ ~ CSR + layoffyes + PGD
TIO ~ PGD + DJ + PJ + IJ + EDJ + EPJ + EIJ + female + blackyes + ameindianyes +
asianyes + pacificyes + layoffyes
TIS ~ PGD + IJ + blackyes + ameindianyes + asianyes + pacificyes + layoffyes
JS ~ TIO + TIS + female + jobtenure + orgtenure + layoffyes + PGD + DJ + PJ +IJ +
EDJ + EPJ + EIJ + OC
```

```
OC ~ TIO + TIS + jobtenure + orgtenure + workexp + PGD + DJ + PJ +IJ + EDJ + EPJ +
EIJ
TO ~ JS + OC + blackyes + ameindianyes + asianyes + pacificyes + jobtenure +
orgtenure + layoffyes + PGD
# factor covariance
PGD ~~ CSR
'
fit3 <- lavaan(SEM.model3, data = SEMData, auto.var = TRUE, se = "robust", test =
"Satorra-Bentler")
round(fitmeasures(fit3)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "cfi.robust",
"tli.robust", "rmsea.robust","srmr_bentler")], 3)
summary(fit3, standardized = TRUE, fit.measures = TRUE)
```

Regressions:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
DJ ~						
PGD	0.013	0.029	0.448	0.654	0.014	0.014
layoffyes	-0.096	0.074	-1.299	0.194	-0.066	-0.033
CSR	-0.141	0.196	-0.719	0.472	-0.061	-0.061
PJ	0.526	0.065	8.043	0.000	0.432	0.432
IJ	0.463	0.072	6.402	0.000	0.413	0.413
PJ ~						
PGD	-0.070	0.021	-3.323	0.001	-0.091	-0.091
CSR	1.438	0.131	10.966	0.000	0.760	0.760
IJ ~						
PGD	-0.155	0.024	-6.516	0.000	-0.186	-0.186
layoffyes	-0.085	0.056	-1.514	0.130	-0.066	-0.033
CSR	1.581	0.144	10.999	0.000	0.768	0.768
EDJ ~						
CSR	0.173	0.224	0.773	0.440	0.082	0.082
PGD	0.061	0.017	3.687	0.000	0.071	0.071
EPJ	0.866	0.065	13.259	0.000	0.858	0.858
EIJ	-0.017	0.060	-0.275	0.784	-0.017	-0.017
EPJ ~						
CSR	1.840	0.163	11.274	0.000	0.878	0.878
PGD	-0.041	0.022	-1.856	0.063	-0.049	-0.049
EIJ ~						
CSR	1.914	0.165	11.593	0.000	0.861	0.861
layoffyes	-0.113	0.054	-2.083	0.037	-0.080	-0.040
PGD	-0.063	0.025	-2.477	0.013	-0.069	-0.069
TIO ~						
PGD	-0.029	0.020	-1.440	0.150	-0.034	-0.034
DJ	0.029	0.026	1.114	0.265	0.032	0.032
PJ	0.026	0.039	0.657	0.511	0.023	0.023
IJ	0.733	0.052	14.025	0.000	0.717	0.717
EDJ	0.060	0.049	1.217	0.223	0.060	0.060

EPJ	-0.074	0.059	-1.247	0.213	-0.073	-0.073
EIJ	0.190	0.033	5.779	0.000	0.200	0.200
female	-0.122	0.046	-2.667	0.008	-0.091	-0.046
blackyes	-0.033	0.081	-0.410	0.682	-0.025	-0.007
ameindianyes	-0.007	0.162	-0.044	0.965	-0.005	-0.001
asianyes	0.051	0.089	0.575	0.566	0.038	0.009
pacificyes	-0.634	0.956	-0.662	0.508	-0.474	-0.023
layoffyes	0.003	0.049	0.059	0.953	0.002	0.001
TIS ~						
PGD	0.001	0.025	0.058	0.954	0.002	0.002
IJ	0.783	0.043	18.286	0.000	0.756	0.756
blackyes	-0.102	0.124	-0.827	0.408	-0.076	-0.021
ameindianyes	-0.177	0.190	-0.932	0.352	-0.131	-0.019
asianyes	0.063	0.112	0.561	0.575	0.046	0.011
pacificyes	0.601	0.232	2.589	0.010	0.445	0.021
layoffyes	-0.024	0.066	-0.360	0.719	-0.018	-0.009
JS ~						
TIO	0.237	0.065	3.629	0.000	0.262	0.262
TIS	0.107	0.031	3.477	0.001	0.120	0.120
female	-0.057	0.045	-1.268	0.205	-0.047	-0.024
jobtenure	-0.002	0.004	-0.394	0.694	-0.001	-0.011
orgtenure	0.001	0.004	0.275	0.783	0.001	0.007
layoffyes	0.007	0.045	0.167	0.867	0.006	0.003
PGD	-0.046	0.018	-2.592	0.010	-0.060	-0.060
DJ	0.083	0.027	3.058	0.002	0.101	0.101
PJ	0.009	0.035	0.268	0.788	0.009	0.009
IJ	0.062	0.070	0.883	0.377	0.067	0.067
EDJ	0.067	0.045	1.476	0.140	0.074	0.074
EPJ	-0.041	0.053	-0.782	0.434	-0.045	-0.045
EIJ	-0.019	0.029	-0.657	0.511	-0.023	-0.023
OC	0.378	0.041	9.166	0.000	0.437	0.437
OC ~						
TIO	0.513	0.102	5.020	0.000	0.489	0.489
TIS	-0.035	0.044	-0.786	0.432	-0.033	-0.033
jobtenure	0.021	0.007	2.994	0.003	0.015	0.120
orgtenure	0.001	0.007	0.167	0.867	0.001	0.007
workexp	0.004	0.003	1.549	0.121	0.003	0.042
PGD	0.138	0.025	5.504	0.000	0.154	0.154
DJ	0.109	0.037	2.971	0.003	0.114	0.114
PJ	-0.002	0.054	-0.040	0.968	-0.002	-0.002
IJ	0.131	0.120	1.089	0.276	0.122	0.122
EDJ	-0.105	0.062	-1.679	0.093	-0.100	-0.100
EPJ	0.175	0.077	2.268	0.023	0.166	0.166
EIJ	0.119	0.048	2.501	0.012	0.120	0.120
TO ~						
JS	-0.434	0.076	-5.696	0.000	-0.342	-0.342

```
    OC             -0.528    0.067   -7.868    0.000   -0.481   -0.481
    blackyes        0.351    0.155    2.266    0.023    0.228    0.063
    ameindianyes   -0.271    0.194   -1.396    0.163   -0.176   -0.025
    asianyes        0.200    0.158    1.268    0.205    0.130    0.030
    pacificyes      0.084    0.361    0.232    0.817    0.054    0.003
    jobtenure       0.010    0.008    1.211    0.226    0.006    0.050
    orgtenure      -0.013    0.007   -1.812    0.070   -0.009   -0.073
    layoffyes       0.063    0.075    0.841    0.400    0.041    0.020
    PGD            -0.001    0.025   -0.030    0.976   -0.001   -0.001
```

```
# model 4: delete nonsignificant and OC-PGD paths from model3 add correlated errors
SEM.model4 <- '
# latent variables
PGD =~ 1*PGD1+PGD2+PGD3+PGD4
DJ =~ 1*DJ1+DJ2+DJ3+DJ4+DJ5
PJ =~ 1*PJ1+PJ2+PJ3+PJ4+PJ5+PJ6+PJ7
IJ =~ 1*IJ1+IJ2+IJ3+IJ4+IJ5+IJ6
CSR =~ 1*CSR1+CSR2+CSR3+CSR4+CSR5+CSR6+CSR7+CSR8+CSR9+CSR10
EDJ =~ 1*EDJ1+EDJ3+EDJ4
EPJ =~ 1*EPJ1+EPJ2+EPJ3+EPJ4
EIJ =~ 1*EIJ1+EIJ2+EIJ3
TIO =~ 1*TIO1+TIO2+TIO3+TIO4+TIO5+TIO6+TIO7
TIS =~ 1*TIS1+TIS2+TIS3+TIS4+TIS5+TIS6+TIS7+TIS8
JS =~ 1*JS1+JS2+JS3+JS4+JS5+JS6+JS7+JS8
OC =~ 1*OC1+OC2+OC3+OC4+OC5+OC6+OC7
TO =~ 1*TO1+TO2+TO3
# Regressions
DJ ~ PJ + IJ
PJ ~ PGD + CSR
IJ ~ PGD + CSR
EDJ ~ EPJ
EPJ ~ CSR
EIJ ~ CSR + PGD
TIO ~ IJ + EIJ + female
TIS ~ IJ
JS ~ TIO + TIS + OC + PGD + DJ
OC ~ TIO + jobtenure + DJ
TO ~ JS + OC + blackyes + ameindianyes + asianyes + pacificyes
# estimate the covariances of exogenous variables
PGD ~~ CSR
# correlate errors
PGD2 ~~ TIO3
PGD4 ~~ TIO6 + EPJ1
JS2 ~~   JS4 + JS8
JS4 ~~   JS8
TO1 ~~   TO2
```

```
OC1 ~~  OC2
OC5 ~~  OC3
TIO5 ~~ TIO6
TIO1 ~~ TIO5 + TIO6
CSR1 ~~ CSR2
CSR3 ~~ CSR4
CSR6 ~~ CSR7
CSR9 ~~ CSR10
'

fit4 <- lavaan(SEM.model4, data = SEMData, auto.var = TRUE, se = "robust", test =
"Satorra-Bentler")
round(fitmeasures(fit4)[c("chisq.scaled", "df.scaled", "pvalue.scaled", "pvalue.scaled",
"cfi.robust", "tli.robust", "rmsea.robust","srmr_bentler")], 3)
chisq.scaled     df.scaled pvalue.scaled pvalue.scaled    cfi.robust    tli.robust
rmsea.robust  srmr_bentler
    6849.473      3105.000         0.000         0.000         0.933         0.930         0.042
0.060

summary(fit4, standardized = TRUE, fit.measures = TRUE, rsquare = TRUE)
chisq.scaled     df.scaled pvalue.scaled pvalue.scaled    cfi.robust    tli.robust
rmsea.robust
lavaan 0.6-5 ended normally after 135 iterations

  Estimator                                         ML
  Optimization method                           NLMINB
  Number of free parameters                        195

  Number of observations                           880

Model Test User Model:
                                              Standard      Robust
  Test Statistic                             9016.215    6849.473
  Degrees of freedom                             3105        3105
  P-value (Chi-square)                          0.000       0.000
  Scaling correction factor                                 1.316
    for the Satorra-Bentler correction

Model Test Baseline Model:

  Test statistic                            77339.232   57977.852
  Degrees of freedom                             3225        3225
  P-value                                       0.000       0.000
  Scaling correction factor                                 1.334

User Model versus Baseline Model:
```

```
  Comparative Fit Index (CFI)                    0.920       0.932
  Tucker-Lewis Index (TLI)                       0.917       0.929

  Robust Comparative Fit Index (CFI)                         0.933
  Robust Tucker-Lewis Index (TLI)                            0.930
```

Loglikelihood and Information Criteria:

```
  Loglikelihood user model (H0)              -91272.335  -91272.335
  Loglikelihood unrestricted model (H1)      -86764.227  -86764.227

  Akaike (AIC)                               182934.669  182934.669
  Bayesian (BIC)                             183866.754  183866.754
  Sample-size adjusted Bayesian (BIC)        183247.476  183247.476
```

Root Mean Square Error of Approximation:

```
  RMSEA                                          0.047       0.037
  90 Percent confidence interval - lower         0.045       0.036
  90 Percent confidence interval - upper         0.048       0.038
  P-value RMSEA <= 0.05                          1.000       1.000

  Robust RMSEA                                               0.042
  90 Percent confidence interval - lower                     0.041
  90 Percent confidence interval - upper                     0.044
```

Standardized Root Mean Square Residual:

```
  SRMR                                           0.060       0.060
```

Parameter Estimates:

```
  Information                                 Expected
  Information saturated (h1) model          Structured
  Standard errors                           Robust.sem
```

Latent Variables:

```
                   Estimate  Std.Err  z-value  P(>|z|)   Std.lv  Std.all
  PGD =~
    PGD1              1.000                               1.564    0.923
    PGD2              0.936    0.026   36.580    0.000    1.464    0.921
    PGD3              0.924    0.032   28.599    0.000    1.444    0.826
    PGD4              0.825    0.032   25.831    0.000    1.290    0.855
  DJ =~
    DJ1               1.000                               1.463    0.920
```

DJ2	1.051	0.021	50.946	0.000	1.537	0.900
DJ3	1.134	0.023	50.284	0.000	1.660	0.945
DJ4	1.131	0.022	52.115	0.000	1.655	0.951
DJ5	0.992	0.027	36.244	0.000	1.452	0.823
PJ =~						
PJ1	1.000			1.198	0.772	
PJ2	1.176	0.041	28.904	0.000	1.408	0.866
PJ3	1.166	0.042	27.443	0.000	1.397	0.869
PJ4	1.119	0.042	26.934	0.000	1.341	0.857
PJ5	1.262	0.046	27.263	0.000	1.512	0.907
PJ6	1.244	0.045	27.678	0.000	1.490	0.904
PJ7	1.176	0.045	26.307	0.000	1.408	0.883
IJ =~						
IJ1	1.000			1.307	0.808	
IJ2	0.873	0.035	24.608	0.000	1.142	0.736
IJ3	0.962	0.035	27.556	0.000	1.258	0.788
IJ4	0.980	0.032	30.306	0.000	1.281	0.883
IJ5	1.091	0.033	33.312	0.000	1.427	0.916
IJ6	1.067	0.033	32.544	0.000	1.395	0.917
CSR =~						
CSR1	1.000			0.591	0.409	
CSR2	1.189	0.101	11.740	0.000	0.703	0.478
CSR3	1.089	0.109	9.960	0.000	0.644	0.571
CSR4	1.351	0.129	10.498	0.000	0.799	0.629
CSR5	1.907	0.181	10.517	0.000	1.128	0.720
CSR6	1.798	0.181	9.905	0.000	1.063	0.600
CSR7	1.702	0.170	10.028	0.000	1.006	0.585
CSR8	1.953	0.190	10.286	0.000	1.155	0.671
CSR9	1.798	0.166	10.812	0.000	1.063	0.626
CSR10	2.003	0.192	10.429	0.000	1.185	0.712
EDJ =~						
EDJ1	1.000			1.338	0.933	
EDJ3	1.046	0.016	64.844	0.000	1.400	0.946
EDJ4	0.994	0.024	41.747	0.000	1.330	0.877
EPJ =~						
EPJ1	1.000			1.330	0.905	
EPJ2	1.036	0.020	51.045	0.000	1.378	0.934
EPJ3	1.055	0.022	48.541	0.000	1.404	0.942
EPJ4	1.051	0.023	45.100	0.000	1.398	0.919
EIJ =~						
EIJ1	1.000			1.414	0.917	
EIJ2	1.062	0.024	43.765	0.000	1.502	0.946
EIJ3	1.064	0.021	50.624	0.000	1.504	0.957
TIO =~						
TIO1	1.000			1.275	0.649	
TIO2	1.166	0.056	20.981	0.000	1.486	0.880

TIO3	1.189	0.057	20.695	0.000	1.515	0.927
TIO4	1.030	0.054	19.195	0.000	1.313	0.881
TIO5	0.853	0.038	22.167	0.000	1.087	0.573
TIO6	0.903	0.044	20.574	0.000	1.151	0.583
TIO7	0.912	0.056	16.228	0.000	1.163	0.772
TIS =~						
TIS1	1.000			1.355	0.910	
TIS2	0.983	0.019	52.698	0.000	1.331	0.924
TIS3	0.939	0.024	39.384	0.000	1.272	0.889
TIS4	0.986	0.020	49.872	0.000	1.336	0.912
TIS5	0.981	0.019	50.542	0.000	1.328	0.932
TIS6	0.988	0.023	43.618	0.000	1.339	0.910
TIS7	0.995	0.021	48.366	0.000	1.348	0.912
TIS8	1.029	0.019	53.142	0.000	1.394	0.936
JS =~						
JS1	1.000			1.208	0.851	
JS2	0.974	0.043	22.573	0.000	1.177	0.651
JS3	0.992	0.035	28.023	0.000	1.198	0.773
JS4	0.901	0.043	20.804	0.000	1.088	0.643
JS5	1.127	0.041	27.519	0.000	1.362	0.846
JS6	1.285	0.042	30.398	0.000	1.552	0.906
JS7	1.183	0.040	29.632	0.000	1.429	0.888
JS8	1.021	0.043	23.888	0.000	1.234	0.675
OC =~						
OC1	1.000			1.340	0.708	
OC2	1.256	0.036	34.505	0.000	1.682	0.873
OC3	1.125	0.040	28.234	0.000	1.508	0.818
OC4	1.048	0.045	23.164	0.000	1.404	0.862
OC5	0.819	0.048	16.927	0.000	1.097	0.700
OC6	1.322	0.045	29.254	0.000	1.771	0.912
OC7	1.222	0.045	27.267	0.000	1.637	0.933
TO =~						
TO1	1.000			1.320	0.657	
TO2	1.210	0.051	23.872	0.000	1.597	0.817
TO3	0.607	0.065	9.311	0.000	0.801	0.412

Regressions:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
DJ ~						
PJ	0.492	0.044	11.234	0.000	0.403	0.403
IJ	0.429	0.038	11.190	0.000	0.384	0.384
PJ ~						
PGD	-0.059	0.020	-2.898	0.004	-0.076	-0.076
CSR	1.531	0.147	10.398	0.000	0.756	0.756
IJ ~						
PGD	-0.143	0.022	-6.586	0.000	-0.171	-0.171

CSR	1.689	0.163	10.344	0.000	0.764	0.764
EDJ ~						
EPJ	0.906	0.023	38.976	0.000	0.900	0.900
EPJ ~						
CSR	2.077	0.195	10.664	0.000	0.924	0.924
EIJ ~						
CSR	2.158	0.197	10.934	0.000	0.903	0.903
PGD	-0.037	0.018	-2.008	0.045	-0.041	-0.041
TIO ~						
IJ	0.730	0.049	14.912	0.000	0.749	0.749
EIJ	0.191	0.034	5.626	0.000	0.212	0.212
female	-0.120	0.042	-2.843	0.004	-0.094	-0.047
TIS ~						
IJ	0.785	0.042	18.905	0.000	0.757	0.757
JS ~						
TIO	0.237	0.045	5.234	0.000	0.250	0.250
TIS	0.127	0.026	4.854	0.000	0.143	0.143
OC	0.434	0.042	10.280	0.000	0.482	0.482
PGD	-0.032	0.016	-1.973	0.048	-0.041	-0.041
DJ	0.110	0.024	4.481	0.000	0.133	0.133
OC ~						
TIO	0.708	0.052	13.559	0.000	0.674	0.674
jobtenure	0.024	0.004	5.460	0.000	0.018	0.141
DJ	0.121	0.034	3.514	0.000	0.132	0.132
TO ~						
JS	-0.455	0.075	-6.073	0.000	-0.416	-0.416
OC	-0.510	0.072	-7.081	0.000	-0.517	-0.517
blackyes	0.386	0.150	2.568	0.010	0.292	0.081
ameindianyes	-0.192	0.205	-0.936	0.349	-0.145	-0.021
asianyes	0.205	0.147	1.393	0.163	0.155	0.036
pacificyes	0.157	0.393	0.400	0.689	0.119	0.006

Covariances:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
PGD ~~						
CSR	-0.227	0.044	-5.144	0.000	-0.245	-0.245
.PGD2 ~~						
.TIO3	0.072	0.023	3.104	0.002	0.072	0.189
.PGD4 ~~						
.TIO6	-0.090	0.042	-2.137	0.033	-0.090	-0.072
.EPJ1	-0.059	0.023	-2.560	0.010	-0.059	-0.121
.JS2 ~~						
.JS4	1.215	0.132	9.233	0.000	1.215	0.682
.JS8	1.237	0.132	9.369	0.000	1.237	0.667
.JS4 ~~						
.JS8	1.135	0.131	8.692	0.000	1.135	0.648

.TO1 ~~						
.TO2	0.716	0.188	3.802	0.000	0.716	0.419
.OC1 ~~						
.OC2	0.610	0.066	9.256	0.000	0.610	0.485
.OC3 ~~						
.OC5	0.132	0.055	2.397	0.017	0.132	0.111
.TIO5 ~~						
.TIO6	1.333	0.140	9.536	0.000	1.333	0.535
.TIO1 ~~						
.TIO5	1.139	0.131	8.673	0.000	1.139	0.491
.TIO6	0.958	0.133	7.226	0.000	0.958	0.400
.CSR1 ~~						
.CSR2	0.749	0.082	9.179	0.000	0.749	0.440
.CSR3 ~~						
.CSR4	0.414	0.047	8.833	0.000	0.414	0.453
.CSR6 ~~						
.CSR7	1.067	0.108	9.922	0.000	1.067	0.540
.CSR9 ~~						
.CSR10	0.859	0.077	11.156	0.000	0.859	0.555

Variances:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
.PGD1	0.425	0.067	6.295	0.000	0.425	0.148
.PGD2	0.385	0.059	6.533	0.000	0.385	0.152
.PGD3	0.971	0.106	9.186	0.000	0.971	0.318
.PGD4	0.611	0.063	9.679	0.000	0.611	0.269
.DJ1	0.389	0.041	9.520	0.000	0.389	0.154
.DJ2	0.555	0.050	11.201	0.000	0.555	0.190
.DJ3	0.333	0.043	7.713	0.000	0.333	0.108
.DJ4	0.290	0.028	10.468	0.000	0.290	0.096
.DJ5	1.003	0.080	12.530	0.000	1.003	0.323
.PJ1	0.973	0.073	13.325	0.000	0.973	0.404
.PJ2	0.659	0.053	12.483	0.000	0.659	0.249
.PJ3	0.634	0.054	11.728	0.000	0.634	0.245
.PJ4	0.647	0.053	12.145	0.000	0.647	0.265
.PJ5	0.493	0.041	12.071	0.000	0.493	0.178
.PJ6	0.494	0.040	12.278	0.000	0.494	0.182
.PJ7	0.562	0.043	12.985	0.000	0.562	0.221
.IJ1	0.908	0.068	13.329	0.000	0.908	0.347
.IJ2	1.104	0.084	13.095	0.000	1.104	0.459
.IJ3	0.967	0.066	14.604	0.000	0.967	0.379
.IJ4	0.462	0.032	14.394	0.000	0.462	0.220
.IJ5	0.390	0.029	13.357	0.000	0.390	0.161
.IJ6	0.368	0.031	12.013	0.000	0.368	0.159
.CSR1	1.740	0.108	16.152	0.000	1.740	0.833
.CSR2	1.671	0.095	17.643	0.000	1.671	0.772

.CSR3	0.857	0.059	14.489	0.000	0.857	0.674
.CSR4	0.974	0.060	16.102	0.000	0.974	0.604
.CSR5	1.180	0.082	14.416	0.000	1.180	0.481
.CSR6	2.014	0.110	18.261	0.000	2.014	0.641
.CSR7	1.942	0.109	17.767	0.000	1.942	0.657
.CSR8	1.631	0.096	16.960	0.000	1.631	0.550
.CSR9	1.754	0.099	17.743	0.000	1.754	0.608
.CSR10	1.363	0.084	16.260	0.000	1.363	0.493
.EDJ1	0.267	0.038	7.050	0.000	0.267	0.130
.EDJ3	0.232	0.029	8.104	0.000	0.232	0.106
.EDJ4	0.531	0.055	9.673	0.000	0.531	0.231
.EPJ1	0.390	0.035	11.087	0.000	0.390	0.181
.EPJ2	0.279	0.025	11.137	0.000	0.279	0.128
.EPJ3	0.251	0.022	11.506	0.000	0.251	0.113
.EPJ4	0.361	0.032	11.207	0.000	0.361	0.156
.EIJ1	0.381	0.032	11.760	0.000	0.381	0.160
.EIJ2	0.266	0.053	5.050	0.000	0.266	0.105
.EIJ3	0.207	0.026	7.983	0.000	0.207	0.084
.TIO1	2.230	0.157	14.215	0.000	2.230	0.578
.TIO2	0.645	0.059	10.921	0.000	0.645	0.226
.TIO3	0.378	0.032	11.712	0.000	0.378	0.141
.TIO4	0.499	0.052	9.561	0.000	0.499	0.225
.TIO5	2.414	0.146	16.557	0.000	2.414	0.671
.TIO6	2.568	0.164	15.698	0.000	2.568	0.660
.TIO7	0.918	0.082	11.229	0.000	0.918	0.404
.TIS1	0.382	0.037	10.284	0.000	0.382	0.172
.TIS2	0.306	0.029	10.442	0.000	0.306	0.147
.TIS3	0.430	0.032	13.504	0.000	0.430	0.210
.TIS4	0.362	0.050	7.295	0.000	0.362	0.169
.TIS5	0.268	0.025	10.713	0.000	0.268	0.132
.TIS6	0.371	0.034	11.039	0.000	0.371	0.172
.TIS7	0.369	0.033	11.199	0.000	0.369	0.169
.TIS8	0.274	0.025	10.853	0.000	0.274	0.123
.JS1	0.553	0.043	12.948	0.000	0.553	0.275
.JS2	1.886	0.153	12.284	0.000	1.886	0.577
.JS3	0.967	0.076	12.641	0.000	0.967	0.402
.JS4	1.681	0.139	12.100	0.000	1.681	0.587
.JS5	0.739	0.076	9.758	0.000	0.739	0.285
.JS6	0.523	0.047	11.084	0.000	0.523	0.178
.JS7	0.547	0.048	11.332	0.000	0.547	0.211
.JS8	1.823	0.149	12.220	0.000	1.823	0.545
.OC1	1.782	0.111	16.001	0.000	1.782	0.498
.OC2	0.888	0.065	13.622	0.000	0.888	0.239
.OC3	1.123	0.071	15.760	0.000	1.123	0.331
.OC4	0.683	0.059	11.577	0.000	0.683	0.257
.OC5	1.251	0.076	16.534	0.000	1.251	0.510

.OC6	0.630	0.049	12.950	0.000	0.630	0.167
.OC7	0.398	0.039	10.146	0.000	0.398	0.129
.TO1	2.296	0.209	10.976	0.000	2.296	0.569
.TO2	1.274	0.213	5.990	0.000	1.274	0.333
.TO3	3.136	0.149	21.062	0.000	3.136	0.830
PGD	2.445	0.160	15.285	0.000	1.000	1.000
.DJ	1.056	0.082	12.817	0.000	0.493	0.493
.PJ	0.567	0.052	10.999	0.000	0.395	0.395
.IJ	0.551	0.051	10.789	0.000	0.322	0.322
CSR	0.350	0.064	5.434	0.000	1.000	1.000
.EDJ	0.340	0.037	9.095	0.000	0.190	0.190
.EPJ	0.259	0.028	9.430	0.000	0.147	0.147
.EIJ	0.331	0.035	9.476	0.000	0.165	0.165
.TIO	0.254	0.041	6.267	0.000	0.156	0.156
.TIS	0.783	0.061	12.932	0.000	0.426	0.426
.JS	0.312	0.035	8.891	0.000	0.214	0.214
.OC	0.720	0.070	10.228	0.000	0.401	0.401
.TO	0.337	0.126	2.682	0.007	0.193	0.193

R-Square:

	Estimate
PGD1	0.852
PGD2	0.848
PGD3	0.682
PGD4	0.731
DJ1	0.846
DJ2	0.810
DJ3	0.892
DJ4	0.904
DJ5	0.677
PJ1	0.596
PJ2	0.751
PJ3	0.755
PJ4	0.735
PJ5	0.822
PJ6	0.818
PJ7	0.779
IJ1	0.653
IJ2	0.541
IJ3	0.621
IJ4	0.780
IJ5	0.839
IJ6	0.841
CSR1	0.167
CSR2	0.228
CSR3	0.326

CSR4	0.396
CSR5	0.519
CSR6	0.359
CSR7	0.343
CSR8	0.450
CSR9	0.392
CSR10	0.507
EDJ1	0.870
EDJ3	0.894
EDJ4	0.769
EPJ1	0.819
EPJ2	0.872
EPJ3	0.887
EPJ4	0.844
EIJ1	0.840
EIJ2	0.895
EIJ3	0.916
TIO1	0.422
TIO2	0.774
TIO3	0.859
TIO4	0.775
TIO5	0.329
TIO6	0.340
TIO7	0.596
TIS1	0.828
TIS2	0.853
TIS3	0.790
TIS4	0.831
TIS5	0.868
TIS6	0.828
TIS7	0.831
TIS8	0.877
JS1	0.725
JS2	0.423
JS3	0.598
JS4	0.413
JS5	0.715
JS6	0.822
JS7	0.789
JS8	0.455
OC1	0.502
OC2	0.761
OC3	0.669
OC4	0.743
OC5	0.490
OC6	0.833

OC7	0.871
TO1	0.431
TO2	0.667
TO3	0.170
DJ	0.507
PJ	0.605
IJ	0.678
EDJ	0.810
EPJ	0.853
EIJ	0.835
TIO	0.844
TIS	0.574
JS	0.786
OC	0.599
TO	0.807