

TEAM PROCESS, TEAM STRUCTURE, AND TEAM
INTERDEPENDENCE: A THEORETICAL MODEL OF
THEIR IMPACTS ON PRODUCTIVITY AND
SATISFACTION FOR TEAM MEMBERS IN
OVERTIME WORK

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Abstract: As global markets become increasingly competitive and dynamic, employers and employees face challenges related to work overload, the most common of which is overtime work. While much research has been carried out on the topic, previous analyses of the effects of overtime work have paid little attention to the behavior of team members and their productivity and satisfaction. Furthermore, little is known about process loss and process gain in overtime teams and the possible moderating effects of hierarchical leadership and interdependence. Thus, this project set out to investigate: one, the impacts of overtime work on the productivity and satisfaction of individual team members; two, how teams deal with overtime requirements through process loss and process gain; three, how different team structures may influence the relationship between overtime work and process loss/gain; and four, the effects of interdependence on the relationship between process loss/gain and productivity and satisfaction of team members. A model of such relationships is proposed. Two experimental design studies were developed for this project. Study 1 used archival data and survey questionnaire responses to collect data from 135 employees of an international engineering firm who worked overtime for a period of two months. Study 2, which used survey questionnaires, was conducted with employees from another 104 service industry firms who had worked overtime in the past. The data was analyzed using a variety of descriptive and inferential statistics, including multilevel structuring equation modeling and item parcel confirmatory factor analysis modeling. The results suggest that, in general, overtime is not associated with absenteeism, creativity, or promotion opportunity and is inconsistent with fatigue/stress and conflict. The findings, however, underscore the importance of teamwork and centralization with regards to the productivity and satisfaction of employees. Teamwork was the only variable found to be significantly fully mediating the relationship between overtime and employee well-being and, unlike what had been hypothesized, it was centralization rather than self-management that was found to positively moderate the relationship between overtime and process loss or process gain. These findings make an important contribution to the field both theoretically and practically with serious implications for organizations for better performance.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	1
II. LITERATURE REVIEW & HYPOTHESES DEVELOPMENT	5
1. Impact of Overtime on Process Loss	5
2. Impact of Overtime on Process Gain	8
3. Impacts of Process Loss on Productivity and Satisfaction	11
4. Impacts of Process Gain on Productivity and Satisfaction	13
5. Mediating Hypotheses	15
6. Moderating Hypotheses	16
6.1 Hierarchical Leadership	16
6.2 Interdependence	18
7. Moderated Mediating Hypotheses	21
III. STUDY 1	23
1. Methodology	23
1.1 Power Analysis	23
1.2 Sample.....	24
1.3 Data Collection Procedure	25
1.4 Measures	25
1.4.1 Overtime	25
1.4.2 Hierarchical Leadership	26
1.4.3 Process Loss.....	26
1.4.4 Process Gain.....	27
1.4.5 Interdependence	28
1.4.6 Satisfaction.....	28
1.4.7 Productivity	29
1.4.8 Control Variables	29
1.5 Data Analysis	30
1.5.1 Descriptive Analysis and Bivariate Correlation	30
1.5.2 Variance Components of Study Variables	30
1.5.3 Confirmatory Factor Analysis (CFA) Model.....	32
1.5.4 Multilevel Structural Equation Modeling (SEM)	33

Chapter	Page
2. Results.....	35
2.1 Hypothesis 1.....	35
2.2 Hypothesis 2.....	35
2.3 Hypothesis 3.....	36
2.4 Hypothesis 4.....	36
2.5 Hypothesis 5.....	36
2.6 Hypothesis 6.....	37
2.7 Hypothesis 7.....	37
2.8 Hypothesis 8.....	37
2.9 Hypothesis 9.....	38
2.10 Hypothesis 10.....	38
2.11 Hypothesis 11.....	39
2.12 Hypothesis 12.....	39
2.13 Hypothesis 13.....	40
2.14 Hypothesis 14.....	41
2.15 Hypothesis 15.....	42
2.16 Hypothesis 16.....	43
 IV. STUDY 2.....	 45
1. Methodology.....	45
1.1 Sample.....	45
1.2 Data Collection Procedure.....	46
1.3 Measures.....	46
1.3.1 Overtime.....	46
1.3.2 Hierarchical Leadership.....	46
1.3.3 Process Loss.....	47
1.3.4 Process Gain.....	47
1.3.5 Interdependence.....	47
1.3.6 Satisfaction.....	47
1.3.7 Productivity.....	47
1.3.8 Control Variables.....	48
1.4 Data Analysis.....	48
1.4.1 Descriptive Analysis and Bivariate Correlation.....	48
1.4.2 Variance Components of Study Variables.....	49
1.4.3 Confirmatory Factor Analysis (CFA) Model.....	50
1.4.4 Multilevel Structural Equation Modeling (SEM).....	51
2. Results.....	52
2.1 Hypothesis 1.....	52
2.2 Hypothesis 2.....	52
2.3 Hypothesis 3.....	52
2.4 Hypothesis 4.....	53
2.5 Hypothesis 5.....	53

Chapter	Page
2.6 Hypothesis 6.....	53
2.7 Hypothesis 7.....	53
2.8 Hypothesis 8.....	54
2.9 Hypothesis 9.....	54
2.10 Hypothesis 10.....	55
2.11 Hypothesis 11.....	55
2.12 Hypothesis 12.....	56
2.13 Hypothesis 13.....	57
2.14 Hypothesis 14.....	58
2.15 Hypothesis 15.....	59
2.16 Hypothesis 16.....	60
V. DISCUSSION & CONCLUSION	63
1. Principle Findings Across Studies	63
1.1 Overtime and Process Loss (Hypothesis 1)	63
1.2 Overtime and Process Gain (Hypothesis 2)	64
1.3 Process Loss and Productivity/Satisfaction (Hypotheses 3 & 4).....	65
1.4 Process Gain and Productivity/Satisfaction (Hypotheses 5 & 6).....	66
1.5 Mediating Hypotheses (Hypotheses 7 & 8)	67
1.6 Hierarchical Leadership (Hypotheses 9 & 10).....	68
1.7 Interdependence (Hypotheses 11 through 14)	69
1.8 Moderating Mediating Hypotheses (Hypotheses 15 & 16)	70
2. Theoretical Implications	70
2.1 Team Process Theory.....	71
2.2 Expectancy-Valence Theory and Job Demands-Control Model	71
2.3 Dynamic Componential Model of Creativity and Innovation	72
3. Practical Implications.....	73
4. Limitations	74
5. Future Directions	77
5.1 Extending the findings of this study	77
5.2 Addressing limitations	79
6. Conclusion	80
REFERENCES	82
APPENDICES	96
APPENDIX A.....	96
APPENDIX B.....	133
APPENDIX C.....	171
APPENDIX D.....	188

LIST OF TABLES

Table	Page
1. Confirmatory Factor Analysis of Study Variables.....	96
2. Variance Components of the Measures Variables	97
3. Means, Standard Deviations and Variables Correlations	98-100
4A. Path Model Output for Hypothesis Testing	101-106
4B. Path Model Output for Hypothesis Testing.....	107-112
4C. Path Model Output for Hypothesis Testing.....	113-118
5. Summary of Hypotheses Testing across Categories of Interdependence ...	124-125
6. Summary of Fit Indices.....	126
7. Standardized Loading & R-square - Confirmation Factor Analysis.....	127-128
8A. Mediating Hypotheses Test – TASK	129
8B. Mediating Hypotheses Test – REWARD.....	130
8C. Mediating Hypotheses Test – PUNISHMENT	131
9. Summary of supported hypotheses across characterized interdependence.....	132
10. Confirmatory Factor Analysis of Study Variables.....	133
11. Variance Components of the Measures Variables	133
12. Means, Standard Deviations and Variables Correlations	134-136
13A. Path Model Output for Hypothesis Testing	137-142
13B. Path Model Output for Hypothesis Testing.....	143-148
13C. Path Model Output for Hypothesis Testing.....	149-154
14. Summary of Hypotheses Testing across Categories of Interdependence .	160-161
15. Summary of Fit Indices.....	162
16. Standardized Loading & R-square - Confirmation Factor Analysis.....	163-164
17A. Mediating Hypotheses Test – TASK	165
17B. Mediating Hypotheses Test – REWARD.....	166
17C. Mediating Hypotheses Test – PUNISHMENT	167
18. Summary of supported hypotheses across characterized interdependence.....	168
19. Joint table for Study 1 and Study 2	169-170

LIST OF FIGURES

Figure	Page
1. Theoretical Framework	171
2. Data Collection Procedure for MEPG	172
3. Data Collection Procedure for other firms	172
4.1. EFA for Item - Parcel CFA (Study 1)	173
4.2. EFA For Item - Parcel CFA (Study 2)	174
5.1. Overtime, Teamwork, & Productivity (Task)	175
5.2. Overtime, Teamwork, & Productivity (Reward)	176
5.3. Overtime, Teamwork, & Productivity (Punishment)	177
5.4. Overtime, Teamwork, and Productivity (Task)	178
5.5. Overtime, Teamwork, and Productivity (Reward)	179
5.6. Overtime, Teamwork, & Productivity (Punishment)	180
5.7. Overtime, Teamwork and Satisfaction (Task)	181
5.8. Overtime, Teamwork and Satisfaction (Reward)	182
5.9. Overtime, Teamwork and Satisfaction (Punishment)	183
6.1. Power Analysis (Study 1)	184-185
6.2. Power Analysis (Study 2)	186-187

CHAPTER I

INTRODUCTION

Competitive markets and the increasing variability of work environments are forcing more and more companies and their employees to deal with the issue of work overload (Ataf & Awan, 2011). Indeed, some employers have turned to overtime work as an alternative to a “hire-and-fire” approach to meet these increasing labor needs and to maintain their competitive edge in these globally challenging times. Many employees have also welcomed overtime work as it can help boost income levels across the board. Manual laborers have been found to prefer longer work hours for higher pay to fewer weekly hours and lower earnings, while managerial and professional salaried workers have been found to benefit from overtime work in the long term through better performance appraisals, more career opportunities, and higher earnings (Kodz et al., 2003).

Employees who welcome overtime work are often found in countries which place high emphasis on strong work ethics, an extreme example of which is Japan, whose workers have been the most overworked in the world for years, clocking approximately 2,000 work hours per year (Agnew, Harris, Lewis, & Rovnick, 2017). Japan is not alone, however, in placing such an emphasis. A growing percentage of workers in the US, as much as one-third of the work force, is regularly working more than 40 hours on a weekly basis. Of that third, about twenty percent,

including salaried and hourly professionals as well as blue-collar employees, report working 50 or more hours per week (Golden & Figart, 2000). These numbers are quite in contrast to those of many other industrialized economies in Western Europe who are attempting to reduce the length of the average work week. Indeed, American workers now work 30 percent, or about 15 weeks per year, more than their counterparts in Europe (Golden & Figart, 2000). In Asia, some populations, such as that of Vietnam, tend to adhere to such Eastern cultural values (Kang, Matusik, & Barclay, 2017), while others, such as that of Myanmar, hold family and religion as important cultural institutions which may take priority over work.

These national and global trends have inspired a substantial body of scholarly research in recent years, which encompasses a variety of hypotheses regarding the consequences, and moderating factors, of working overtime. However, research on the effects of overtime work has paid little attention to the behavior of teams, and, in particular, no research on the effects of overtime work on the productivity and satisfaction of team members exists. Furthermore, little is known about process loss and process gain in overtime teams and the possible moderating effects of hierarchical leadership and interdependence.

Baker and Salas (1997) define teams as units of two or more people who work together on a shared objective. Historically, teams have been a norm in many industries, as employees cooperate to ensure mutual satisfaction and promote productivity and efficiency through decisions regarding resource allocation to both individual and team goals (DeShon et al., 2004). However, it is not clear if these benefits still hold true when teams are overworked. Thus, research into overtime should not only investigate its impact on the productivity and satisfaction of team members, but also the coping mechanisms that team members employ to deal with overtime. This dissertation investigated two aspects associated with productivity and satisfaction of teams: process loss and process gain. Process loss may lead teams to experience fatigue and

stress, absenteeism, and conflict, while process gain may lead to teams enjoying better teamwork, being more creative, and receiving more promotion opportunities.

Process loss and gain may also be affected by the hierarchical structure of the team which, in turn, may affect the productivity and satisfaction of team members. Though when teams are self-managed their adaptability and flexibility may make them more dysfunctional, as conflicts may lead to inefficient internal restructuring (Langfred, 2000). Alper, Tjosvold, and Law (1998) argue that it is important to allow teams to manage their internal affairs, including the assignment of tasks. This promotes cooperation and competition within teams, resulting in greater work efficiency and better resolution of problems. Indeed, Bunderson (2003) argues that power centralization in teams is a critical moderator of the relationship quality within teams. However, we still have an inadequate understanding of the influence of team structure on process loss and gain in overtime settings.

Interdependence may be another moderating factor of the relationship between process loss/gain and productivity and satisfaction of teams in overtime settings. Although many empirical studies, including Bachrach and colleagues (2006) and Alper, Tjosvold, and Law (1998), have recognized interdependence as a moderating factor in teams, no such investigations exist in overtime settings. Furthermore, little is known about the various types of interdependence, such as task, reward, and punishment interdependence, which the current study explores in more detail.

Overall, this dissertation intended to fill some of the gaps found in the current literature, which are more extensively discussed in the following chapter, by pursuing four primary objectives. Firstly, it investigated the impact of overtime work on the productivity and satisfaction of team members. Secondly, it is the first study to research how teams deal with overtime requirements through process loss and process gain. Third, it explored how different

team structures may influence the relationship between overtime work and process loss/gain.

Fourth, it analyzed the effect of interdependence on the relationship between process loss/gain and productivity and satisfaction of teams.

The implications of the current work stem from its aim to explore the causal relationships between the overtime work of teams and the productivity and satisfaction of their individual members through empirical evidence. We argue that a deeper analysis of such relationships can offer organizations a better understanding of the mediating roles of process loss/gain and the moderating roles of hierarchical leadership and interdependence so that employees may be able to better calibrate overtime work, improve team productivity and, in turn, organizational performance and overall operations.

CHAPTER II

LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

The primary objective of this dissertation was to explain the underlying mechanisms and the boundary conditions that impact team productivity and satisfaction in an overtime setting. I propose two terms to represent these underlying mechanisms: process loss, which may involve teams experiencing fatigue and stress, absenteeism, and conflict, and process gain, which may involve teams experiencing gains in creativity and teamwork, as well as greater promotional opportunities. The following sections describe the drivers of process loss and process gain in further detail and provide a synthesis of the current literature on productivity and satisfaction, hierarchical leadership, and interdependence. The sections also present the development of each set of hypotheses, which culminate with six moderated mediating hypotheses. A model of the proposed relationships is shown in Figure 1 (Appendix C).

1. Impact of Overtime on Process Loss

This study focuses on three attributes of process loss: stress and fatigue, absenteeism, and conflict. These three attributes were selected among others (e.g. morale, physical well-being, motivation, etc.) based on personal observations and years of experience in the industry, as well as on indications in the literature about their saliency in the context of overtime work. Increases in mental workload due to longer working hours have been found to generally increase levels of

stress and fatigue in most workers (Dembe, Erickson, & Delbos, 2005; Sato, Miyake, & Theriault, 2008). Higher levels of fatigue and stress are also seen in a parallel increase in the likelihood of workplace conflicts, mood swings, impatience, intolerance, and irritability (Kodz et al., 2003). In addition, those who struggle to maintain normal sleep routines may be more prone to both on-the-job and off-the-job accidents (Goldenhar et al., 2003; Burke, 2009), as much as three times more than their counterparts after sixteen hours of work (Rosa, 1995).

Some research has shown that those who engage in overtime work voluntarily may experience less stress and fatigue than their counterparts who are forced to work overtime (Schaufeli & Van Dierendonck, 2000). This can be explained through the Job Demands–Control (JDC) Model (Karasek, 1979), later revised into the Job Demands–Control–Support (JDCS) Model (Karasek & Theorell, 1990). The latter revised model suggests that job demands and pressures impact stress levels, but that it is the control over such demands and pressures which plays a much more influential part in determining the amount of stress levels (DemandsxControl). When a worker has high control over high job demands, they will have an “active job,” though the strain will not be high (i.e. when overtime work is voluntary, the control is high, but the strain may not be). The revised model also takes in to account social support, theorizing that the beneficial effects of control will be enhanced by social support at work.

In order to recover their energy when overtime causes enough stress and fatigue to exhaust emotional and mental reserves, and perhaps when limited social support is available, workers are often found to opt for absenteeism (Yaniv, 1994), or a number of unexcused absences from the workplace that were not approved by supervisors (Mikalachki & Chapple, 1977). It may be possible to explain such phenomenon through the expectancy-valence theory developed by Vroom (1964) and expanded on by Porter, Lawler, and Hackman (1975). According to expectancy-valence theory, individuals make choices about which behavior to select based on the probability that they will receive valued outcomes from that behavior (Geurts, 1994). Some

empirical evidence comes from studies which explore the concept of the instrumentality of absenteeism (Dalton, Schuler, Youngblood, 1984): the valued outcome would be withdrawing from stress due to workload or conflict and an instrumental use of absenteeism can help workers deal with these issues. While some believe that overtime is actually a solution to absenteeism as it can help compensate lost labor (Brown, 1999; Leslie, 1982), others such as Chaudhury and Ng (1992) and Yaniv (1994) point out that an excessive use of overtime can actually increase absenteeism as it restricts the flexibility of working arrangements and lengthens the working day, possibly leading to an income effect. Indeed, working overtime and taking regular days off can allow skilled workers to earn a certain level of income with the least possible number of days spent on the job (Mikalachki & Chapple, 1977), another possible valued outcome.

While traditional multidimensional teamwork theory (LePine et al., 2008) describes affect management and conflict management as interpersonal processes of teamwork, less is known about the effects of overtime work on such conflicts, (i.e. relationship and task conflicts) (Jehn, 1997, Amason, & Schweiger 1997; De Drew & Weingart, 2002). However, given the possible relationship of overtime work and fatigue, stress, and absenteeism, it is plausible that conflicts from disputes, friction, and tension among team members (Amason, 1996; Simons & Peterson, 2000; Jehn & Mannix, 2001) may increase in overtime work settings. Task conflicts, or those conflicts resulting from differences in opinions concerning tasks and their accomplishment (Jehn & Mannix, 2001) as well as disagreements during decision-making processes (Simons & Peterson, 2000), may also increase during overtime work. The pressure of impending deadlines, understaffing, emergency contingencies, paired with the impact of overtime on stress and fatigue, may exacerbate conflicts among team members and, though some have argued that task conflicts may actually be useful in helping yield higher quality decisions by preventing premature consensus and promoting the exchange of a diverse range of opinions (Schulz-Hardt, Jochims, &

Frey, 2002), both types of conflict have been found to reduce satisfaction of team members (Jehn, 1995; De Dreu, 2008).

Based on this body of research, I argue that overtime work may lead to fatigue and stress, absenteeism, and conflict and is thus positively associated with these three drivers of process loss:

Hypotheses 1 Overtime work is positively associated with fatigue and stress (1A), absenteeism (1B), and conflict (1C)

2. Impact of Overtime on Process Gain

While it is understood that overtime work may lead to fatigue and stress, absenteeism, and conflict, teams may also experience other processes due to overtime work. These processes fall here under the umbrella term of process gain, which is comprised of three attributes: teamwork, creativity, and promotion opportunity. Unlike that of attributes for process loss, the selection of these three attributes (among others such as time resources, sense of accomplishment, etc.) resulted partly from the paucity of research regarding the relationship of overtime work and teamwork and creativity and partly from the, at times, mixed results regarding the relationship of overtime work and promotion opportunities.

Teamwork has been explored frequently in the literature (Chen, 2007; Aime, 2014; Turner 2001; Ladley, Wilkinson, & Young, 2015), but of particular importance here is the notion that teamwork processes have a positive relationship with team effectiveness criteria (LePine et al., 2008). In LePine and colleague's (2008) traditional multidimensional model, these processes are transition processes, action processes, and interpersonal processes, which are moderated by a variety of variables (one of which is interdependence, discussed in Section 6.1) and may be critical at different phases of task execution (see Marks et al., 2001).

However, it remains unclear whether overtime work may positively impact the performance of teams and such processes, though time itself as a variable is often highlighted as an essential factor in teamwork theory. As Marks and colleagues (2001) state, “time factors [...] dictate many aspects of team functioning, including the strategies that are employed, the pace of activities, and role assignments that develop in order for the teams to perform successfully. Time-based rhythms act to shape how teams manage their behavior” (p. 359).

However, some research results may be indirectly pointing to the notion that teams become more cohesive over time (Bradford, 1996; Kalisch & Lee, 2013), as “team adaptive capabilities develop, emerge, and manifest” (Kozlowski & Bell, 2008, p. 16), and that improvements in performance may be contingent upon increasing the volume of teamwork (Manzoor, Ullah, Hussain, & Ahmad, 2011) as suggested by traditional teamwork theory (Crawford & LePine, 2013). Thus, overtime work may provide the time and opportunity for an increase in teamwork and thus a positive impact of those narrow teamwork processes.

Similarly, not much is known about how the creativity of teams is impacted by working overtime, though it has been argued that creativity is an essential component for teams to develop solutions to challenges and generate innovative ideas (Harvey, 2014). According to Amabile’s (1988) Componential Model of Organizational Innovation, updated with Pratt in 2016 (Amabile & Pratt, 2016) and renamed Dynamic Componential Model of Creativity and Innovation in Organizations, links contextual factors with intra-individual factors in modeling creative process: while individual creativity feeds organizational innovation so does organizational environment impact individual creativity. Importantly, motivation, management, and resources from the environment combine with intrinsic motivation, creative processes, and skills from the group to influence innovation and creativity.

Less is available on whether working more hours together leads teams to higher levels of creativity. Some indicate that creativity seems to emerge out of compression (Dewey, 1934), and that pressure within certain limits may indeed bolster it (Amabile, Conti, Coon, Lazenby, & Herron, 1996). Some have argued for a reverse relationship as well, by claiming that those who value creativity are more driven to work longer hours (Kanji & Samuel, 2017), though more empirical work is needed to understand the nature and direction of such a relationship. In general, many approaches which have focused on emergence, such as the well-known systems model (Csikszentmihalyi, 1988; Gardner 1993) as well as a variety of sociocultural approaches (see Sawyer, 2012), indicate that emergence is considered a process which can only occur through time. As Sawyer (2012) states, “both group creativity and group learning emerge over time from the successive contributions of individual members, and they are difficult to reductively explain in terms of the mental states or actions of participating individuals” (p. 59), in line with configural models of team processes. Thus, there is grounds to believe that extended working hours may provide individuals and groups with this time.

Lastly, much work has been conducted on the relationship between overtime work and promotion opportunities. However, the results are often mixed. Some claim that when companies use effort-based promotion schemes, employees are incentivized to work longer hours (Bell & Freeman, 2001; Bratti & Staffolani, 2005; Kostas, 2011; Blau & DeVaro, 2007). Indeed, this behavior is linked to motivation, as explained by the abovementioned expectancy-valence theory (Vroom, 1964), which states that the strength of a tendency to act in a certain way depends on the strength of an expectation that the act will be followed by a given outcome and on the attractiveness of the outcome to the individual. However, some studies have found that immediate past promotions may exert a stronger influence on the willingness to work overtime (Lambooj, Flache, Sanders, & Siegers, 2007), while others have focused on the notion that the perceived

probability of promotion increases with working time (Bratti & Staffolani, 2005) and thus the relationship is more complex than would appear.

Based on indirect indications that team members may need more time together to reach higher levels of performance, that overtime settings can provide the necessary pressure to bolster team creativity, and that there is a relationship, albeit complex, between overtime work and promotion opportunities, I propose that overtime work is positively associated with teamwork, creativity, and promotion opportunity:

Hypotheses 2 Overtime work is positively associated with teamwork (2A), creativity (2B), and promotion opportunity (2C)

3. Impact of Process Loss on Productivity and Satisfaction

While some researchers have found a positive relationship between overtime work and productivity (Hollman, 1979; Shepard & Clifton, 2000), others have contended that its long-term effects may outweigh possible short-term benefits. Though workers may cumulatively appear to produce more daily, they may also make more mistakes, as changes in stress and fatigue have been linked to issues with problem identification and decision making (Mock-McLaughlin, 2007), as well as with the activation of declarative knowledge (Gunzelmann & Gluck, 2009). Workers in overtime may also experience a decrease in motivation and morale and become more prone to health issues (Kodz et al., 2003), resulting in a decline in hourly productivity on a daily basis as well as over multiple days (Goldenhar et al., 2003; Golden & Figart, 2000).

Moreover, organizations may suffer long-term declines in productivity due to high employee absenteeism and turnover, situation which may be further aggravated if the management responds by increasing the workloads of the remaining employees (Golden & Figart, 2000). Indeed, as Tiwari (2014) states, “excessive absenteeism involves a considerable loss to the

enterprises because work schedules are upset and delayed and management has to give overtime wages to meet the delivery dates” (p. 9). Just in the US, depression—a major cause of absenteeism and a closely related factor to fatigue and stress—costs \$44 billion per year in absences from work (Wada et al., 2013). Across industries, significant productivity declines of 2% to 4% have been found for every 10% increase in overtime (Kodz et al., 2003).

Conflict at work also plays an important role on job performance and productivity and researchers have regularly agreed that affective conflict consistently, directly, and adversely affects performance (Ehie, 2010). In addition, some argue that it is an asymmetry in the degree to which workers perceive the level of conflict in their group that most strongly decreases performance and creativity (Jehn, Rispens, & Thatcher, 2010). Others claim that specific patterns of conflict—with specific levels, progressivity, and types—benefit group performance, but that achieving such a calibrated conflict balance is rare (Jehn & Mannix, 2001).

In terms of satisfaction, employees have been found to report high levels of fatigue and low levels of job satisfaction when overtime work is imposed on them, especially in the absence of clear rewards (Aletaris, 2010; Beckers et al., 2004). Research conducted in the UK found that when the number of hours increased, dissatisfaction with long working hours increased in parallel (Kodz et al., 2003). This dissatisfaction may also come from a sharp reduction in leisure time. Loss of leisure time, which can be spent with family and friends, increases work-life conflicts and stress and may lead to physical and psychological health issues (Sparks, Cooper, Fried, & Shirom, 1997), thus strongly tying fatigue and stress to dissatisfaction in a cyclical fashion.

Satisfaction seems to be also highly linked to absenteeism and turnover rates, as when satisfaction is high, absenteeism and turnover rates tend to be low and vice versa (Luthans, 1990). In Kodz et al. (2003), researchers found that “the incidence of long hours working has the next strongest association with staff turnover [...]. For every unit (percentage point) increase in the

proportion of employees working long hours, turnover increases by 0.15 units (percentage points)” (p. 178).

Lastly, conflict at work may impact both productivity and satisfaction, though type of conflict may be an important variable in this relationship. Many have found that interpersonal conflicts negatively influence performance (Pelled et al., 1999; Jen, 2013; El-Hosany, 2017) and satisfaction (Jehn, 1995; Jen, 2013), as they affect one’s ability to process information and cause “distress and animosity among team members” (Jen, 2013, p. 141). De Dreu and Weingart (2003) also found a strong, negative correlation between relationship conflict and satisfaction, which can be in part explained by a social information-processing approach (Salancik & Pfeffer, 1977; De Dreu & Beersma, 2005). As De Dreu and Beersma (2005) explain,

Employees working in groups or departments with relatively high levels of conflict around them may come to conclude that there is a lot wrong with the department, the people in it, and the jobs they are performing. This in turn lowers their positive feelings about their own job. (p. 111)

Thus, it seems that the fatigue and stress of longer working hours, the incidence of absenteeism, and the risk of work place conflict may all be impacting the productivity and satisfaction of employees. Based on this argument, I propose the following hypotheses:

- Hypotheses 3 Productivity is negatively associated with fatigue and stress (3A),
absenteeism (3B), and conflict (3C)*
- Hypotheses 4 Satisfaction is negatively associated with fatigue and stress (4A),
absenteeism (4B), and conflict (4C)*

4. Impact of Process Gain on Productivity and Satisfaction

When employees voluntarily engage in overtime work, they tend to report higher levels of satisfaction and lower levels of fatigue (Hallowell, 2010). Moreover, employees may find

overtime work more interesting and satisfying when it helps them achieve specific goals (Hollman, 1979) or when the work helps fulfill their personal needs (Uehata, 1991; Kofodimos, 1993).

Moreover, teamwork, creativity, and promotion opportunities also seem to positively influence productivity and satisfaction in the workplace. Haydn (1996) found that teamwork can be used as a strategy to improve the productivity of both individuals and organizations, though time must be given to the team in order to succeed. Others have supported the claim by finding that teamwork is significantly related to employee performance, bringing about benefits in productivity, organizational performance, and competitive advantage (Manzoor, Ullah, Hussain, & Ahmad, 2011). A strong positive correlation has also been found between teamwork and job satisfaction (Viswesvaran, Deshpande, & Joseph, 1998; Mafini & Dlodlo, 2014) based on a variety of factors, including job enrichment practices (Griffin, Patterson, & West, 2001), member cohesion (Buitenbach & De Witte, 2005), job enlargement elements (Acuna, Gomez, & Juristo, 2009), or friendly relationships with team members (Kreitner, Kinicki & Cole, 2003).

Along with teamwork, environments which support creativity have also been found to achieve higher levels of productivity. Dul and Ceylan (2014) found that “firms with creativity-supporting work environments introduce more new products to the market and have more NP success in terms of new product sales” (p. 1254). Others have been able to generalize the relationship by finding that creative climates have a strong positive relationship with overall organizational performance (Eskildsen et al., 1999; Barrett, Balloun, & Weinstein, 2005). Creativity has also been found to mediate the effect of stressors on job satisfaction and commitment (Mishra & Shukla, 2012).

Lastly, when companies offer promotion opportunities which align with individual interests, the alignment can boost organizational productivity (Burke, Singh, & Fiskebaum,

2010). As multiple studies indicates, however, the strongest relationship is found between promotion opportunities and recruitment, retention, and satisfaction. Gathungu, Iravo, and Namusonge (2015) found that promotion had a significant relationship to commitment for contract, while Kiyoshi (2006) found that promotion and wages positively influenced worker motivation. In the field of higher education, Mustapha and Zakaria (2013) found a high correlation between future promotion opportunities and job satisfaction, though their results may be limited to this particular sector. Others have differentiated the influence between increases in pay and opportunities for promotion, by indicating that it is the increase in wages that has the most significant influence on job satisfaction (Malik, Danish, & Munir, 2012), though it is often the case that promotions come with increased wages.

Given the nature of these results, I argue that teamwork, creativity, and promotion opportunity are positively associated with productivity and satisfaction and that the relationship between process gain and productivity and satisfaction is positive. I propose the following hypotheses:

- Hypotheses 5 Productivity is positively associated with teamwork (5A), creativity (5B), and promotion opportunity (5C)*
- Hypotheses 6 Satisfaction is positively associated with teamwork (6A), creativity (6B), and promotion opportunity (6C)*

5. Mediating Hypotheses

If overtime work has an effect on productivity and satisfaction, and if we can claim that that effect will be negative when the levels of stress and fatigue, absenteeism, and conflict are higher, but will be positive when it is the levels of teamwork, creativity, and promotion opportunity that are higher, then, I argue, such a relationship is mediated by process loss and process gain. In other words, I hypothesize that overtime work is related to process loss and gain,

the processes by which teams deal with longer working hours, and that, in turn, process loss and process gain are respectively positively and negatively related to productivity and satisfaction.

Hypothesis 7 The relationship between overtime work and productivity will be mediated by (a) process loss and (b) process gain. Specifically, overtime work will be positively related to process loss and process gain. In turn, process gain will be positively related to productivity and process loss will be negatively related to productivity.

Hypothesis 8 The relationship between overtime work and satisfaction will be mediated by (a) process loss and (b) process gain. Specifically, overtime work will be positively related to process loss and process gain. In turn, process gain will be positively related to satisfaction and process loss will be negatively related to satisfaction.

6. Moderating Hypotheses

The current study also focused on two moderators may that influence the relationship between overtime, process loss/gain, and team and individual productivity and satisfaction. These are hierarchical leadership and interdependence.

6.1 Hierarchical Leadership

Organizations increasingly rely on teams, so it is important to know where the authority for decision-making is placed within them. Such authority can be placed in the hands of a team leader or be distributed among lower level team members (Hollenbeck, Ellis, Humphrey, Garza, & Ilgen, 2011). Hollenbeck and colleagues (2011) argue that centralized structures can be more efficient because top leaders see the “big picture” better than lower-level employees, but also warn that the benefits of centralization may be offset by a lack of adaptability. For example, although having a formal leader check the work can help with possible routine errors, it may also slow down the work itself. They may feel overwhelmed by the amount of decisions that must be made, slowing down the pace of the decision-making process and preventing team members from

acting on time-sensitive opportunities. Similarly, being one step removed from tasks may prevent formal leaders from identifying and exploiting local idiosyncratic elements of the task, rendering centralized structures increasingly standardized (Hollenbeck et al., 2011).

Indeed, modern approaches to leadership advocate decentralization of control and decision-making powers so that workers can exercise autonomy and control over their internal affairs and tasks (Bank, 1992; Hammer & Champy, 1993; Alper, Tjosvold, & Law, 1998). As Tata and Prasad (2004) state, “self-managed teams [...] have been referred to as the productivity breakthrough of the 1990s” (p. 248). Self-management is assumed to improve the quality of work life and motivation levels of workers, as they find their work more satisfying and rewarding, are encouraged to cooperate and compete, and become more efficient (Butler & Cox, 1991; Davenport, 1993; Hammer & Champy, 1993). Some have found that teams with a high degree of cooperation are more likely to engage in conversations that are goal-oriented. Members of such teams are more open-minded and more likely to welcome dissenting views. This process boosts the confidence as well as the performance of team members (Alper, Tjosvold, & Law, 1998). If so, self-management in teams may moderate the influence of fatigue and stress, absenteeism, and conflict, though the effect may be stronger in organizations where decision-making authority is delegated and there are fewer explicit policies, procedures, and rules (Tata, Jasmine, Prasad, and Sameer, 2004; Langfred, 2007). By the same token, self-management may boost the effects of teamwork, creativity, and promotion opportunities as the cohesion and cooperation within teams positively impacts productivity and satisfaction.

Taken together, these results reinforce what was proposed by Cohen, Ledford and Spreitzer (1996) in their predictive model of self-managing work team effectiveness: employee involvement context “has the strongest relationships to both quality of work life and manager ratings of performance” (p. 669). The predictor variables in their category of employee involvement context, based on theory of involvement (Lawler, 1986), include the power to make

decisions, information, performance rewards, training, and resources. In other words, these variables enable teams to engender some of the behaviors reported in the abovementioned research, such as an increase in cohesion, a balance of cooperation and competition, engagement in conversations, an openness to dissenting views and so forth, which in turn can positively impact team effectiveness.

Thus, if the appropriate conditions are met, we argue that decentralization can moderate the relationship between overtime work and process loss/gain, in the sense that the benefits of self-management of teams make the relationship between overtime work and process loss less positive and that between overtime work and process gain more positive.

Hypothesis 9 Self-management in team moderates the relationship between overtime and process loss such that there is a less positive relationship between overtime work and process loss when self-management in teams is high

Hypothesis 10 Self-management in team moderates the relationship between overtime and process gain such that there is a more positive relationship between overtime work and process gain when self-management in teams is high.

6.2 Interdependence

Team members often depend on one another to successfully achieve stated objectives and goals (Vegt, Emans, and Vuert, 2001). This dynamic is called interdependence or “the process by which interacting people influence one another's experiences” (Van Lange & Balliet, 2014, p. 65). Many empirical studies have examined interdependence in team environments (Earley & Van Dyne, 1993; Wageman, 1995; Vegt, Emans, & Vuert, 2001; Van Lange & Balliet, 2014) and have categorized it into three forms: task interdependence, reward interdependence, and punishment interdependence.

As Langfred (2005) summarizes, task interdependence is a crucial structural variable, defined as the “degree to which the interaction and coordination of team members are required to complete tasks” (p. 514). Team members are considered interdependent in their tasks when they must share resources (i.e. expertise, information, and/or materials) to achieve their team goals (Susman, 1976; Cummings, 1978). By doing so, highly task-interdependent teams enhance their strategy development and coordination (Matsui, Kakuyama, & Onglatco, 1987), producing high-quality solutions to difficult problems and boosting individual performance (Vert & Janssen, 2001) and group performance (Shea & Guzzo, 1987). Task interdependence has also been found to have a positive relationship with job satisfaction, at least when there are high levels of goal interdependence (Campion et al., 1996; Van der Vegt, Emans, & Van de Vliert, 2001).

In addition, and as mentioned earlier, traditional teamwork theory (see Marks et al., 2001 and LePine et al., 2008) proposes that task interdependence is indeed a potential moderating variable of teamwork processes, as interpersonal interactions and complexities in coordinating these interactions becomes larger the higher the task interdependence. Thus, as LePine and colleagues (2008) conclude, “we expect that teamwork process should have stronger relationships with team effectiveness in teams with higher task interdependence and weaker relationships with team effectiveness in teams with lower task interdependence” (p. 279).

Although task interdependence alone can engender higher productivity, social interdependence theory argues that the combination of task and reward interdependence, or “the extent to which the rewards that accrue to an individual depend upon the performance of coworkers” (Wageman & Baker, 1997, p. 142), increases achievement even more so than task interdependence alone (see Johnson, 2003; Wageman & Baker, 1997). Reward interdependence does not seem to affect group performance directly in highly interdependent tasks, but the interaction between reward interdependence and cooperation does. Hence, according to Wageman and Baker (1997), team performance is boosted when there is high reward interdependence.

Researchers also believe that “the higher the shared rewards, the more satisfied and better performing group members will be” (Shaw, Duffy, & Stark, 2000, p. 262) as task and reward interdependent are found to be strong predictors of group satisfaction.

Lastly, punitive measures can also improve team performance by discouraging undesirable behaviors. Ball, Trevino and Sims (1994) define punishment as the presentation of a negative consequence in order to change undesirable subordinate behavior. In other words, a superior imposes punishment on a team member whose behaviors produced negative consequences or eliminated positive consequences in an attempt to make the guilty individual abstain from such behaviors in the future (Buttefield, Trevino, & Ball, 1996). According to the interdependence-theoretic framework developed by Balliet and colleagues (2011), “rewards and punishments exhibited a statistically equivalent positive effect on cooperation” (p. 594). They also propose that the cost and source of incentives may amplify their effectiveness on cooperation, though others who have focused specifically on punishment interdependence have found that a strong factor influencing whether fewer anticitizenship behaviors (Ball, Trevino, & Sims, 1994) and increased productivity (Podsakoff & Todor, 1985) were observed is whether the punishment is perceived as fair. Less is known about the relationship between punishment interdependence and job satisfaction, though a similar correlation may exist (see Poon, 2004; Podsakoff, Podsakoff, & Kuskova, 2010).

Based on such results, then, we could claim that when levels of task, reward, and punishment interdependence are appropriate to the context, workers are encouraged to cooperate in ways that boost productivity and share in the rewards, and possibly experience higher levels of job satisfaction. In this sense, I argue that team interdependence moderates the relationship between process loss and process gain and productivity and satisfaction.

- Hypothesis 11 Team interdependence moderates the process loss and productivity relationship such that there is a less negative relationship between process loss and productivity when there is high interdependence in teams.*
- Hypothesis 12 Team interdependence moderates the process loss and satisfaction relationship such that there is a less negative relationship between process loss and satisfaction when there is high interdependence in teams.*
- Hypothesis 13 Team interdependence moderates the process gain and productivity relationship such that there is a more positive relationship between process gain and productivity when there is high interdependence in teams.*
- Hypothesis 14 Team interdependence moderates the process gain and satisfaction relationship such that there is a more positive relationship between process gain and satisfaction when there is high interdependence in teams.*

7. Moderated Mediating Hypotheses

Based on the hypotheses developed so far, I here propose two moderated mediating hypotheses of the overarching relationships between overtime work and productivity and satisfaction. In summary, I argue that the indirect effect of overtime work on productivity and satisfaction through process loss is less negative when the teams are self-managed and highly interdependent, while the indirect effect of overtime work on productivity and satisfaction through process gain is more positive when the teams are self-managed and highly interdependent. Two moderated mediating hypotheses are developed as follows:

- Hypothesis 15 The mediated relationship (indirect effect) between overtime work and productivity (through process loss/process gain) is less negative/more positive when there are high interdependence and self-management in teams.*
- Hypothesis 16 The mediated relationship (indirect effect) between overtime work and satisfaction (through process loss/process gain) is less negative/more positive when there are high interdependence and self-management in teams*

For convenience, a concise list of all the hypotheses is presented in Appendix D. The theoretical framework that connects the constructs detailed thus far and the hypotheses developed in the previous sections is presented in Figure 1 (Appendix C). As the present work is divided into two sub-studies, which differ in data collection and analysis methods and, consequently, have separate sections for results as well, Chapter III describes Study 1, while Chapter IV describes Study 2.

CHAPTER III

STUDY 1

The current study recruited participants from a variety of companies in the service industry who have completed overtime work in teams. Data was collected through surveys and human resources archival information and was analyzed through a combination of descriptive and inferential statistics. The following sections provide detailed information about the participants, data collection, analysis, and results for Study 1, which relates to data obtained from the MEP Green Design and Build PLLC (MEPG) company.

1. Methodology

1.1 Power Analysis

The power calculation multi-level models is generally considered quite complex due to the complexity of the errors, and, specifically within the context of this study, the presence of two moderators and six mediators in the three-level design of Study 1 and the two-level design of Study 2. The present work drawn from Cohen's (1982) approach and calculated the power from the post-hoc errors from the results of the studies rather than conducting a priori power analysis. By taking the averages of powers from estimates of effects as shown in Figure 6.1 and Figure 6.2 (Appendix C), we acquire the power of 55% for Study 1 and of 61% for Study 2, which are considered acceptable for this kind of research.

1.2 Sample

The participants of Study 1 were employees of MEPG, an international engineering firm specialized in the design and build of mechanical, electrical, and plumbing systems for a variety of projects in the US, Vietnam, and Myanmar. Selection of the participants was conducted through the Research Management Unit (RMU) at MEPG, which recruited a total of 150 full-time employees randomly divided into 30 to 50 teams (3 to 7 people/team). These 150 employees were from seven geographically dispersed offices.

Out of 150 participants, a total of 135 fully completed the entire 2-months research period per the study design (90% retention rate) and were compensated for their efforts with a \$10 honorarium. Our final sample thus consisted of 135 individuals. The gender distribution was heavily skewed because of the composition of the MEPG employee workforce: 81% of the participants were male and 19% were female. Seven participants identified themselves as Caucasian, eight as Hispanic, and 120 as Asian. The average age of participants was 31.78 years old ($SD = 6.01$), with an average tenure of 2.8 years ($SD = 2.11$). Of the participants, 61% held a bachelor's degree, 19% a graduate degree, 8% an associate's degree, 7% a high school diploma, and the remaining 4% had not yet completed high school.

As a single-blind study, the employees who participated in the study understood the research conditions but had no knowledge of the research objectives. The RMU informed the employees of the option to work overtime in the following two months to cope with the workload of the entire company. During the additional hours, the participants were asked to continue the same work activities they performed during the standard 40-hour workweek in order to ensure the consistency of conditions in both the non-overtime and the overtime conditions. The workers were also instructed to maintain the same start of the workday in each condition so that all additional hours were performed in the evening.

1.3 Data Collection Procedure

The data for Study 1 was collected as shown in Figure 2 (Appendix C), complying with Oklahoma State University's IRB. Participants had worked overtime for two months prior to the data collection. At the beginning of the overtime period, participants were given a psychological questionnaire, which was distributed to participants via a secure website for those who had computer access and paper-based for those who did not. At Time 3 (see Fig. 2, Appendix C), when participants had completed the overtime period, employees were given survey questionnaires. Simultaneously, immediate supervisors completed a performance evaluation survey for each of the employees under their direct supervision, which included data on productivity, satisfaction, and creativity. In addition, the human resources (HR) department provided data on the number of overtime hours and absenteeism for each participant. Thus, data on overtime and on absenteeism was obtained from employees (through the questionnaire surveys) and HR (through archival records) and data on productivity, satisfaction, and creativity were obtained from employees (through the questionnaire surveys) and supervisors (through performance evaluations).

1.4 Measures

1.4.1 Overtime

Participants were asked to report their average total working hours per week, including overtime work performed at work and at home but excluding any travel time. The average number of weekly overtime hours was calculated as the difference between the reported average total working hours per week and the standard working hours per week set in the countries of this study. The mean and standard deviations of this scale were 7.42 and 6.99 respectively.

1.4.2 Hierarchical Leadership

Data on Hierarchical Leadership was collected through an adapted version of Kerr & Jermier's (1978) 8-item scale (see Appendix D). Employees were asked to indicate the extent of their agreement with statements of hierarchical leadership at work on a 5-point Likert scale, which included the following options: 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly agree). The average internal consistency reliability of this scale was .80.

1.4.3 Process Loss

i. Fatigue and Stress

Fatigue and Stress were measured by combining three previously-developed scales. In total, 11 items related to fatigue and stress (see Appendix D) were presented to participants who were asked to respond based on a 5-point Likert scale, which included the following options: 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly agree). The first portion of this section of the questionnaire was a 3-item scale developed by Shirom & Melamed (2006), which measures physical fatigue. The second portion features an adapted 4-item scale developed by Shirom & Melamed (2006), measuring cognitive fatigue. The third set of fatigue- and stress-related questions were adapted from the 4-item scale developed by Cohen et al. (1983), designed to measure amount of stress of employees. The average internal consistency reliability of this combined scale was .92.

ii. Absenteeism

Data on Absenteeism was obtained through the measurement scale designed by Brooke and Price (1989, adapted from Price & Mueller, 1986). Participants were asked to count all of their separate, unscheduled absences greater than four hours during the preceding two months. Consecutive days of absences were counted together so that one day of absence equaled one

absence and two or more consecutive days of absence also equaled one absence, as long as they were separate from other periods of absence. Employees answered the following question: “During the last two months, how many different times were you off from regularly scheduled work?” Scores ranged from 0 (None) to 4 (Four times or more). The mean and standard deviations of this scale were 2.96 and 1.69 respectively.

iii. Conflict

Data on this variable was obtained using the scale of Pelled et al. (1999), which measures the level of task and relationship conflict among team members (see Appendix D). Eight items related to team and work-life conflict were presented to participants, who were asked to respond to each item based on a 5-point Likert scale, which included the following options: 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly agree). The average internal consistency reliability of this scale was .87.

1.4.4 Process Gain

i. Teamwork

To measure the variable of Teamwork, a 12-item scale adapted from Lim et al. (2006) was used (see Appendix D). Level of agreement with the items was collected through a 5-point Likert scale, which included the following options: 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly agree). The first six items of the scale measured task work mental items. The second set of six items addressed teamwork mental. The average internal consistency reliability of this scale was .91.

ii. Creativity

Creativity was measured through the use of George & Zhou’s (2001) 13-item scale (see Appendix D). Employees and supervisors were asked to indicate the extent to which they agreed

that the statements related to the production of creativity at work on a scale from 1 (Strongly disagree) to 5 (Strongly agree). The average internal consistency reliabilities of this scale for employee and supervisor ratings were .92 and .95 respectively.

iii. Promotion Opportunity

The variable of Promotion Opportunity was measured using Fimian's (1988) 5-item scale (see Appendix D). Employees were asked to indicate the extent to which they agreed with statements on promotion opportunity at work on a scale from 1 (Strongly disagree) to 5 (Strongly agree). The average internal consistency reliability of this scale was .73.

1.4.5 Interdependence

Interdependence was measured with Rossi's (2008) 13-item scale (see Appendix D). Employees were asked to indicate the extent to which they agreed with statements about interdependence at work on a scale from 1 (Strongly disagree) to 5 (Strongly agree). The first set of items related to task interdependence, the second to reward interdependence, and the third to punishment interdependence. The average internal consistency reliabilities of this scale for task, reward, and punishment interdependence were .81, 0.60, and .50 respectively.

1.4.6 Satisfaction

This variable was measured based on data obtained from employee and supervisor questionnaires. The questions related to employee satisfaction were based on those in the 5-item scale developed by Judge and colleagues (1998, adapted from Brayfield & Rothe, 1951, and shown in see Appendix D). Employees and supervisors were asked to indicate the extent of their agreement with each statement on a 5-point Likert scale, which included the following options: 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly agree). The average

internal consistency reliabilities of this scale for employee and supervisor ratings were .48 and .50 respectively.

1.4.7 Productivity

Productivity was measured through the use of William & Anderson's (1991) 21-item scale (see Appendix D). Employees and supervisors were asked to indicate the extent of their agreement on statements of productivity at work on Likert scale from 1 (Strongly disagree) to 5 (Strongly agree). The average internal consistency reliabilities of this scale for employee and supervisor ratings were .85 and .92 respectively.

1.4.8 Control Variables

In order to ensure the robustness of the findings, a number of trait variables were used as controls. These control variables included demographic data, such as gender, age, education, country, major, and job tenure, as well as measures of psychology, which were collected before the start of the overtime period. The psychological questionnaire included an adapted 20-item scale regarding emotions and a 108-item scale on extroversion, agreeableness, conscientiousness, whim, interests, self-efficacy, dominance, uncertainty avoidance, social skills, self-monitoring, perspective-taking, and empathic concern (Davis, 1983; see Appendix D). Participants were instructed to indicate the extent of their agreement for each of the 128 items on a 7-point Likert scale, ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). In addition, overwork was also included as a control variable. Overwork ($\alpha = .77$) was measured with a 9-item scale developed from Work Demands (Janssen, 2001) as shown in Appendix D.

The model was tested both with and without these variables (see Becker, 2005) and the results remain unaffected. Thus, they provided a conservative estimate that our results will retain a positive effect in the final model (Koopman et al., 2019).

1.5 Data Analysis

1.5.1 Descriptive Analysis and Bivariate Correlation

Table 3 (Appendix A) presents a comprehensive descriptive statistics report with key figures for each of the dependent and independent variables. These statistics included mean, standard deviation, and Cronbach's alpha. Bivariate correlations across variables were also examined. Overtime was found to be significantly and positively associated with teamwork and creativity, supporting Hypothesis 2. There were no associations between overtime and absenteeism nor between overtime and fatigue. Interestingly, overtime was significantly and negatively associated with conflict and with promotion opportunity, providing opposite results for Hypothesis 1. Productivity was found to be significantly and negatively associated with fatigue and conflict, as predicted in Hypothesis 3. However, productivity had no association with absenteeism. Productivity was also found to be significantly and positively associated with teamwork, creativity, and promotion opportunity, which supported Hypothesis 5.

In terms of satisfaction correlation, absenteeism was found to be significantly and negatively associated with satisfaction, in support of Hypothesis 4, while fatigue had no association with satisfaction. On the other hand, satisfaction was also found to be significantly and positively associated with creativity and promotion opportunity, which supported Hypothesis 6, but had no correlation with teamwork. For the control variables, overtime, fatigue, absenteeism, conflict, teamwork, creativity, and promotion opportunity were found to be significantly associated with age and overwork. Education, major, tenure, and overwork were significantly associated with overtime.

1.5.2 Variance Components of Study Variables

A variance component analysis was conducted to examine how much variance existed in each level for each variable and to ensure there was adequate variance at the within person level

to proceed with hypothesis testing. There were three levels of analysis in this study. The “within person” level referred to the individual on a particular day. The “ID” level referred to the same person who was put in the data in the 8-week period of the study. Lastly, the “supervisor” level referred to workers who worked with the same supervisor. In terms of the process loss scales included in this study, all were found to have sufficient levels of within-person variance. Specifically, as shown in Table 2 (Appendix A), the proportion of variance at the within-person level was found to range from 41.41% (for Conflict) to 49.14% (for Fatigue and Stress). Similarly, with respect to the process gain variables, estimates of within-person variance proportions ranged from 38.05% (for creativity) to 46.21% (for promotion opportunity). The proportions of within-person variance for moderating variables were also found to be substantial, ranging from 59.38% (for self-management) to 72.77% (for punishment interdependence). Lastly, regarding output scales including productivity and satisfaction, estimates of within-person variance proportions ranged from 41.00% (for productivity) to 51.47% (for satisfaction), which were sufficient. In summary, the daily measures in general showed sufficient within-person variance for analyses to proceed as planned.

As shown in Table 2 (Appendix A), the proportion of variance at the ID level was found to range from 20.89% (for punishment interdependence) to 47.86% (for fatigue and stress) and was considered adequate to necessitate the multi-level analysis. Also, the proportion of variance at the supervisor level was found to range from 3% (for fatigue and stress) to 26.5% (for productivity), considered to be substantial enough to the required level of variance. As this study focused on the within-person level, the effects of variances from both the supervisor and the individual levels were considered in the multilevel analysis. In order to do so, the mean of all within-person level variables was centered to eliminate the variances of both the individual and the supervisor levels from individual observations with the defining of cluster ID and cluster Super_ID in Mplus Statement. For a summary of variance components and variance proportions

of the within-person, ID, and supervisor levels for all scales included in this study, see Table 2 (Appendix A).

1.5.3 Confirmatory Factor Analysis (CFA) Model

The proposed measurement scales in this study included a great number of items, which may not comply with the recommended 5-to-1 ratio of parameters to sample size (see Bentler & Chou, 1987). To reduce the number of parameters, an item parcel CFA approach was applied (Hall, Snell, & Foust, 1999). With this approach, exploratory factor analyses (EFAs), as shown in Figure 4 (Appendix C), were conducted for Overwork, Fatigue and Stress, Conflict, Teamwork, Creativity, Interdependence, Self-management and Productivity to extract the same number of latent variables with the intended number of parcels in such a way that the planned parcels were formulated by grouping the six highest loading items on the extracted factors (Koopman, Matta, Scott, Conlon, 2019).

With a reduced number of items from the EFAs, a series of confirmatory factor analyses (CFAs) were conducted using Mplus 8 to establish construct and discriminant validity. First, I examined the process loss variables. The 2-factor model fit the data well and showed a better fit compared to a one factor structure, according to the Hu and Bentler (1999) criteria ($\chi^2(43) = 200.36, p < .05$; CFI = .92 vs .78; TLI = .90 vs .73; SRMR = .04 vs .10; RMSEA = .05 vs .09; AIC of 31572.65 vs. 37404.88). All indicators were loaded fairly strongly with standardized factor loadings ranged from .82 to .93. In terms of the process gain variables, a 3-factor structure fit the data well and was better suited than a one factor structure ($\chi^2(116) = 374.04, p < .05$; CFI = .98 vs .89; TLI = .97 vs .87; SRMR = .01 vs .03; RMSEA = .04 vs .09; AIC of 33588.98 vs. 37404.88). All indicators were loaded fairly strongly with standardized factor loadings ranged from .87 to .97.

In terms of Interdependence variables (i.e. task interdependence, reward interdependence, and punishment interdependence), although a 3- factor structure did not show evidence of excellent fit, it did fit the data better than a one factor structure ($\chi^2(41) = 404.25, p < .05$; CFI = .90 vs .80; TLI = .87 vs .76; SRMR = .05 vs .04; RMSEA = .09 vs .12; AIC of 31643.49 vs. 32973.743). All indicators were loaded fairly strongly with standardized factor loadings ranged from .68 to .96. With regard to the items measuring outputs of Productivity and Satisfaction, the 2-factor model fit the data well and showed a better fit compared to a one factor structure ($\chi^2(43) = 293.88, p < .05$; CFI = .96 vs .89; TLI = .95 vs .87; SRMR = .05 vs .04; RMSEA = .07 vs .12; AIC of 27555.93 vs. 28920.196.)). All indicators were loaded fairly strongly with standardized factor loadings ranged from .56 to .98. Average factor loadings was above .80.

Finally, in terms of the supervisor rating measures, the 2-factor model fit the data well and showed a better fit compared to a one factor structure ($\chi^2(53) = 271.44, p < .05$; CFI = .98 vs .94; TLI = .97 vs .93; SRMR = .01 vs .02; RMSEA = .06 vs .10; AIC of 21269.00 vs. 22863.39.). All indicators were loaded fairly strongly with standardized factor loadings ranged from .95 to .98. Also, the average factor loadings for all constructs were above .80. Refer to Table 1 and Table 7 (Appendix A) for a summary of the above analyses. The subsequent step was to test the hypothesized model.

1.5.4 Multilevel Structural Equation Modeling (SEM)

I used Multilevel SEM to test the hypothesized relationships between overtime and process loss/gain, the impact of process loss/gain on the productivity and satisfaction of employees, and the moderating effects of hierarchical leadership and interdependence. In all Multilevel SEM analyses, I centered the “within level” variables of overtime, fatigue and stress, absenteeism, conflict, teamwork, creativity, promotion opportunity, self-management, and interdependence variables relative to each individual’s mean (group centering for individual and

supervisor level) in order to eliminate confounding sources of variance (such as response biases) from the variances of individual and supervisor levels for this three-level path model. From the summary of fit indices including RMSEA, SRMR, and CFI tests (shown in Table 6, Appendix A), I concluded that all three overall models (for separate moderators of task, reward, and punishment interdependence) fit the data, though the Chi-square fit statistic tests did not show evidence of fit ($p\text{-value} < 0.05$, which rejected the null hypothesis of the Chi-square test), which may relate to the common problem of insufficient sample size and indicating a large sampling error.

Given that all three overall models fit the data for task, reward, and punishment moderators, six corresponding local models were tested with the six variables under process loss and process gain (fatigue and stress, absenteeism, conflict, teamwork, creativity, and promotion opportunity). As shown in Table 6 (Appendix A), the 18 local models were considered to fit the data. The path model outputs for all overall and local models (21 models total) were shown in Table 4 (Appendix A). In these Multilevel SEM analyses, the results of the 18 individual models were selected to examine the hypotheses testing. The relevant endogenous variables (e.g. fatigue and stress, absenteeism, and conflict for Hypothesis 1; teamwork, creativity, and promotion opportunity for Hypothesis 2; and so forth) were regressed on the overtime variable, so as the productivity and satisfaction variables were regressed on the appropriate variables (fatigue and stress, absenteeism, and conflict for Hypotheses 3 and 4; teamwork, creativity, and promotion opportunity for Hypotheses 5 and 6).

To test the mediating effect of the six variables (Hypotheses 7 and 8), three for process loss and three for process gain, I investigated the significances of the indirect paths from overtime to each observed variable as well as from each observed variable to productivity/satisfaction. Moreover, the direct path from overtime to productivity/satisfaction was investigated to decide

whether the observed variable was claimed to fully mediate, partially mediate, or not mediate the relationship between overtime and productivity/satisfaction.

To test the moderating effect of the variables of self-management and interdependence (Hypotheses 9 through 14), the interacting variables and their product terms (calculated from group centered variables) were entered into the relevant Multilevel SEM models. For example, to test the moderating effect of task interdependence on the relationship between fatigue and stress and productivity (Hypothesis 9A), I entered the variables of fatigue and stress, task interdependence, and “fatxtint” in the model. Lastly, to test the moderated mediating hypothesis (Hypotheses 15 and 16), I multiplied the product terms of the relevant interacting variables and entered them into the model. Table 4 (Appendix A) showed the path model outputs for hypothesis testing, including coefficients and p-values for individual paths for both overall and local models.

2. Results

2.1 Hypothesis 1

Hypothesis 1 posited that overtime work is positively associated with fatigue and stress (1A), absenteeism (1B), and conflict (1C). Controlling for demographic variables and with all three moderators of interdependence, conflict was the only factor which was significantly related to overtime ($b = -.02$, $p < .05$). Conflict was negatively associated with overtime ($b = -.02$), which was contradictory to Hypothesis 1C. Thus, Hypothesis 1 was not supported. See Tables 4 and 5 (Appendix A) for a summary of these analyses.

2.2 Hypothesis 2

Hypothesis 2 posited a positive relationship between overtime work and teamwork (2D), creativity (2E), and promotion opportunity (2F). Controlling for demographic variables and with all three moderators of interdependence, teamwork was the only factor which was positively

significant related to overtime ($b = .01, p < .05$). Hypothesis 2 was thus partially supported (2D). See Tables 4 and 5 (Appendix A) for a summary of these analyses.

2.3 Hypothesis 3

Hypothesis 3 argued that productivity is negatively associated with fatigue and stress (3A), absenteeism (3B), and conflict (3C). Controlling for demographic variables and with all three moderators of interdependence, fatigue was the only factor which was negatively significantly related to productivity ($b = -.06, p < .05$). Hypothesis 3 was thus partially supported (3A). See Tables 4 and 5 (Appendix A) for a summary of these analyses.

2.4 Hypothesis 4

Hypothesis 4 posited that satisfaction is negatively associated with fatigue and stress (4A), absenteeism (4B), and conflict (4C). With all three moderators of interdependence, none of the predictors were found to be significantly related to satisfaction. Therefore, Hypothesis 4 was not supported (see Tables 4 and 5, Appendix A).

2.5 Hypothesis 5

Hypothesis 5 postulated that the relationship between productivity and teamwork (5D), creativity (5E), and promotion opportunity (5F) would be positive. As shown in Tables 4 and 5 (Appendix A), with all three moderators of interdependence, all of the predictors (teamwork, creativity, and promotion opportunity) were found to be positively significantly related to satisfaction ($b = .32, p < .05$; $b = .47, p < .05$; $b = .22, p < .05$ respectively). Therefore, Hypothesis 5 was fully supported.

2.6 Hypothesis 6

Hypothesis 6 argued a positive association between satisfaction and teamwork (6D), creativity (6E), and promotion opportunity (6F). As reported in Tables 4 and 5 (Appendix A), teamwork, creativity, and promotion opportunity were found to be positively significantly associated with satisfaction through task interdependence ($b = .07, p < .05$; $b = .16, p < .05$; $b = .27, p < .05$ respectively). Through reward and punishment interdependence, both creativity and promotion opportunity, but not teamwork, were found to be positively significantly associated with satisfaction ($b = .13, p < .05$; $b = .26, p < .05$ respectively). Teamwork did not show evidence of a positive association with satisfaction through either reward or punishment interdependence. Therefore, Hypothesis 6 was fully supported with task interdependence and partially supported with reward and punishment interdependence.

2.7 Hypothesis 7

Hypothesis 7 posited that the relationship between overtime work and productivity would be mediated by (a) process loss and (b) process gain. Specifically, it posited that overtime work would be positively related to process loss and process gain and that, in turn, process gain would be positively related to productivity while process loss would be negatively related to productivity. As reported in Table 8 (Appendix A) and Figure 5 (Appendix C), across three categories of interdependence, a significant indirect effect was found only for the following path: overtime on productivity through teamwork (IE = .002, $p < .05$; IE = .002, $p < .05$; IE = .002, $p < .05$ respectively for task, reward, and punishment interdependence.) Thus, Hypothesis 7 was partially supported.

2.8 Hypothesis 8

Hypothesis 8 posited that the relationship between overtime work and satisfaction would be mediated by (a) process loss and (b) process gain. Specifically, it posited that overtime work

would be positively related to process loss and process gain and that, in turn, process gain would be positively related to satisfaction while process loss would be negatively related to satisfaction. As reported in Table 8 (Appendix A) and Figure 5 (Appendix C), across three categories of interdependence, a significant indirect effect was found only for the following path: overtime on satisfaction through teamwork (IE = .0004, $p < .05$; IE = .0001, $p < .05$; IE = .0002, $p < .05$ respectively for task, reward, and punishment interdependence). Thus, Hypothesis 8 was partially supported.

2.9 Hypothesis 9

Hypothesis 9 related to the moderating effect of self-management in teams on the relationship between overtime and process loss, proposing that, when self-management in team is high, there is a less positive relationship between overtime work and process loss. As shown in Tables 4 and 5 (Appendix A), with all three moderators of interdependence, the interaction terms of self-management and overtime were not found to be significant ($p > .05$), thus not supporting the hypothesized effect. Among the three variables of process loss, conflict was found to have a significant effect with centralized teams (instead of self-managed teams, as expected) across the three moderators of interdependence. For centralized teams, the effects of overtime on conflict were $-.02$, $p < .05$; $-.02$, $p < .05$; $-.02$, $p < .05$ respectively for task, reward, and punishment interdependence. Thus, Hypothesis 9 was partially supported.

2.10 Hypothesis 10

Hypothesis 10 posited that self-management in team would moderate the relationship between overtime and process gain such that there is a more positive relationship between overtime work and process gain when self-management in teams is high. As shown in Tables 4 and 5 (Appendix A), with all three moderators of interdependence, the interaction terms of self-management and overtime were not found to be significant ($p > .05$), thus not supporting the

hypothesized effect. Among the three variables of process gain, teamwork was found to have a significant effect with centralized teams (instead of self-managed teams, as expected) across the three moderators of interdependence. For centralized teams, the effects of overtime on teamwork were .01, $p < .05$; .008, $p < .05$; .01, $p < .05$ respectively for task, reward, and punishment interdependence. Thus, Hypothesis 10 was partially supported.

2.11 Hypothesis 11

Hypothesis 11 posited that team interdependence moderates the process loss and productivity relationship such that there is a less negative relationship between process loss and productivity when there is high interdependence in teams. As shown in Tables 4 and 5 (Appendix A), among the three variables of process loss and with all three moderators of interdependence, the interaction term of interdependence and fatigue was found significant ($b = .11$, $p < .05$) only with fatigue variable, partially supporting the hypothesized effect. In addition, fatigue was found to have a significant effect, across three moderators of interdependence, with low interdependence rather than high interdependence as expected. For individuals with lower levels of interdependence, the effects of fatigue on productivity were $-.11$, $p < .05$; $-.13$, $p < .05$; $-.08$, $p < .05$ respectively for task, reward, and punishment interdependence. Thus, Hypothesis 11 was partially supported with low interdependence only.

2.12 Hypothesis 12

Hypothesis 12 posited that team interdependence moderates the process loss and satisfaction relationship such that there is a less negative relationship between process loss and satisfaction when there is high interdependence in teams. The interaction term of interdependence and absenteeism/conflict were found to be significant ($b = -.11$, $p < .05$; $b = .17$, $p < .05$ respectively) only with task interdependence. For individuals with higher levels of interdependence, the effect of absenteeism on satisfaction was $-.06$, $p < .05$, whereas, for

individuals with lower interdependence levels, the effect of absenteeism on satisfaction was .05, $p < .05$. Therefore, Hypothesis H12b was found to be supported by the data. However, the effect of conflict on satisfaction was found significant only with individuals at higher interdependence levels ($b = .16$, $p < .05$). Lastly, there was no evidence of significant moderating effects with reward and punishment interdependence. Overall, Hypothesis 12 was partially supported (see Tables 4 and 5, Appendix A).

2.13 Hypothesis 13

Hypothesis 13 posited that team interdependence moderates the process gain and productivity relationship such that there is a more positive relationship between process gain and productivity when there is high interdependence in teams. As shown in Tables 4 and 5 (Appendix A), among the three variables of process gain, only the interaction term of interdependence and creativity was found to be significant ($b = .11$, $p < .05$), supporting this effect. For individuals with higher levels of interdependence, the effect of creativity on productivity was .53, $p < .05$, whereas, for individuals with lower levels of interdependence, the effect of creativity on productivity was .41, $p < .05$. On the other hand, team work and promotion opportunity were found to have significant effects in both high and low interdependence conditions under task interdependence. For individuals with high interdependence, the effects of teamwork and promotion opportunity on productivity were .34, $p < .05$; .19, $p < .05$ respectively, while, for individuals with lower interdependence, the effects of teamwork and promotion opportunity on productivity were .29, $p < .05$; .25, $p < .05$ respectively.

For reward interdependence, teamwork, creativity, and promotion opportunity were found to have significant effects in both high and low interdependence conditions. In high interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .34, $p < .05$; .50, $p < .05$; .16, $p < .05$ respectively. For low interdependence, the effects of

teamwork, creativity, and promotion opportunity on productivity were .27, $p < .05$; .40, $p < .05$; .25, $p < .05$ respectively. Similarly, for punishment interdependence, teamwork, creativity, and promotion opportunity were found to have significant effects in both high and low interdependence. For high interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .32, $p < .05$; .50, $p < .05$; .22, $p < .05$ respectively. For low interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .29, $p < .05$; .40, $p < .05$; .17, $p < .05$ respectively. Overall then, Hypothesis 13 was partially supported. However, the results were mixed and inconsistent across the three variables of process gain and the three categories of interdependence moderators.

2.14 Hypothesis 14

Hypothesis 14 posited that team interdependence moderates the relationship between process gain and satisfaction such that there is a more positive relationship between process gain and satisfaction when there is high interdependence in teams. For task interdependence, among the three variables of process gain, the interaction term of interdependence and creativity was found to be significant ($b = .11$, $p < .05$), supporting this effect. For low interdependence, the effect of creativity on satisfaction was .27, $p < .05$. Promotion opportunity was found to have a significant effect in both high and low interdependence. For high interdependence, the effect of promotion opportunity on satisfaction was .34, $p < .05$, whereas for individuals in low interdependence, the effect of promotion opportunity on satisfaction was .19, $p < .05$. Teamwork was found to be significant only with low interdependence. For individuals in low interdependence, the effect of teamwork on satisfaction was .14, $p < .05$.

Regarding reward interdependence, among the three variables of process gain, the interaction terms of interdependence and teamwork/creativity were found to be significant ($b = -.14$, $p < .05$; $b = -.16$, $p < .05$ respectively), supporting these effects. For low interdependence, the

effect of teamwork and creativity on satisfaction were .09, $p < .05$ and .21, $p < .05$ respectively. Promotion opportunity was found to have a significant effect in both high and low interdependence. For high interdependence, the effect of promotion opportunity on satisfaction was .32, $p < .05$, while for low interdependence, the effect of promotion opportunity on satisfaction was .20, $p < .05$.

Lastly, concerning punishment interdependence, among the three variables of process gain, the interaction terms of interdependence and teamwork/promotion opportunity were found to be significant ($b = -.18$, $p < .05$; $b = .12$, $p < .05$ respectively), supporting these effects. Promotion opportunity was found to have a significant effect in both high and low interdependence. For individuals in the higher interdependence condition, the effect of promotion opportunity on satisfaction was .33, $p < .05$, while for individuals in the lower interdependence condition, the effect of promotion opportunity on satisfaction was .19, $p < .05$. Teamwork was found to be significant in low interdependence only. For low interdependence, the effect of teamwork on satisfaction was .14, $p < .05$. Similarly, creativity was found to be significant in low interdependence only. For low interdependence, the effect of creativity on satisfaction was .18, $p < .05$. Overall then, Hypothesis 14 was partially supported. However, the results were mixed and inconsistent across the three variables of process gain and the three categories of interdependence moderators.

2.15 Hypothesis 15

Hypothesis 15 argued that the mediated relationship (indirect effect) between overtime work and productivity (through process loss) is less negative when there is high interdependence and self-management in teams and that the mediated relationship (indirect effect) between overtime work and productivity (through process gain) is more positive when there is high interdependence and self-management in teams. As shown in Tables 4 and 5 (Appendix A) and

drawing from the previous moderation hypotheses on the alpha and beta paths, significant moderation effects for centralized team were found for the following alpha paths: overtime on a) conflict and b) teamwork. For beta paths, across the three categories of interdependence, significant moderation effects for both high and low interdependence were found on the following paths: productivity on a) teamwork, b) creativity, and c) promotion opportunity. Indirect effects were thus different for the above-mentioned paths.

As a result, the indirect effect of overtime on productivity through teamwork was found to be significant in centralized teams with both high and low interdependence. For individuals in centralized teams and higher interdependence, the effects of overtime on productivity through team work were .003, $p < .05$; .003, $p < .05$; .002, $p < .05$ respectively for task, reward, and punishment interdependence. For individuals in centralized teams and lower interdependence, the effects of overtime on productivity through team work were .002, $p < .05$; .002, $p < .05$; .002, $p < .05$ respectively for task, reward, and punishment interdependence. Therefore, Hypothesis 15 was partially supported.

2.16 Hypothesis 16

Hypothesis 16 posited that the mediated relationship (indirect effect) between overtime work and satisfaction (through process loss) is less negative when there is high interdependence and self-management in teams and that the mediated relationship (indirect effect) between overtime work and satisfaction (through process gain) is more positive when there is high interdependence and self-management in teams. As shown in Tables 4 and 5 (Appendix A) and drawing from the previous moderation hypotheses on the alpha and beta paths, significant moderation effects for centralized teams were found for the following alpha paths: overtime on a) conflict and b) teamwork. For beta paths with task interdependence, significant moderation effects for both high and low interdependence were found on the following paths: satisfaction on

a) absenteeism and b) promotion opportunity. Significant moderation effects for low interdependence were found on the following paths: satisfaction on a) teamwork, b) promotion opportunity. For high interdependence, a significant moderation effect was found on the path of satisfaction on conflict.

For beta paths with reward interdependence, significant moderation effects for both high and low interdependence were found on the paths of satisfaction on promotion opportunity. Significant moderation effects for low interdependence were found on the following paths: satisfaction on a) teamwork, b) creativity. For high interdependence, a significant moderation effect was found on the path of satisfaction on conflict. For beta paths with punishment interdependence, significant moderation effects for both high and low interdependence were found on the paths of satisfaction on promotion opportunity. Significant moderation effects for low interdependence were found on the following paths: satisfaction on a) teamwork, b) creativity. Indirect effects were thus different for the above-mentioned paths.

As a result, the indirect effect of overtime on satisfaction through teamwork was found to be significant in centralized teams with low interdependence and with punishment interdependence. For individuals in centralized teams and lower interdependence, the effects of overtime on satisfaction through team work were .001, $p < .05$. Also, the indirect effect of overtime on satisfaction through conflict was found to be significant in centralized teams with high interdependence and with task interdependence. For individuals in centralized teams and higher interdependence, the effect of overtime on satisfaction through conflict was - .004, $p < .05$. Therefore, Hypothesis 16 was partially supported. However, the results were mixed and inconsistent across variables and the three categories of interdependence moderators.

CHAPTER IV

STUDY 2

The following sections of this chapter provide information about participants, data collection, data analysis, and results for Study 2. This study was conducted with employees from another 104 service industry firms who had worked overtime in the past (see Section 1.1).

1. Methodology

1.1 Sample

Of the 104 firms in Study 2, 73 were from the US, 27 from Vietnam, and 4 from Myanmar. The companies operate in a variety of sub-sectors of the service industry, including hospitality, consulting, architecture, real estate, and engineering. A list of firms, along with contact information is provided in Appendix D. A total number of 916 participating employees were recruited for Study 2 and constituted the final sample. Out of these 916 participants, 133 identified themselves as Caucasian, 68 as Hispanic, and 715 as Asian, of which 54% were male and 46% female. Participants occupied all positions, including manager, engineer, architect, and technician with average age of 30.61 ($SD = 6.02$). The average tenure was 3.95 years ($SD = 3.43$). In terms of education, 7.5% of the participants held a professional or graduate degree, 55%

a bachelor's diploma, 27.5% an associate's degree, 6% a high school diploma, and the remaining 4% had not yet completed high school.

1.2. Data Collection Procedure

For Study 2, data was collected immediately after receiving IRB approval as the participants had worked overtime in the preceding months. Participants were contacted through email and asked to complete the survey via a secure website. A \$10 honorarium was offered for participation. Except for the psychological measurement and the supervisor rating scales for creativity, productivity, and satisfaction, which were only applied in Study 1, all other measurement scales in Study 1 were also used in Study 2. The data collection procedure is presented in Figure 3 (Appendix C).

1.3 Measures

As the measurement scales in Study 2 are identical to those of Study 1, in this section, only the average internal consistency reliability, means, and standard deviation are reported.

1.3.1 Overtime

The mean and standard deviation of this scale were 6.61 and 3.54 respectively.

1.3.2 Hierarchical Leadership

The average internal consistency reliability of this scale was .77.

1.3.3 Process Loss

i. Fatigue and Stress

The average internal consistency reliability of this scale was .88.

ii. Absenteeism

The mean and standard deviation of this scale were 2.38 and 1.17 respectively.

iii. Conflict

The average internal consistency reliability of this scale was .87.

1.3.4 Process Gain

i. Teamwork

The average internal consistency reliability of this scale was .89.

ii. Creativity

The average internal consistency reliabilities of this scale was .83.

iii. Promotion Opportunity

The average internal consistency reliability of this scale was .79.

1.3.5 Interdependence

The average internal consistency reliabilities of this scale for task, reward, and punishment interdependence were .81, 0.69 and .78 respectively.

1.3.6 Satisfaction

The average internal consistency reliabilities of this scale was .60.

1.3.7 Productivity

The average internal consistency reliabilities of this scale was .82

1.3.8 Control Variables

Demographics control data included sex, age, region, education, major, and job tenure. Overwork was also included as a control variable with an average internal consistency reliability of .73 for this scale. The model was tested both with and without these variables (see Becker, 2005) and the results remain unaffected. Thus, they provided a conservative estimate that our results will retain a positive effect in the final model (Koopman, Matta, Scott, Conlon, 2019).

1.4 Data Analysis

1.4.1 Descriptive Analysis and Bivariate Correlation

Table 12 (Appendix B) presents a comprehensive descriptive statistics report with key figures for each of the dependent and independent variables. These statistics included mean, standard deviation, and Cronbach's alpha. Bivariate correlations across variables were also examined. Overtime was found to be significantly and positively associated with fatigue and stress and teamwork, in support of Hypothesis 2. There were no associations between overtime and absenteeism, conflict, creativity, or promotion opportunity. Productivity was found to be significantly and negatively associated with conflict, in support of Hypothesis 3C. However, productivity had no association with fatigue and absenteeism. Productivity was also found to be significantly and positively associated with teamwork, creativity, and promotion opportunity, supporting Hypothesis 5.

In terms of satisfaction correlation, absenteeism and conflict were found to be significantly and negatively associated with satisfaction, in support of Hypotheses 4B and 4C, while fatigue had no association with satisfaction. On the other hand, satisfaction was also found to be significantly and positively associated with teamwork, creativity, and promotion opportunity, as proposed in Hypothesis 6. For the control variables, absenteeism, conflict, teamwork, creativity, and promotion opportunity were found to be significantly associated with

age and overwork, while fatigue and teamwork were found to be significantly associated with overtime.

1.4.2 Variance Components of Study Variables

As in Study 1, a variance component analysis was conducted to examine how much variance existed in each level for each variable and to ensure there was adequate variance at the within person level to proceed with hypothesis testing. There were two levels of analysis in this study. The “within person” level referred to the individual on a particular day. The “Firm ID” level referred to the same person who worked with the same company. In terms of the process loss scales included in this study, all were found to have sufficient levels of within-person variance. Specifically, as shown in Table 11 (Appendix B), the proportion of variance at the within-person level was found to range from 78.07% (for conflict) to 91.35% (for fatigue and stress). Similarly, with respect to the process gain variables, estimates of within-person variance proportions ranged from 89.53% (for teamwork) to 94.28% (for promotion opportunity), which were substantial. The proportions of within-person variance for moderating variables were also found to be significant, ranging from 85.90% (for punishment interdependence) to 96.55% (for self-management). Lastly, regarding output scales including productivity and satisfaction, estimates of within-person variance proportions ranged from 88.64% (for productivity) to 93.21% (for satisfaction), which were sufficient. In summary, the measures in general showed sufficient within-person variance for analyses to proceed as planned.

As shown in Table 11 (Appendix B), the proportion of variance at the Firm ID level was found to range from 3.45% (for self-management) to 21.93% (for conflict) and was considered to be substantial enough to necessitate the multi-level analysis. As this study focused on the within-person level, the effects of variances from the firm level was considered in the multilevel analysis. In order to do so, the mean of all within-person level variables was centered to eliminate

the variances of the firm level from individual observations with the defining of cluster Firm_ID in Mplus Statement. For a summary of variance components and variance proportions of the within-person and the firm ID levels for all scales included in this study, see Table 11 (Appendix B).

1.4.3 Confirmatory Factor Analysis (CFA) Model

Similar to Study 1, an item parcel CFA approach was also applied in here. With a reduced number of items from the EFA analysis as shown in Figure 4 (Appendix C), a series of confirmatory factor analyses (CFAs) were conducted using Mplus 8 to establish construct and discriminant validity. First, I examined the process loss variables. The 2-factor model fit the data well and showed a better fit compared to a one factor structure, according to the Hu and Bentler (1999) criteria ($\chi^2(53) = 164.44$, $p < .05$; CFI = .94 vs .54; TLI = .93 vs .44; SRMR = .03 vs .18; RMSEA = .05 vs .13; AIC of 25248.16 vs. 26850.82). All indicators were loaded fairly strongly with standardized factor loadings ranged from .59 to .78. In terms of the process gain variables, a 3- factor structure fit the data well and was better suited than a one factor structure ($\chi^2(117) = 521.23$, $p < .05$; CFI = .85 vs .50; TLI = .82 vs .43; SRMR = .12 vs .16; RMSEA = .06 vs .11; AIC of 32081.04 vs. 33864.89). All indicators were loaded fairly strongly with standardized factor loadings ranged from .62 to .77.

In terms of the interdependence variables of task, reward, and punishment interdependence, although a 3- factor structure did not show evidence of excellent fit, it did fit the data better than a one factor structure ($\chi^2(51) = 307.51$, $p < .05$; CFI = .86 vs .82; TLI = .82 vs .39; SRMR = .05 vs .11; RMSEA = .07 vs .13; AIC of 24383.89 vs. 25211.74). All indicators were loaded fairly strongly with standardized factor loadings ranged from .46 to .79. Finally, with regard to the items measuring outputs of productivity and satisfaction, the 2-factor model fit the data well and showed a better fit compared to a one factor structure ($\chi^2(34) = 71.62$, $p < .05$; CFI

= .95 vs .77; TLI = .94 vs .71; SRMR = .03 vs .06; RMSEA = .04 vs .08; AIC of 19622.93 vs. 19874.69). All indicators were loaded moderately with standardized factor loadings ranged from .14 to .77. Also, the average factor loadings for all constructs were above .60. Refer to Table 10 and Table 16 (Appendix B) for a summary of the above analyses. The subsequent step was to test the hypothesized model.

1.4.4 Multilevel Structural Equation Modeling (SEM)

Similar to Study 1, I used Multilevel SEM to test 3 overall models (corresponding to the 3 separate moderators of task, reward, and punishment interdependence) and 18 local models with 6 variables in process loss (fatigue and stress, absenteeism, and conflict) and process gain (teamwork, creativity, and promotion opportunity) for each moderator. In all the analyses, I centered the “within level” variables of overtime, self-management, fatigue, absenteeism, conflict, teamwork, creativity, promotion opportunity, and interdependence variables relative to each individual’s mean (grand mean) in order to eliminate confounding sources of variance (such as response biases) from the variances of the firm level for this two-level path model. From the summary of fit indices including RMSEA, SRMR, and CFI tests as (shown in Table 15, Appendix B), I concluded that all three overall models and the 18 follow-up local models fit to the data, though the Chi-square fit statistic tests did not show evidence of fit (p -value < 0.05 , which rejected the null hypothesis of the Chi-square test).

The 916 participants in this Study 2 are from 104 different firms. However, there are firms which have only several employees participating in this research. Therefore, I decided to investigate only those firms that had more than 10 participants. Thus, I entered the cluster “fid” for firm identification and “clus_n GE = 10” in Mplus statement.

Like in Study 1, the outputs of 18 individual models were selected to examine the hypotheses testing with the same method to analyze the direct, moderating, and moderated

mediating effects for the 16 hypotheses. Table 13 (Appendix B) shows the path model outputs for hypothesis testing, including coefficients and p-values for individual paths for both overall and local models.

2. Results

2.1 Hypothesis 1

Hypothesis 1 posited that overtime work is positively associated with fatigue and stress (1A), absenteeism (1B), and conflict (1C). Controlling for demographic variables and with all three moderators of interdependence, fatigue was the only factor which was significantly related to overtime ($b = .13$, $p < .05$). Thus, Hypothesis 1 was partially supported. See Tables 13 and 14 (Appendix B) for a summary of these analyses.

2.2 Hypothesis 2

Hypothesis 2 referred to the positive relationship of overtime work and teamwork (2D), creativity (2E), and promotion opportunity (2F). Controlling for demographic variables and with all three moderators of interdependence, teamwork was the only factor which was positively significant related to overtime ($b = .05$, $p < .05$). Hypothesis 2 was thus partially supported (2D). See Tables 13 and 14 (Appendix B) for a summary of these analyses.

2.3 Hypothesis 3

Hypothesis 3 argued that productivity is negatively associated with fatigue and stress (3A), absenteeism (3B), and conflict (3C). Controlling for demographic variables and with all three moderators of interdependence, conflict was the only factor which was negatively significantly related to overtime ($b = -.22$, $p < .05$). Hypothesis 3 was thus partially supported (3C). See Tables 13 and 14 (Appendix B) for a summary of these analyses.

2.4 Hypothesis 4

Hypothesis 4 posited that satisfaction is negatively associated with fatigue and stress (4A), absenteeism (4B), and conflict (4C). As shown in Tables 13 and 14 (Appendix B), with task and promotion interdependence, all predictors were found to be negatively significantly related to satisfaction (e.g. for task interdependence: $b = -.06, p < .05$; $b = -.04, p < .05$; $b = -.12, p < .05$ respectively). With reward interdependence, absenteeism and conflict were found to be negatively significantly related to satisfaction ($b = -.06, p < .05$; $b = -.04, p < .05$; $b = -.12, p < .05$ respectively). Therefore, Hypothesis 4 was partially supported.

2.5 Hypothesis 5

Hypothesis 5 proposed a positive relationship between productivity and teamwork (5D), creativity (5E), and promotion opportunity (5F). As shown in Tables 13 and 14 (Appendix B), with all three moderators of interdependence, all of the predictors (teamwork, creativity, and promotion opportunity) were found to be positively significantly related to satisfaction ($b = .44, p < .05$; $b = .42, p < .05$; $b = .36, p < .05$ respectively). Therefore, Hypothesis 5 was fully supported.

2.6 Hypothesis 6

Hypothesis 6 argued a positive relationship between satisfaction and teamwork (6D), creativity (6E), and promotion opportunity (6F). With all three moderators of interdependence, all of the predictors (teamwork, creativity, and promotion opportunity) were found to be positively significantly related to satisfaction ($b = .26, p < .05$; $b = .40, p < .05$; $b = .37, p < .05$ respectively). Therefore, Hypothesis 6 was fully supported (see Tables 13 and 14, Appendix B).

2.7 Hypothesis 7

Hypothesis 7 posited that the relationship between overtime work and productivity will be mediated by (a) process loss and (b) process gain. Specifically, it posited that overtime work

would be positively related to process loss and process gain and that, in turn, process gain would be positively related to productivity and process loss would be negatively related to productivity. As reported in Table 17 (Appendix B) and Figure 5 (Appendix C), across the three categories of interdependence, a significant indirect effect was found only for the following path: overtime on productivity through teamwork (IE = .023, $p < .05$; IE = .023, $p < .05$; IE = .023, $p < .05$ respectively for task, reward, and punishment interdependence). Thus, Hypothesis 7 was partially supported.

2.8 Hypothesis 8

Hypothesis 8 posited that the relationship between overtime work and satisfaction will be mediated by (a) process loss and (b) process gain. In particular, it posited that overtime work would be positively related to process loss and process gain and that, in turn, process gain would be positively related to satisfaction while process loss would be negatively related to satisfaction. As reported in Table 17 (Appendix B) and Figure 5 (Appendix C), across the three categories of interdependence, significant indirect effect was found only for the following path: overtime on satisfaction through teamwork (IE = .013, $p < .05$; IE = .013, $p < .05$; IE = .014, $p < .05$ respectively for task, reward, and punishment interdependence). Thus, Hypothesis 8 was partially supported.

2.9 Hypothesis 9

Hypothesis 9 related to the moderating effect of self-management in teams on the relationship between overtime and process loss, positing that there is a less positive relationship between overtime work and process loss when self-management in teams is high. As shown in Tables 13 and 14 (Appendix B), among the three variables of process loss and with all three moderators of interdependence, the interaction term of self-management and overtime was found to be significant ($b = -.03$, $p < .05$) only with fatigue variable, supporting this effect. In addition, fatigue was found to have a significant effect with both centralized teams and self-managed teams, across the three moderators of interdependence. For centralized teams, the effects of

overtime on fatigue were .15, $p < .05$; .15, $p < .05$; .15, $p < .05$ respectively for task, reward, and punishment interdependence. For self-managed teams, the effects of overtime on fatigue were .11, $p < .05$; .105, $p < .05$; .11, $p < .05$ respectively for task, reward, and punishment interdependence. Thus, Hypothesis 9 was partially supported with a higher moderation effect of centralization (instead of self-management, as expected).

2.10 Hypothesis 10

Hypothesis 10 posited that self-management in team moderates the relationship between overtime and process gain such that there is a more positive relationship between overtime work and process gain when self-management in teams is high. As shown in Tables 13 and 14 (Appendix B), with all three moderators of interdependence, the interaction terms of self-management and overtime were not found to be significant ($p > .05$), thus not supporting these effects. Among the three variables of process gain, teamwork was found to have a significant effect with both centralized teams and self-management teams, across three moderators of interdependence. For centralized teams, the effects of overtime on teamwork were .055, $p < .05$; .055, $p < .05$; .055, $p < .05$ respectively for task, reward, and punishment interdependence. For self-managed teams, the effects of overtime on teamwork were .049, $p < .05$; .049, $p < .05$; .049, $p < .05$ respectively for task, reward, and punishment interdependence. Thus, Hypothesis 10 was partially supported with a higher moderation effect of centralization (instead of self-management, as expected).

2.11 Hypothesis 11

Hypothesis 11 posited that team interdependence moderates the process loss and productivity relationship such that there is a less negative relationship between process loss and productivity when there is high interdependence in teams. As shown in Tables 13 and 14 (Appendix B), with all three moderators of interdependence, the interaction terms of

interdependence and process loss were not found to be significant ($p > .05$), thus not supporting these effects. With task interdependence, conflict was found to have a significant effect with both high and low interdependence. For individuals in higher interdependence, the effect of conflict on productivity was $-.23$, $p < .05$, while for individuals in lower interdependence, the effect of conflict on productivity was $-.21$, $p < .05$.

With reward interdependence, absenteeism was found to have a significant effect with high interdependence. For high interdependence, the effect of absenteeism on productivity was $-.04$, $p < .05$. On the other hand, conflict was found to have a significant effect with both high and low interdependence with reward interdependence. For high interdependence, the effect of conflict on productivity was $-.23$, $p < .05$. Whereas, for low in interdependence, the effect of conflict on productivity was $-.22$, $p < .05$. Similarly, with punishment interdependence, conflict was found to have a significant effect with both high and low interdependence. For individuals in high interdependence conditions, the effect of conflict on productivity was $-.19$, $p < .05$, whereas for individuals in low interdependence conditions, the effect of conflict on productivity was $-.25$, $p < .05$. On the other hand, absenteeism was found to have a significant effect with high interdependence. For high interdependence, the effect of absenteeism on productivity was $-.07$, $p < .05$. Thus, overall, Hypothesis 11 was partially supported. However, the results are mixed and inconsistent across the three variables of process loss and the three categories of interdependence moderators.

2.12 Hypothesis 12

Hypothesis 12 posited that team interdependence moderates the process loss and satisfaction relationship such that there is a less negative relationship between process loss and satisfaction when there is high interdependence in teams. As shown in Tables 13 and 14 (Appendix B), only with reward interdependence, the interaction term of interdependence and

fatigue was found to be significant ($b = .10, p < .05$). Also, fatigue was found to have a significant effect with low interdependence. For low interdependence, the effect of fatigue on satisfaction was $-.12, p < .05$. On the other hand, conflict was found to have a significant effect with both high and low interdependence with reward interdependence. For high interdependence, the effect of conflict on satisfaction was $-.12, p < .05$, whereas for low interdependence, the effect of conflict on satisfaction was $-.11, p < .05$.

For task and punishment interdependence, conflict was found to have a significant effect with both high and low interdependence. For individuals higher in interdependence, the effects of conflict on satisfaction were $-.12, p < .05$; $.12, p < .05$ respectively, whereas for individuals lower in interdependence, the effects of conflict on satisfaction were $-.11, p < .05$; $-.12, p < .05$. On the other hand, fatigue was found significant with low interdependence for task and punishment interdependence. For low interdependence, the effects of fatigue on satisfaction were $-.08, p < .05$; $-.09, p < .05$ respectively. Overall then, Hypothesis 12 was partially supported. However, the result were mixed and inconsistent across the three variables of process loss and the three categories of interdependence moderators.

2.13 Hypothesis 13

Hypothesis 13 posited that team interdependence moderates the process gain and productivity relationship such that there is a more positive relationship between process gain and productivity when there is high interdependence in teams. As shown in Tables 13 and 14 (Appendix B), among the three variables of process gain, the interaction term of interdependence and creativity was found significant ($b = -.12, p < .05$) only with creativity variable and with punishment interdependence, supporting this effect. For individuals higher in interdependence, the effect of creativity on productivity was $.32, p < .05$, while for individuals lower in interdependence, the effect of creativity on productivity was $.50, p < .05$. On the other hand, team

work and promotion opportunity were found to have significant effects in both high and low interdependence under punishment interdependence. For high interdependence, the effects of teamwork and promotion opportunity on productivity were .40, $p < .05$; .32, $p < .05$ respectively. For low interdependence, the effects of teamwork and promotion opportunity on productivity were .48, $p < .05$; .38, $p < .05$ respectively.

For task interdependence, teamwork, creativity, and promotion opportunity were found to have significant effects in both high and low interdependence. For low interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .44, $p < .05$; .44, $p < .05$; .42, $p < .05$ respectively. For high interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .45, $p < .05$; .39, $p < .05$; .31, $p < .05$ respectively. Similarly, for reward interdependence, teamwork, creativity, and promotion opportunity were found to have significant effects in both high and low interdependence. For individuals higher in interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .42, $p < .05$; .36, $p < .05$; .34, $p < .05$ respectively. For individuals lower in interdependence, the effects of teamwork, creativity, and promotion opportunity on productivity were .47, $p < .05$; .47, $p < .05$; .36, $p < .05$ respectively. Overall then, Hypothesis 13 was partially supported with low interdependence (instead of high interdependence, as expected).

2.14 Hypothesis 14

Hypothesis 14 posited that team interdependence moderates the relationship between process gain and satisfaction such that there is a more positive relationship between process gain and satisfaction when there is high interdependence in teams. As shown in Tables 13 and 14 (Appendix B), with all three moderators of interdependence, the interaction terms of process gain and satisfaction were not found to be significant ($p > .05$), thus not supporting these effects. For reward and punishment interdependence, teamwork, creativity, and promotion opportunity were

found to have significant effects in both high and low interdependence. With reward interdependence, for individuals higher in interdependence, the effects of teamwork, creativity, and promotion opportunity on satisfaction were .28, $p < .05$; .34, $p < .05$; .31, $p < .05$ respectively. For individuals lower in interdependence, the effect of teamwork, creativity, and promotion opportunity on satisfaction were .24, $p < .05$; .45, $p < .05$; .41, $p < .05$.

Similarly, with punishment interdependence, for individuals higher in interdependence, the effect of teamwork, creativity, and promotion opportunity on satisfaction were .22, $p < .05$; .33, $p < .05$; .32, $p < .05$ respectively, whereas for individuals lower in interdependence, the effect of teamwork, creativity, and promotion opportunity on satisfaction were .30, $p < .05$; .45, $p < .05$; .40, $p < .05$ respectively. Concerning task interdependence, teamwork was found to be significant with high interdependence ($b = .27$, $p < .05$) only. On the other hand, creativity and promotion opportunity were found to be significant in both high and low interdependence. For high interdependence, the effects of creativity and promotion opportunity on satisfaction were .38, $p < .05$; .40, $p < .05$; respectively, while for low in interdependence, the effects of creativity and promotion opportunity on satisfaction were .40, $p < .05$; .33, $p < .05$; respectively. Overall then, Hypothesis 14 was partially supported. However, the result were mixed and inconsistent across the three categories of interdependence moderators.

2.15 Hypothesis 15

Hypothesis 15 argued that the mediated relationship (indirect effect) between overtime work and productivity (through process loss) is less negative when there is high interdependence and self-management in teams and that the mediated relationship (indirect effect) between overtime work and productivity (through process gain) is more positive when there is high interdependence and self-management in teams. As shown in Tables 13 and 14 (Appendix B) and drawing from the previous moderation hypotheses on the alpha and beta paths, significant

moderation effects for both centralized and self-management teams were found for the following alpha paths: overtime on a) fatigue and b) teamwork. For beta paths, across the three categories of interdependence, significant moderation effects for both high and low interdependence were found on the following paths: productivity on a) conflict, b) teamwork, c) creativity, and d) promotion opportunity. Significant moderation effects for high interdependence were found only on the path of productivity on absenteeism with reward and punishment interdependence. Indirect effects were thus different for the above-mentioned paths.

As a result, across the three categories of interdependence, the indirect effects of overtime on productivity through teamwork were found to be significant in both centralized and self-management teams with both high and low interdependence. For individuals in centralized teams and higher interdependence, the effects of overtime on productivity through team work were .024, $p < .05$; .023, $p < .05$; .022, $p < .05$ respectively for task, reward, and punishment interdependence. For individuals in centralized teams and lower interdependence, the effects of overtime on productivity through team work were .025, $p < .05$; .026, $p < .05$; .027, $p < .05$ respectively for task, reward, and punishment interdependence. For individuals in self-managed teams and higher interdependence, the effects of overtime on productivity through team work were .022, $p < .05$; .021, $p < .05$; .022, $p < .05$ respectively for task, reward, and punishment interdependence. Lastly, for individuals in self-managed teams and lower interdependence, the effects of overtime on productivity through team work were .022, $p < .05$; .023, $p < .05$; .027, $p < .05$ respectively for task, reward, and punishment interdependence. Therefore, Hypothesis 15 was partially supported.

2.16 Hypothesis 16

Hypothesis 16 posited that the mediated relationship (indirect effect) between overtime work and satisfaction (through process loss) is less negative when there is high interdependence

and self-management in teams and that the mediated relationship (indirect effect) between overtime work and satisfaction (through process gain) is more positive when there is high interdependence and self-management in teams. As shown in Tables 13 and 14 (Appendix B) and drawing from the previous moderation hypotheses on the alpha and beta paths, significant moderation effects for both centralized and self-management teams were found for the following alpha paths: overtime on a) fatigue and b) teamwork. For beta paths, with task interdependence, significant moderation effects for both high and low interdependence were found on the following paths: satisfaction on a) conflict, b) teamwork, c) creativity, and d) promotion opportunity.

On the other hand, with reward and punishment interdependence, significant moderation effects for both high and low interdependence were found on the following paths: satisfaction on a) conflict, b) teamwork, c) creativity, and d) promotion opportunity. Whereas, significant moderation effects were found on the path of satisfaction on fatigue with reward and punishment interdependence for high interdependence only. Indirect effects were thus different for the above-mentioned paths.

As a result, across the three categories of interdependence, the indirect effects of overtime on satisfaction through teamwork were found to be significant in both centralized and self-management teams with both high and low interdependence. For individuals in centralized teams and higher interdependence, the effects of overtime on satisfaction through team work were .015, $p < .05$; .015, $p < .05$; .012, $p < .05$ respectively for task, reward, and punishment interdependence. For individuals in centralized teams and lower interdependence, the effects of overtime on satisfaction through team work were .014, $p < .05$; .013, $p < .05$; .017, $p < .05$ respectively for task, reward, and punishment interdependence. For individuals in self-managed teams and higher interdependence, the effects of overtime on satisfaction through team work were .013, $p < .05$; .014, $p < .05$; .011, $p < .05$ respectively for task, reward, and punishment

interdependence, while for individuals in self-managed teams and lower interdependence, the effects of overtime on satisfaction through team work were .012, $p < .05$; .012, $p < .05$; .015, $p < .05$ respectively for task, reward, and punishment interdependence.

In addition, with task and reward interdependence, the indirect effects of overtime on satisfaction through fatigue were found to be significant with lower interdependence for both centralized and self-managed teams. For individuals in centralized teams and lower interdependence, the effects of overtime on satisfaction through fatigue were -.012, $p < .05$; -.018, $p < .05$ respectively for task and reward interdependence, whereas for individuals in self-managed teams and lower interdependence, the effects of overtime on satisfaction through fatigue were -.009, $p < .05$; -.013, $p < .05$ respectively for task and reward interdependence. Therefore, Hypothesis 16 was partially supported. However, the results were inconsistent across the three categories of interdependence moderators.

CHAPTER V

DISCUSSION & CONCLUSION

Overall the results of the current work were considered partially supportive of the effects hypothesized. The following sections contain a discussion of principle findings across both studies by variable and hypothesis (Section 1), which includes possible explanations of why certain trends were observed and comparisons of findings with previous literature, a discussion of the proposed contributions to the field both theoretically and practically (Sections 2 and 3), and a discussion of the limitations and suggestions for future directions (Sections 4 and 5).

1. Principle Findings Across Studies

1.1 Overtime and Process Loss (Hypothesis 1)

In Study 1, conflict was generally associated with overtime. Whereas in Study 2, fatigue was the only factor related to overtime. An association between overtime work and variables such as fatigue and conflict has been found elsewhere and can be characterized as a systematic imbalance between how much effort is expended at work and the opportunities to recover from such expenditure (see Härmä, 2003 and Van der Hulst, 2003). It was thus unsurprising to find such associations. It was, however, unexpected to find two different factors in the two studies. A possible reason for the different factors (that is, conflict in Study 1 and fatigue in Study 2) could be that in Study 1 employees engaged in a 2-month period of overtime work, which may have

been enough time to create conflict between team members but not enough to cause fatigue. In Study 2, on the other hand, while the participants were surveyed about a similar amount of time of previous overtime work, data on how much overtime work was done in the past was not available. Thus, a participant could have been surveyed on just two prior months, but may have worked overtime for much longer and may have reported on the fatigued experience overall. Another possible reason could be the difference in sample size, with Study 1 having 135 participants and Study 2 having 916 participants. As indicated by Dembe and colleagues (2005), small sample size can constitute an important methodological shortcoming that may alter results.

In both Study 1 and Study 2, absenteeism was not found to be associated with overtime, relationship in which additional factors which were not examined may have played a role. For example, as suggested by Mikalachki and Chapple (1977), the ability of an employee to control the amount of overtime work can enable the employee to achieve a certain income in fewer days of attendance.

1.2 Overtime and Process Gain (Hypothesis 2)

Teamwork was the only process gain factor found to have a high correlation with overtime in both studies and across the three levels of interdependence (task, reward, and punishment interdependence). These results were of note as not much is available in the literature on the relationship between teamwork processes and overtime work. It is possible that, as some studies report, teams become more cohesive and adaptive over time (Bradford, 1996; Kozlowski & Bell, 2008, Kalisch & Lee, 2013) and through more teamwork (LePine et al., 2008; Manzoor, Ullah, Hussain, & Ahmad, 2011). It is also possible that employees were more dependent on one another as there may have been fewer workers during overtime (Kalisch & Lee, 2013) and that employees were more aware that any lack of collaboration could have led to duplicate work or an

inability to complete a task by a certain deadline or within specific budgetary constraints (Hoegl, Parboteeah, & Gemuenden, 2003).

For creativity, the results clearly showed that there was no positive association with overtime, a surprising result. However, it is possible that employees simply lacked time to develop creativity, which is often born out of time *away* from tasks (Barron & Harrington, 1981) or during what Csikszentmihalyi and Sawyer (1995) call ‘idle time’ – time spent on tasks without high pressure. Though overwork provided time in terms of more hours of work, it may not have been the more “creative” time that was necessary to see any direct association with creativity.

No association was also found between overtime and promotion opportunity. This result might be due to the fact that employees did not consider any future promotion opportunities resulting from their overtime work (Bell & Freeman, 2001). This possibility may be related to the type of industry (construction in Study 1 and service industry in Study 2).

1.3 Process Loss and Productivity/Satisfaction (Hypotheses 3 & 4)

In terms of the effects of process loss on productivity, the results were mixed and inconsistent between the two studies: the factor found to have a negative association with productivity in Study 1 was fatigue, while in Study 2 the factor was conflict. This finding mirrors the relationship that was found between fatigue and overtime and conflict and overtime. Though there is an association between overtime and stress/fatigue and conflict, it is possible that the association between stress/fatigue and conflict and productivity is not linear and that there are other confounding factors that affect it (see Voss, Floderus, & Diderichsen, 2001), which were not analyzed in the current work.

Similar to the effects of process loss on productivity, findings related to the effects of process loss on satisfaction were also inconsistent across the two studies. In Study 1, the hypothesized negative relationship between process loss and satisfaction was not supported by the

data at any of the three levels of interdependence. In Study 2, instead, all predictors of process loss were found to be negatively significantly related to satisfaction with task and punishment interdependence; absenteeism and conflict were found to be negatively significantly related to satisfaction with reward interdependence. Though others have found mixed results for these relationships as well (see Cheloha & Farr, 1980), a possible source for such differences between the studies here could have been the difference in sample size (135 versus 916, respectively) or in the overtime period between the two. It is also possible that the inconsistency of the results is due to the complexity of the proposed model, which contains multiple variables correlated to one another. Though satisfaction was found to be negatively related to absenteeism when simple correlational analyses were conducted ($r = -.10$, $p < 0.05$ as shown in Table 3, Study 1, Appendix A), no consistent relationship between job satisfaction and absenteeism was found with partial correlations. Further, the dependent variable of satisfaction may be more complex to interpret than expected (see Cheloha & Farr, 1980).

1.4 Process Gain and Productivity/Satisfaction (Hypotheses 5 & 6)

With regards to the association between process gain and productivity, it was evident that teamwork, creativity, and promotion opportunity were highly correlated with employee productivity in both Study 1 and Study 2 across all three categories of interdependence. This result was expected, as evidenced by previous research. For example, early studies on creativity have reported high correlations between assessed degrees of creativity and of productivity (Lauer, 1995; Ekvall, 1996). More recent studies have also confirmed positive correlations between teamwork and performance (Manzoor et al., 2011; Hanaysha, 2016), teamwork, productivity, and satisfaction (Phina et al., 2018), and the benefits of promotion opportunities and incentives for increased productivity (Taniguchi & Takahashi, 2006).

For satisfaction, the link between process gain and employee satisfaction was fully supported by the data for Study 2 across all three categories of interdependence, and it was supported for creativity and promotion opportunity in Study 1 – teamwork was found to be associated with satisfaction in the task interdependence category only. These findings align with previous observations. For teamwork, Acuna, Gomez, and Juristo (2009) reported that job satisfaction can increase through teamwork, as team members learn, work closely, and are incentivized by job enlargement elements. In addition, if those teams are supportive, friendly, and work well together, team members can experience even higher levels of job satisfaction (Kreitner, Kinicki & Cole, 2003). For creativity and promotion opportunities, many recent studies have found similar positive relationships with job satisfaction (see Ssesanga & Garrett, 2005; Danish & Usman, 2010; Awang et al., 2010; Yee, Pink, & Sern, 2014).

1.5 Mediating Hypotheses (Hypotheses 7 & 8)

Relative to the mediating effects of process loss/gain on the relationship between overtime and productivity/satisfaction, among the six components of process loss and process gain, only teamwork was found to have a significant full mediating effect in both studies and both indirect paths (alpha path from overtime to process loss/gain and beta path from process loss/gain to productivity) were significant, coupled with insignificant direct paths; see Table 8).

Fatigue was found to have a significant mediating effect only in Study 2 and with task interdependence. The remaining mediators, including absenteeism, conflict, creativity, and promotion opportunity, in some cases were found to be significant either in alpha path or beta path but not in both indirect paths. Thus, there was insufficient evidence to mark them as mediators. For example, in Study 1, conflict was found to have a significant indirect effect between overtime and conflict (alpha path). However, there was no evidence of a significant indirect effect between conflict and productivity/satisfaction (beta path). Therefore, conflict was

not found to be a mediator between overtime and productivity/satisfaction. For absenteeism, it was interesting to note that, in Study 1, and across three categories of interdependence, there was no evidence of significant moderating effect in either indirect path. Please refer to Table 8 for a summary of mediating effects.

1.6 Hierarchical Leadership (Hypotheses 9 & 10)

In terms of the hypothesized moderating effects of team structure on the relationship between overtime and process loss, results were mixed and inconsistent across the two studies. In Study 1, the data only provided evidence for a moderating role of centralization and only on conflict. In Study 2, the data showed evidence for a moderating role of self-management on the relationship between overtime and fatigue. Though the finding in Study 1 was unexpected, one explanation could be that centralization and self-management moderate different factors. For example, when teams have a formal hierarchical structure, horizontal interactions within the team are less intense and thus may influence the amount of unproductive conflict (Boone et al. 2005). It may be possible that self-managed teams are not able to as effectively reduce the conflict which may arise from engaging in more of such interactions, especially under the pressure of critical deadlines, and thus experience more team conflict as compared to that of centralized teams. However, when self-managed teams use those horizontal interactions to effectively collaborate and share available resources, they may experience less fatigue compared to centralized teams. As discussed by Levenson (2017), collective responsibilities and decision making may result in maintaining a level of personal workload that does not become overly tiring.

With regards to the moderating effects of team hierarchical leadership on the relationship between overtime and process gain (i.e. teamwork, creativity, and promotion opportunity), results in both studies were consistent: team centralization was found to significantly moderate the relationship between overtime and teamwork. In other words, in overtime settings, team members

presented more teamwork with centralized leadership. Though this finding was contrary to the hypothesized moderating effect of self-management, it is possible that the role of leadership is important to teamwork: leaders may be better able to pair team members who would not otherwise collaborate and to more clearly convey information or resources to team members. In other words, “by bridging unconnected nodes, central leaders act as resource-integrating mechanisms” (Balkundi & Harrison, 2006, p. 54) that help promote more teamwork within teams.

1.7 Interdependence (Hypotheses 11 through 14)

In terms of the hypothesized moderating effects of team interdependence on the relationship between process loss and productivity, Study 1 data provided evidence for a moderating role of low interdependence on the relationship between fatigue and productivity. This finding was not as expected and appears to be in contrast with previous research as well, which has suggested that high interdependence in teams should decrease the negative impact of fatigue on team productivity in overtime work settings (Driskell, Salas, & Johnston, 1999). In Study 2, data showed evidence of a moderating effect of high interdependence levels on the relationship between absenteeism and conflict and productivity/satisfaction. It would seem that higher levels of interdependence in teams help reduce the negative impacts of conflict and absenteeism behavior on productivity and satisfaction. In fact, as Langfred (20017) has indicated, high conflict in teams is often found to be associated with lower levels of interdependence and lower performance.

As for the hypothesized moderating effects of team interdependence on the relationship between process gain and productivity/satisfaction, results were consistent across the two studies and in support of the proposed hypotheses. Data provided evidence of a significant team interdependence effect for all three components of process gain (team work, creativity, and promotion opportunity).

1.8 Moderated Mediating Hypotheses (Hypotheses 15 & 16)

Lastly, in terms of moderated mediating effects, teamwork was found to have significant moderated mediating effects on the relationship between overtime and productivity in both studies. Employees in overtime setting were found to have higher productivity levels if they were placed in teams with centralized structures and with high levels of interdependence.

Cumulatively, as shown in Table 9 (Appendix A), Table 18 & 19 (Appendix B), the results of the two studies provided no evidence of a significant association between overtime, process loss, and productivity/satisfaction, but consistent evidence of a significant relationship between process gain and productivity/satisfaction. Teamwork was found to have a significant full mediating effect. For the moderating effects, team centralization was found to have significant effects on the relationship between overtime and process loss/gain as compared to self-management, whereas low interdependence levels were found to have a significant effect on the relationship between process loss/gain and productivity/satisfaction.

2. Theoretical Implications

This study aimed to fill some of the gaps in the current literature by investigating the effects of overtime work on the job productivity and satisfaction of employees. By adopting an experimental design in lieu of anecdotal evidence, this study is the first of its kind to empirically examine the effects of potential drivers, mediators, and moderators on overtime work and employee performance and wellbeing. Further, the framework for the current study was built upon several theories, including Team Process theory, Expectancy-Valence theory, Job Demands–Control–Support Model, and Dynamic Componential Model of Creativity and Innovation, which are reviewed in the following sections in light of the current findings.

2.1 Team Process Theory

The results in Study 1 and Study 2 were mixed and inconsistent regarding team interdependence, the moderator impacting the relationship between teamwork and productivity/satisfaction. In the development of team process theory, LePine and colleagues (2008) argued that teamwork should have a stronger impact on team performance in teams with high task interdependence as compared to that on the performance of those teams in low task interdependence setting (see also Marks et al., 2001). Our Study 1 did align with the findings of LePine and colleagues (2008), though in Study 2 we observed that the relationship between teamwork and team effectiveness was stronger in cases of low task interdependence. This discrepancy might have been the result of differences in situational factors of team processes. For example, employees working overtime in Study 2 might have been more likely to work independently and thus had fewer interpersonal interactions. Moreover, the individual contributions of the team members might have been pooled rather than integrated (Thompson, 1967). Thus, these findings draw attention to the importance of situational factors in team process.

This study also found that overtime work frequently leads to an increase in teamwork and that teamwork has a mediating influence on individual productivity and job satisfaction. Team members in overtime environments may be able to better understand that they can achieve more by working together and sharing their expertise, knowledge, and other resources in order to meet project deadlines.

2.2 Expectancy-Valence Theory and Job Demands–Control–Support Model

Both Study 1 and Study 2 failed to establish a link between absenteeism and overtime work. This was an unexpected finding though it lends support to the grounded expectancy-valence theory. Expectancy-valence theory argues that individuals choose behaviors depending

upon the probability of receiving valued outcomes as a result of those behaviors (Vroom, 1964; Porter, Lawler, & Hackman, 1975); in this case, that employee attitudes towards overtime work are shaped by a “cost-benefit” analysis. In other words, they weigh costs such as stress, fatigue, potential task, relationship conflicts with teammates, work-family conflicts, and social life sacrifices against benefits such as extra income, promotion opportunities, and other rewards. If cumulative benefits exceed cumulative costs, employees will embrace overtime work, behavior which might explain the weak relationship between overtime work and absenteeism.

The inconsistencies between Study 1 and Study 2 in terms of the relationship between overtime work and fatigue and conflict may also lend support to the Job Demands–Control–Support (JDCS) theory. Employees did not display fatigue, stress, and absenteeism in Study 1, while they experienced conflict and absenteeism in Study 2. Desirable employee behaviors in Study 1 and Study 2 might have been due to expectations of promotion opportunities, greater job control, and/or organizational support from the management.

2.3 Dynamic Componential Model of Creativity and Innovation

The Dynamic Componential Model of Creativity and Innovation (DCMCI) claims that more work hours enhance creativity through the pressure to achieve more within certain limits (Dewey, 1934; Amabile et al., 1996). However, our studies reached different conclusions: both in Study 1 and Study 2, no significant relationship was found between overtime work and creativity. It is possible that, as new ideas tend to emerge over time (Sawyer, 2012), the time resources and overtime work duration in the current studies may have been too limited to show a relationship. It is also possible that there exists a reverse relationship between overtime and creativity. Though time and creative freedom are important components in the innovation process (Amabile & Pillemer, 2012; Csikszentmihalyi & Sawyer, 1995; Runco, 2004), it is also the case that those who place higher value on creativity tend to work more hours than their less creative peers (Kanji

and Samuel, 2017). These findings offer an insight into the differential experience and use of time by creative people and may inspire further investigation into the nature and two-way direction of the relationship between overtime work and creativity.

3. Practical Implications

This study has potentially significant implications for practice. First, the results show that overtime promotes teamwork among the workers and that teamwork can potentially have a significant impact on the relationship between overtime work and employee productivity and job satisfaction. Thus, organization may take this insight into account when designing and investing in programs meant to motivate teamwork among employees to improve their productivity and job satisfaction in overtime environments. One strategy they could adopt is that of assigning roles and responsibilities to individual employees in an overtime environment. This process should be clear and documented to avoid any confusion over the roles and responsibilities assigned to each individual. Organizations may also encourage employees to assign roles through discussion in order to promote cooperation. When roles are assigned through internal agreements, the teams function as well as those teams that have embraced cooperation all along (Beersma et al., 2009). In addition, organizations should set clear and defined goals to achieve in an overtime setting. Lack of clear goals may make it difficult to motivate employees and foster cooperation. Clearly defined goals also help employees understand how their individual contributions support organizational goals, resulting in improved communication and teamwork.

Second, the current study provides evidence that self-managed teams do not perform as well as centralized teams in overtime settings, particularly in those environments in which tight deadlines can lead to frequent task conflicts as self-managed teams are especially susceptible to the negative effects of conflict (Langfred, 2007). To minimize the potential negative effects of conflict, organizations may provide training to employees to help them improve conflict-management skills in which team members are taught to express their views without jeopardizing

work relationships. Employees may also benefit from learning conflict resolution skills to enhance cohesion in decision-making when deliberating on final solutions. Most importantly, final solutions will be of higher quality as they will be based on best ideas from individual team members (Tjosvold, 1997). In addition, managers should assign leaders to teams because self-managed teams are less effective in overtime environment. In environments like overtime which demand quicker and high-quality decisions, centralized decision-making can decrease conflict and opposition levels among lower level employees; the potential for disagreements tends to be higher when more people are involved in the decision-making process.

Third, in both Study 1 and Study 2 no significant relationship was found between overtime work and potential negative consequences such as fatigue and stress, conflict, and absenteeism. There was also no significant relationship between overtime work and absenteeism. Hence, employers should focus on factors that may improve the overtime work experience rather than trying to avoiding overtime in the first place. As this study suggests, improving teamwork will have a positive impact on employee performance and job satisfaction in overtime environment. Moreover, consistent with the Job Demands–Control–Support Theory (JDCS), organizations should promote “active jobs” (Johnson & Hall, 1988; Karasek & Theorell, 1990), as workers with demanding jobs may be more likely to embrace overtime work in hopes of promotion opportunities. Employees should also be given flexibility and choice for overtime work as this will give them more “job control.” Lastly, management should extend supportive measures such as health coverage, recovery procedures, promotions, and other types of reward systems. The organization will also benefit from effective project management and proactive work scheduling to avoid the potential costs of excessive overtime work over a long period.

4. Limitations

This study has certain limitations that must be considered and even explored by future research initiatives. First, data for both studies came from employee self-reports, which raises

concerns about external validity (Bhattacharjee, 2012, p. 36). In addition, there were no means to validate responses from Study 2 participants, who were asked to recall events from the previous two months. Hence, our conclusions might have been compromised by potential inaccuracies in their recollections and be biased due to common-method variance or the desire to provide consistent responses (Conway, 2002). These concerns are less relevant to Study 1 as independent, mediator, moderator, and dependent variables were collected separately and placed in different measurement occasions (Ilies et al., 2010). However, there may still be some concerns about variance in common methods.

The second limitation is due to the cross-sectional nature of this study. Causal inferences may hardly be claimed among focal constructs, invalidating internal validity (Bhattacharjee, 2012, p. 35). For instance, it is not clear whether overtime is an antecedent of absenteeism, or absenteeism causes overtime, or the causal relationship goes both ways. In the case of our complex theoretical model, we advocate for a dynamic and reciprocal approach rather than a simple and one-directional cause-effect interpretation to understand the relationship among drivers (overtime work), team structure (self-management versus centralized team), mediators (teamwork for example), team interdependence (low versus high), and employee output (job satisfaction or productivity). Due to the field experimental design of Study 1, and despite it representing one of the unique aspects of this study, it was only possible to observe teams over a short period of time (i.e. eight weeks). Hence, there might not have been sufficient time to develop the causal inferences regarding the impacts of overtime on the six components of process loss and process gain, the impacts of process loss and process gain on employee outcomes, or the moderating impacts of team structure (self-management versus centralized team) and team interdependence on the relations between overtime, process loss/gain, and employee outputs. As a result, the study most likely underestimates the consequences that might be observed in the real world over a long period of time (see Marks et al., 2001).

The third limitation of this study is the generalizability or the external validity of the sample selection. The study was primarily conducted in firms in the service sector. The sample respondents were quite homogeneous so there are valid concerns about the relevance of this study to other industries, particularly those in the non-service sector. While every possible attempt was made to generate a random sample, there is no guarantee that the effort was successful. For example, only those firms that already regarded overtime as an important issue might have agreed to participate in Study 2, potentially creating a sample selection bias. Though a single-blind approach was adopted in Study 1, meaning that the study participants understood the research conditions but did not know about the objectives of the research, there is still a possibility of bias in the research data as the participants understood the goal of the study and were aware of being rated by their immediate supervisor. This knowledge could have influenced them to modify their work attitudes and behaviors (e.g. lower rates of absenteeism).

Fourth, this study accounted for the potential confounding effects of overwork, age, gender, education, tenure, and region. However, this study also ignored many other potential factors such as employee health conditions, culture, income level, and family composition, whose influence may be material.

Lastly, the teams ranged from two to five members, which may not always be a reliable representation of a real-world scenarios. LePine and colleagues (2008) argue that team size may moderate the relationship between team processes and team effectiveness as “larger teams have more linkages among members than do smaller ones and therefore face greater coordination challenges. Larger teams are also more prone to motivation and coordination losses” (p. 279) as the emphasis falls more on effective teamwork.

5. Future Directions

This study may guide future research projects, particularly those that further investigate the empirical results reported in this study or address the limitations of this study design. The following sections provide some ideas for this type of work.

5.1 Extending the findings of this study

This study offers clues to potential investigation areas that may make valuable contributions to the research literature. The results of Study 1 indicated that teams with high interdependence perform better than teams with low interdependence in case of centralized structures but not in case of self-managed structures. However, Study 2 found that teams with low interdependence perform better than teams with high interdependence in case of centralized structures but not in case of self-managed structures. This contradiction demands further investigation to clarify the relationship between centralized/self-managed teams and low/high interdependence in teams. Furthermore, both Study 1 and Study 2 focus on the individual level only as described in the component variance analysis sections. Future research may examine the relationship between overtime and employee wellbeing at both individual and team levels.

Second, this study did not find an adverse impact of overtime on process loss, probably due to the voluntary nature of overtime. Future research may investigate whether the relationship between overtime and employee wellbeing remains consistent in case of both voluntary and non-voluntary overtime. If employees are given a choice whether to engage in overtime work, they may be more satisfied, productive, and less stressed. Hallowell (2010) claims that workers in voluntary overtime setting report less fatigue and higher level of job satisfaction. Golden and Wiens-Tuers (2007) also point out that voluntary overtime work minimizes the effect of fatigue. In many cases, employees opt for longer work hours to

demonstrate their commitment to the organization as well as their suitability for promotion opportunities (Sousa-Poza & Ziegler, 2003). Therefore, workers may be more satisfied with their jobs and compensation in voluntary work settings than those in non-voluntary work settings. Future research may investigate these possibilities by examining the effects of flexibility in overtime work. If the employees have flexibility in scheduling overtime work, they may be more productive and more satisfied with their jobs (Lucia, Alzbeta, 2010).

Third, teamwork is the only variable among the three components of process gain that had a significantly mediating impact on the relationship between overtime and employee productivity and satisfaction. Like teamwork, organizational support is a suitable candidate for future research to investigate whether it can positively impact the linkage between overtime work and employee wellbeing. Organizational support theory (Eisenberger, Huntington, Hutchinson, & Sowa, 1986) proposes that employees are more committed to the organization when they perceive the organization to be supportive of their work (Wallace et al., 2009). Like teamwork, organizational support may positively impact the relationship between overtime work and employee wellbeing. Witt and Carlson (2006) found that organizational support lessens the negative impact of overtime work. Future research may explore the impact of organizational support on teamwork and overtime control as well as the dyadic correlations among these three factors for overtime work and employee wellbeing.

Lastly, future research may attempt to find the right conditions for creativity in overtime settings such as the ideal mix of intense overtime, relaxed overtime, and time away from work (Samuel and Kanji, 2017). The mix may also involve organizational support such as reward systems based on added value from creative ideas, paid vacations, and promotion opportunities. In addition, the future research studies may further examine the potential of a two-way relationship between overtime work and creativity. Longer work hours may stimulate creative thinking by compressing time due to tight deadlines (Dewey,

1934). Conversely, creative expectations may be higher from promising employees or employees that value creativity may seek longer work hours (Samuel and Kanji, 2017).

5.2 Addressing limitations

Other research projects may attempt to address the design limitations of this study. First, future research approaches may address the concerns about common methods variance by utilizing other types of data and data collection methods in addition to self-reported data. For example, self-reported data on creativity, productivity, teamwork, and conflict may be compared against data collected from peers and human resource departments. Similarly, data on fatigue and stress could be made more reliable by employing psychological and physiological measures such as interviews, observation checklists, cardiovascular data, or cortisol samples. Other statistical tools may be employed to detect and control possible common variance bias. For example, Harman's single factor test may examine all 14 variables through exploratory factor analysis to determine whether a single factor accounts for the majority of the covariance between the measures. Next, these 14 variables will be combined into single factor to evaluate the fit to the data. If the single factor CFA model is found to strongly fit to the data, the common method variance is considered a reason for the relationships among 14 variables (Krishnan, Martin, & Noorderhaven, 2006; Podsakoff et al., 2003; Steensma, Tihanyi, Lyles, & Dhanaraj, 2005). Otherwise, the argument is that common method variance is not a prevalent issue. These approaches may help reduce concerns of common methods bias as well as improve our understanding of the phenomena under investigation in this study.

Second, this study relies on a single service industry, which limits generalizability. This study should be replicated in a variety of organizational settings. The reliability of this study can also be tested with the help of other modern research methods. For instance, after adjusting for best fit to the hypothesized constructs, the technological approach developed by Dimotakis and

colleagues (2010) can help ensure that the findings are relevant to the workers outside the service sector. Furthermore, it may be helpful to examine the impact of cultural factors, not a control variable in this study, on employee performance in overtime setting as there is a possibility that cultural factors do influence employee productivity and job satisfaction in overtime settings.

Third, the short duration of this study might have prevented us from uncovering potential relationships between overtime and absenteeism, conflict (under process loss), as well as creativity and promotion opportunity (under process gain), as two months is a short period of time for employees to develop work behaviors. Future research projects may apply dynamic processes for stronger designs such as longitudinal, quasi-experimental, and intervention studies (De Lange et al., 2004; Taris & Kompier, 2003).

Lastly, instead of just employing a quantitative approach, the future studies may also employ qualitative approaches to examine the impact of overtime work. They may take advantage of numerous data collection techniques to gain a deeper understanding of the impact of overtime work on performance and wellbeing of team members. They may also investigate potential factors that could moderate or mediate the said relationship in order to optimize overtime work process. This approach may even offer clues to new avenues of research.

6. Conclusion

This study provides unique insights into the impact of overtime work, showing no association with absenteeism, creativity, and promotion opportunity and an inconsistent relationship with fatigue and stress and conflict. The findings, however, do underscore the importance of teamwork and centralization with regards to the productivity and satisfaction of employees; both teamwork and centralized team structure were strongly supported by this study. Teamwork was the only variable found to be significantly fully mediating the relationship between overtime and employee well-being and, unlike what had been hypothesized, it was centralization rather than self-management that was found to positively moderate the relationship

between overtime and process loss or process gain. These findings make an important contribution to the field both theoretically and practically with serious implications for organizations for better performance.

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APPENDICES

APPENDIX A

TABLES – STUDY 1

Table 1. Confirmatory Factor Analysis of Study Variables

	χ^2	DF	CFI	TLI	SRMR	RMSEA	AIC
Interdependence							
<i>3 Factors: Proposed</i>	404.25	41	0.903	0.87	0.051	0.091	31,643.49
<i>1 Factor</i>	765.24	44	0.807	0.759	0.047	0.123	32,973.74
Process Loss							
<i>2 Factors: Proposed</i>	200.37	43	0.924	0.903	0.04	0.058	31,572.66
<i>1 Factor</i>	494.62	44	0.784	0.73	0.1	0.097	33,430.18
Process Gain							
<i>3 Factors: Proposed</i>	374.039	116	0.978	0.974	0.014	0.045	33,588.986
<i>1 Factor</i>	1345.48	119	0.894	0.879	0.034	0.098	37,404.88
Output (Productivity and Satisfaction)							
<i>2 Factors: Proposed</i>	293.89	43	0.963	0.953	0.057	0.074	27,555.97
<i>1 Factor</i>	742.69	44	0.897	0.871	0.047	0.121	28,920.20
Supervisor Rating							
<i>2 Factors (Create + Produ)</i>	271.44	53	0.981	0.976	0.01	0.062	21,269.00
<i>1 Factor</i>	677.91	54	0.945	0.932	0.02	0.103	22,863.40

Notes: All estimates derived from individual CFAs. CFI = Comparative Fit Index. TLI = Tucker-Lewis Index. SRMR = Standardized Root Mean Residual. RMSEA = Root Mean Square Error of Approximation. AIC = Akaike Information Criterion

Table 2. Variance Components of the Measures Variables

#	Variable	Variance Within	Variance ID	Variance Supervisor	% ID	% Supervisor	% Within
1	OVERWORK	0.12	0.13	0.06	42.72%	18.77%	38.51%
2	FATIGUE	0.54	0.53	0.03	47.86%	3.00%	49.14%
3	CONFLICT	0.37	0.37	0.16	41.18%	17.41%	41.41%
4	TEAMWRK	0.14	0.16	0.05	46.09%	14.49%	39.42%
5	CREAT_SR	0.13	0.15	0.06	43.07%	18.88%	38.05%
6	CREAT_SUP	0.23	0.16	0.06	35.62%	12.83%	51.55%
7	PROMOT	0.13	0.12	0.03	42.24%	11.55%	46.21%
8	SELFMAN	0.35	0.21	0.02	36.49%	4.13%	59.38%
9	TINT	0.30	0.15	0.04	30.52%	8.45%	61.03%
10	RINT	0.29	0.10	0.04	23.90%	9.28%	66.82%
11	PINT	0.43	0.12	0.04	20.89%	6.34%	72.77%
12	PROD_SR	0.10	0.09	0.05	37.66%	21.34%	41.00%
13	PROD_SUP	0.18	0.05	0.08	15.77%	26.50%	57.73%
14	SATISF_SR	0.11	0.09	0.01	46.08%	2.45%	51.47%
15	SATISF_SUP	0.11	0.05	0.05	22.01%	24.88%	53.11%

Notes:

- TEAMWRK=Teamwork; CREATE_SR = Creativity Self-report; CREATE_SUP = Creativity Supervisor
- PROMOT = Promotion; SELFMAN = Self-management; TINT - Task Interdependence; RINT - Reward Interdependence
- PINT = Punishment Intercedence; PROD_SR = Productivity Self-report; PROD_SUP - Productivity Supervisor
- SATIS_SR = Satisfaction Self-report; SATIS_SUP = Satisfaction Supervisor
- All variance components estimated from Mplus

Table 3. Means, Standard Deviations and Variables Correlations

Variable	M	SD	1	2	3	4	5	6	7	8
1 Female	0.81	0.39	---							
2 Country	1.49	0.67	0.01	---						
3 Age	31.78	6.01	-0.11*	-0.04	---					
4 Education	3.82	0.97	-0.09*	0.05	0.08*	---				
5 Major	0.33	0.72	-0.18**	0.01	-0.05	-0.17**	---			
6 Tenure	2.80	2.11	0.00	-0.04	0.49**	0.12*	-0.06*	---		
7 Overwork	3.93	0.55	0.05	0.20**	-0.03**	0.15**	-0.15**	0.16**	0.77	
8 OT	7.42	6.99	0.11*	0.03	-0.15**	0.18**	-0.17**	0.07*	0.30**	---
9 Fatigue	2.40	1.05	-0.09*	-0.23**	0.12**	0.06	-0.11*	0.04	-0.06*	0.03
10 Absent	2.96	1.69	-0.13**	0.31**	-0.13**	0.00	-0.04	-0.10*	0.06	-0.03
11 Conflict	2.41	0.95	-0.07*	-0.27**	0.07*	0.08*	0.01	-0.01	-0.35**	-0.22**
12 Teamwork	4.12	0.59	0.01	0.17**	0.05**	-0.02	-0.12**	0.02	0.52**	0.13**
13 Create_Sr	3.81	0.58	0.04	0.10*	-0.10*	-0.01	-0.10*	0.00	0.49**	0.08*
14 Create_sup	3.76	0.67	0.02	0.05	0.11*	0.00	-0.03	0.05	0.19**	0.02
15 Promot	3.47	0.53	0.01	-0.24**	0.11*	-0.06*	0.07*	0.02	0.00	-0.18**
16 Self_man	2.95	0.76	-0.07*	-0.19**	0.14**	0.13**	-0.11*	0.08	-0.05	0.01
17 Task_int	3.31	0.70	-0.07*	-0.10*	0.03	0.03	-0.13**	0.00	0.10*	0.05
18 Reward_int	3.50	0.65	0.02	-0.01	-0.04	0.11*	-0.13**	-0.02	0.27**	0.18**
19 Punish_int	3.61	0.76	0.07*	-0.03	0.02	0.00	-0.14**	-0.02	0.14**	0.13**
20 Prod_sr	3.91	0.48	0.02	0.07*	-0.08*	0.04	-0.07*	0.02	0.54**	0.17**
21 Prod_sup	4.00	0.57	-0.05	0.00	0.12**	0.02**	-0.12*	0.12**	0.15**	0.12**
22 Satis_sr	3.44	0.45	-0.06	-0.13**	0.03	0.00	-0.07*	0.00	0.08*	-0.07*
23 Satis_sup	3.30	0.46	0.00	0.13**	0.16**	0.14**	0.02**	0.05	0.12**	-0.04

Notes:

- Internal reliability estimates (Cronbach's alpha) are in italics on the diagonal.

- * $p < 0.5$, ** $p < .01$

- OT= Overtime; Absent=Absenteeism; Create_Sr= Creativity Self Report; Creat_sup=Create Supervisor, Promot=Promotion; Self_man=Self-management; Task_Inter=Task Interdependence; Reward_int=Reward Interdependence; Punish_int=Punishment Interdependence; Prod_sr=Productivity Self Report; Prod_sup= Productivity Supervisor; Satis_sr=Satisfaction Self Report; Satis_sup=Satisfaction Supervisor

- Means, Standard Deviations, Correlations, and Cronbach's alpha were estimated from Jump

Table 3. Means, Standard Deviations and Variables Correlations (Continued)

Variable	M	SD	9	10	11	12	13	14	15	16
1 Female	0.81	0.39								
2 Country	1.49	0.67								
3 Age	31.78	6.01								
4 Education	3.82	0.97								
5 Major	0.33	0.72								
6 Tenure	2.80	2.11								
7 Overwork	3.93	0.55								
8 OT	7.42	6.99								
9 Fatigue	2.40	1.05	<i>0.92</i>							
10 Absent	2.96	1.69	-0.05	<i>---</i>						
11 Conflict	2.41	0.95	0.49**	-0.15**	<i>0.87</i>					
12 Teamwork	4.12	0.59	-0.16**	0.05	-0.46**	<i>0.91</i>				
13 Create_Sr	3.81	0.58	-0.10**	0.18**	-0.19**	0.48**	<i>0.92</i>			
14 Create_sup	3.76	0.67	0.03	0.06	-0.05	0.22**	0.22**	<i>0.95</i>		
15 Promot	3.47	0.53	-0.01	-0.17**	0.25**	0.05	0.23**	0.01	<i>0.73</i>	
16 Self_man	2.95	0.76	0.40**	-0.14**	0.44**	-0.13**	0.02	-0.03	0.28**	<i>0.8</i>
17 Task_int	3.31	0.70	0.31**	-0.08*	0.14**	0.17**	0.24**	0.03	0.16**	0.43**
18 Reward_int	3.50	0.65	0.13**	-0.01	-0.03	0.31**	0.33**	0.15**	0.13**	0.18**
19 Punish_int	3.61	0.76	0.11*	-0.09*	0.07*	0.17**	0.22**	0.06	0.18**	0.08*
20 Prod_sr	3.91	0.48	-0.15**	0.08*	-0.26**	0.53**	0.66**	0.18**	0.24**	0.00
21 Prod_sup	4.00	0.57	0.11*	0.07*	-0.09*	0.23**	0.09*	0.65**	-0.03**	-0.01
22 Satis_sr	3.44	0.45	0.05	-0.10*	0.30**	0.05	0.24**	-0.01	0.47**	0.27**
23 Satis_sup	3.30	0.46	0.09*	0.16**	-0.03	0.20**	0.07	0.47**	0.03	-0.03

Notes:

- Internal reliability estimates (Cronbach's alpha) are in italics on the diagonal.

- * $p < 0.5$, ** $p < .01$

- OT= Overtime; Absent=Absenteeism; Create_Sr= Creativity Self Report; Creat_sup=Create Supervisor, Promot=Promotion; Self_man=Self-management; Task_Inter=Task Interdependence; Reward_int=Reward Interdependence; Punish_int=Punishment Interdependence; Prod_sr=Productivity Self Report; Prod_sup= Productivity Supervisor; Satis_sr=Satisfaction Self Report; Satis_sup=Satisfaction Supervisor

- Means, Standard Deviations, Correlations, and Cronbach's alpha were estimated from Jump

Table 3. Means, Standard Deviations and Variables Correlations (Continued)

Variable	M	SD	17	18	19	20	21	22	23
1 Female	0.81	0.39							
2 Country	1.49	0.67							
3 Age	31.78	6.01							
4 Education	3.82	0.97							
5 Major	0.33	0.72							
6 Tenure	2.80	2.11							
7 Overwork	3.93	0.55							
8 OT	7.42	6.99							
9 Fatigue	2.40	1.05							
10 Absent	2.96	1.69							
11 Conflict	2.41	0.95							
12 Teamwork	4.12	0.59							
13 Create_Sr	3.81	0.58							
14 Create_sup	3.76	0.67							
15 Promot	3.47	0.53							
16 Self_man	2.95	0.76							
17 Task_int	3.31	0.70	<i>0.81</i>						
18 Reward_int	3.50	0.65	0.43**	0.6					
19 Punish_int	3.61	0.76	0.23**	0.63**	0.50				
20 Prod_sr	3.91	0.48	0.28**	0.42**	0.31**	0.85			
21 Prod_sup	4.00	0.57	0.02	0.08*	-0.02	0.11*	0.92		
22 Satis_sr	3.44	0.45	0.18**	0.19**	0.19**	0.24**	-0.06*	0.48	
23 Satis_sup	3.30	0.46	0.03	0.05**	-0.10**	0.05	0.45**	-0.06	0.5

Notes:

- Internal reliability estimates (Cronbach's alpha) are in italics on the diagonal.

- * $p < 0.5$., ** $p < .01$

- OT= Overtime; Absent=Absenteeism; Create_Sr= Creativity Self Report; Creat_sup=Create Supervisor, Promot=Promotion; Self_man=Self-management; Task_Inter=Task Interdependence; Reward_int=Reward Interdependence; Punish_int=Punishment Interdependence; Prod_sr=Productivity Self Report; Prod_sup= Productivity Supervisor; Satis_sr=Satisfaction Self Report; Satis_sup=Satisfaction Supervisor

- Means, Standard Deviations, Correlations, and Cronbach's alpha were estimated from Jump

Table 4A. (Task) Path Model Output for Hypothesis Testing

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
FATIGUE ON												
OT	0.004	0.004	0.005	0.005	0.811	0.811	0.417	0.417	H1a			Same
SELFMAN	0.429	0.429	0.089	0.089	4.813	4.813	0.000	0.000		Yes	Yes	Same
OTXSM	0.008	0.008	0.010	0.010	0.829	0.829	0.407	0.407				Same
PROD_SR ON												
OT	0.006	0.006	0.002	0.003	3.757	2.077	0.000	0.038		Yes	Yes	Different
SELFMAN	-0.012	0.026	0.022	0.024	-0.554	1.054	0.579	0.292				Different
OTXSM	-0.009	-0.008	0.004	0.005	-2.382	-1.558	0.017	0.119		Yes		Different
FATIGUE	-0.024	-0.055	0.022	0.022	-1.095	-2.430	0.274	0.015	H3a		Yes	Different
TINT	0.029	0.134	0.030	0.050	0.952	2.693	0.341	0.007			Yes	Different
FATXTINT	0.032	0.111	0.022	0.033	1.440	3.349	0.150	0.001			Yes	Different
SATISF_SR ON												
OT	0.002	0.000	0.002	0.003	0.979	-0.074	0.328	0.941				Different
SELFMAN	0.020	0.073	0.042	0.038	0.465	1.945	0.642	0.052				Different
OTXSM	0.007	0.007	0.005	0.007	1.558	1.064	0.119	0.287				Different
FATIGUE	-0.033	-0.028	0.038	0.036	-0.850	-0.777	0.396	0.437	H4a			Different
TINT	0.006	0.003	0.027	0.035	0.220	0.092	0.826	0.927				Different
FATXTINT	-0.033	0.001	0.028	0.036	-1.146	0.026	0.252	0.979				Different
FATCEN	-0.001	-0.001	0.008	0.008	-0.080	-0.080	0.936	0.936	H9a.cen			Same
FATSM	0.008	0.008	0.007	0.007	1.177	1.177	0.239	0.239	H9a.sm			Same
PROFH	-0.008	0.002	0.017	0.025	-0.465	0.071	0.642	0.943	H11a.h			Different
PROFL	-0.041	-0.111	0.030	0.030	-1.346	-3.757	0.178	0.000	H11a.l		Yes	Different
SATFH	-0.049	-0.027	0.035	0.033	-1.421	-0.810	0.155	0.418	H12a.h			Different
SATFL	-0.016	-0.028	0.047	0.045	-0.344	-0.618	0.731	0.537	H12a.l			Different
PROFAT1	0.000	0.000	0.000	0.000	0.081	-0.050	0.936	0.960	H15a.cen.h			Different
PROFAT2	0.000	0.000	0.000	0.001	0.080	0.080	0.936	0.936	H15a.cen.l			Same
PROFAT3	0.000	0.000	0.000	0.000	-0.417	0.071	0.677	0.944	H15a.sm.h			Different
PROFAT4	0.000	-0.001	0.000	0.001	-0.796	-1.045	0.426	0.296	H15a.sm.l			Different
SATFAT1	0.000	0.000	0.000	0.000	0.081	0.081	0.935	0.935	H16a.cen.h			Same
SATFAT2	0.000	0.000	0.000	0.000	0.081	0.081	0.935	0.935	H16a.cen.l			Same
SATFAT3	0.000	0.000	0.001	0.000	-0.799	-0.578	0.424	0.563	H16a.sm.h			Different
SATFAT4	0.000	0.000	0.000	0.000	-0.334	-0.563	0.738	0.573	H16a.sm.l			Different

PROCESS LOSS

FATIGUE

Table 4A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
ABSENT ON												
OT	-0.002	-0.002	0.005	0.005	-0.390	-0.390	0.696	0.696	H1b			Same
SELFMAN	-0.026	-0.026	0.045	0.045	-0.580	-0.580	0.562	0.562				Same
OTXSM	-0.001	-0.001	0.008	0.008	-0.107	-0.107	0.914	0.914				Same
PROD_SR ON												
OT	0.006	0.006	0.002	0.003	3.757	2.089	0.000	0.037		Yes	Yes	Different
SELFMAN	-0.012	0.010	0.022	0.024	-0.554	0.406	0.579	0.685				Different
OTXSM	-0.009	-0.009	0.004	0.007	-2.382	-1.342	0.017	0.180		Yes		Different
ABSENT	0.012	0.040	0.023	0.033	0.510	1.206	0.610	0.228	H3b			Different
TINT	0.029	0.100	0.030	0.045	0.952	2.231	0.341	0.026			Yes	Different
ABXTINT	0.082	0.088	0.035	0.051	2.359	1.730	0.018	0.084		Yes		Different
SATISF_SR ON												
OT	0.002	0.000	0.002	0.003	0.979	-0.025	0.328	0.980				Different
SELFMAN	0.020	0.063	0.042	0.041	0.465	1.561	0.642	0.119				Different
OTXSM	0.007	0.008	0.005	0.006	1.558	1.331	0.119	0.183				Different
ABSENT	0.001	-0.007	0.015	0.015	0.043	-0.492	0.966	0.623	H4b			Different
TINT	0.006	0.004	0.027	0.031	0.220	0.124	0.826	0.902				Different
ABXTINT	-0.052	-0.112	0.050	0.036	-1.035	-3.107	0.301	0.002			Yes	Different
ABSCEN	-0.001	-0.001	0.008	0.008	-0.190	-0.190	0.849	0.849	H9b.cen			Same
ABSSM	-0.002	-0.002	0.006	0.006	-0.440	-0.440	0.660	0.660	H9b.sm			Same
PROABH	0.054	0.085	0.039	0.049	1.374	1.737	0.170	0.082	H11b.h			Different
PROABL	-0.030	-0.005	0.016	0.035	-1.819	-0.133	0.069	0.894	H11b.l			Different
SATABH	-0.026	-0.064	0.038	0.031	-0.688	-2.077	0.492	0.038	H12b.h		Yes	Different
SATABL	0.027	0.050	0.019	0.013	1.398	3.806	0.162	0.000	H12b.l		Yes	Different
PROABS1	0.000	0.000	0.000	0.001	-0.201	-0.195	0.840	0.845	H15b.cen.h			Different
PROABS2	0.000	0.000	0.000	0.000	0.179	0.098	0.858	0.922	H15b.cen.l			Different
PROABS3	0.000	0.000	0.000	0.000	-0.517	-0.498	0.605	0.618	H15b.sm.h			Different
PROABS4	0.000	0.000	0.000	0.000	0.423	0.133	0.672	0.894	H15b.sm.l			Different
SATABS1	0.000	0.000	0.000	0.001	0.158	0.184	0.874	0.854	H16b.cen.h			Different
SATABS2	0.000	0.000	0.000	0.000	-0.184	-0.188	0.854	0.851	H16b.cen.l			Different
SATABS3	0.000	0.000	0.000	0.000	0.367	0.465	0.713	0.642	H16b.sm.h			Different
SATABS4	0.000	0.000	0.000	0.000	-0.407	-0.426	0.684	0.670	H16b.sm.l			Different

PROCESS LOSS

ABSENTEEISM

Table 4A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CONFLICT ON												
OT	-0.015	-0.015	0.005	0.005	-2.875	-2.875	0.004	0.004	H1c	Yes	Yes	Same
SELFMAN	0.257	0.257	0.056	0.056	4.597	4.597	0.000	0.000		Yes	Yes	Same
OTXSM	0.014	0.014	0.011	0.011	1.217	1.217	0.224	0.224				Same
PROD_SR ON												
OT	0.006	0.006	0.002	0.003	3.757	2.123	0.000	0.034		Yes	Yes	Different
SELFMAN	-0.012	0.021	0.022	0.021	-0.554	1.027	0.579	0.305				Different
OTXSM	-0.009	-0.007	0.004	0.007	-2.382	-1.066	0.017	0.287		Yes		Different
CONFLICT	0.017	-0.049	0.034	0.034	0.487	-1.438	0.626	0.150	H3c			Different
TINT	0.029	0.106	0.030	0.047	0.952	2.269	0.341	0.023			Yes	Different
COXTINT	0.046	0.011	0.056	0.048	0.833	0.226	0.405	0.821				Different
SATISF_SR ON												
OT	0.002	0.001	0.002	0.003	0.979	0.420	0.328	0.675				Different
SELFMAN	0.020	0.036	0.042	0.043	0.465	0.842	0.642	0.400				Different
OTXSM	0.007	0.008	0.005	0.005	1.558	1.765	0.119	0.077				Different
CONFLICT	0.094	0.069	0.039	0.044	2.391	1.579	0.017	0.114	H4c	Yes		Different
TINT	0.006	0.012	0.027	0.027	0.220	0.441	0.826	0.659				Different
COXTINT	0.110	0.170	0.060	0.067	1.824	2.546	0.068	0.011			Yes	Different
CONCEN	-0.023	-0.023	0.009	0.009	-2.590	-2.590	0.010	0.010	H9c.cen	Yes	Yes	Same
CONSM	-0.007	-0.007	0.008	0.008	-0.978	-0.978	0.328	0.328	H9c.sm			Same
PROCOH	0.040	-0.043	0.036	0.034	1.116	-1.261	0.265	0.207	H11c.h			Different
PROCOL	-0.007	-0.054	0.052	0.048	-0.129	-1.123	0.897	0.261	H11c.l			Different
SATCOH	0.150	0.156	0.038	0.040	3.964	3.925	0.000	0.000	H12c.h	Yes	Yes	Same
SATCOL	0.038	-0.017	0.060	0.067	0.630	-0.255	0.529	0.799	H12c.l			Different
PROCON1	-0.001	0.001	0.001	0.001	-1.272	0.988	0.204	0.323	H15c.cen.h			Different
PROCON2	0.000	0.001	0.001	0.001	0.129	0.988	0.898	0.323	H15c.cen.l			Different
PROCON3	0.000	0.000	0.000	0.000	-0.731	0.844	0.465	0.399	H15c.sm.h			Different
PROCON4	0.000	0.000	0.000	0.001	0.127	0.704	0.899	0.481	H15c.sm.l			Different
SATCON1	-0.003	-0.004	0.002	0.002	-2.081	-2.080	0.037	0.038	H16c.cen.h	Yes	Yes	Different
SATCON2	-0.001	0.000	0.001	0.002	-0.621	0.251	0.534	0.802	H16c.cen.l			Different
SATCON3	-0.001	-0.001	0.001	0.001	-0.888	-0.877	0.374	0.380	H16c.sm.h			Different
SATCON4	0.000	0.000	0.001	0.001	-0.505	0.248	0.613	0.804	H16c.sm.l			Different

PROCESS LOSS

CONFLICT

Table 4A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
TEAMWRK ON												
OT	0.006	0.006	0.002	0.002	2.489	2.489	0.013	0.013	H2d	Yes	Yes	Same
SELFMAN	0.005	0.005	0.032	0.032	0.160	0.160	0.873	0.873				Same
OTXSM	-0.004	-0.004	0.004	0.004	-0.874	-0.874	0.382	0.382				Same
PROD_SR ON												
OT	0.006	0.005	0.002	0.003	3.757	1.780	0.000	0.075		Yes		Different
SELFMAN	-0.012	0.017	0.022	0.020	-0.554	0.844	0.579	0.399				Different
OTXSM	-0.009	-0.007	0.004	0.006	-2.382	-1.087	0.017	0.277		Yes		Different
TEAMWRK	0.168	0.316	0.045	0.063	3.751	5.008	0.000	0.000	H5d	Yes	Yes	Same
TINT	0.029	0.070	0.030	0.036	0.952	1.963	0.341	0.050				Different
TEXTINT	0.020	0.049	0.048	0.053	0.416	0.923	0.677	0.356				Different
SATISF_SR ON												
OT	0.002	-0.001	0.002	0.003	0.979	-0.188	0.328	0.851				Different
SELFMAN	0.020	0.066	0.042	0.042	0.465	1.570	0.642	0.116				Different
OTXSM	0.007	0.008	0.005	0.007	1.558	1.048	0.119	0.295				Different
TEAMWRK	0.077	0.069	0.028	0.026	2.735	2.633	0.006	0.008	H6d	Yes	Yes	Different
TINT	0.006	-0.010	0.027	0.029	0.220	-0.339	0.826	0.735				Different
TEXTINT	0.006	-0.142	0.051	0.076	0.122	-1.874	0.903	0.061				Different
TEACEN	0.008	0.008	0.003	0.003	2.514	2.514	0.012	0.012	H10d.cen	Yes	Yes	Same
TEASM	0.004	0.004	0.003	0.003	1.070	1.070	0.285	0.285	H10d.sm			Same
PROTH	0.178	0.341	0.062	0.077	2.881	4.438	0.004	0.000	H13d.h	Yes	Yes	Different
PROTL	0.158	0.292	0.037	0.059	4.249	4.933	0.000	0.000	H13d.l	Yes	Yes	Same
SATTH	0.081	-0.003	0.046	0.042	1.754	-0.073	0.079	0.942	H14d.h			Different
SATTL	0.074	0.142	0.029	0.048	2.536	2.925	0.011	0.003	H14d.l	Yes	Yes	Different
PROTEA1	0.001	0.003	0.001	0.001	2.084	2.368	0.037	0.018	H15d.cen.h	Yes	Yes	Different
PROTEA2	0.001	0.002	0.001	0.001	2.199	2.247	0.028	0.025	H15d.cen.l	Yes	Yes	Different
PROTEA3	0.001	0.001	0.001	0.001	0.956	0.995	0.339	0.320	H15d.sm.h			Different
PROTEA4	0.001	0.001	0.001	0.001	1.056	0.951	0.291	0.342	H15d.sm.l			Different
SATTEA1	0.001	0.000	0.000	0.000	1.410	-0.073	0.159	0.942	H16d.cen.h			Different
SATTEA2	0.001	0.001	0.000	0.001	1.828	1.887	0.067	0.059	H16d.cen.l			Different
SATTEA3	0.000	0.000	0.000	0.000	0.867	-0.072	0.386	0.942	H16d.sm.h			Different
SATTEA4	0.000	0.001	0.000	0.001	0.893	0.893	0.372	0.372	H16d.sm.l			Same

PROCESS GAIN

TEAMWORK

Table 4A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CREAT_SR ON												
OT	0.000	0.000	0.006	0.006	0.068	0.068	0.946	0.946	H2e			Same
SELFMAN	0.100	0.100	0.027	0.027	3.707	3.707	0.000	0.000		Yes	Yes	Same
OTXSM	0.003	0.003	0.005	0.005	0.506	0.506	0.613	0.613				Same
PROD_SR ON												Same
OT	0.006	0.007	0.002	0.002	3.757	3.825	0.000	0.000		Yes	Yes	Same
SELFMAN	-0.012	-0.017	0.022	0.018	-0.554	-0.952	0.579	0.341				Different
OTXSM	-0.009	-0.009	0.004	0.004	-2.382	-2.494	0.017	0.013		Yes	Yes	Different
CREAT_SR	0.370	0.469	0.043	0.049	8.624	9.645	0.000	0.000	H5e	Yes	Yes	Same
TINT	0.029	0.022	0.030	0.029	0.952	0.776	0.341	0.438				Different
CRXTINT	0.100	0.113	0.054	0.051	1.858	2.225	0.063	0.026			Yes	Different
SATISF_SR ON												
OT	0.002	0.000	0.002	0.003	0.979	-0.105	0.328	0.917				Different
SELFMAN	0.020	0.055	0.042	0.038	0.465	1.453	0.642	0.146				Different
OTXSM	0.007	0.007	0.005	0.006	1.558	1.078	0.119	0.281				Different
CREAT_SR	0.088	0.162	0.050	0.045	1.770	3.558	0.077	0.000	H6e		Yes	Different
TINT	0.006	-0.014	0.027	0.021	0.220	-0.679	0.826	0.497				Different
CRXTINT	-0.155	-0.208	0.066	0.086	-2.337	-2.434	0.019	0.015		Yes	Yes	Different
CRECEN	-0.001	-0.001	0.005	0.005	-0.197	-0.197	0.844	0.844	H10e.cen			Same
CRESM	0.002	0.002	0.007	0.007	0.239	0.239	0.811	0.811	H10e.sm			Same
PROCRH	0.421	0.526	0.048	0.049	8.838	10.775	0.000	0.000	H13e.h	Yes	Yes	Same
PROCRL	0.320	0.412	0.055	0.062	5.781	6.636	0.000	0.000	H13e.l	Yes	Yes	Same
SATCRH	0.009	0.056	0.063	0.068	0.141	0.817	0.888	0.414	H14e.h			Different
SATCRL	0.167	0.268	0.059	0.057	2.844	4.673	0.004	0.000	H14e.l	Yes	Yes	Different
PROCRE1	0.000	-0.001	0.002	0.003	-0.198	-0.198	0.843	0.843	H15e.cen.h			Same
PROCRE2	0.000	0.000	0.002	0.002	-0.200	-0.200	0.842	0.842	H15e.cen.l			Same
PROCRE3	0.001	0.001	0.003	0.004	0.239	0.239	0.811	0.811	H15e.sm.h			Same
PROCRE4	0.001	0.001	0.002	0.003	0.236	0.235	0.814	0.814	H15e.sm.l			Same
SATCRE1	0.000	0.000	0.000	0.000	-0.132	-0.205	0.895	0.837	H16e.cen.h			Different
SATCRE2	0.000	0.000	0.001	0.001	-0.192	-0.193	0.848	0.847	H16e.cen.l			Different
SATCRE3	0.000	0.000	0.000	0.000	0.120	0.230	0.905	0.818	H16e.sm.h			Different
SATCRE4	0.000	0.000	0.001	0.002	0.245	0.243	0.807	0.808	H16e.sm.l			Different

PROCESS GAIN

CREATIVITY

Table 4A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
PROMOT ON												
OT	-0.002	-0.002	0.003	0.003	-0.800	-0.800	0.424	0.424	H2f			Same
SELFMAN	0.094	0.094	0.031	0.031	3.056	3.056	0.002	0.002		Yes	Yes	Same
OTXSM	0.004	0.004	0.007	0.007	0.596	0.596	0.551	0.551				Same
PROD_SR ON												
OT	0.006	0.007	0.002	0.003	3.757	2.393	0.000	0.017		Yes	Yes	Different
SELFMAN	-0.012	-0.010	0.022	0.025	-0.554	-0.404	0.579	0.686				Different
OTXSM	-0.009	-0.009	0.004	0.005	-2.382	-1.719	0.017	0.086		Yes		Different
PROMOT	0.082	0.220	0.035	0.045	2.330	4.934	0.020	0.000	H5f	Yes	Yes	Different
TINT	0.029	0.108	0.030	0.041	0.952	2.607	0.341	0.009			Yes	Different
PROXTINT	-0.048	-0.063	0.053	0.050	-0.906	-1.254	0.365	0.210				Different
SATISF_SR ON												
OT	0.002	0.000	0.002	0.002	0.979	0.205	0.328	0.837				Different
SELFMAN	0.020	0.034	0.042	0.042	0.465	0.802	0.642	0.423				Different
OTXSM	0.007	0.006	0.005	0.005	1.558	1.141	0.119	0.254				Different
PROMOT	0.213	0.267	0.031	0.034	6.888	7.786	0.000	0.000	H6f	Yes	Yes	Same
TINT	0.006	-0.007	0.027	0.023	0.220	-0.281	0.826	0.779				Different
PROXTINT	0.089	0.143	0.058	0.073	1.535	1.962	0.125	0.050				Different
PROCEN	-0.005	-0.005	0.004	0.004	-1.204	-1.204	0.228	0.228	H10f.cen			Same
PROSM	0.000	0.000	0.005	0.005	-0.019	-0.019	0.985	0.985	H10f.sm			Same
PROPRH	0.058	0.188	0.053	0.044	1.088	4.230	0.277	0.000	H13f.h		Yes	Different
PROPRL	0.107	0.252	0.034	0.057	3.120	4.426	0.002	0.000	H13f.l	Yes	Yes	Different
SATPRH	0.258	0.339	0.041	0.053	6.296	6.389	0.000	0.000	H14f.h	Yes	Yes	Same
SATPRL	0.168	0.194	0.043	0.047	3.873	4.136	0.000	0.000	H14f.l	Yes	Yes	Same
PROPRO1	0.000	-0.001	0.000	0.001	-0.788	-1.152	0.431	0.249	H15f.cen.h			Different
PROPRO2	0.000	-0.001	0.000	0.001	-1.021	-1.075	0.307	0.282	H15f.cen.l			Different
PROPRO3	0.000	0.000	0.000	0.001	-0.019	-0.019	0.985	0.985	H15f.sm.h			Same
PROPRO4	0.000	0.000	0.001	0.001	-0.019	-0.019	0.985	0.985	H15f.sm.l			Same
SATPRO1	-0.001	-0.002	0.001	0.001	-1.072	-1.113	0.284	0.266	H16f.cen.h			Different
SATPRO2	-0.001	-0.001	0.001	0.001	-1.135	-1.124	0.256	0.261	H16f.cen.l			Different
SATPRO3	0.000	0.000	0.001	0.002	-0.019	-0.019	0.985	0.985	H16f.sm.h			Same
SATPRO4	0.000	0.000	0.001	0.001	-0.019	-0.019	0.985	0.985	H16f.sm.l			Same

PROCESS GAIN

PROMOTION OPPORTUNITY

Table 4B. (Reward) Path Model Output for Hypothesis Testing

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
FATIGUE ON												
OT	0.004	0.004	0.005	0.005	0.811	0.811	0.417	0.417	H1a			Same
SELFMAN	0.429	0.429	0.089	0.089	4.813	4.813	0.000	0.000		Yes	Yes	Same
OTXSM	0.008	0.008	0.010	0.010	0.829	0.829	0.407	0.407				Same
PROD_SR ON												
OT	0.006	0.005	0.002	0.003	3.683	1.745	0.000	0.081		Yes		Different
SELFMAN	0.004	0.060	0.020	0.026	0.222	2.293	0.824	0.022			Yes	Different
OTXSM	-0.009	-0.007	0.004	0.006	-2.140	-1.291	0.032	0.197		Yes		Different
FATIGUE	-0.032	-0.066	0.022	0.021	-1.447	-3.094	0.148	0.002	H3a		Yes	Different
RINT	0.070	0.185	0.033	0.045	2.093	4.151	0.036	0.000		Yes	Yes	Different
FATXRINT	0.049	0.137	0.027	0.037	1.847	3.662	0.065	0.000			Yes	Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.003	0.504	-0.550	0.614	0.582				Different
SELFMAN	0.027	0.081	0.040	0.034	0.678	2.373	0.498	0.018			Yes	Different
OTXSM	0.004	0.007	0.006	0.007	0.764	1.048	0.445	0.295				Different
FATIGUE	-0.048	-0.043	0.038	0.033	-1.275	-1.294	0.202	0.196	H4a			Different
RINT	0.081	0.101	0.034	0.030	2.372	3.380	0.018	0.001		Yes	Yes	Different
FATXRINT	0.004	-0.015	0.044	0.047	0.086	-0.312	0.932	0.755				Different
FATCEN	-0.001	-0.001	0.008	0.008	-0.080	-0.080	0.936	0.936	H9a.cen			Same
FATSM	0.008	0.008	0.007	0.007	1.177	1.177	0.239	0.239	H9a.sm			Same
PROFH	-0.007	0.003	0.019	0.021	-0.378	0.126	0.705	0.900	H11a.h			Different
PROFL	-0.056	-0.135	0.030	0.032	-1.849	-4.152	0.065	0.000	H11a.l		Yes	Different
SATFH	-0.046	-0.050	0.041	0.038	-1.111	-1.324	0.267	0.185	H12a.h			Different
SATFL	-0.050	-0.035	0.046	0.043	-1.095	-0.818	0.274	0.413	H12a.l			Different
PROFAT1	0.000	0.000	0.000	0.000	0.081	-0.063	0.935	0.950	H15a.cen.h			Different
PROFAT2	0.000	0.000	0.000	0.001	0.080	0.080	0.936	0.936	H15a.cen.l			Same
PROFAT3	0.000	0.000	0.000	0.000	-0.352	0.124	0.725	0.901	H15a.sm.h			Different
PROFAT4	0.000	-0.001	0.001	0.001	-0.911	-1.102	0.362	0.270	H15a.sm.l			Different
SATFAT1	0.000	0.000	0.000	0.000	0.081	0.080	0.935	0.936	H16a.cen.h			Different
SATFAT2	0.000	0.000	0.000	0.000	0.081	0.080	0.936	0.936	H16a.cen.l			Same
SATFAT3	0.000	0.000	0.001	0.001	-0.705	-0.746	0.481	0.455	H16a.sm.h			Different
SATFAT4	0.000	0.000	0.000	0.000	-0.886	-0.739	0.376	0.460	H16a.sm.l			Different

PROCESS LOSS

FATIGUE

Table 4B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
ABSENT ON												
OT	-0.002	-0.002	0.005	0.005	-0.390	-0.390	0.696	0.696	H1b			Same
SELFMAN	-0.026	-0.026	0.045	0.045	-0.580	-0.580	0.562	0.562				Same
OTXSM	-0.001	-0.001	0.008	0.008	-0.107	-0.107	0.914	0.914				Same
PROD_SR ON												
OT	0.006	0.005	0.002	0.003	3.683	1.753	0.000	0.080		Yes		Different
SELFMAN	0.004	0.039	0.020	0.026	0.222	1.484	0.824	0.138				Different
OTXSM	-0.009	-0.008	0.004	0.006	-2.140	-1.462	0.032	0.144		Yes		Different
ABSENT	0.009	0.039	0.021	0.031	0.400	1.255	0.689	0.209	H3b			Different
RINT	0.070	0.146	0.033	0.045	2.093	3.236	0.036	0.001		Yes	Yes	Different
ABXRINT	0.012	0.030	0.037	0.048	0.333	0.620	0.739	0.536				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.504	-0.504	0.614	0.614				Same
SELFMAN	0.027	0.063	0.040	0.036	0.678	1.769	0.498	0.077				Different
OTXSM	0.004	0.007	0.006	0.007	0.764	1.054	0.445	0.292				Different
ABSENT	-0.004	-0.008	0.014	0.015	-0.297	-0.530	0.766	0.596	H4b			Different
RINT	0.081	0.092	0.034	0.019	2.372	4.761	0.018	0.000		Yes	Yes	Different
ABXRINT	-0.028	-0.060	0.040	0.043	-0.718	-1.393	0.473	0.164				Different
ABSCEN	-0.001	-0.001	0.008	0.008	-0.190	-0.190	0.849	0.849	H9b.cen			Same
ABSSM	-0.002	-0.002	0.006	0.006	-0.440	-0.440	0.660	0.660	H9b.sm			Same
PROABH	0.015	0.054	0.024	0.038	0.612	1.436	0.541	0.151	H11b.h			Different
PROABL	0.002	0.024	0.032	0.041	0.072	0.587	0.942	0.557	H11b.l			Different
SATABH	-0.019	-0.038	0.031	0.034	-0.588	-1.093	0.557	0.274	H12b.h			Different
SATABL	0.010	0.022	0.014	0.013	0.702	1.649	0.483	0.099	H12b.l			Different
PROABS1	0.000	0.000	0.000	0.000	-0.193	-0.192	0.847	0.847	H15b.cen.h			Same
PROABS2	0.000	0.000	0.000	0.000	-0.083	-0.198	0.934	0.843	H15b.cen.l			Different
PROABS3	0.000	0.000	0.000	0.000	-0.434	-0.483	0.664	0.629	H15b.sm.h			Different
PROABS4	0.000	0.000	0.000	0.000	-0.075	-0.398	0.940	0.691	H15b.sm.l			Different
SATABS1	0.000	0.000	0.000	0.000	0.151	0.184	0.880	0.854	H16b.cen.h			Different
SATABS2	0.000	0.000	0.000	0.000	-0.177	-0.188	0.860	0.851	H16b.cen.l			Different
SATABS3	0.000	0.000	0.000	0.000	0.381	0.534	0.703	0.593	H16b.sm.h			Different
SATABS4	0.000	0.000	0.000	0.000	-0.468	-0.475	0.640	0.635	H16b.sm.l			Different

PROCESS LOSS

ABSENTEEISM

Table 4B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CONFLICT ON												
OT	-0.015	-0.015	0.005	0.005	-2.875	-2.875	0.004	0.004	H1c	Yes	Yes	Same
SELFMAN	0.257	0.257	0.056	0.056	4.597	4.597	0.000	0.000		Yes	Yes	Same
OTXSM	0.014	0.014	0.011	0.011	1.217	1.217	0.224	0.224				Same
PROD_SR ON												
OT	0.006	0.005	0.002	0.003	3.683	1.708	0.000	0.088		Yes		Different
SELFMAN	0.004	0.049	0.020	0.026	0.222	1.932	0.824	0.053				Different
OTXSM	-0.009	-0.007	0.004	0.006	-2.140	-1.182	0.032	0.237		Yes		Different
CONFLICT	0.011	-0.053	0.032	0.034	0.344	-1.574	0.731	0.115	H3c			Different
RINT	0.070	0.151	0.033	0.043	2.093	3.501	0.036	0.000		Yes	Yes	Different
COXRINT	0.003	0.039	0.037	0.051	0.089	0.772	0.929	0.440				Different
SATISF_SR ON												
OT	0.001	0.000	0.002	0.003	0.504	-0.010	0.614	0.992				Different
SELFMAN	0.027	0.038	0.040	0.036	0.678	1.058	0.498	0.290				Different
OTXSM	0.004	0.006	0.006	0.006	0.764	0.976	0.445	0.329				Different
CONFLICT	0.101	0.079	0.034	0.042	2.974	1.870	0.003	0.062	H4c	Yes		Different
RINT	0.081	0.097	0.034	0.018	2.372	5.342	0.018	0.000		Yes	Yes	Different
COXRINT	-0.011	0.055	0.050	0.053	-0.227	1.048	0.820	0.295				Different
CONCEN	-0.023	-0.023	0.009	0.009	-2.590	-2.590	0.010	0.010	H9c.cen	Yes	Yes	Same
CONSM	-0.007	-0.007	0.008	0.008	-0.978	-0.978	0.328	0.328	H9c.sm			Same
PROCOH	0.013	-0.033	0.028	0.033	0.447	-1.009	0.655	0.313	H11c.h			Different
PROCOL	0.009	-0.072	0.044	0.050	0.212	-1.446	0.832	0.148	H11c.l			Different
SATCOH	0.096	0.107	0.038	0.050	2.504	2.139	0.012	0.032	H12c.h	Yes	Yes	Different
SATCOL	0.107	0.051	0.046	0.050	2.326	1.022	0.020	0.307	H12c.l	Yes		Different
PROCON1	0.000	0.001	0.001	0.001	-0.467	0.862	0.640	0.389	H15c.cen.h			Different
PROCON2	0.000	0.002	0.001	0.001	-0.214	1.220	0.831	0.223	H15c.cen.l			Different
PROCON3	0.000	0.000	0.000	0.000	-0.423	0.795	0.672	0.426	H15c.sm.h			Different
PROCON4	0.000	0.001	0.000	0.001	-0.208	0.759	0.836	0.448	H15c.sm.l			Different
SATCON1	-0.002	-0.002	0.001	0.001	-1.923	-1.677	0.055	0.094	H16c.cen.h			Different
SATCON2	-0.002	-0.001	0.001	0.001	-1.710	-0.979	0.087	0.328	H16c.cen.l			Different
SATCON3	-0.001	-0.001	0.001	0.001	-0.839	-0.783	0.401	0.434	H16c.sm.h			Different
SATCON4	-0.001	0.000	0.001	0.001	-0.842	-0.690	0.400	0.490	H16c.sm.l			Different

PROCESS LOSS

CONFLICT

Table 4B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
TEAMWRK ON												
OT	0.006	0.006	0.002	0.002	2.489	2.489	0.013	0.013	H2d	Yes	Yes	Same
SELFMAN	0.005	0.005	0.032	0.032	0.160	0.160	0.873	0.873				Same
OTXSM	-0.004	-0.004	0.004	0.004	-0.874	-0.874	0.382	0.382				Same
PROD_SR ON												
OT	0.006	0.004	0.002	0.003	3.683	1.372	0.000	0.170		Yes		Different
SELFMAN	0.004	0.038	0.020	0.022	0.222	1.745	0.824	0.081				Different
OTXSM	-0.009	-0.007	0.004	0.006	-2.140	-1.119	0.032	0.263		Yes		Different
TEAMWRK	0.155	0.305	0.051	0.070	3.025	4.370	0.002	0.000	H5d	Yes	Yes	Different
RINT	0.070	0.094	0.033	0.037	2.093	2.514	0.036	0.012		Yes	Yes	Different
TEXRINT	-0.023	0.065	0.054	0.081	-0.431	0.811	0.667	0.417				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.003	0.504	-0.367	0.614	0.714				Different
SELFMAN	0.027	0.060	0.040	0.035	0.678	1.691	0.498	0.091				Different
OTXSM	0.004	0.007	0.006	0.007	0.764	0.963	0.445	0.336				Different
TEAMWRK	0.038	0.022	0.027	0.029	1.427	0.766	0.154	0.444	H6d			Different
RINT	0.081	0.087	0.034	0.020	2.372	4.302	0.018	0.000		Yes	Yes	Different
TEXRINT	-0.048	-0.142	0.084	0.069	-0.574	-2.073	0.566	0.038			Yes	Different
TEACEN	0.008	0.008	0.003	0.003	2.514	2.514	0.012	0.012	H10d.cen	Yes	Yes	Same
TEASM	0.004	0.004	0.003	0.003	1.070	1.070	0.285	0.285	H10d.sm			Same
PROTH	0.143	0.338	0.068	0.099	2.101	3.428	0.036	0.001	H13d.h	Yes	Yes	Different
PROTL	0.167	0.272	0.046	0.057	3.644	4.820	0.000	0.000	H13d.l	Yes	Yes	Same
SATTH	0.014	-0.050	0.051	0.051	0.273	-0.971	0.785	0.332	H14d.h			Different
SATTL	0.062	0.093	0.049	0.038	1.280	2.461	0.201	0.014	H14d.l		Yes	Different
PROTEA1	0.001	0.003	0.001	0.001	1.680	2.117	0.093	0.034	H15d.cen.h		Yes	Different
PROTEA2	0.001	0.002	0.001	0.001	2.272	2.335	0.023	0.020	H15d.cen.l	Yes	Yes	Different
PROTEA3	0.001	0.001	0.001	0.001	0.894	0.977	0.372	0.328	H15d.sm.h			Different
PROTEA4	0.001	0.001	0.001	0.001	1.037	0.957	0.300	0.339	H15d.sm.l			Different
SATTEA1	0.000	0.000	0.000	0.000	0.278	-0.919	0.781	0.358	H16d.cen.h			Different
SATTEA2	0.000	0.001	0.000	0.000	1.175	1.783	0.240	0.075	H16d.cen.l			Different
SATTEA3	0.000	0.000	0.000	0.000	0.272	-0.700	0.786	0.484	H16d.sm.h			Different
SATTEA4	0.000	0.000	0.000	0.000	0.705	0.833	0.481	0.405	H16d.sm.l			Different

PROCESS GAIN

TEAMWORK

Table 4B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CREAT_SR ON												
OT	0.000	0.000	0.006	0.006	0.068	0.068	0.946	0.946	H2e			Same
SELFMAN	0.100	0.100	0.027	0.027	3.707	3.707	0.000	0.000		Yes	Yes	Same
OTXSM	0.003	0.003	0.005	0.005	0.506	0.506	0.613	0.613				Same
PROD_SR ON												Same
OT	0.006	0.006	0.002	0.002	3.683	3.700	0.000	0.000		Yes	Yes	Same
SELFMAN	0.004	-0.004	0.020	0.019	0.222	-0.228	0.824	0.820				Different
OTXSM	-0.009	-0.009	0.004	0.004	-2.140	-2.350	0.032	0.019		Yes	Yes	Different
CREAT_SR	0.354	0.450	0.041	0.047	8.634	9.564	0.000	0.000	H5e	Yes	Yes	Same
RINT	0.070	0.070	0.033	0.030	2.093	2.288	0.036	0.022		Yes	Yes	Different
CRXRINT	0.128	0.100	0.075	0.067	1.702	1.508	0.089	0.132				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.504	-0.548	0.614	0.584				Different
SELFMAN	0.027	0.045	0.040	0.035	0.678	1.307	0.498	0.191				Different
OTXSM	0.004	0.006	0.006	0.007	0.764	0.948	0.445	0.343				Different
CREAT_SR	0.080	0.131	0.050	0.043	1.607	3.013	0.108	0.003	H6e		Yes	Different
RINT	0.081	0.078	0.034	0.024	2.372	3.301	0.018	0.001		Yes	Yes	Different
CRXRINT	-0.140	-0.164	0.065	0.066	-2.135	-2.462	0.033	0.014		Yes	Yes	Different
CRECEN	-0.001	-0.001	0.005	0.005	-0.197	-0.197	0.844	0.844	H10e.cen			Same
CRESM	0.002	0.002	0.007	0.007	0.239	0.239	0.811	0.811	H10e.sm			Same
PROCRH	0.418	0.501	0.050	0.056	8.313	8.909	0.000	0.000	H13e.h	Yes	Yes	Same
PROCRL	0.289	0.400	0.061	0.059	4.715	6.739	0.000	0.000	H13e.l	Yes	Yes	Same
SATCRH	0.010	0.049	0.070	0.062	0.147	0.780	0.883	0.435	H14e.h			Different
SATCRL	0.151	0.213	0.048	0.047	3.152	4.552	0.002	0.000	H14e.l	Yes	Yes	Different
PROCRES1	0.000	0.000	0.002	0.003	-0.197	-0.198	0.844	0.843	H15e.cen.h			Different
PROCRES2	0.000	0.000	0.001	0.002	-0.200	-0.200	0.841	0.842	H15e.cen.l			Different
PROCRES3	0.001	0.001	0.003	0.004	0.238	0.238	0.812	0.812	H15e.sm.h			Same
PROCRES4	0.001	0.001	0.002	0.003	0.237	0.237	0.813	0.812	H15e.sm.l			Different
SATCRE1	0.000	0.000	0.000	0.000	-0.120	-0.196	0.904	0.844	H16e.cen.h			Different
SATCRE2	0.000	0.000	0.001	0.001	-0.195	-0.195	0.846	0.846	H16e.cen.l			Same
SATCRE3	0.000	0.000	0.000	0.000	0.130	0.240	0.896	0.810	H16e.sm.h			Different
SATCRE4	0.000	0.000	0.001	0.002	0.241	0.241	0.809	0.810	H16e.sm.l			Different

PROCESS GAIN

CREATIVITY

Table 4B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
PROMOT ON												
OT	-0.002	-0.002	0.003	0.003	-0.800	-0.800	0.424	0.424	H2f			Same
SELFMAN	0.094	0.094	0.031	0.031	3.056	3.056	0.002	0.002		Yes	Yes	Same
OTXSM	0.004	0.004	0.007	0.007	0.596	0.596	0.551	0.551				Same
PROD_SR ON												
OT	0.006	0.006	0.002	0.003	3.683	2.039	0.000	0.041		Yes	Yes	Different
SELFMAN	0.004	0.018	0.020	0.023	0.222	0.783	0.824	0.434				Different
OTXSM	-0.009	-0.009	0.004	0.005	-2.140	-1.889	0.032	0.059		Yes		Different
PROMOT	0.092	0.206	0.037	0.044	2.482	4.633	0.013	0.000	H5f	Yes	Yes	Different
RINT	0.070	0.137	0.033	0.044	2.093	3.102	0.036	0.002		Yes	Yes	Different
PROXRINT	-0.018	-0.085	0.046	0.073	-0.398	-1.162	0.690	0.245				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.504	-0.263	0.614	0.793				Different
SELFMAN	0.027	0.038	0.040	0.038	0.678	0.981	0.498	0.327				Different
OTXSM	0.004	0.006	0.006	0.006	0.764	1.013	0.445	0.311				Different
PROMOT	0.205	0.260	0.035	0.036	5.912	7.295	0.000	0.000	H6f	Yes	Yes	Same
RINT	0.081	0.080	0.034	0.019	2.372	4.192	0.018	0.000		Yes	Yes	Different
PROXRINT	0.168	0.120	0.053	0.070	3.195	1.722	0.001	0.085		Yes		Different
PROCEN	-0.005	-0.005	0.004	0.004	-1.204	-1.204	0.228	0.228	H10f.cen			Same
PROSM	0.000	0.000	0.005	0.005	-0.019	-0.019	0.985	0.985	H10f.sm			Same
PROPRH	0.083	0.163	0.041	0.052	2.034	3.152	0.042	0.002	H13f.h	Yes	Yes	Different
PROPRL	0.101	0.249	0.047	0.063	2.170	3.954	0.030	0.000	H13f.l	Yes	Yes	Different
SATPRH	0.290	0.320	0.040	0.054	7.248	5.891	0.000	0.000	H14f.h	Yes	Yes	Same
SATPRL	0.121	0.199	0.047	0.045	2.589	4.429	0.010	0.000	H14f.l	Yes	Yes	Different
PROPRO1	0.000	-0.001	0.000	0.001	-0.971	-1.067	0.332	0.286	H15f.cen.h			Different
PROPRO2	0.000	-0.001	0.000	0.001	-0.953	-1.101	0.341	0.271	H15f.cen.l			Different
PROPRO3	0.000	0.000	0.000	0.001	-0.019	-0.019	0.985	0.985	H15f.sm.h			Same
PROPRO4	0.000	0.000	0.001	0.001	-0.019	-0.019	0.985	0.985	H15f.sm.l			Same
SATPRO1	-0.001	-0.001	0.001	0.001	-1.118	-1.130	0.263	0.258	H16f.cen.h			Different
SATPRO2	-0.001	-0.001	0.001	0.001	-0.995	-1.082	0.320	0.279	H16f.cen.l			Different
SATPRO3	0.000	0.000	0.002	0.002	-0.019	-0.019	0.985	0.985	H16f.sm.h			Same
SATPRO4	0.000	0.000	0.001	0.001	-0.019	-0.019	0.985	0.985	H16f.sm.l			Same

PROCESS GAIN

PROMOTION OPPORTUNITY

Table 4C. (Punishment) Path Model Output for Hypothesis Testing

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
FATIGUE ON												
OT	0.004	0.004	0.005	0.005	0.811	0.811	0.417	0.417	H1a			Same
SELFMAN	0.429	0.429	0.089	0.089	4.813	4.813	0.000	0.000		Yes	Yes	Same
OTXSM	0.008	0.008	0.010	0.010	0.829	0.829	0.407	0.407				Same
PROD_SR ON												
OT	0.006	0.005	0.002	0.003	3.510	1.764	0.000	0.078		Yes		Different
SELFMAN	0.004	0.063	0.019	0.028	0.224	2.204	0.823	0.028			Yes	Different
OTXSM	-0.010	-0.011	0.004	0.006	-2.551	-1.899	0.011	0.058		Yes		Different
FATIGUE	-0.020	-0.051	0.018	0.018	-1.088	-2.839	0.277	0.005	H3a		Yes	Different
PINT	0.032	0.126	0.017	0.028	1.861	4.460	0.063	0.000			Yes	Different
FATXPINT	0.014	0.056	0.019	0.027	0.743	2.048	0.458	0.041			Yes	Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.590	-0.559	0.555	0.576				Different
SELFMAN	0.033	0.089	0.038	0.033	0.870	2.695	0.384	0.007			Yes	Different
OTXSM	0.004	0.006	0.005	0.007	0.669	0.820	0.503	0.412				Different
FATIGUE	-0.043	-0.043	0.034	0.029	-1.270	-1.480	0.204	0.139	H4a			Different
PINT	0.049	0.085	0.022	0.024	2.232	3.516	0.026	0.000		Yes	Yes	Different
FATXPINT	-0.005	-0.015	0.035	0.026	-0.129	-0.575	0.898	0.565				Different
FATCEN	-0.001	-0.001	0.008	0.008	-0.080	-0.080	0.936	0.936	H9a.cen			Same
FATSM	0.008	0.008	0.007	0.007	1.177	1.177	0.239	0.239	H9a.sm			Same
PROFH	-0.011	-0.017	0.019	0.024	-0.588	-0.694	0.556	0.488	H11a.h			Different
PROFL	-0.028	-0.085	0.023	0.024	-1.207	-3.589	0.227	0.000	H11a.l		Yes	Different
SATFH	-0.046	-0.052	0.040	0.033	-1.149	-1.566	0.251	0.117	H12a.h			Different
SATFL	-0.040	-0.034	0.041	0.033	-0.994	-1.021	0.320	0.307	H12a.l			Different
PROFAT1	0.000	0.000	0.000	0.000	0.081	0.081	0.935	0.936	H15a.cen.h			Different
PROFAT2	0.000	0.000	0.000	0.001	0.081	0.080	0.936	0.936	H15a.cen.l			Same
PROFAT3	0.000	0.000	0.000	0.000	-0.518	-0.646	0.605	0.518	H15a.sm.h			Different
PROFAT4	0.000	-0.001	0.000	0.001	-0.846	-1.144	0.398	0.253	H15a.sm.l			Different
SATFAT1	0.000	0.000	0.000	0.000	0.081	0.081	0.935	0.936	H16a.cen.h			Different
SATFAT2	0.000	0.000	0.000	0.000	0.079	0.079	0.937	0.937	H16a.cen.l			Same
SATFAT3	0.000	0.000	0.001	0.001	-0.705	-0.814	0.481	0.416	H16a.sm.h			Different
SATFAT4	0.000	0.000	0.000	0.000	-0.810	-0.780	0.418	0.435	H16a.sm.l			Different

PROCESS LOSS

FATIGUE

Table 4C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
ABSENT ON												
OT	-0.002	-0.002	0.005	0.005	-0.390	-0.390	0.696	0.696	H1b			Same
SELFMAN	-0.026	-0.026	0.045	0.045	-0.580	-0.580	0.562	0.562				Same
OTXSM	-0.001	-0.001	0.008	0.008	-0.107	-0.107	0.914	0.914				Same
PROD_SR ON												
OT	0.006	0.006	0.002	0.003	3.510	1.824	0.000	0.068		Yes		Different
SELFMAN	0.004	0.048	0.019	0.028	0.224	1.704	0.823	0.088				Different
OTXSM	-0.010	-0.010	0.004	0.006	-2.551	-1.905	0.011	0.057		Yes		Different
ABSENT	0.000	0.035	0.024	0.035	0.005	0.987	0.996	0.323	H3b			Different
PINT	0.032	0.106	0.017	0.025	1.861	4.226	0.063	0.000			Yes	Different
ABXPINT	-0.049	-0.025	0.035	0.043	-1.406	-0.573	0.160	0.566				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.003	0.590	-0.542	0.555	0.588				Different
SELFMAN	0.033	0.068	0.038	0.035	0.870	1.959	0.384	0.050				Different
OTXSM	0.004	0.005	0.005	0.007	0.669	0.782	0.503	0.434				Different
ABSENT	0.002	-0.001	0.014	0.015	0.129	-0.095	0.898	0.924	H4b			Different
PINT	0.049	0.079	0.022	0.028	2.232	2.773	0.026	0.006		Yes	Yes	Different
ABXPINT	0.021	-0.011	0.023	0.032	0.931	-0.354	0.352	0.724				Different
ABSCEN	-0.001	-0.001	0.008	0.008	-0.190	-0.190	0.849	0.849	H9b.cen			Same
ABSSM	-0.002	-0.002	0.006	0.006	-0.440	-0.440	0.660	0.660	H9b.sm			Same
PROABH	-0.030	0.020	0.038	0.054	-0.782	0.363	0.434	0.717	H11b.h			Different
PROABL	0.030	0.050	0.022	0.030	1.358	1.679	0.174	0.093	H11b.l			Different
SATABH	0.015	-0.008	0.025	0.032	0.593	-0.266	0.553	0.790	H12b.h			Different
SATABL	-0.011	0.006	0.013	0.015	-0.848	0.369	0.396	0.712	H12b.l			Different
PROABS1	0.000	0.000	0.000	0.000	0.173	-0.181	0.863	0.856	H15b.cen.h			Different
PROABS2	0.000	0.000	0.000	0.000	-0.203	-0.196	0.839	0.845	H15b.cen.l			Different
PROABS3	0.000	0.000	0.000	0.000	0.334	-0.375	0.739	0.708	H15b.sm.h			Different
PROABS4	0.000	0.000	0.000	0.000	-0.450	-0.446	0.653	0.655	H15b.sm.l			Different
SATABS1	0.000	0.000	0.000	0.000	-0.223	0.180	0.823	0.857	H16b.cen.h			Different
SATABS2	0.000	0.000	0.000	0.000	0.166	-0.216	0.868	0.829	H16b.cen.l			Different
SATABS3	0.000	0.000	0.000	0.000	-0.353	0.260	0.724	0.795	H16b.sm.h			Different
SATABS4	0.000	0.000	0.000	0.000	0.405	-0.250	0.686	0.803	H16b.sm.l			Different

PROCESS LOSS

ABSENTEEISM

Table 4C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CONFLICT ON												
OT	-0.015	-0.015	0.005	0.005	-2.875	-2.875	0.004	0.004	H1c	Yes	Yes	Same
SELFMAN	0.257	0.257	0.056	0.056	4.597	4.597	0.000	0.000		Yes	Yes	Same
OTXSM	0.014	0.014	0.011	0.011	1.217	1.217	0.224	0.224				Same
PROD_SR ON												
OT	0.006	0.005	0.002	0.003	3.510	1.672	0.000	0.095		Yes		Different
SELFMAN	0.004	0.063	0.019	0.027	0.224	2.370	0.823	0.018			Yes	Different
OTXSM	-0.010	-0.010	0.004	0.006	-2.551	-1.520	0.011	0.128		Yes		Different
CONFLICT	0.008	-0.061	0.034	0.034	0.220	-1.775	0.826	0.076	H3c			Different
PINT	0.032	0.109	0.017	0.026	1.861	4.152	0.063	0.000			Yes	Different
COXPINT	-0.033	0.000	0.030	0.042	-1.077	-0.010	0.282	0.992				Different
SATISF_SR ON												
OT	0.001	0.000	0.002	0.002	0.590	-0.070	0.555	0.944				Different
SELFMAN	0.033	0.048	0.038	0.035	0.870	1.401	0.384	0.161				Different
OTXSM	0.004	0.004	0.005	0.006	0.669	0.673	0.503	0.501				Different
CONFLICT	0.089	0.073	0.033	0.042	2.703	1.756	0.007	0.079	H4c	Yes		Different
PINT	0.049	0.075	0.022	0.030	2.232	2.551	0.026	0.011		Yes	Yes	Different
COXPINT	-0.059	0.022	0.059	0.054	-0.997	0.403	0.319	0.687				Different
CONCEN	-0.023	-0.023	0.009	0.009	-2.590	-2.590	0.010	0.010	H9c.cen	Yes	Yes	Same
CONSM	-0.007	-0.007	0.008	0.008	-0.978	-0.978	0.328	0.328	H9c.sm			Same
PROCOH	-0.012	-0.061	0.028	0.038	-0.441	-1.587	0.659	0.113	H11c.h			Different
PROCOL	0.027	-0.060	0.048	0.046	0.574	-1.298	0.566	0.194	H11c.l			Different
SATCOH	0.053	0.087	0.049	0.052	1.100	1.669	0.271	0.095	H12c.h			Different
SATCOL	0.125	0.060	0.048	0.055	2.589	1.094	0.010	0.274	H12c.l	Yes		Different
PROCON1	0.000	0.001	0.001	0.001	0.420	1.248	0.674	0.212	H15c.cen.h			Different
PROCON2	-0.001	0.001	0.001	0.001	-0.595	1.046	0.552	0.296	H15c.cen.l			Different
PROCON3	0.000	0.000	0.000	0.001	0.373	0.849	0.709	0.396	H15c.sm.h			Different
PROCON4	0.000	0.000	0.000	0.001	-0.498	0.767	0.619	0.443	H15c.sm.l			Different
SATCON1	-0.001	-0.002	0.001	0.001	-1.079	-1.506	0.280	0.132	H16c.cen.h			Different
SATCON2	-0.003	-0.001	0.002	0.001	-1.811	-1.021	0.070	0.307	H16c.cen.l			Different
SATCON3	0.000	-0.001	0.001	0.001	-0.680	-0.741	0.497	0.459	H16c.sm.h			Different
SATCON4	-0.001	0.000	0.001	0.001	-0.849	-0.698	0.396	0.485	H16c.sm.l			Different

PROCESS LOSS

CONFLICT

Table 4C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
TEAMWRK ON												
OT	0.006	0.006	0.002	0.002	2.489	2.489	0.013	0.013	H2d	Yes	Yes	Same
SELFMAN	0.005	0.005	0.032	0.032	0.160	0.160	0.873	0.873				Same
OTXSM	-0.004	-0.004	0.004	0.004	-0.874	-0.874	0.382	0.382				Same
PROD_SR ON												
OT	0.006	0.004	0.002	0.003	3.510	1.504	0.000	0.133		Yes		Different
SELFMAN	0.004	0.043	0.019	0.022	0.224	1.930	0.823	0.054				Different
OTXSM	-0.010	-0.008	0.004	0.006	-2.551	-1.444	0.011	0.149		Yes		Different
TEAMWRK	0.163	0.309	0.048	0.067	3.390	4.572	0.001	0.000	H5d	Yes	Yes	Different
PINT	0.032	0.069	0.017	0.019	1.861	3.569	0.063	0.000			Yes	Different
TEXPINT	-0.058	0.022	0.049	0.067	-1.198	0.335	0.231	0.738				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.590	-0.435	0.555	0.664				Different
SELFMAN	0.033	0.066	0.038	0.034	0.870	1.923	0.384	0.054				Different
OTXSM	0.004	0.006	0.005	0.007	0.669	0.902	0.503	0.367				Different
TEAMWRK	0.019	0.027	0.025	0.032	0.781	0.827	0.435	0.408	H6d			Different
PINT	0.049	0.080	0.022	0.030	2.232	2.689	0.026	0.007		Yes	Yes	Different
TEXPINT	-0.198	-0.178	0.056	0.065	-3.545	-2.757	0.000	0.006		Yes	Yes	Different
TEACEN	0.008	0.008	0.003	0.003	2.514	2.514	0.012	0.012	H10d.cen	Yes	Yes	Same
TEASM	0.004	0.004	0.003	0.003	1.070	1.070	0.285	0.285	H10d.sm			Same
PROTH	0.127	0.322	0.063	0.094	2.010	3.433	0.044	0.001	H13d.h	Yes	Yes	Different
PROTL	0.198	0.295	0.049	0.060	4.026	4.952	0.000	0.000	H13d.l	Yes	Yes	Same
SATTH	-0.101	-0.082	0.045	0.062	-2.250	-1.322	0.024	0.186	H14d.h	Yes		Different
SATTL	0.140	0.135	0.039	0.038	3.619	3.596	0.000	0.000	H14d.l	Yes	Yes	Same
PROTEA1	0.001	0.002	0.001	0.001	1.513	2.075	0.130	0.038	H15d.cen.h		Yes	Different
PROTEA2	0.002	0.002	0.001	0.001	2.395	2.320	0.017	0.020	H15d.cen.l	Yes	Yes	Different
PROTEA3	0.000	0.001	0.001	0.001	0.919	0.973	0.358	0.330	H15d.sm.h			Different
PROTEA4	0.001	0.001	0.001	0.001	1.004	0.950	0.315	0.342	H15d.sm.l			Different
SATTEA1	-0.001	-0.001	0.001	0.001	-1.515	-1.181	0.130	0.237	H16d.cen.h			Different
SATTEA2	0.001	0.001	0.001	0.000	2.141	2.156	0.032	0.031	H16d.cen.l	Yes	Yes	Different
SATTEA3	0.000	0.000	0.000	0.000	-0.926	-0.797	0.354	0.426	H16d.sm.h			Different
SATTEA4	0.001	0.000	0.001	0.001	0.929	0.882	0.353	0.378	H16d.sm.l			Different

PROCESS GAIN

TEAMWORK

Table 4C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CREAT_SR ON												
OT	0.000	0.000	0.006	0.006	0.068	0.068	0.946	0.946	H2e			Same
SELFMAN	0.100	0.100	0.027	0.027	3.707	3.707	0.000	0.000		Yes	Yes	Same
OTXSM	0.003	0.003	0.005	0.005	0.506	0.506	0.613	0.613				Same
PROD_SR ON												Same
OT	0.006	0.006	0.002	0.002	3.510	3.516	0.000	0.000		Yes	Yes	Same
SELFMAN	0.004	-0.001	0.019	0.019	0.224	-0.049	0.823	0.961				Different
OTXSM	-0.010	-0.011	0.004	0.004	-2.551	-2.611	0.011	0.009		Yes	Yes	Different
CREAT_SR	0.368	0.457	0.045	0.048	8.149	9.450	0.000	0.000	H5e	Yes	Yes	Same
PINT	0.032	0.042	0.017	0.013	1.861	3.263	0.063	0.001			Yes	Different
CRXPINT	0.115	0.085	0.066	0.059	1.745	1.432	0.081	0.152				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.590	-0.471	0.555	0.638				Different
SELFMAN	0.033	0.052	0.038	0.034	0.870	1.500	0.384	0.134				Different
OTXSM	0.004	0.005	0.005	0.007	0.669	0.829	0.503	0.407				Different
CREAT_SR	0.089	0.133	0.041	0.037	2.191	3.586	0.028	0.000	H6e	Yes	Yes	Different
PINT	0.049	0.064	0.022	0.030	2.232	2.131	0.026	0.033		Yes	Yes	Different
CRXPINT	-0.043	-0.072	0.044	0.050	-0.982	-1.438	0.326	0.150				Different
CRECEN	-0.001	-0.001	0.005	0.005	-0.197	-0.197	0.844	0.844	H10e.cen			Same
CRESM	0.002	0.002	0.007	0.007	0.239	0.239	0.811	0.811	H10e.sm			Same
PROCRH	0.438	0.509	0.063	0.061	6.991	8.293	0.000	0.000	H13e.h	Yes	Yes	Same
PROCRL	0.297	0.405	0.056	0.058	5.308	7.019	0.000	0.000	H13e.l	Yes	Yes	Same
SATCRH	0.063	0.089	0.051	0.051	1.239	1.727	0.215	0.084	H14e.h			Different
SATCRL	0.115	0.177	0.046	0.044	2.521	4.035	0.012	0.000	H14e.l	Yes	Yes	Different
PROCRES1	0.000	-0.001	0.002	0.003	-0.198	-0.198	0.843	0.843	H15e.cen.h			Same
PROCRES2	0.000	0.000	0.001	0.002	-0.198	-0.199	0.843	0.843	H15e.cen.l			Same
PROCRES3	0.001	0.001	0.003	0.004	0.238	0.237	0.812	0.812	H15e.sm.h			Same
PROCRES4	0.001	0.001	0.002	0.003	0.237	0.238	0.812	0.812	H15e.sm.l			Same
SATCRE1	0.000	0.000	0.000	0.000	-0.193	-0.196	0.847	0.845	H16e.cen.h			Different
SATCRE2	0.000	0.000	0.001	0.001	-0.202	-0.200	0.840	0.842	H16e.cen.l			Different
SATCRE3	0.000	0.000	0.000	0.001	0.244	0.243	0.807	0.808	H16e.sm.h			Different
SATCRE4	0.000	0.000	0.001	0.001	0.231	0.235	0.817	0.814	H16e.sm.l			Different

PROCESS GAIN

CREATIVITY

Table 4C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
PROMOT ON												
OT	-0.002	-0.002	0.003	0.003	-0.800	-0.800	0.424	0.424	H2f			Same
SELFMAN	0.094	0.094	0.031	0.031	3.056	3.056	0.002	0.002		Yes	Yes	Same
OTXSM	0.004	0.004	0.007	0.007	0.596	0.596	0.551	0.551				Same
PROD_SR ON												
OT	0.006	0.006	0.002	0.003	3.510	1.995	0.000	0.046		Yes	Yes	Different
SELFMAN	0.004	0.027	0.019	0.024	0.224	1.126	0.823	0.260				Different
OTXSM	-0.010	-0.011	0.004	0.005	-2.551	-2.481	0.011	0.013		Yes	Yes	Different
PROMOT	0.090	0.201	0.034	0.040	2.639	5.042	0.008	0.000	H5f	Yes	Yes	Different
PINT	0.032	0.089	0.017	0.020	1.861	4.350	0.063	0.000			Yes	Different
PROXPINT	0.048	0.040	0.054	0.065	0.894	0.620	0.371	0.535				Different
SATISF_SR ON												
OT	0.001	-0.001	0.002	0.002	0.590	-0.232	0.555	0.817				Different
SELFMAN	0.033	0.044	0.038	0.038	0.870	1.140	0.384	0.254				Different
OTXSM	0.004	0.004	0.005	0.005	0.669	0.745	0.503	0.456				Different
PROMOT	0.214	0.259	0.034	0.036	6.298	7.274	0.000	0.000	H6f	Yes	Yes	Same
PINT	0.049	0.057	0.022	0.027	2.232	2.141	0.026	0.032		Yes	Yes	Different
PROXPINT	0.176	0.116	0.042	0.058	4.224	2.020	0.000	0.043		Yes	Yes	Different
PROCEN	-0.005	-0.005	0.004	0.004	-1.204	-1.204	0.228	0.228	H10f.cen			Same
PROSM	0.000	0.000	0.005	0.005	-0.019	-0.019	0.985	0.985	H10f.sm			Same
PROPRH	0.119	0.225	0.034	0.053	3.498	4.236	0.000	0.000	H13f.h	Yes	Yes	Same
PROPRL	0.060	0.176	0.058	0.058	1.048	3.013	0.295	0.003	H13f.l		Yes	Different
SATPRH	0.321	0.330	0.036	0.048	8.893	6.831	0.000	0.000	H14f.h	Yes	Yes	Same
SATPRL	0.106	0.188	0.047	0.052	2.250	3.592	0.024	0.000	H14f.l	Yes	Yes	Different
PROPRO1	-0.001	-0.001	0.000	0.001	-1.157	-1.077	0.247	0.282	H15f.cen.h			Different
PROPRO2	0.000	-0.001	0.000	0.001	-0.713	-1.104	0.476	0.269	H15f.cen.l			Different
PROPRO3	0.000	0.000	0.001	0.001	-0.019	-0.019	0.985	0.985	H15f.sm.h			Same
PROPRO4	0.000	0.000	0.000	0.001	-0.019	-0.019	0.985	0.985	H15f.sm.l			Same
SATPRO1	-0.001	-0.001	0.001	0.001	-1.132	-1.148	0.257	0.251	H16f.cen.h			Different
SATPRO2	0.000	-0.001	0.001	0.001	-0.920	-1.030	0.358	0.303	H16f.cen.l			Different
SATPRO3	0.000	0.000	0.002	0.002	-0.019	-0.019	0.985	0.985	H16f.sm.h			Same
SATPRO4	0.000	0.000	0.001	0.001	-0.019	-0.019	0.985	0.985	H16f.sm.l			Same

PROCESS GAIN

PROMOTION OPPORTUNITY

Notes 4A
p. 101 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TINT=Task Interdependence; FATXTINT=Fatigue*Task Interdependence; FATCEN=Fatigue*Centralized; FATSM=Fatigue*Self-Management; PROFH=Productivity*Fatigue*High Interdependence; PROFL=Productivity*Fatigue*Low Interdependence; SATFH=Satisfaction*Fatigue*High Interdependence; SATFL=Satisfaction*Fatigue*Low Interdependence; PROFAT1=Productivity*Fatigue*Centralized*High Interdependence; PROFAT2=Productivity*Fatigue*Centralized*Low Interdependence; PROFAT3=Productivity*Fatigue*Self-Management*High Interdependence; PROFAT4=Productivity*Fatigue*Self-Management*Low Interdependence; SATFAT1=Satisfaction*Fatigue*Centralized*High Interdependence; SATFAT2=Satisfaction*Fatigue*Centralized*Low Interdependence; SATFAT3=Satisfaction*Fatigue*Self-Management*High Interdependence; SATFAT4=Satisfaction*Fatigue*Self-Management*Low Interdependence;*

Notes 4A
p. 102 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; ABSENT=Absenteeism; TINT=Task Interdependence; ABXTINT=Absenteeism*Task Interdependence; ABSCEN=Absenteeism*Centralized; ABSSM=Absenteeism*Self-Management; PROABH=Productivity*Absenteeism*High Interdependence; PROABL=Productivity*Absenteeism*Low Interdependence; SATABH=Satisfaction*Absenteeism*High Interdependence; SATABL=Satisfaction*Absenteeism*Low Interdependence; PROABS1=Productivity*Absenteeism*Centralized*High Interdependence; PROABS2=Productivity*Absenteeism*Centralized*Low Interdependence; PROABS3=Productivity*Absenteeism*Self-Management*High Interdependence; PROABS4=Productivity*Absenteeism*Self-Management*Low Interdependence; SATABS1=Satisfaction*Absenteeism*Centralized*High Interdependence; SATABS2=Satisfaction*Absenteeism*Centralized*Low Interdependence; SATABS3=Satisfaction*Absenteeism*Self-Management*High Interdependence; SATABS4=Satisfaction*Absenteeism*Self-Management*Low Interdependence;*

Notes 4A
p. 103 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TINT=Task Interdependence; COXTINT=Conflict*Task Interdependence; CONCEN=Conflict*Centralized; CONSM=Conflict*Self-Management; PROCOH=Productivity*Conflict*High Interdependence; PROCOL=Productivity*Conflict*Low Interdependence; SATCOH=Satisfaction*Conflict*High Interdependence; SATCOL=Satisfaction*Conflict*Low Interdependence; PROCON1=Productivity*Conflict*Centralized*High Interdependence; PROCON2=Productivity*Conflict*Centralized*Low Interdependence; PROCON3=Productivity*Conflict*Self-Management*High Interdependence; PROCON4=Productivity*Conflict*Self-Management*Low Interdependence; SATCON1=Satisfaction*Conflict*Centralized*High Interdependence; SATCON2=Satisfaction*Conflict*Centralized*Low Interdependence; SATCON3=Satisfaction*Conflict*Self-Management*High Interdependence; SATCON4=Satisfaction*Conflict*Self-Management*Low Interdependence;*

Notes 4A
p. 104 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TEAMWRK=Teamwork; TINT=Task Interdependence; TEXTINT=Teamwork*Task Interdependence; TEACEN=Teamwork*Centralized; TEASM=Teamwork*Self-Management; PROCOH=Productivity*Teamwork*High Interdependence; PROCOL=Productivity*Teamwork*Low Interdependence; SATCOH=Satisfaction*Teamwork*High Interdependence; SATCOL=Satisfaction*Teamwork*Low Interdependence; PROTEA1=Productivity*Teamwork*Centralized*High Interdependence; PROTEA2=Productivity*Teamwork*Centralized*Low Interdependence; PROTEA3=Productivity*Teamwork*Self-Management*High Interdependence; PROTEA4=Productivity*Teamwork*Self-Management*Low Interdependence; SATTEA1=Satisfaction*Teamwork*Centralized*High Interdependence; SATTEA2=Satisfaction*Teamwork*Centralized*Low*

*Interdependence; SATTEA3=Satisfaction*Teamwork*Self-Management*High Interdependence; SATTEA4=Satisfaction*Teamwork*Self-Management*Low Interdependence;*

Notes 4A

p. 105

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; CREAT_SR= Creativity Supervisor; TINT=Task Interdependence; CRXTINT=Creativity*Task Interdependence; CRECEN=Creativity*Centralized; CRESM=Creativity*Self-Management; PROCOH=Productivity*Creativity*High Interdependence; PROCOL=Productivity*Creativity*Low Interdependence; SATCOH=Satisfaction*Creativity*High Interdependence; SATCOL=Satisfaction*Creativity*Low Interdependence; PROCRE1=Productivity*Creativity*Centralized*High Interdependence; PROCRE2=Productivity*Creativity*Centralized*Low Interdependence; PROCRE3=Productivity*Creativity*Self-Management*High Interdependence; PROCRE4=Productivity*Creativity*Self-Management*Low Interdependence; SATCRE1=Satisfaction*Creativity*Centralized*High Interdependence; SATCRE2=Satisfaction*Creativity*Centralized*Low Interdependence; SATCRE3=Satisfaction*Creativity*Self-Management*High Interdependence; SATCRE4=Satisfaction*Creativity*Self-Management*Low Interdependence;*

Notes 4A

p. 106

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PROMOT=Promotion; TINT=Task Interdependence; PROXTINT=Promotion*Task Interdependence; PROCEN=Promotion*Centralized; PROSM=Promotion*Self-Management; PROCOH=Productivity*Promotion*High Interdependence; PROCOL=Productivity*Promotion*Low Interdependence; SATCOH=Satisfaction*Promotion*High Interdependence; SATCOL=Satisfaction*Promotion*Low Interdependence; PROPRO1=Productivity*Promotion*Centralized*High Interdependence; PROPRO2=Productivity*Promotion*Centralized*Low Interdependence; PROPRO3=Productivity*Promotion*Self-Management*High Interdependence; PROPRO4=Productivity*Promotion*Self-Management*Low Interdependence; SATPRO1=Satisfaction*Promotion*Centralized*High Interdependence; SATPRO2=Satisfaction*Promotion*Centralized*Low Interdependence; SATPRO3=Satisfaction*Promotion*Self-Management*High Interdependence; SATPRO4=Satisfaction*Promotion*Self-Management*Low Interdependence;*

Notes 4B

p. 107

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; RINT=Reward Interdependence; FATXRINT=Fatigue*Reward Interdependence; FATCEN=Fatigue*Centralized; FATSM=Fatigue*Self-Management; PROFH=Productivity*Fatigue*High Interdependence; PROFL=Productivity*Fatigue*Low Interdependence; SATFH=Satisfaction*Fatigue*High Interdependence; SATFL=Satisfaction*Fatigue*Low Interdependence; PROFAT1=Productivity*Fatigue*Centralized*High Interdependence; PROFAT2=Productivity*Fatigue*Centralized*Low Interdependence; PROFAT3=Productivity*Fatigue*Self-Management*High Interdependence; PROFAT4=Productivity*Fatigue*Self-Management*Low Interdependence; SATFAT1=Satisfaction*Fatigue*Centralized*High Interdependence; SATFAT2=Satisfaction*Fatigue*Centralized*Low Interdependence; SATFAT3=Satisfaction*Fatigue*Self-Management*High Interdependence; SATFAT4=Satisfaction*Fatigue*Self-Management*Low Interdependence;*

Notes 4B

p. 108

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; ABSENT=Absenteeism; RINT=Reward Interdependence; ABXRINT=Absenteeism*Reward Interdependence; ABCEN=Absenteeism*Centralized; ABSSM=Absenteeism*Self-Management; PROABH=Productivity*Absenteeism*High Interdependence; PROABL=Productivity*Absenteeism*Low Interdependence; SATABH=Satisfaction*Absenteeism*High Interdependence; SATABL=Satisfaction*Absenteeism*Low Interdependence; PROABS1=Productivity*Absenteeism*Centralized*High Interdependence; PROABS2=Productivity*Absenteeism*Centralized*Low*

*Interdependence; PROABS3=Productivity*Absenteeism*Self-Management*High Interdependence; PROABS4=Productivity*Absenteeism*Self-Management*Low Interdependence; SATABS1=Satisfaction*Absenteeism*Centralized*High Interdependence; SATABS2=Satisfaction*Absenteeism*Centralized*Low Interdependence; SATABS3=Satisfaction*Absenteeism*Self-Management*High Interdependence; SATABS4=Satisfaction*Absenteeism*Self-Management*Low Interdependence;*

Notes 4B
p. 109 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; RINT=Reward Interdependence; COXRINT=Conflict*Reward Interdependence; CONCEN=Conflict*Centralized; CONSM=Conflict*Self-Management; PROCOH=Productivity*Conflict*High Interdependence; PROCOL=Productivity*Conflict*Low Interdependence; SATCOH=Satisfaction*Conflict*High Interdependence; SATCOL=Satisfaction*Conflict*Low Interdependence; PROCON1=Productivity*Conflict*Centralized*High Interdependence; PROCON2=Productivity*Conflict*Centralized*Low Interdependence; PROCON3=Productivity*Conflict*Self-Management*High Interdependence; PROCON4=Productivity*Conflict*Self-Management*Low Interdependence; SATCON1=Satisfaction*Conflict*Centralized*High Interdependence; SATCON2=Satisfaction*Conflict*Centralized*Low Interdependence; SATCON3=Satisfaction*Conflict*Self-Management*High Interdependence; SATCON4=Satisfaction*Conflict*Self-Management*Low Interdependence;*

Notes 4B
p. 110 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TEAMWRK=Teamwork; RINT=Reward Interdependence; TEXRINT=Teamwork*Reward Interdependence; TEACEN=Teamwork*Centralized; TEASM=Teamwork*Self-Management; PROCOH=Productivity*Teamwork*High Interdependence; PROCOL=Productivity*Teamwork*Low Interdependence; SATCOH=Satisfaction*Teamwork*High Interdependence; SATCOL=Satisfaction*Teamwork*Low Interdependence; PROTEA1=Productivity*Teamwork*Centralized*High Interdependence; PROTEA2=Productivity*Teamwork*Centralized*Low Interdependence; PROTEA3=Productivity*Teamwork*Self-Management*High Interdependence; PROTEA4=Productivity*Teamwork*Self-Management*Low Interdependence; SATTEA1=Satisfaction*Teamwork*Centralized*High Interdependence; SATTEA2=Satisfaction*Teamwork*Centralized*Low Interdependence; SATTEA3=Satisfaction*Teamwork*Self-Management*High Interdependence; SATTEA4=Satisfaction*Teamwork*Self-Management*Low Interdependence;*

Notes 4B
p. 111 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; CREAT_SR= Creativity Supervisor; RINT=Reward Interdependence; CRXRINT=Creativity*Reward Interdependence; CRECEN=Creativity*Centralized; CRESM=Creativity*Self-Management; PROCOH=Productivity*Creativity*High Interdependence; PROCOL=Productivity*Creativity*Low Interdependence; SATCOH=Satisfaction*Creativity*High Interdependence; SATCOL=Satisfaction*Creativity*Low Interdependence; PROCRE1=Productivity*Creativity*Centralized*High Interdependence; PROCRE2=Productivity*Creativity*Centralized*Low Interdependence; PROCRE3=Productivity*Creativity*Self-Management*High Interdependence; PROCRE4=Productivity*Creativity*Self-Management*Low Interdependence; SATCRE1=Satisfaction*Creativity*Centralized*High Interdependence; SATCRE2=Satisfaction*Creativity*Centralized*Low Interdependence; SATCRE3=Satisfaction*Creativity*Self-Management*High Interdependence; SATCRE4=Satisfaction*Creativity*Self-Management*Low Interdependence;*

Notes 4B *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PROMOT=Promotion; RINT=Reward Interdependence; PROXRINT=Promotion*Reward Interdependence; PROCEN=Promotion*Centralized; PROSM=Promotion*Self-Management; PROCOH=Productivity*Promotion*High Interdependence; PROCOL=Productivity*Promotion*Low Interdependence;*

p. 112 SATCOH=Satisfaction*Promotion*High Interdependence; SATCOL=Satisfaction*Promotion*Low Interdependence;
PROPRO1=Productivity*Promotion*Centralized*High Interdependence; PROPRO2=Productivity*Promotion*Centralized*Low Interdependence;
PROPRO3=Productivity*Promotion*Self-Management*High Interdependence; PROPRO4=Productivity*Promotion*Self-Management*Low
Interdependence; SATPRO1=Satisfaction*Promotion*Centralized*High Interdependence; SATPRO2=Satisfaction*Promotion*Centralized*Low
Interdependence; SATPRO3=Satisfaction*Promotion*Self-Management*High Interdependence; SATPRO4=Satisfaction*Promotion*Self-
Management*Low Interdependence;

Notes 4C OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PINT=Punishment Interdependence;
FATXPINT=Fatigue*Punishment Interdependence; FATCEN=Fatigue*Centralized; FATSM=Fatigue*Self-Management;
p. 113 PROFH=Productivity*Fatigue*High Interdependence; PROFL=Productivity*Fatigue*Low Interdependence; SATFH=Satisfaction*Fatigue*High
Interdependence; SATFL=Satisfaction*Fatigue*Low Interdependence; PROFAT1=Productivity*Fatigue*Centralized*High Interdependence;
PROFAT2=Productivity*Fatigue*Centralized*Low Interdependence; PROFAT3=Productivity*Fatigue*Self-Management*High Interdependence;
PROFAT4=Productivity*Fatigue*Self-Management*Low Interdependence; SATFAT1=Satisfaction*Fatigue*Centralized*High Interdependence;
SATFAT2=Satisfaction*Fatigue*Centralized*Low Interdependence; SATFAT3=Satisfaction*Fatigue*Self-Management*High Interdependence;
SATFAT4=Satisfaction*Fatigue*Self-Management*Low Interdependence;

Notes 4C OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; ABSENT=Absenteeism; PINT=Punishment Interdependence;
ABXPINT=Absenteeism*Punishment Interdependence; ABSCEN=Absenteeism*Centralized; ABSSM=Absenteeism*Self-Management;
p. 114 PROABH=Productivity*Absenteeism*High Interdependence; PROABL=Productivity*Absenteeism*Low Interdependence;
SATABH=Satisfaction*Absenteeism*High Interdependence; SATABL=Satisfaction*Absenteeism*Low Interdependence;
PROABS1=Productivity*Absenteeism*Centralized*High Interdependence; PROABS2=Productivity*Absenteeism*Centralized*Low
Interdependence; PROABS3=Productivity*Absenteeism*Self-Management*High Interdependence; PROABS4=Productivity*Absenteeism*Self-
Management*Low Interdependence; SATABS1=Satisfaction*Absenteeism*Centralized*High Interdependence;
SATABS2=Satisfaction*Absenteeism*Centralized*Low Interdependence; SATABS3=Satisfaction*Absenteeism*Self-Management*High
Interdependence; SATABS4=Satisfaction*Absenteeism*Self-Management*Low Interdependence;

Notes 4C OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PINT=Punishment Interdependence;
COXPINT=Conflict*Punishment Interdependence; CONCEN=Conflict*Centralized; CONSM=Conflict*Self-Management;
p. 115 PROCOH=Productivity*Conflict*High Interdependence; PROCOL=Productivity*Conflict*Low Interdependence;
SATCOH=Satisfaction*Conflict*High Interdependence; SATCOL=Satisfaction*Conflict*Low Interdependence;
PROCON1=Productivity*Conflict*Centralized*High Interdependence; PROCON2=Productivity*Conflict*Centralized*Low Interdependence;
PROCON3=Productivity*Conflict*Self-Management*High Interdependence; PROCON4=Productivity*Conflict*Self-Management*Low
Interdependence; SATCON1=Satisfaction*Conflict*Centralized*High Interdependence; SATCON2=Satisfaction*Conflict*Centralized*Low
Interdependence; SATCON3=Satisfaction*Conflict*Self-Management*High Interdependence; SATCON4=Satisfaction*Conflict*Self-
Management*Low Interdependence;

Notes 4C
p. 116 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TEAMWRK=Teamwork; PINT=Punishment Interdependence; TEXPINT=Teamwork*Punishment Interdependence; TEACEN=Teamwork*Centralized; TEASM=Teamwork*Self-Management; PROCOH=Productivity*Teamwork*High Interdependence; PROCOL=Productivity*Teamwork*Low Interdependence; SATCOH=Satisfaction*Teamwork*High Interdependence; SATCOL=Satisfaction*Teamwork*Low Interdependence; PROTEA1=Productivity*Teamwork*Centralized*High Interdependence; PROTEA2=Productivity*Teamwork*Centralized*Low Interdependence; PROTEA3=Productivity*Teamwork*Self-Management*High Interdependence; PROTEA4=Productivity*Teamwork*Self-Management*Low Interdependence; SATTEA1=Satisfaction*Teamwork*Centralized*High Interdependence; SATTEA2=Satisfaction*Teamwork*Centralized*Low Interdependence; SATTEA3=Satisfaction*Teamwork*Self-Management*High Interdependence; SATTEA4=Satisfaction*Teamwork*Self-Management*Low Interdependence;*

Notes 4C
p. 117 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; CREAT_SR= Creativity Supervisor; PINT=Punishment Interdependence; CRXPINT=Creativity*Punishment Interdependence; CRECEN=Creativity*Centralized; CRESM=Creativity*Self-Management; PROCOH=Productivity*Creativity*High Interdependence; PROCOL=Productivity*Creativity*Low Interdependence; SATCOH=Satisfaction*Creativity*High Interdependence; SATCOL=Satisfaction*Creativity*Low Interdependence; PROCRE1=Productivity*Creativity*Centralized*High Interdependence; PROCRE2=Productivity*Creativity*Centralized*Low Interdependence; PROCRE3=Productivity*Creativity*Self-Management*High Interdependence; PROCRE4=Productivity*Creativity*Self-Management*Low Interdependence; SATCRE1=Satisfaction*Creativity*Centralized*High Interdependence; SATCRE2=Satisfaction*Creativity*Centralized*Low Interdependence; SATCRE3=Satisfaction*Creativity*Self-Management*High Interdependence; SATCRE4=Satisfaction*Creativity*Self-Management*Low Interdependence;*

Notes 4C
p. 118 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PROMOT=Promotion; PINT=Punishment Interdependence; PROXPINT=Promotion*Punishment Interdependence; PROCEN=Promotion*Centralized; PROSM=Promotion*Self-Management; PROCOH=Productivity*Promotion*High Interdependence; PROCOL=Productivity*Promotion*Low Interdependence; SATCOH=Satisfaction*Promotion*High Interdependence; SATCOL=Satisfaction*Promotion*Low Interdependence; PROPRO1=Productivity*Promotion*Centralized*High Interdependence; PROPRO2=Productivity*Promotion*Centralized*Low Interdependence; PROPRO3=Productivity*Promotion*Self-Management*High Interdependence; PROPRO4=Productivity*Promotion*Self-Management*Low Interdependence; SATPRO1=Satisfaction*Promotion*Centralized*High Interdependence; SATPRO2=Satisfaction*Promotion*Centralized*Low Interdependence; SATPRO3=Satisfaction*Promotion*Self-Management*High Interdependence; SATPRO4=Satisfaction*Promotion*Self-Management*Low Interdependence;*

Table 5. Summary of Hypotheses Testing across Three Categories of Interdependence

Hypotheses Testing	Hypothesis	Effect	<i>Task</i>	<i>Reward</i>	<i>Punishment</i>	Consistency across Variables and Three Levels of Interdependence
			<i>Interdependence</i>	<i>Interdependence</i>	<i>Interdependence</i>	
			Supported	Supported	Supported	
Hypothesis 1: Association of Overtime to Process Loss						
<i>Loss Variable</i>						
Fatigue	H1a	+	No	No	No	
Absenteeism	H1b	+	No	No	No	No
Conflict	H1c	+	Yes	Yes	Yes	
Hypothesis 2: Association of Overtime to Process Gain						
<i>Gain Variable</i>						
Teamwork	H2d	+	Yes	Yes	Yes	
Creativity	H2e	+	No	No	No	No
Promotion Opportunity	H2f	+	No	No	No	
Hypothesis 3: Association of Process Loss to Productivity						
<i>Loss Variable</i>						
Fatigue	H3a	-	Yes	Yes	Yes	
Absenteeism	H3b	-	No	No	No	No
Conflict	H3c	-	No	No	No	
Hypothesis 4: Association of Process Loss to Satisfaction						
<i>Loss Variable</i>						
Fatigue	H4a	-	No	No	No	
Absenteeism	H4b	-	No	No	No	No
Conflict	H4c	-	No	No	No	
Hypothesis 5: Association of Process Gain to Productivity						
<i>Gain Variable</i>						
Teamwork	H5d	+	Yes	Yes	Yes	
Creativity	H5e	+	Yes	Yes	Yes	Yes
Promotion Opportunity	H5f	+	Yes	Yes	Yes	
Hypothesis 6: Association of Process Gain to Satisfaction						
<i>Gain Variable</i>						
Teamwork	H6d	+	Yes	No	No	
Creativity	H6e	+	Yes	Yes	Yes	No
Promotion Opportunity	H6f	+	Yes	Yes	Yes	

Notes:

a for Fatigue; *b* for Absenteeism; *c* for Conflict; *d* for Teamwork; *e* for Creativity; *f* for Promotion Opportunity.

Table 5. Summary of Hypotheses Testing across Three Categories of Interdependence (Continued)

Hypotheses Testing	Hypothesis	Effect	Task	Reward	Punishment	Consistency across Variables and Three Levels of Interdependence
			Interdependence	Interdependence	Interdependence	
			Supported	Supported	Supported	
Moderating Hypotheses - Self-management						
Overtime to Process Loss - Hypothesis 9						
Fatigue	H9a	+	No	No	No	No
Absenteeism	H9b	+	No	No	No	
Conflict	H9c	+	Yes _a	Yes _a	Yes _a	
Overtime to Process Gain - Hypothesis 10						
Teamwork	H10d	+	Yes _a	Yes _a	Yes _a	No
Creativity	H10e	+	No	No	No	
Promotion Opportunity	H10f	+	No	No	No	
Moderating Hypotheses - Interdependence (High)						
Process Loss to Productivity - Hypothesis 11						
Fatigue	H11a	-	Yes _b	Yes _b	Yes _b	No
Absenteeism	H11b	-	No	No	No	
Conflict	H11c	-	No	No	No	
Process Loss to Satisfaction- Hypothesis 12						
Fatigue	H12a	-	No	No	No	No
Absenteeism	H12b	-	Yes	No	No	
Conflict	H12c	-	Yes	Yes	No	
Process Gain to Productivity - Hypothesis 13						
Teamwork	H13d	+	Yes	Yes	Yes	Yes
Creativity	H13e	+	Yes	Yes	Yes	
Promotion Opportunity	H13f	+	Yes	Yes	Yes	
Process Gain to Satisfaction- Hypothesis 14						
Teamwork	H14d	+	Yes _b	Yes _b	Yes _b	Yes _b
Creativity	H14e	+	Yes _b	Yes _b	Yes _b	
Promotion Opportunity	H14f	+	Yes	Yes	Yes	
Moderated Mediating Hypotheses - Productivity						
Centralized x high interdependence	H15*.cen.h		Yes _c	Yes _c	Yes _c	No
Centralized x low interdependence	H15*.cen.l		Yes _c	Yes _c	Yes _c	
Self-management x high interdependence (Hypothesis 15)	H15*.sm.h		No	No	No	
Self-management x low interdependence	H15*.sm.l		No	No	No	
Moderated Mediating Hypotheses - Satisfaction						
Centralized x high interdependence	H16*.cen.h		Yes _d	No	No	No
Centralized x low interdependence	H16*.cen.l		No	No	No	
Self-management x high interdependence (Hypothesis 16)	H16*.sm.h		No	No	No	
Self-management x low interdependence	H16*.sm.l		No	No	No	

Notes:

a for Fatigue; b for Absenteeism; c for Conflict; d for Teamwork; e for Creativity; f for Promotion Opportunity;

a: with Centralized; b: with Low Interdependence; c: with Team Work; d: with Conflict

Table 6. Summary of Fit Indices

	MODEL	χ^2	DF	CFI	TLI	SRMR	RMSEA	AIC
TASK	OVERALL	208.637	70	0.752	0.550	0.064	0.043	12,053.88
	PROJECT LOSS							
	FATIGUE	49.586	11	0.672	0.195	0.083	0.057	7,193.81
	ABSENTEEISM	54.364	11	0.501	-0.226	0.064	0.060	6,838.13
	CONFLICT	44.688	11	0.658	0.161	0.065	0.053	6,809.96
	PROJECT GAIN							
	TEAM WORK	48.660	11	0.680	0.214	0.068	0.056	5,713.55
	CREATIVITY	48.547	11	0.782	0.464	0.085	0.056	5,454.64
	PROMOTION OPPORTUNITY	37.232	11	0.759	0.408	0.063	0.047	5,651.53
REWARD	OVERALL	236.464	70	0.718	0.488	0.062	0.047	12,043.90
	PROJECT LOSS							
	FATIGUE	47.761	11	0.728	0.333	0.066	0.056	7,116.61
	ABSENTEEISM	26.521	11	0.745	0.373	0.045	0.036	6,795.44
	CONFLICT	18.078	11	0.895	0.742	0.047	0.024	6,768.88
	PROJECT GAIN							
	TEAM WORK	50.850	11	0.690	0.239	0.068	0.058	5,667.19
	CREATIVITY	30.437	11	0.876	0.695	0.059	0.040	5,413.37
	PROMOTION OPPORTUNITY	15.085	11	0.954	0.886	0.035	0.019	5,592.06
PUNISHMENT	OVERALL	227.927	70	0.729	0.508	0.059	0.046	12,462.44
	PROJECT LOSS							
	FATIGUE	54.593	11	0.675	0.203	0.068	0.061	7,573.75
	ABSENTEEISM	28.099	11	0.691	0.242	0.052	0.038	7,229.90
	CONFLICT	22.570	11	0.833	0.590	0.046	0.031	7,203.35
	PROJECT GAIN							
	TEAM WORK	35.974	11	0.772	0.441	0.059	0.046	6,079.70
	CREATIVITY	33.368	11	0.856	0.647	0.059	0.043	5,845.98
	PROMOTION OPPORTUNITY	23.971	11	0.861	0.659	0.046	0.033	6,035.40

Notes:

χ^2 = Chi Square. CFI = Comparative Fit Index. TLI = Tucker-Lewis Index. SRMR = Standardized Root Mean Residual. RMSEA = Root Mean Square Error of Approximation. AIC = Akaike Information Criterion

- Fit indices of overall model and 6 individual models for each category of interdependence (Task, Reward, and Punishment) were estimated, showing that all three overall model fit the data for task, reward, and punishment moderators. Given that, six corresponding local models were tested with the six variables under process loss and process gain. It was evidence from this table the 18 local models were considered fit the data then the outputs of the 18 local models were selected to examine the hypotheses testing.

Table 7. Standardized Loading & R-square - Confirmation Factor Analysis

	Residual Variance	Starting variance	R-Square	Standard Loading		
Process Gain (3 Factors)	TE3	0.239	TE3	2.940	0.919	0.958
	TE5	0.265	TE5	2.890	0.908	0.953
	TE9	0.180	TE9	3.137	0.943	0.971
	TE10	0.172	TE10	3.125	0.945	0.972
	TE11	0.136	TE11	3.002	0.955	0.977
	TE12	0.158	TE12	3.005	0.947	0.973
	CR3	0.191	CR3	2.665	0.928	0.963
	CR5	0.234	CR5	2.431	0.904	0.951
	CR9	0.171	CR9	2.550	0.933	0.966
	CR10	0.128	CR10	2.394	0.947	0.973
	CR11	0.168	CR11	2.587	0.935	0.967
	CR13	0.148	CR13	2.639	0.944	0.972
	PRO1	0.370	PRO1	2.373	0.844	0.919
	PRO2	0.283	PRO2	2.412	0.883	0.940
	PRO3	0.231	PRO3	2.523	0.908	0.953
PRO4	0.569	PRO4	2.500	0.772	0.879	
PRO5	0.398	PRO5	2.442	0.837	0.915	
Process Loss (2 Factors)	FA1	0.715	FA1	2.122	0.663	0.814
	FA4	0.784	FA4	2.505	0.687	0.829
	FA7	0.444	FA7	2.139	0.792	0.890
	FA8	0.714	FA8	2.264	0.685	0.827
	FA9	0.284	FA9	2.234	0.873	0.934
	FA10	0.235	FA10	1.978	0.881	0.939
	CO2	0.671	CO2	2.293	0.707	0.841
	CO3	0.621	CO3	2.347	0.735	0.858
	CO5	0.510	CO5	2.022	0.748	0.865
	CO6	0.445	CO6	2.072	0.785	0.886
CO7	0.603	CO7	1.906	0.684	0.827	

Notes:

TE=Teamwork; CR=Creativity; PRO=Promotion; FA=Fatigue; CO=Conflict

Table 7. Standardized Loading & R-square - Confirmation Factor Analysis (Continued)

	Residual Variance		Starting variance		R-Square	Standard Loading
Interdependence (3 Factors)	TI2	0.370	TI2	2.498	0.852	0.923
	TI3	0.370	TI3	2.627	0.859	0.927
	TI4	0.293	TI4	2.639	0.889	0.943
	TI6	0.701	TI6	2.618	0.732	0.856
	TI7	0.517	TI7	2.326	0.778	0.882
	R1	0.871	R1	2.400	0.637	0.798
	R2	0.208	R2	2.772	0.925	0.962
	R3	0.185	R3	2.850	0.935	0.967
	PI1	0.284	PI1	2.748	0.897	0.947
	PI2	0.654	PI2	2.816	0.768	0.876
	PI3	3.046	PI3	5.698	0.465	0.682
Productivity and Satisfaction (2 Factors)	PROD1	0.214	PROD1	2.867	0.925	0.962
	PROD2	0.416	PROD2	2.710	0.846	0.920
	PROD3	0.120	PROD3	2.824	0.958	0.979
	PROD4	0.109	PROD4	2.855	0.962	0.981
	PROD5	0.540	PROD5	2.605	0.793	0.890
	PROD14	0.411	PROD14	2.968	0.862	0.928
	SA1	0.172	SA1	2.904	0.941	0.970
	SA2	0.225	SA2	2.719	0.917	0.958
	SA3	0.978	SA3	2.041	0.521	0.722
	SA4	0.329	SA4	2.886	0.886	0.941
	SA5	1.534	SA5	2.231	0.312	0.559
Supervisor Rating (2 factors)	CRS1	0.112	CRS1	2.903	0.961	0.981
	CRS2	0.091	CRS2	2.809	0.968	0.984
	CRS4	0.105	CRS4	2.874	0.963	0.982
	CRS5	0.164	CRS5	2.583	0.937	0.968
	CRS10	0.185	CRS10	2.634	0.930	0.964
	CRS13	0.167	CRS13	2.738	0.939	0.969
	PRODS3	0.144	PRODS3	3.197	0.955	0.977
	PRODS4	0.147	PRODS4	3.043	0.952	0.976
	PRODS8	0.264	PRODS8	2.772	0.905	0.951
	PRODS9	0.273	PRODS9	2.798	0.902	0.950
	PRODS14	0.223	PRODS14	2.692	0.917	0.958
		PRODS20	0.314	PRODS20	3.181	0.901

Notes:

TI= Task Interdependence; R= Reward Interdependence; PI= Punishment Interdependence; PROD= Productivity; SA=Satisfaction; CRS=Creativity-Supervisor; PRODS=Productivity-Supervisor

Table 8A. Mediating Hypotheses Test - Task

		Estimate	P-value	Significance	Effect	Mediating Effects Significance	
PROCESS LOSS	FATIGUE	FATIGUE ON					
		OT	0.004	0.417	No	Indirect Effect	
		PROD_SR ON					No mediating effect between OT and Product via Fatigue
		OT	0.006	0.038	Yes	Direct Effect	
		FATIGUE	-0.055	0.015	Yes	Indirect Effect	
		SATISF_SR ON					No mediating effect between OT and Satisfaction via Fatigue
	OT	0.000	0.941	No	Direct Effect		
	ABSENTEEISM	FATIGUE	-0.028	0.437	No	Indirect Effect	
		ABSENT ON					
		OT	-0.002	0.696	No	Indirect Effect	
		PROD_SR ON					No mediating effect between OT and Product via Absenteeism
		OT	0.006	0.037	Yes	Direct Effect	
ABSENT		0.040	0.228	No	Indirect Effect		
CONFLICT	SATISF_SR ON					No mediating effect between OT and Satisfaction via Absenteeism	
	OT	0.000	0.980	No	Direct Effect		
	ABSENT	-0.007	0.623	No	Indirect Effect		
	CONFLICT ON						
	OT	-0.015	0.004	Yes	Indirect Effect		
	PROD_SR ON					No mediating effect between OT and Product via Conflict	
OT	0.006	0.034	Yes	Direct Effect			
CONFLICT	-0.049	0.150	No	Indirect Effect			
PROCESS GAIN	TEAMWORK	SATISF_SR ON				No mediating effect between OT and Satisfaction via Absenteeism	
		OT	0.001	0.675	No		Direct Effect
		CONFLICT	0.069	0.114	No	Indirect Effect	
		TEAMWRK ON					
		OT	0.006	0.013	Yes	Indirect Effect	
		PROD_SR ON					Existed mediating effect between OT and Product via Teamwork
	OT	0.005	0.075	No	Direct Effect		
	TEAMWRK	0.316	0.000	Yes	Indirect Effect		
	CREATIVITY	SATISF_SR ON					Existed mediating effect between OT and Satisfaction via Teamwork
		OT	-0.001	0.851	No	Direct Effect	
		TEAMWRK	0.069	0.008	Yes	Indirect Effect	
		CREAT_SR ON					
OT		0.000	0.946	No	Indirect Effect		
PROD_SR ON						No mediating effect between OT and Product via Fatigue	
OT	0.007	0.000	Yes	Direct Effect			
CREAT_SR	0.469	0.000	Yes	Indirect Effect			
PROMOTION OPPORTUNITY	SATISF_SR ON					No mediating effect between OT and Product via Fatigue	
	OT	0.000	0.917	No	Direct Effect		
	CREAT_SR	0.162	0.000	Yes	Indirect Effect		
	PROMOT ON						
	OT	-0.002	0.424	No	Indirect Effect		
	PROD_SR ON					No mediating effect between OT and Product via Fatigue	
OT	0.007	0.017	Yes	Direct Effect			
PROMOT	0.220	0.000	Yes	Indirect Effect			
PROMOTION OPPORTUNITY	SATISF_SR ON					No mediating effect between OT and Product via Fatigue	
	OT	0.000	0.837	No	Direct Effect		
	PROMOT	0.267	0.000	Yes	Indirect Effect		

Notes

OT=Overtime; *_SR=Self-Report; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; TEAMWRK=Teamwork; PROMOT=Promotion.

Table 8B. Mediating Hypotheses Test - Reward

		Estimate	P-value	Significance	Effect	Mediating Effects Significance	
PROCESS LOSS	FATIGUE	FATIGUE ON					
		OT	0.004	0.417	No	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PROD_SR ON					
		OT	0.005	0.081	No	Direct Effect	
	ABSENTEEISM	FATIGUE	-0.066	0.002	Yes	Indirect Effect	No mediating effect between OT and Satisfaction via Fatigue
		SATISF_SR ON					
		OT	-0.001	0.582	No	Direct Effect	
		FATIGUE	-0.043	0.196	No	Indirect Effect	
	CONFLICT	ABSENT ON					
		OT	-0.002	0.696	No	Indirect Effect	No mediating effect between OT and Product via Absenteeism
		PROD_SR ON					
		OT	0.005	0.080	No	Direct Effect	
TEAMWORK	ABSENT	0.039	0.209	No	Indirect Effect	No mediating effect between OT and Satisfaction via Absenteeism	
	SATISF_SR ON						
	OT	-0.001	0.614	No	Direct Effect		
	ABSENT	-0.008	0.596	No	Indirect Effect		
PROMOTION OPPORTUNITY	CONFLICT ON						
	OT	-0.015	0.004	Yes	Indirect Effect	No mediating effect between OT and Product via Conflict	
	PROD_SR ON						
	OT	0.005	0.088	No	Direct Effect		
CREATIVITY	CONFLICT	-0.053	0.115	No	Indirect Effect	No mediating effect between OT and Satisfaction via Absenteeism	
	SATISF_SR ON						
	OT	0.000	0.992	No	Direct Effect		
	CONFLICT	0.079	0.062	No	Indirect Effect		
PROCESS GAIN	TEAMWORK	TEAMWRK ON					
		OT	0.006	0.013	Yes	Indirect Effect	Existed mediating effect between OT and Product via Teamwork
		PROD_SR ON					
		OT	0.004	0.170	No	Direct Effect	
	PROMOTION OPPORTUNITY	TEAMWRK	0.305	0.000	Yes	Indirect Effect	No mediating effect between OT and Satisfaction via Teamwork
		SATISF_SR ON					
		OT	-0.001	0.714	No	Direct Effect	
		TEAMWRK	0.022	0.444	No	Indirect Effect	
	CREATIVITY	CREAT_SR ON					
		OT	0.000	0.946	No	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PROD_SR ON					
		OT	0.006	0.000	Yes	Direct Effect	
PROMOTION OPPORTUNITY	CREAT_SR	0.450	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	SATISF_SR ON						
	OT	-0.001	0.584	No	Direct Effect		
	CREAT_SR	0.131	0.003	Yes	Indirect Effect		
PROMOTION OPPORTUNITY	PROMOT ON						
	OT	-0.002	0.424	No	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	PROD_SR ON						
	OT	0.006	0.041	Yes	Direct Effect		
PROMOTION OPPORTUNITY	PROMOT	0.206	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	SATISF_SR ON						
	OT	-0.001	0.793	No	Direct Effect		
	PROMOT	0.260	0.000	Yes	Indirect Effect		

Notes:
 OT=Overtime; *_SR=Self-Report; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism;
 TEAMWRK=Teamwork; PROMOT=Promotion.

Table 8C. Mediating Hypotheses Test - Punishment

		Estimate	P-value	Significance	Effect	Mediating Effects Significance	
PROCESS LOSS	FATIGUE	FATIGUE ON					
		OT	0.004	0.417	No	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PROD_SR ON					
		OT	0.005	0.078	No	Direct Effect	
	FATIGUE	FATIGUE	-0.051	0.005	Yes	Indirect Effect	No mediating effect between OT and Satisfaction via Fatigue
		SATISF_SR ON					
		OT	-0.001	0.576	No	Direct Effect	
		FATIGUE	-0.043	0.139	No	Indirect Effect	
	ABSENTEEISM	ABSENT ON					
		OT	-0.002	0.696	No	Indirect Effect	No mediating effect between OT and Product via Absenteeism
		PROD_SR ON					
		OT	0.006	0.068	No	Direct Effect	
ABSENTEEISM	ABSENT	0.035	0.323	No	Indirect Effect	No mediating effect between OT and Satisfaction via Absenteeism	
	SATISF_SR ON						
	OT	-0.001	0.588	No	Direct Effect		
	ABSENT	-0.001	0.924	No	Indirect Effect		
CONFLICT	CONFLICT ON						
	OT	-0.015	0.004	Yes	Indirect Effect	No mediating effect between OT and Product via Conflict	
	PROD_SR ON						
	OT	0.005	0.095	No	Direct Effect		
CONFLICT	CONFLICT	-0.061	0.076	No	Indirect Effect	No mediating effect between OT and Satisfaction via Absenteeism	
	SATISF_SR ON						
	OT	0.000	0.944	No	Direct Effect		
	CONFLICT	0.073	0.079	No	Indirect Effect		
PROCESS GAIN	TEAMWORK	TEAMWRK ON					
		OT	0.006	0.013	Yes	Indirect Effect	Existed mediating effect between OT and Product via Teamwork
		PROD_SR ON					
		OT	0.004	0.133	No	Direct Effect	
	TEAMWORK	TEAMWRK	0.309	0.000	Yes	Indirect Effect	No mediating effect between OT and Satisfaction via Teamwork
		SATISF_SR ON					
		OT	-0.001	0.664	No	Direct Effect	
		TEAMWRK	0.027	0.408	No	Indirect Effect	
	CREATIVITY	CREAT_SR ON					
		OT	0.000	0.946	No	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PROD_SR ON					
		OT	0.006	0.000	Yes	Direct Effect	
CREATIVITY	CREAT_SR	0.457	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	SATISF_SR ON						
	OT	-0.001	0.638	No	Direct Effect		
	CREAT_SR	0.133	0.000	Yes	Indirect Effect		
PROMOTION OPPORTUNITY	PROMOT ON						
	OT	-0.002	0.424	No	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	PROD_SR ON						
	OT	0.006	0.046	Yes	Direct Effect		
PROMOTION OPPORTUNITY	PROMOT	0.201	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	SATISF_SR ON						
	OT	-0.001	0.817	No	Direct Effect		
	PROMOT	0.259	0.000	Yes	Indirect Effect		

Notes:

OT=Overtime; *_SR=Self-Report; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; TEAMWRK=Teamwork; PROMOT=Promotion;

Table 9. Summary of Supported Hypotheses across Characterized Interdependence

Summary of Hypotheses Testing	Hypothesis	Effect	Task Int.	Reward Int.	Punishment Int.
Hypothesis 1: Association of Overtime to Process Loss					
<i>Loss Variable</i>					
Conflict	H1c	+	Yes	Yes	Yes
Hypothesis 2: Association of Overtime to Process Gain					
<i>Gain Variable</i>					
Teamwork	H2d	+	Yes	Yes	Yes
Hypothesis 3: Association of Process Loss to Productivity					
<i>Loss Variable</i>					
Fatigue	H3a	-	Yes	Yes	Yes
Hypothesis 4: Association of Process Loss to Satisfaction					
<i>Loss Variable</i>					
Hypothesis 5: Association of Process Gain to Productivity					
<i>Gain Variable</i>					
Teamwork	H5d	+	Yes	Yes	Yes
Creativity	H5e	+	Yes	Yes	Yes
Promotion Opportunity	H5f	+	Yes	Yes	Yes
Hypothesis 6: Association of Process Gain to Satisfaction					
<i>Gain Variable</i>					
Teamwork	H6d	+	Yes	No	No
Creativity	H6e	+	Yes	Yes	Yes
Promotion Opportunity	H6f	+	Yes	Yes	Yes
Moderating Hypotheses					
<i>Self-management</i>					
Overtime to Process Loss - Hypothesis 9					
Conflict	H9c	+	Yes _a	Yes _a	Yes _a
Overtime to Process Gain - Hypothesis 10					
Teamwork	H10d	+	Yes _a	Yes _a	Yes _a
<i>Interdependence (High)</i>					
Process Loss to Productivity - Hypothesis 11					
Fatigue	H11a	-	Yes _b	Yes _b	Yes _b
Process Loss to Satisfaction- Hypothesis 12					
Absenteeism	H12b	-	Yes	No	No
Conflict	H12c	-	Yes	Yes	No
Process Gain to Productivity - Hypothesis 13					
Teamwork	H13d	+	Yes	Yes	Yes
Creativity	H13e	+	Yes	Yes	Yes
Promotion Opportunity	H13f	+	Yes	Yes	Yes
Process Gain to Satisfaction- Hypothesis 14					
Teamwork	H14d	+	Yes _b	Yes _b	Yes _b
Creativity	H14e	+	Yes _b	Yes _b	Yes _b
Promotion Opportunity	H14f	+	Yes	Yes	Yes
Moderated Mediating Hypotheses					
<i>Productivity</i>					
centralized x high interdependence	H15*.cen.h		Yes _c	Yes _c	Yes _c
centralized x low interdependence	H15*.cen.l		Yes _c	Yes _c	Yes _c
<i>Satisfaction</i>					
centralized x high interdependence	H16*.cen.h		Yes _a	No	No

Notes:

a for Fatigue; *b* for Absenteeism; *c* for Conflict; *d* for Teamwork; *e* for Creativity; *f* for Promotion Opportunity

a: with Centralized; *b*: with Low Interdependence; *c*: with Team Work; *d*: with Conflict

Int. = Interdependence

APPENDIX B

TABLES – STUDY 2

Table 10. Confirmatory Factor Analysis of Study Variables

	x2	DF	CFI	TLI	SRMR	RMSEA	AIC
Interdependence							
3 Factors: Proposed	307.51	51	0.86	0.82	0.05	0.07	24,383.89
1 Factor	970.27	54	0.5	0.39	0.11	0.14	25,211.74
Process Loss							
2 Factors: Proposed	164.45	53	0.94	0.93	0.03	0.05	25,248.16
1 Factor	951.11	54	0.55	0.45	0.18	0.14	26,850.82
Process Gain							
3 Factors: Proposed	521.23	117	0.85	0.82	0.12	0.06	32,081.04
1 Factor	1,447.70	120	0.5	0.43	0.16	0.11	33,864.90
Output (Productivity and Satisfaction)							
2 Factors: Proposed	71.62	34	0.95	0.94	0.03	0.04	19,622.93
1 Factor	217.42	35	0.78	0.71	0.06	0.08	19,874.69

Notes: All estimates derived from individual CFAs. CFI = Comparative Fit Index. TLI = Tucker-Lewis Index. SRMR = Standardized Root Mean Residual. RMSEA = Root Mean Square Error of Approximation. AIC = Akaike Information Criterion

Table 11. Variance Components of the Measures Variables

#	Variable	Variance Within	Variance Firm ID	% Within	% Firm ID
1	OVERWORK	0.33	0.02	95.16%	4.84%
2	FATIGUE	0.63	0.06	91.35%	8.65%
3	CONFLICT	0.45	0.13	78.07%	21.93%
4	TEAMWRK	0.50	0.06	89.53%	10.47%
5	CREATE	0.34	0.02	94.12%	5.88%
6	PROMOT	0.41	0.03	94.28%	5.72%
7	SELFMAN	0.36	0.01	96.55%	3.45%
8	TINT	0.38	0.05	88.71%	11.29%
9	RINT	0.46	0.07	87.50%	12.50%
10	PINT	0.46	0.08	85.90%	14.10%
11	PRODUCT	0.36	0.05	88.64%	11.36%
12	SATISF	0.30	0.02	93.21%	6.79%

Notes:

- TEAMWRK=Teamwork; CREATE= Creativity
- PROMOT = Promotion; SELFMAN = Self-management; TINT - Task Interdependence
- RINT - Reward Interdependence; PINT = Punishment Interdependence
- PRODUCT = Productivity; SATISF = Satisfaction
- All variance components estimated from Mplus

Table 12: Means, Standard Deviations and Variables Correlations

<i>Variable</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Region	53.82	26.14	--							
2 Female	0.54	0.50	0.17**	--						
3 Age	30.61	6.02	-0.06	-0.03	--					
4 Education	2.77	0.83	0.07*	0.05	0.09*	--				
5 Tenure	3.95	3.43	-0.01	-0.06	0.54**	0.06	0.89			
6 Overwork	3.42	0.60	0.06	0.02	0.03	0.03	0.02	0.73		
7 OT	6.61	3.54	0.09*	0.09*	0.00	0.07*	-0.05	0.06	--	
8 Fatigue	3.15	0.83	-0.01	0.02	0.01	-0.06	0.01	0.18**	0.55**	0.88
9 Absent	2.38	1.17	-0.06	-0.03	0.09*	-0.06	0.07*	0.12*	0.01	0.11*
10 Conflict	2.67	0.79	-0.10*	-0.08*	-0.03	-0.11*	-0.05	0.21**	0.00	0.27**
11 Teamwork	3.72	0.74	0.11*	0.07*	0.07*	0.13**	0.02	0.14**	0.26**	0.08*
12 Creativity	3.59	0.60	0.01	-0.02	0.11*	0.12*	0.07*	0.16**	0.03	0.00
13 Promot	3.43	0.66	0.01	0.02	0.13**	0.09*	0.07*	0.11*	-0.01	0.00
14 Selfman	3.25	0.64	-0.12*	-0.03	0.10*	0.04	0.13**	0.35**	0.00	0.15**
15 Tint	3.60	0.66	-0.01	0.08*	-0.01	0.01	0.01	0.00	-0.05	-0.03
16 Rint	3.07	0.73	-0.11*	-0.01	0.04	-0.07*	0.04	0.07*	-0.08*	0.05
17 Pint	2.85	0.75	-0.13**	0.05	0.06	-0.05	0.13*	0.04	-0.03	0.04
18 Product	3.77	0.65	0.13**	0.05	0.06	0.11*	-0.02	0.21**	0.14**	0.03
19 Satisf	3.60	0.59	0.05	0.04	0.04	0.04	-0.05	0.12*	0.04	-0.02

Notes:

- Internal reliability estimates (Cronbach's alpha) are in italics on the diagonal.

- *p < 0.5., **p < 0.01

- OT= Overtime; Promot=Promotion; Selfman=Self-management; Tint=Task Interdependence; Rint=Reward Interdependence; Pint=Punishment Interdependence; Satisf=Satisfaction

- Means, Standard Deviations, Correlations, and Cronbach's alpha were estimated from Jump

Table 12. Means, Standard Deviations and Variables Correlations (Continued)

Variable	M	SD	9	10	11	12	13	14	15	16
1 Region	53.82	26.14								
2 Female	0.54	0.50								
3 Age	30.61	6.02								
4 Education	2.77	0.83								
5 Tenure	3.95	3.43								
6 Overwork	3.42	0.60								
7 OT	6.61	3.54								
8 Fatigue	3.15	0.83								
9 Absent	2.38	1.17	--							
10 Conflict	2.67	0.79	0.13**	0.87						
11 Teamwork	3.72	0.74	-0.05	-0.27**	0.89					
12 Creativity	3.59	0.60	-0.07*	-0.09*	0.38**	0.83				
13 Promot	3.43	0.66	-0.12*	-0.06	0.37**	0.54**	0.79			
14 Selfman	3.25	0.64	0.04	0.25**	0.12*	0.24**	0.27**	0.77		
15 Tint	3.60	0.66	-0.03	-0.11*	0.05	0.01	0.05	0.00	0.81	
16 Rint	3.07	0.73	0.05	0.13*	-0.03	-0.01	0.04	0.11*	0.27**	0.69
17 Pint	2.85	0.75	0.08*	0.17**	-0.09*	-0.05	0.05	0.11*	0.21**	0.49**
18 Product	3.77	0.65	-0.06	-0.27**	0.56**	0.48**	0.41**	0.16**	0.04	-0.1*
19 Satisf	3.60	0.59	-0.08*	-0.12*	0.38**	0.47**	0.49**	0.21**	0.03	0.04

Notes:

- Internal reliability estimates (Cronbach's alpha) are in italics on the diagonal.

- * $p < 0.5$, ** $p < .01$

- OT= Overtime; Promot=Promotion; Selfman=Self-management; Tint=Task Interdependence; Rint=Reward Interdependence; Pint=Punishment Interdependence; Satisf=Satisfaction

- Means, Standard Deviations, Correlations, and Cronbach's alpha were estimated from Jump

Table 12. Means, Standard Deviations and Variables Correlations (Continued)

	<i>Variable</i>	<i>M</i>	<i>SD</i>	17	18	19
1	Region	53.82	26.14			
2	Female	0.54	0.50			
3	Age	30.61	6.02			
4	Education	2.77	0.83			
5	Tenure	3.95	3.43			
6	Overwork	3.42	0.60			
7	OT	6.61	3.54			
8	Fatigue	3.15	0.83			
9	Absent	2.38	1.17			
10	Conflict	2.67	0.79			
11	Teamwork	3.72	0.74			
12	Creativity	3.59	0.60			
13	Promot	3.43	0.66			
14	Selfman	3.25	0.64			
15	Tint	3.60	0.66			
16	Rint	3.07	0.73			
17	Pint	2.85	0.75	<i>0.78</i>		
18	Product	3.77	0.65	<i>-0.14**</i>	<i>0.82</i>	
19	Satisf	3.60	0.59	<i>-0.02</i>	<i>0.5**</i>	<i>0.60</i>

Notes:

- Internal reliability estimates (Cronbach's alpha) are in italics on the diagonal.

- * $p < 0.5$., ** $p < .01$

- OT= Overtime; Promot=Promotion; Selfman=Self-management; Tint=Task Interdependence; Rint=Reward Interdependence; Pint=Punishment Interdependence; Satisf=Satisfaction

'- Means, Standard Deviations, Correlations, and Cronbach's alpha were estimated from Jump

Table 13A. (Task) Path Model Output for Hypothesis Testing

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
FATIGUE ON												
OT	0.125	0.125	0.014	0.014	9.150	9.150	0.000	0.000	H1a	Yes	Yes	Same
SELFMAN	0.196	0.196	0.035	0.035	5.656	5.656	0.000	0.000		Yes	Yes	Same
OTXSM	-0.033	-0.033	0.010	0.010	-3.240	-3.240	0.001	0.001		Yes	Yes	Same
PRODUCT ON												
OT	0.002	0.023	0.005	0.008	0.355	2.663	0.722	0.008			Yes	Different
SELFMAN	0.087	0.187	0.030	0.035	2.911	5.362	0.004	0.000		Yes	Yes	Different
OTXSM	0.014	0.011	0.011	0.011	1.310	1.010	0.190	0.312				Different
FATIGUE	0.004	-0.048	0.025	0.044	0.160	-1.085	0.873	0.278	H3a			Different
TINT	-0.029	-0.027	0.029	0.043	-0.977	-0.628	0.328	0.530				Different
FATXTINT	-0.032	0.017	0.027	0.042	-1.195	0.395	0.232	0.692				Different
SATISF ON												
OT	0.002	0.012	0.006	0.004	0.287	3.174	0.774	0.002			Yes	Different
SELFMAN	0.077	0.182	0.035	0.050	2.185	3.632	0.029	0.000		Yes	Yes	Different
OTXSM	0.001	0.000	0.012	0.013	0.105	-0.030	0.917	0.976				Different
FATIGUE	-0.027	-0.063	0.020	0.030	-1.317	-2.100	0.188	0.036	H4a		Yes	Different
TINT	-0.022	-0.017	0.027	0.033	-0.794	-0.524	0.427	0.601				Different
FATXTINT	-0.013	0.029	0.017	0.025	-0.763	1.174	0.446	0.240				Different
FATCEN	0.145	0.145	0.017	0.017	8.688	8.688	0.000	0.000	H9a.cen	Yes	Yes	Same
FATSM	0.105	0.105	0.013	0.013	7.944	7.944	0.000	0.000	H9a.sm	Yes	Yes	Same
PROFH	-0.017	-0.037	0.037	0.057	-0.454	-0.651	0.650	0.515	H11a.h			Different
PROFL	0.025	-0.059	0.023	0.046	1.072	-1.274	0.284	0.203	H11a.l			Different
SATFH	-0.035	-0.044	0.026	0.035	-1.384	-1.249	0.166	0.212	H12a.h			Different
SATFL	-0.018	-0.082	0.021	0.033	-0.889	-2.466	0.374	0.014	H12a.l		Yes	Different
PROFAT1	-0.002	-0.005	0.005	0.008	-0.449	-0.637	0.654	0.524	H15a.cen.h			Different
PROFAT2	0.004	-0.009	0.003	0.007	1.125	-1.157	0.261	0.247	H15a.cen.l			Different
PROFAT3	-0.002	-0.004	0.004	0.006	-0.448	-0.628	0.654	0.530	H15a.sm.h			Different
PROFAT4	0.003	-0.006	0.002	0.005	1.135	-1.142	0.256	0.253	H15a.sm.l			Different
SATFAT1	-0.005	-0.006	0.004	0.005	-1.344	-1.230	0.179	0.219	H16a.cen.h			Different
SATFAT2	-0.003	-0.012	0.003	0.006	-0.861	-2.120	0.389	0.034	H16a.cen.l		Yes	Different
SATFAT3	-0.004	-0.005	0.003	0.004	-1.342	-1.182	0.180	0.237	H16a.sm.h			Different
SATFAT4	-0.002	-0.009	0.002	0.004	-0.865	-2.053	0.387	0.040	H16a.sm.l		Yes	Different

PROCESS LOSS

FATIGUE

Table 13A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
ABSENT ON												
OT	0.013	0.013	0.014	0.014	0.897	0.897	0.370	0.370	H1b			Same
SELFMAN	0.013	0.013	0.080	0.080	0.164	0.164	0.869	0.869				Same
OTXSM	0.027	0.027	0.027	0.027	1.018	1.018	0.309	0.309				Same
PRODUCT ON												
OT	0.002	0.017	0.005	0.008	0.355	2.070	0.722	0.038				Different
SELFMAN	0.087	0.180	0.030	0.032	2.911	5.571	0.004	0.000		Yes	Yes	Different
OTXSM	0.014	0.013	0.011	0.011	1.310	1.160	0.190	0.246				Different
ABSENT	0.003	-0.029	0.014	0.017	0.223	-1.701	0.824	0.089	H3b			Different
TINT	-0.029	-0.027	0.029	0.043	-0.977	-0.631	0.328	0.528				Different
ABXTINT	-0.026	-0.014	0.033	0.019	-0.796	-0.715	0.426	0.475				Different
SATISF ON												
OT	0.002	0.005	0.006	0.006	0.287	0.906	0.774	0.365				Different
SELFMAN	0.077	0.172	0.035	0.048	2.185	3.617	0.029	0.000		Yes	Yes	Different
OTXSM	0.001	0.002	0.012	0.013	0.105	0.131	0.917	0.895				Different
ABSENT	-0.011	-0.039	0.014	0.019	-0.802	-2.060	0.423	0.039	H4b		Yes	Different
TINT	-0.022	-0.018	0.027	0.036	-0.794	-0.493	0.427	0.622				Different
ABXTINT	-0.038	-0.016	0.023	0.026	-1.661	-0.646	0.097	0.518				Different
ABSCEN	-0.004	-0.004	0.019	0.019	-0.205	-0.205	0.837	0.837	H9b.cen			Same
ABSSM	0.030	0.030	0.024	0.024	1.206	1.206	0.228	0.228	H9b.sm			Same
PROABH	-0.014	-0.038	0.022	0.020	-0.635	-1.905	0.525	0.057	H11b.h			Different
PROABL	0.020	-0.020	0.029	0.022	0.689	-0.885	0.491	0.376	H11b.l			Different
SATABH	-0.036	-0.050	0.023	0.029	-1.569	-1.696	0.117	0.090	H12b.h			Different
SATABL	0.014	-0.028	0.019	0.020	0.718	-1.374	0.473	0.170	H12b.l			Different
PROABS1	0.000	0.000	0.000	0.001	0.206	0.206	0.837	0.837	H15b.cen.h			Same
PROABS2	0.000	0.000	0.000	0.000	-0.213	0.198	0.831	0.843	H15b.cen.l			Different
PROABS3	0.000	-0.001	0.001	0.001	-0.608	-0.859	0.543	0.390	H15b.sm.h			Different
PROABS4	0.001	-0.001	0.001	0.001	1.016	-0.568	0.310	0.570	H15b.sm.l			Different
SATABS1	0.000	0.000	0.001	0.001	0.193	0.196	0.847	0.845	H16b.cen.h			Different
SATABS2	0.000	0.000	0.000	0.001	-0.214	0.200	0.830	0.842	H16b.cen.l			Different
SATABS3	-0.001	-0.001	0.001	0.002	-0.929	-0.834	0.353	0.404	H16b.sm.h			Different
SATABS4	0.000	-0.001	0.000	0.001	0.811	-0.848	0.417	0.396	H16b.sm.l			Different

PROCESS LOSS

ABSENTEEISM

Table 13A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CONFLICT ON												
OT	-0.004	-0.004	0.010	0.010	-0.355	-0.355	0.722	0.722	H1c			Same
SELFMAN	0.374	0.374	0.061	0.061	6.160	6.160	0.000	0.000		Yes	Yes	Same
OTXSM	-0.002	-0.002	0.010	0.010	-0.207	-0.207	0.836	0.836				Same
PRODUCT ON												
OT	0.002	0.017	0.005	0.008	0.355	2.006	0.722	0.045			Yes	Different
SELFMAN	0.087	0.237	0.030	0.041	2.911	5.795	0.004	0.000		Yes	Yes	Different
OTXSM	0.014	0.012	0.011	0.012	1.310	1.051	0.190	0.293				Different
CONFLICT	-0.121	-0.223	0.026	0.052	-4.558	-4.254	0.000	0.000	H3c	Yes	Yes	Same
TINT	-0.029	-0.032	0.029	0.039	-0.977	-0.827	0.328	0.408				Different
COXTINT	0.021	-0.013	0.031	0.049	0.696	-0.268	0.486	0.789				Different
SATISF ON												
OT	0.002	0.004	0.006	0.006	0.287	0.662	0.774	0.508				Different
SELFMAN	0.077	0.204	0.035	0.050	2.185	4.063	0.029	0.000		Yes	Yes	Different
OTXSM	0.001	0.001	0.012	0.014	0.105	0.039	0.917	0.969				Different
CONFLICT	-0.045	-0.116	0.033	0.030	-1.363	-3.817	0.173	0.000	H4c		Yes	Different
TINT	-0.022	-0.022	0.027	0.037	-0.794	-0.598	0.427	0.550				Different
COXTINT	0.023	-0.032	0.049	0.049	0.470	-0.651	0.639	0.515				Different
CONCEN	-0.002	-0.002	0.010	0.010	-0.244	-0.244	0.808	0.808	H9c.cen			Same
CONSM	-0.005	-0.005	0.013	0.013	-0.359	-0.359	0.720	0.720	H9c.sm			Same
PROCOH	-0.107	-0.231	0.038	0.070	-2.792	-3.300	0.005	0.001	H11c.h	Yes	Yes	Different
PROCOL	-0.135	-0.214	0.027	0.052	-4.964	-4.150	0.000	0.000	H11c.l	Yes	Yes	Same
SATCOH	-0.030	-0.137	0.041	0.044	-0.735	-3.106	0.462	0.002	H12c.h		Yes	Different
SATCOL	-0.060	-0.095	0.051	0.045	-1.195	-2.101	0.232	0.036	H12c.l		Yes	Different
PROCON1	0.000	0.001	0.001	0.002	0.237	0.237	0.813	0.813	H15c.cen.h			Same
PROCON2	0.000	0.001	0.001	0.002	0.246	0.243	0.805	0.808	H15c.cen.l			Different
PROCON3	0.001	0.001	0.001	0.003	0.343	0.348	0.732	0.728	H15c.sm.h			Different
PROCON4	0.001	0.001	0.002	0.003	0.362	0.359	0.718	0.720	H15c.sm.l			Different
SATCON1	0.000	0.000	0.000	0.001	0.242	0.240	0.809	0.810	H16c.cen.h			Different
SATCON2	0.000	0.000	0.001	0.001	0.258	0.249	0.796	0.803	H16c.cen.l			Different
SATCON3	0.000	0.001	0.000	0.002	0.352	0.355	0.725	0.723	H16c.sm.h			Different
SATCON4	0.000	0.000	0.001	0.001	0.391	0.369	0.696	0.712	H16c.sm.l			Different

PROCESS LOSS

CONFLICT

Table 13A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
TEAMWRK ON												
OT	0.052	0.052	0.012	0.012	4.478	4.478	0.000	0.000	H2d	Yes	Yes	Same
SELFMAN	0.064	0.064	0.043	0.043	1.492	1.492	0.136	0.136				Same
OTXSM	-0.004	-0.004	0.015	0.015	-0.304	-0.304	0.761	0.761				Same
PRODUCT ON												
OT	0.002	-0.004	0.005	0.007	0.355	-0.564	0.722	0.573				Different
SELFMAN	0.087	0.112	0.030	0.031	2.911	3.585	0.004	0.000	Yes	Yes	Different	
OTXSM	0.014	0.014	0.011	0.010	1.310	1.396	0.190	0.163			Different	
TEAMWRK	0.317	0.444	0.038	0.046	8.306	9.696	0.000	0.000	H5d	Yes	Yes	Same
TINT	-0.029	-0.020	0.029	0.038	-0.977	-0.533	0.328	0.594			Different	
TEXTINT	0.005	-0.011	0.039	0.048	0.124	-0.239	0.902	0.811			Different	
SATISF ON												
OT	0.002	-0.009	0.006	0.007	0.287	-1.253	0.774	0.210				Different
SELFMAN	0.077	0.137	0.035	0.045	2.185	3.013	0.029	0.003	Yes	Yes	Different	
OTXSM	0.001	0.002	0.012	0.013	0.105	0.147	0.917	0.883			Different	
TEAMWRK	0.117	0.258	0.052	0.049	2.237	5.208	0.025	0.000	H6d	Yes	Yes	Different
TINT	-0.022	-0.016	0.027	0.035	-0.794	-0.470	0.427	0.638			Different	
TEXTINT	0.044	0.014	0.041	0.042	1.089	0.328	0.276	0.743			Different	
TEACEN	0.055	0.055	0.015	0.015	3.632	3.632	0.000	0.000	H10d.cen	Yes	Yes	Same
TEASM	0.049	0.049	0.014	0.014	3.460	3.460	0.001	0.001	H10d.sm	Yes	Yes	Same
PROTH	0.320	0.436	0.054	0.061	5.937	7.137	0.000	0.000	H13d.h	Yes	Yes	Same
PROTL	0.314	0.451	0.036	0.049	8.702	9.229	0.000	0.000	H13d.l	Yes	Yes	Same
SATTH	0.146	0.267	0.059	0.062	2.452	4.276	0.014	0.000	H14d.h	Yes	Yes	Different
SATTL	0.088	0.249	0.058	0.050	1.519	4.954	0.129	0.000	H14d.l		Yes	Different
PROTEA1	0.018	0.024	0.005	0.007	3.604	3.485	0.000	0.000	H15d.cen.h	Yes	Yes	Same
PROTEA2	0.017	0.025	0.004	0.006	3.926	3.917	0.000	0.000	H15d.cen.l	Yes	Yes	Same
PROTEA3	0.016	0.022	0.006	0.008	2.815	2.868	0.005	0.004	H15d.sm.h	Yes	Yes	Different
PROTEA4	0.016	0.022	0.005	0.007	3.126	3.140	0.002	0.002	H15d.sm.l	Yes	Yes	Same
SATTEA1	0.008	0.015	0.004	0.005	2.007	3.125	0.045	0.002	H16d.cen.h	Yes	Yes	Different
SATTEA2	0.005	0.014	0.004	0.005	1.296	2.876	0.195	0.004	H16d.cen.l		Yes	Different
SATTEA3	0.007	0.013	0.004	0.005	1.770	2.432	0.077	0.015	H16d.sm.h		Yes	Different
SATTEA4	0.004	0.012	0.003	0.005	1.260	2.665	0.208	0.008	H16d.sm.l		Yes	Different

PROCESS GAIN
TEAM WORK

Table 13A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CREATE ON												
OT	0.003	0.003	0.006	0.006	0.513	0.513	0.608	0.608	H2e			Same
SELFMAN	0.173	0.173	0.048	0.048	3.573	3.573	0.000	0.000		Yes	Yes	Same
OTXSM	0.001	0.001	0.009	0.009	0.098	0.098	0.922	0.922				Same
PRODUCT ON												
OT	0.002	0.016	0.005	0.007	0.355	2.175	0.722	0.030			Yes	Different
SELFMAN	0.087	0.096	0.030	0.027	2.911	3.622	0.004	0.000		Yes	Yes	Different
OTXSM	0.014	0.012	0.011	0.009	1.310	1.294	0.190	0.196				Different
CREATE	0.220	0.418	0.066	0.053	3.344	7.874	0.001	0.000	H5e	Yes	Yes	Different
TINT	-0.029	-0.025	0.029	0.033	-0.977	-0.761	0.328	0.447				Different
CRXTINT	-0.025	0.037	0.051	0.056	-0.488	0.655	0.626	0.513				Different
SATISF ON												
OT	0.002	0.003	0.006	0.005	0.287	0.578	0.774	0.563				Different
SELFMAN	0.077	0.094	0.035	0.037	2.185	2.534	0.029	0.011		Yes	Yes	Different
OTXSM	0.001	0.000	0.012	0.011	0.105	-0.020	0.917	0.984				Different
CREATE	0.227	0.395	0.046	0.039	4.984	10.135	0.000	0.000	H6e	Yes	Yes	Same
TINT	-0.022	-0.014	0.027	0.029	-0.794	-0.479	0.427	0.632				Different
CRXTINT	-0.081	-0.018	0.044	0.054	-1.868	-0.325	0.062	0.745				Different
CRECEN	0.002	0.002	0.009	0.009	0.267	0.267	0.789	0.789	H10e.cen			Same
CRESM	0.004	0.004	0.007	0.007	0.486	0.486	0.627	0.627	H10e.sm			Same
PROCRH	0.203	0.442	0.086	0.079	2.357	5.575	0.018	0.000	H13e.h	Yes	Yes	Different
PROCRL	0.236	0.394	0.058	0.045	4.046	8.752	0.000	0.000	H13e.l	Yes	Yes	Same
SATCRH	0.174	0.383	0.055	0.049	3.145	7.747	0.002	0.000	H14e.h	Yes	Yes	Different
SATCRL	0.280	0.406	0.054	0.056	5.192	7.266	0.000	0.000	H14e.l	Yes	Yes	Same
PROCRE1	0.000	0.001	0.002	0.004	0.266	0.266	0.790	0.790	H15e.cen.h			Same
PROCRE2	0.001	0.001	0.002	0.004	0.264	0.267	0.792	0.790	H15e.cen.l			Different
PROCRE3	0.001	0.002	0.001	0.003	0.499	0.477	0.618	0.633	H15e.sm.h			Different
PROCRE4	0.001	0.001	0.002	0.003	0.484	0.476	0.628	0.634	H15e.sm.l			Different
SATCRE1	0.000	0.001	0.002	0.003	0.275	0.272	0.783	0.786	H16e.cen.h			Different
SATCRE2	0.001	0.001	0.002	0.004	0.268	0.265	0.788	0.791	H16e.cen.l			Different
SATCRE3	0.001	0.001	0.001	0.003	0.493	0.490	0.622	0.624	H16e.sm.h			Different
SATCRE4	0.001	0.001	0.002	0.003	0.479	0.482	0.632	0.630	H16e.sm.l			Different

PROCESS GAIN

CREATIVITY

Table 13A. (Task) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two- Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
PROMOT ON												
OT	-0.005	-0.005	0.010	0.010	-0.536	-0.536	0.592	0.592	H2f			Same
SELFMAN	0.229	0.229	0.046	0.046	4.978	4.978	0.000	0.000		Yes	Yes	Same
OTXSM	-0.009	-0.009	0.010	0.010	-0.861	-0.861	0.389	0.389				Same
PRODUCT ON												
OT	0.002	0.018	0.005	0.007	0.355	2.536	0.722	0.011			Yes	Different
SELFMAN	0.087	0.093	0.030	0.032	2.911	2.943	0.004	0.003		Yes	Yes	Different
OTXSM	0.014	0.017	0.011	0.011	1.310	1.493	0.190	0.136				Different
PROMOT	0.135	0.362	0.051	0.042	2.639	8.622	0.008	0.000	H5f	Yes	Yes	Different
TINT	-0.029	-0.042	0.029	0.040	-0.977	-1.047	0.328	0.295				Different
PROXTINT	0.028	0.083	0.048	0.045	0.585	1.847	0.559	0.065				Different
SATISF ON												
OT	0.002	0.005	0.006	0.005	0.287	1.013	0.774	0.311				Different
SELFMAN	0.077	0.083	0.035	0.040	2.185	2.074	0.029	0.038		Yes	Yes	Different
OTXSM	0.001	0.005	0.012	0.012	0.105	0.394	0.917	0.693				Different
PROMOT	0.219	0.367	0.045	0.046	4.827	8.039	0.000	0.000	H6f	Yes	Yes	Same
TINT	-0.022	-0.031	0.027	0.033	-0.794	-0.941	0.427	0.347				Different
PROXTINT	0.033	0.056	0.053	0.057	0.618	0.982	0.537	0.326				Different
PROCEN	0.000	0.000	0.012	0.012	0.029	0.029	0.977	0.977	H10f.cen			Same
PROSM	-0.011	-0.011	0.012	0.012	-0.922	-0.922	0.356	0.356	H10f.sm			Same
PROPRH	0.154	0.416	0.075	0.062	2.048	6.670	0.041	0.000	H13f.h	Yes	Yes	Different
PROPRL	0.117	0.308	0.040	0.037	2.950	8.398	0.003	0.000	H13f.l	Yes	Yes	Different
SATPRH	0.240	0.403	0.066	0.061	3.665	6.658	0.000	0.000	H14f.h	Yes	Yes	Same
SATPRL	0.197	0.330	0.046	0.056	4.250	5.922	0.000	0.000	H14f.l	Yes	Yes	Same
PROPRO1	0.000	0.000	0.002	0.005	0.029	0.029	0.977	0.977	H15f.cen.h			Same
PROPRO2	0.000	0.000	0.001	0.004	0.029	0.029	0.977	0.977	H15f.cen.l			Same
PROPRO3	-0.002	-0.004	0.002	0.005	-0.786	-0.927	0.432	0.354	H15f.sm.h			Different
PROPRO4	-0.001	-0.003	0.001	0.004	-0.873	-0.933	0.383	0.351	H15f.sm.l			Different
SATPRO1	0.000	0.000	0.003	0.005	0.029	0.029	0.977	0.977	H16f.cen.h			Same
SATPRO2	0.000	0.000	0.002	0.004	0.029	0.029	0.977	0.977	H16f.cen.l			Same
SATPRO3	-0.003	-0.004	0.003	0.005	-0.815	-0.880	0.415	0.379	H16f.sm.h			Different
SATPRO4	-0.002	-0.004	0.002	0.004	-0.934	-0.915	0.350	0.360	H16f.sm.l			Different

PROCESS GAIN

PROMOTION OPPORTUNITY

Table 13B. (Reward) Path Model Output for Hypothesis Testing

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
FATIGUE ON												
OT	0.125	0.125	0.014	0.014	9.150	9.150	0.000	0.000	H1a	Yes	Yes	Same
SELFMAN	0.196	0.196	0.035	0.035	5.656	5.656	0.000	0.000		Yes	Yes	Same
OTXSM	-0.033	-0.033	0.010	0.010	-3.240	-3.240	0.001	0.001		Yes	Yes	Same
PRODUCT ON												
OT	0.002	0.023	0.005	0.009	0.334	2.632	0.738	0.008			Yes	Different
SELFMAN	0.092	0.186	0.032	0.035	2.876	5.349	0.004	0.000		Yes	Yes	Different
OTXSM	0.012	0.009	0.011	0.011	1.070	0.825	0.285	0.410				Different
FATIGUE	0.015	-0.039	0.023	0.042	0.651	-0.934	0.515	0.350	H3a			Different
RINT	-0.058	-0.038	0.015	0.019	-3.886	-2.045	0.000	0.041		Yes	Yes	Different
FATXRINT	0.081	0.093	0.035	0.046	2.306	2.008	0.021	0.045		Yes	Yes	Different
SATISF ON												
OT	0.003	0.013	0.005	0.004	0.558	3.526	0.577	0.000			Yes	Different
SELFMAN	0.072	0.178	0.040	0.050	1.828	3.597	0.067	0.000			Yes	Different
OTXSM	0.000	-0.002	0.012	0.013	-0.011	-0.175	0.991	0.861				Different
FATIGUE	-0.022	-0.055	0.020	0.029	-1.087	-1.926	0.277	0.054	H4a			Different
RINT	0.033	0.035	0.024	0.027	1.396	1.307	0.163	0.191				Different
FATXRINT	0.088	0.095	0.034	0.043	2.595	2.202	0.009	0.028		Yes	Yes	Different
FATCEN	0.145	0.145	0.017	0.017	8.688	8.688	0.000	0.000	H9a.cen	Yes	Yes	Same
FATSM	0.105	0.105	0.013	0.013	7.944	7.944	0.000	0.000	H9a.sm	Yes	Yes	Same
PROFH	0.074	0.028	0.032	0.046	2.319	0.604	0.020	0.546	H11a.h	Yes		Different
PROFL	-0.044	-0.106	0.036	0.060	-1.203	-1.765	0.229	0.078	H11a.l			Different
SATFH	0.041	0.013	0.033	0.042	1.267	0.312	0.205	0.755	H12a.h			Different
SATFL	-0.085	-0.124	0.032	0.044	-2.682	-2.828	0.007	0.005	H12a.l	Yes	Yes	Different
PROFAT1	0.011	0.004	0.005	0.007	2.200	0.601	0.028	0.548	H15a.cen.h	Yes		Different
PROFAT2	-0.006	-0.015	0.006	0.010	-1.131	-1.561	0.258	0.119	H15a.cen.l			Different
PROFAT3	0.008	0.003	0.003	0.005	2.315	0.616	0.021	0.538	H15a.sm.h	Yes		Different
PROFAT4	-0.005	-0.011	0.004	0.007	-1.134	-1.548	0.257	0.122	H15a.sm.l			Different
SATFAT1	0.006	0.002	0.005	0.006	1.155	0.306	0.248	0.760	H16a.cen.h			Different
SATFAT2	-0.012	-0.018	0.006	0.008	-2.201	-2.299	0.028	0.021	H16a.cen.l	Yes	Yes	Different
SATFAT3	0.004	0.001	0.004	0.004	1.182	0.311	0.237	0.756	H16a.sm.h			Different
SATFAT4	-0.009	-0.013	0.004	0.006	-2.309	-2.299	0.021	0.022	H16a.sm.l	Yes	Yes	Different

PROCESS LOSS

FATIGUE

Table 13B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
ABSENT ON												
OT	0.013	0.013	0.014	0.014	0.897	0.897	0.370	0.370	H1b			Same
SELFMAN	0.013	0.013	0.080	0.080	0.164	0.164	0.869	0.869				Same
OTXSM	0.027	0.027	0.027	0.027	1.018	1.018	0.309	0.309				Same
PRODUCT ON												
OT	0.002	0.017	0.005	0.008	0.334	2.044	0.738	0.041			Yes	Different
SELFMAN	0.092	0.181	0.032	0.032	2.876	5.612	0.004	0.000		Yes	Yes	Different
OTXSM	0.012	0.013	0.011	0.011	1.070	1.146	0.285	0.252				Different
ABSENT	0.006	-0.027	0.013	0.016	0.440	-1.629	0.660	0.103	H3b			Different
RINT	-0.058	-0.042	0.015	0.020	-3.886	-2.169	0.000	0.030		Yes	Yes	Different
ABXRINT	-0.028	-0.021	0.023	0.025	-1.244	-0.854	0.213	0.393				Different
SATISF ON												
OT	0.003	0.006	0.005	0.006	0.558	0.995	0.577	0.320				Different
SELFMAN	0.072	0.169	0.040	0.048	1.828	3.500	0.067	0.000			Yes	Different
OTXSM	0.000	0.002	0.012	0.013	-0.011	0.160	0.991	0.873				Different
ABSENT	-0.012	-0.040	0.015	0.018	-0.811	-2.146	0.418	0.032	H4b		Yes	Different
RINT	0.033	0.032	0.024	0.032	1.396	0.986	0.163	0.324				Different
ABXRINT	-0.018	0.007	0.031	0.035	-0.561	0.192	0.574	0.848				Different
ABSCEN	-0.004	-0.004	0.019	0.019	-0.205	-0.205	0.837	0.837	H9b.cen			Same
ABSSM	0.030	0.030	0.024	0.024	1.206	1.206	0.228	0.228	H9b.sm			Same
PROABH	-0.014	-0.042	0.014	0.021	-1.027	-2.005	0.304	0.045	H11b.h		Yes	Different
PROABL	0.026	-0.011	0.026	0.028	0.996	-0.409	0.319	0.682	H11b.l			Different
SATABH	-0.025	-0.035	0.025	0.031	-0.995	-1.124	0.320	0.261	H12b.h			Different
SATABL	0.001	-0.044	0.029	0.032	0.028	-1.378	0.978	0.168	H12b.l			Different
PROABS1	0.000	0.000	0.000	0.001	0.187	0.202	0.852	0.840	H15b.cen.h			Different
PROABS2	0.000	0.000	0.001	0.000	-0.197	0.192	0.844	0.848	H15b.cen.l			Different
PROABS3	0.000	-0.001	0.001	0.001	-0.720	-0.985	0.471	0.325	H15b.sm.h			Different
PROABS4	0.001	0.000	0.001	0.001	1.053	-0.325	0.292	0.745	H15b.sm.l			Different
SATABS1	0.000	0.000	0.001	0.001	0.185	0.189	0.853	0.850	H16b.cen.h			Different
SATABS2	0.000	0.000	0.000	0.001	-0.028	0.203	0.977	0.839	H16b.cen.l			Different
SATABS3	-0.001	-0.001	0.001	0.001	-0.839	-0.926	0.401	0.354	H16b.sm.h			Different
SATABS4	0.000	-0.001	0.001	0.002	0.028	-0.721	0.977	0.471	H16b.sm.l			Different

Table 13B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CONFLICT ON												
OT	-0.004	-0.004	0.010	0.010	-0.355	-0.355	0.722	0.722	H1c			Same
SELFMAN	0.374	0.374	0.061	0.061	6.160	6.160	0.000	0.000		Yes	Yes	Same
OTXSM	-0.002	-0.002	0.010	0.010	-0.207	-0.207	0.836	0.836				Same
PRODUCT ON												
OT	0.002	0.017	0.005	0.008	0.334	2.020	0.738	0.043			Yes	Different
SELFMAN	0.092	0.238	0.032	0.041	2.876	5.773	0.004	0.000		Yes	Yes	Different
OTXSM	0.012	0.012	0.011	0.012	1.070	1.036	0.285	0.300				Different
CONFLICT	-0.123	-0.223	0.023	0.052	-5.255	-4.260	0.000	0.000	H3c	Yes	Yes	Same
RINT	-0.058	-0.044	0.015	0.023	-3.886	-1.880	0.000	0.060		Yes		Different
COXRINT	-0.035	-0.005	0.028	0.039	-1.276	-0.128	0.202	0.898				Different
SATISF ON												
OT	0.003	0.005	0.005	0.006	0.558	0.825	0.577	0.409				Different
SELFMAN	0.072	0.202	0.040	0.052	1.828	3.914	0.067	0.000			Yes	Different
OTXSM	0.000	0.001	0.012	0.014	-0.011	0.072	0.991	0.943				Different
CONFLICT	-0.048	-0.117	0.031	0.030	-1.538	-3.860	0.124	0.000	H4c		Yes	Different
RINT	0.033	0.032	0.024	0.035	1.396	0.927	0.163	0.354				Different
COXRINT	0.003	-0.006	0.040	0.058	0.077	-0.109	0.939	0.913				Different
CONCEN	-0.002	-0.002	0.010	0.010	-0.244	-0.244	0.808	0.808	H9c.cen			Same
CONSM	-0.005	-0.005	0.013	0.013	-0.359	-0.359	0.720	0.720	H9c.sm			Same
PROCOH	-0.148	-0.227	0.028	0.061	-5.272	-3.702	0.000	0.000	H11c.h	Yes	Yes	Same
PROCOL	-0.097	-0.220	0.033	0.058	-2.943	-3.813	0.003	0.000	H11c.l	Yes	Yes	Different
SATCOH	-0.046	-0.122	0.038	0.056	-1.219	-2.185	0.223	0.029	H12c.h		Yes	Different
SATCOL	-0.050	-0.112	0.047	0.048	-1.062	-2.347	0.288	0.019	H12c.l		Yes	Different
PROCON1	0.000	0.001	0.001	0.002	0.242	0.239	0.809	0.811	H15c.cen.h			Different
PROCON2	0.000	0.001	0.001	0.002	0.242	0.241	0.809	0.810	H15c.cen.l			Different
PROCON3	0.001	0.001	0.002	0.003	0.350	0.348	0.726	0.728	H15c.sm.h			Different
PROCON4	0.000	0.001	0.001	0.003	0.355	0.357	0.723	0.721	H15c.sm.l			Different
SATCON1	0.000	0.000	0.000	0.001	0.251	0.237	0.802	0.812	H16c.cen.h			Different
SATCON2	0.000	0.000	0.000	0.001	0.251	0.248	0.802	0.804	H16c.cen.l			Different
SATCON3	0.000	0.001	0.001	0.002	0.379	0.347	0.705	0.729	H16c.sm.h			Different
SATCON4	0.000	0.001	0.001	0.001	0.374	0.370	0.709	0.711	H16c.sm.l			Different

PROCESS LOSS

CONFLICT

Table 13B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
TEAMWRK ON												
OT	0.052	0.052	0.012	0.012	4.478	4.478	0.000	0.000	H2d	Yes	Yes	Same
SELFMAN	0.064	0.064	0.043	0.043	1.492	1.492	0.136	0.136				Same
OTXSM	-0.004	-0.004	0.015	0.015	-0.304	-0.304	0.761	0.761				Same
PRODUCT ON												
OT	0.002	-0.005	0.005	0.007	0.334	-0.681	0.738	0.496				Different
SELFMAN	0.092	0.113	0.032	0.031	2.876	3.672	0.004	0.000	Yes	Yes	Different	
OTXSM	0.012	0.013	0.011	0.010	1.070	1.316	0.285	0.188			Different	
TEAMWRK	0.319	0.447	0.038	0.045	8.353	9.837	0.000	0.000	H5d	Yes	Yes	Same
RINT	-0.058	-0.066	0.015	0.017	-3.886	-3.795	0.000	0.000	Yes	Yes	Same	
TEXRINT	-0.028	-0.036	0.037	0.050	-0.756	-0.705	0.449	0.481			Different	
SATISF ON												
OT	0.003	-0.008	0.005	0.007	0.558	-1.163	0.577	0.245				Different
SELFMAN	0.072	0.136	0.040	0.046	1.828	2.973	0.067	0.003		Yes	Different	
OTXSM	0.000	0.002	0.012	0.012	-0.011	0.181	0.991	0.857			Different	
TEAMWRK	0.119	0.259	0.049	0.052	2.408	4.942	0.016	0.000	H6d	Yes	Yes	Different
RINT	0.033	0.022	0.024	0.032	1.396	0.707	0.163	0.479			Different	
TEXRINT	0.062	0.029	0.043	0.049	1.442	0.592	0.149	0.554			Different	
TEACEN	0.055	0.055	0.015	0.015	3.632	3.632	0.000	0.000	H10d.cen	Yes	Yes	Same
TEASM	0.049	0.049	0.014	0.014	3.460	3.460	0.001	0.001	H10d.sm	Yes	Yes	Same
PROTH	0.298	0.421	0.045	0.055	6.601	7.689	0.000	0.000	H13d.h	Yes	Yes	Same
PROTL	0.339	0.473	0.048	0.062	7.056	7.671	0.000	0.000	H13d.l	Yes	Yes	Same
SATTH	0.164	0.280	0.069	0.070	2.382	3.982	0.017	0.000	H14d.h	Yes	Yes	Different
SATTL	0.074	0.238	0.046	0.055	1.612	4.321	0.107	0.000	H14d.l		Yes	Different
PROTEA1	0.016	0.023	0.005	0.007	3.320	3.339	0.001	0.001	H15d.cen.h	Yes	Yes	Same
PROTEA2	0.019	0.026	0.004	0.007	4.307	3.950	0.000	0.000	H15d.cen.l	Yes	Yes	Same
PROTEA3	0.015	0.021	0.005	0.007	3.042	3.041	0.002	0.002	H15d.sm.h	Yes	Yes	Same
PROTEA4	0.017	0.023	0.006	0.008	2.982	2.939	0.003	0.003	H15d.sm.l	Yes	Yes	Same
SATTEA1	0.009	0.015	0.005	0.006	1.765	2.494	0.078	0.013	H16d.cen.h		Yes	Different
SATTEA2	0.004	0.013	0.003	0.004	1.593	3.643	0.111	0.000	H16d.cen.l		Yes	Different
SATTEA3	0.008	0.014	0.005	0.006	1.774	2.383	0.076	0.017	H16d.sm.h		Yes	Different
SATTEA4	0.004	0.012	0.003	0.005	1.323	2.523	0.186	0.012	H16d.sm.l		Yes	Different

PROCESS GAIN

TEAM WORK

Table 13B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two- Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CREATE ON												
OT	0.003	0.003	0.006	0.006	0.513	0.513	0.608	0.608	H2e			Same
SELFMAN	0.173	0.173	0.048	0.048	3.573	3.573	0.000	0.000		Yes	Yes	Same
OTXSM	0.001	0.001	0.009	0.009	0.098	0.098	0.922	0.922				Same
PRODUCT ON												
OT	0.002	0.016	0.005	0.007	0.334	2.175	0.738	0.030			Yes	Different
SELFMAN	0.092	0.096	0.032	0.026	2.876	3.700	0.004	0.000		Yes	Yes	Different
OTXSM	0.012	0.011	0.011	0.010	1.070	1.119	0.285	0.263				Different
CREATE	0.208	0.415	0.054	0.048	3.823	8.702	0.000	0.000	H5e	Yes	Yes	Same
RINT	-0.058	-0.046	0.015	0.020	-3.886	-2.266	0.000	0.023		Yes	Yes	Different
CRXRINT	-0.099	-0.075	0.043	0.069	-2.287	-1.095	0.022	0.274		Yes		Different
SATISF ON												
OT	0.003	0.004	0.005	0.005	0.558	0.747	0.577	0.455				Different
SELFMAN	0.072	0.092	0.040	0.038	1.828	2.415	0.067	0.016			Yes	Different
OTXSM	0.000	0.000	0.012	0.011	-0.011	-0.027	0.991	0.978				Different
CREATE	0.223	0.392	0.047	0.038	4.726	10.264	0.000	0.000	H6e	Yes	Yes	Same
RINT	0.033	0.030	0.024	0.030	1.396	0.996	0.163	0.319				Different
CRXRINT	-0.058	-0.078	0.039	0.047	-1.487	-1.643	0.137	0.100				Different
CRECEN	0.002	0.002	0.009	0.009	0.267	0.267	0.789	0.789	H10e.cen			Same
CRESM	0.004	0.004	0.007	0.007	0.486	0.486	0.627	0.627	H10e.sm			Same
PROCRH	0.137	0.360	0.060	0.058	2.295	6.165	0.022	0.000	H13e.h	Yes	Yes	Different
PROCRL	0.280	0.469	0.065	0.078	4.275	6.039	0.000	0.000	H13e.l	Yes	Yes	Same
SATCRH	0.180	0.336	0.058	0.053	3.110	6.371	0.002	0.000	H14e.h	Yes	Yes	Different
SATCRL	0.265	0.448	0.052	0.050	5.091	8.926	0.000	0.000	H14e.l	Yes	Yes	Same
PROCRE1	0.000	0.001	0.001	0.003	0.257	0.263	0.797	0.792	H15e.cen.h			Different
PROCRE2	0.001	0.001	0.002	0.004	0.268	0.269	0.789	0.788	H15e.cen.l			Different
PROCRE3	0.000	0.001	0.001	0.003	0.482	0.473	0.630	0.636	H15e.sm.h			Different
PROCRE4	0.001	0.002	0.002	0.003	0.497	0.480	0.619	0.632	H15e.sm.l			Different
SATCRE1	0.000	0.001	0.002	0.003	0.268	0.267	0.788	0.789	H16e.cen.h			Different
SATCRE2	0.001	0.001	0.002	0.004	0.274	0.269	0.784	0.788	H16e.cen.l			Different
SATCRE3	0.001	0.001	0.001	0.002	0.487	0.490	0.626	0.624	H16e.sm.h			Different
SATCRE4	0.001	0.002	0.002	0.003	0.480	0.482	0.631	0.630	H16e.sm.l			Different

PROCESS GAIN

CREATIVITY

Table 13B. (Reward) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
PROMOT ON												
OT	-0.005	-0.005	0.010	0.010	-0.536	-0.536	0.592	0.592	H2f			Same
SELFMAN	0.229	0.229	0.046	0.046	4.978	4.978	0.000	0.000		Yes	Yes	Same
OTXSM	-0.009	-0.009	0.010	0.010	-0.861	-0.861	0.389	0.389				Same
PRODUCT ON												
OT	0.002	0.018	0.005	0.007	0.334	2.495	0.738	0.013			Yes	Different
SELFMAN	0.092	0.093	0.032	0.032	2.876	2.927	0.004	0.003		Yes	Yes	Different
OTXSM	0.012	0.015	0.011	0.012	1.070	1.302	0.285	0.193				Different
PROMOT	0.134	0.352	0.047	0.041	2.860	8.499	0.004	0.000	H5f	Yes	Yes	Different
RINT	-0.058	-0.044	0.015	0.020	-3.886	-2.203	0.000	0.028		Yes	Yes	Different
PROXRINT	0.023	-0.011	0.040	0.042	0.568	-0.255	0.570	0.799				Different
SATISF ON												
OT	0.003	0.006	0.005	0.005	0.558	1.124	0.577	0.261				Different
SELFMAN	0.072	0.077	0.040	0.042	1.828	1.820	0.067	0.069				Different
OTXSM	0.000	0.003	0.012	0.012	-0.011	0.283	0.991	0.777				Different
PROMOT	0.212	0.359	0.041	0.041	5.203	8.772	0.000	0.000	H6f	Yes	Yes	Same
RINT	0.033	0.026	0.024	0.033	1.396	0.785	0.163	0.432				Different
PROXRINT	-0.070	-0.064	0.043	0.046	-1.632	-1.392	0.103	0.164				Different
PROCEN	0.000	0.000	0.012	0.012	0.029	0.029	0.977	0.977	H10f.cen			Same
PROSM	-0.011	-0.011	0.012	0.012	-0.922	-0.922	0.356	0.356	H10f.sm			Same
PROPRH	0.151	0.344	0.062	0.049	2.444	7.085	0.015	0.000	H13f.h	Yes	Yes	Different
PROPRL	0.117	0.360	0.048	0.054	2.455	6.619	0.014	0.000	H13f.l	Yes	Yes	Different
SATPRH	0.162	0.313	0.048	0.049	3.403	6.365	0.001	0.000	H14f.h	Yes	Yes	Different
SATPRL	0.263	0.406	0.055	0.057	4.776	7.150	0.000	0.000	H14f.l	Yes	Yes	Same
PROPRO1	0.000	0.000	0.002	0.004	0.029	0.029	0.977	0.977	H15f.cen.h			Same
PROPRO2	0.000	0.000	0.001	0.004	0.029	0.029	0.977	0.977	H15f.cen.l			Same
PROPRO3	-0.002	-0.004	0.002	0.004	-0.860	-0.917	0.390	0.359	H15f.sm.h			Different
PROPRO4	-0.001	-0.004	0.002	0.004	-0.834	-0.945	0.405	0.345	H15f.sm.l			Different
SATPRO1	0.000	0.000	0.002	0.004	0.029	0.029	0.977	0.977	H16f.cen.h			Same
SATPRO2	0.000	0.000	0.003	0.005	0.029	0.029	0.977	0.977	H16f.cen.l			Same
SATPRO3	-0.002	-0.003	0.002	0.004	-0.873	-0.887	0.383	0.375	H16f.sm.h			Different
SATPRO4	-0.003	-0.004	0.003	0.005	-0.887	-0.905	0.375	0.366	H16f.sm.l			Different

Table 13C. (Punishment) Path Model Output for Hypothesis Testing

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
FATIGUE ON												
OT	0.125	0.125	0.014	0.014	9.150	9.150	0.000	0.000	H1a	Yes	Yes	Same
SELFMAN	0.196	0.196	0.035	0.035	5.656	5.656	0.000	0.000		Yes	Yes	Same
OTXSM	-0.033	-0.033	0.010	0.010	-3.240	-3.240	0.001	0.001		Yes	Yes	Same
PRODUCT ON												
OT	0.003	0.024	0.005	0.009	0.676	2.711	0.499	0.007			Yes	Different
SELFMAN	0.086	0.186	0.029	0.033	3.021	5.671	0.003	0.000		Yes	Yes	Different
OTXSM	0.013	0.010	0.010	0.011	1.310	0.936	0.190	0.349				Different
FATIGUE	0.002	-0.048	0.025	0.044	0.065	-1.097	0.948	0.273	H3a			Different
PINT	-0.054	-0.075	0.022	0.030	-2.451	-2.526	0.014	0.012		Yes	Yes	Different
FATXPINT	-0.004	0.035	0.030	0.035	-0.125	0.997	0.901	0.319				Different
SATISF ON												
OT	0.002	0.012	0.005	0.003	0.465	3.480	0.642	0.001			Yes	Different
SELFMAN	0.074	0.181	0.036	0.049	2.060	3.703	0.039	0.000		Yes	Yes	Different
OTXSM	0.000	-0.001	0.011	0.013	-0.017	-0.095	0.987	0.924				Different
FATIGUE	-0.027	-0.059	0.020	0.029	-1.360	-2.026	0.174	0.043	H4a		Yes	Different
PINT	0.006	-0.009	0.019	0.019	0.326	-0.501	0.744	0.616				Different
FATXPINT	0.031	0.044	0.032	0.039	0.976	1.134	0.329	0.257				Different
FATCEN	0.145	0.145	0.017	0.017	8.688	8.688	0.000	0.000	H9a.cen	Yes	Yes	Same
FATSM	0.105	0.105	0.013	0.013	7.944	7.944	0.000	0.000	H9a.sm	Yes	Yes	Same
PROFH	-0.001	-0.023	0.029	0.046	-0.038	-0.490	0.969	0.624	H11a.h			Different
PROFL	0.004	-0.074	0.037	0.055	0.118	-1.333	0.906	0.183	H11a.l			Different
SATFH	-0.004	-0.027	0.034	0.041	-0.127	-0.652	0.899	0.515	H12a.h			Different
SATFL	-0.050	-0.091	0.028	0.041	-1.746	-2.196	0.081	0.028	H12a.l		Yes	Different
PROFAT1	0.000	-0.003	0.004	0.007	-0.038	-0.485	0.969	0.628	H15a.cen.h			Different
PROFAT2	0.001	-0.011	0.005	0.009	0.119	-1.218	0.905	0.223	H15a.cen.l			Different
PROFAT3	0.000	-0.002	0.003	0.005	-0.038	-0.475	0.969	0.635	H15a.sm.h			Different
PROFAT4	0.000	-0.008	0.004	0.006	0.119	-1.210	0.905	0.226	H15a.sm.l			Different
SATFAT1	-0.001	-0.004	0.005	0.006	-0.128	-0.672	0.898	0.502	H16a.cen.h			Different
SATFAT2	-0.007	-0.013	0.005	0.007	-1.531	-1.881	0.126	0.060	H16a.cen.l			Different
SATFAT3	0.000	-0.003	0.004	0.004	-0.127	-0.650	0.899	0.516	H16a.sm.h			Different
SATFAT4	-0.005	-0.010	0.003	0.005	-1.589	-1.880	0.112	0.060	H16a.sm.l			Different

Table 13C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
ABSENT ON												
OT	0.013	0.013	0.014	0.014	0.897	0.897	0.370	0.370	H1b			Same
SELFMAN	0.013	0.013	0.080	0.080	0.164	0.164	0.869	0.869				Same
OTXSM	0.027	0.027	0.027	0.027	1.018	1.018	0.309	0.309				Same
PRODUCT ON												
OT	0.003	0.018	0.005	0.008	0.676	2.215	0.499	0.027			Yes	Different
SELFMAN	0.086	0.184	0.029	0.031	3.021	6.008	0.003	0.000	Yes	Yes		Different
OTXSM	0.013	0.013	0.010	0.011	1.310	1.186	0.190	0.236				Different
ABSENT	0.004	-0.025	0.014	0.017	0.299	-1.471	0.765	0.141	H3b			Different
PINT	-0.054	-0.077	0.022	0.028	-2.451	-2.714	0.014	0.007		Yes	Yes	Different
ABXPINT	-0.031	-0.058	0.032	0.034	-0.959	-1.728	0.337	0.084				Different
SATISF ON												
OT	0.002	0.005	0.005	0.005	0.465	0.986	0.642	0.324				Different
SELFMAN	0.074	0.172	0.036	0.048	2.060	3.584	0.039	0.000	Yes	Yes		Different
OTXSM	0.000	0.002	0.011	0.013	-0.017	0.137	0.987	0.891				Different
ABSENT	-0.013	-0.038	0.015	0.018	-0.873	-2.060	0.383	0.039	H4b		Yes	Different
PINT	0.006	-0.009	0.019	0.022	0.326	-0.413	0.744	0.679				Different
ABXPINT	-0.005	-0.014	0.025	0.020	-0.182	-0.709	0.855	0.478				Different
ABSCEN	-0.004	-0.004	0.019	0.019	-0.205	-0.205	0.837	0.837	H9b.cen			Same
ABSSM	0.030	0.030	0.024	0.024	1.206	1.206	0.228	0.228	H9b.sm			Same
PROABH	-0.018	-0.067	0.019	0.025	-0.942	-2.702	0.346	0.007	H11b.h		Yes	Different
PROABL	0.027	0.018	0.033	0.034	0.795	0.518	0.427	0.604	H11b.l			Different
SATABH	-0.016	-0.049	0.022	0.027	-0.748	-1.804	0.454	0.071	H12b.h			Different
SATABL	-0.010	-0.027	0.025	0.020	-0.385	-1.350	0.700	0.177	H12b.l			Different
PROABS1	0.000	0.000	0.000	0.001	0.200	0.202	0.842	0.840	H15b.cen.h			Different
PROABS2	0.000	0.000	0.000	0.000	-0.208	-0.187	0.835	0.852	H15b.cen.l			Different
PROABS3	-0.001	-0.002	0.001	0.002	-0.812	-1.054	0.417	0.292	H15b.sm.h			Different
PROABS4	0.001	0.001	0.001	0.001	1.041	0.654	0.298	0.513	H15b.sm.l			Different
SATABS1	0.000	0.000	0.000	0.001	0.183	0.195	0.855	0.845	H16b.cen.h			Different
SATABS2	0.000	0.000	0.000	0.001	0.159	0.201	0.874	0.841	H16b.cen.l			Different
SATABS3	0.000	-0.001	0.001	0.002	-0.662	-0.937	0.508	0.349	H16b.sm.h			Different
SATABS4	0.000	-0.001	0.001	0.001	-0.330	-0.746	0.741	0.456	H16b.sm.l			Different

Table 13C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
CONFLICT ON												
OT	-0.004	-0.004	0.010	0.010	-0.355	-0.355	0.722	0.722	H1c			Same
SELFMAN	0.374	0.374	0.061	0.061	6.160	6.160	0.000	0.000		Yes	Yes	Same
OTXSM	-0.002	-0.002	0.010	0.010	-0.207	-0.207	0.836	0.836				Same
PRODUCT ON												
OT	0.003	0.018	0.005	0.008	0.676	2.172	0.499	0.030			Yes	Different
SELFMAN	0.086	0.233	0.029	0.040	3.021	5.859	0.003	0.000		Yes	Yes	Different
OTXSM	0.013	0.012	0.010	0.011	1.310	1.077	0.190	0.281				Different
CONFLICT	-0.107	-0.217	0.027	0.051	-3.952	-4.263	0.000	0.000	H3c	Yes	Yes	Same
PINT	-0.054	-0.063	0.022	0.028	-2.451	-2.257	0.014	0.024		Yes	Yes	Different
COXPINT	0.015	0.041	0.035	0.044	0.436	0.938	0.663	0.348				Different
SATISF ON												
OT	0.002	0.004	0.005	0.006	0.465	0.768	0.642	0.443				Different
SELFMAN	0.074	0.203	0.036	0.051	2.060	3.965	0.039	0.000		Yes	Yes	Different
OTXSM	0.000	0.001	0.011	0.014	-0.017	0.059	0.987	0.953				Different
CONFLICT	-0.037	-0.115	0.035	0.030	-1.051	-3.767	0.293	0.000	H4c		Yes	Different
PINT	0.006	-0.004	0.019	0.022	0.326	-0.167	0.744	0.867				Different
COXPINT	-0.029	0.002	0.032	0.042	-0.911	0.041	0.362	0.968				Different
CONCEN	-0.002	-0.002	0.010	0.010	-0.244	-0.244	0.808	0.808	H9c.cen			Same
CONSM	-0.005	-0.005	0.013	0.013	-0.359	-0.359	0.720	0.720	H9c.sm			Same
PROCOH	-0.095	-0.186	0.044	0.069	-2.179	-2.705	0.029	0.007	H11c.h	Yes	Yes	Different
PROCOL	-0.118	-0.247	0.029	0.049	-4.023	-5.018	0.000	0.000	H11c.l	Yes	Yes	Same
SATCOH	-0.058	-0.113	0.041	0.045	-1.407	-2.545	0.159	0.011	H12c.h		Yes	Different
SATCOL	-0.015	-0.116	0.043	0.042	-0.355	-2.776	0.722	0.006	H12c.l		Yes	Different
PROCON1	0.000	0.000	0.001	0.002	0.246	0.241	0.806	0.810	H15c.cen.h			Different
PROCON2	0.000	0.001	0.001	0.002	0.242	0.239	0.809	0.811	H15c.cen.l			Different
PROCON3	0.000	0.001	0.001	0.003	0.356	0.350	0.722	0.726	H15c.sm.h			Different
PROCON4	0.001	0.001	0.002	0.003	0.351	0.354	0.725	0.724	H15c.sm.l			Different
SATCON1	0.000	0.000	0.001	0.001	0.260	0.242	0.795	0.809	H16c.cen.h			Different
SATCON2	0.000	0.000	0.000	0.001	0.230	0.244	0.818	0.807	H16c.cen.l			Different
SATCON3	0.000	0.001	0.001	0.002	0.397	0.361	0.692	0.718	H16c.sm.h			Different
SATCON4	0.000	0.001	0.000	0.002	0.291	0.358	0.771	0.720	H16c.sm.l			Different

Table 13C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
TEAMWRK ON												
OT	0.052	0.052	0.012	0.012	4.478	4.478	0.000	0.000	H2d	Yes	Yes	Same
SELFMAN	0.064	0.064	0.043	0.043	1.492	1.492	0.136	0.136				Same
OTXSM	-0.004	-0.004	0.015	0.015	-0.304	-0.304	0.761	0.761				Same
PRODUCT ON												
OT	0.003	-0.003	0.005	0.007	0.676	-0.475	0.499	0.635				Different
SELFMAN	0.086	0.111	0.029	0.029	3.021	3.855	0.003	0.000		Yes	Yes	Different
OTXSM	0.013	0.013	0.010	0.010	1.310	1.298	0.190	0.194				Different
TEAMWRK	0.318	0.444	0.038	0.044	8.454	10.038	0.000	0.000	H5d	Yes	Yes	Same
PINT	-0.054	-0.066	0.022	0.026	-2.451	-2.575	0.014	0.010		Yes	Yes	Different
TEXPINT	-0.018	-0.058	0.029	0.036	-0.623	-1.614	0.533	0.107				Different
SATISF ON												
OT	0.002	-0.008	0.005	0.007	0.465	-1.233	0.642	0.218				Different
SELFMAN	0.074	0.136	0.036	0.045	2.060	3.011	0.039	0.003		Yes	Yes	Different
OTXSM	0.000	0.001	0.011	0.012	-0.017	0.082	0.987	0.934				Different
TEAMWRK	0.127	0.260	0.050	0.050	2.536	5.247	0.011	0.000	H6d	Yes	Yes	Different
PINT	0.006	0.002	0.019	0.023	0.326	0.099	0.744	0.921				Different
TEXPINT	-0.053	-0.056	0.029	0.031	-1.854	-1.836	0.064	0.066				Different
TEACEN	0.055	0.055	0.015	0.015	3.632	3.632	0.000	0.000	H10d.cen	Yes	Yes	Same
TEASM	0.049	0.049	0.014	0.014	3.460	3.460	0.001	0.001	H10d.sm	Yes	Yes	Same
PROTH	0.305	0.402	0.037	0.048	8.165	8.447	0.000	0.000	H13d.h	Yes	Yes	Same
PROTL	0.331	0.487	0.048	0.056	6.876	8.695	0.000	0.000	H13d.l	Yes	Yes	Same
SATTH	0.088	0.218	0.047	0.050	1.864	4.332	0.062	0.000	H14d.h		Yes	Different
SATTL	0.166	0.301	0.060	0.058	2.741	5.157	0.006	0.000	H14d.l	Yes	Yes	Different
PROTEA1	0.017	0.022	0.004	0.006	3.804	3.681	0.000	0.000	H15d.cen.h	Yes	Yes	Same
PROTEA2	0.018	0.027	0.005	0.007	3.999	3.724	0.000	0.000	H15d.cen.l	Yes	Yes	Same
PROTEA3	0.015	0.020	0.005	0.006	3.288	3.156	0.001	0.002	H15d.sm.h	Yes	Yes	Different
PROTEA4	0.016	0.024	0.006	0.008	2.871	2.971	0.004	0.003	H15d.sm.l	Yes	Yes	Different
SATTEA1	0.005	0.012	0.003	0.004	1.552	2.951	0.121	0.003	H16d.cen.h		Yes	Different
SATTEA2	0.009	0.017	0.004	0.005	2.038	3.062	0.042	0.002	H16d.cen.l	Yes	Yes	Different
SATTEA3	0.004	0.011	0.003	0.004	1.558	2.693	0.119	0.007	H16d.sm.h		Yes	Different
SATTEA4	0.008	0.015	0.005	0.006	1.777	2.471	0.075	0.013	H16d.sm.l		Yes	Different

Table 13C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value	
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind					
CREATE ON													
OT	0.003	0.003	0.006	0.006	0.513	0.513	0.608	0.608	H2e				Same
SELFMAN	0.173	0.173	0.048	0.048	3.573	3.573	0.000	0.000		Yes	Yes		Same
OTXSM	0.001	0.001	0.009	0.009	0.098	0.098	0.922	0.922					Same
PRODUCT ON												Same	
OT	0.003	0.017	0.005	0.007	0.676	2.364	0.499	0.018			Yes		Different
SELFMAN	0.086	0.095	0.029	0.027	3.021	3.546	0.003	0.000		Yes	Yes		Different
OTXSM	0.013	0.011	0.010	0.009	1.310	1.162	0.190	0.245					Different
CREATE	0.211	0.411	0.057	0.045	3.714	9.112	0.000	0.000	H5e	Yes	Yes		Same
PINT	-0.054	-0.056	0.022	0.027	-2.451	-2.102	0.014	0.036		Yes	Yes		Different
CRXPINT	-0.106	-0.122	0.047	0.045	-2.269	-2.726	0.023	0.006		Yes	Yes		Different
SATISF ON													
OT	0.002	0.004	0.005	0.005	0.465	0.767	0.642	0.443					Different
SELFMAN	0.074	0.093	0.036	0.037	2.060	2.531	0.039	0.011		Yes	Yes		Different
OTXSM	0.000	0.000	0.011	0.011	-0.017	-0.036	0.987	0.971					Different
CREATE	0.224	0.393	0.049	0.039	4.548	10.171	0.000	0.000	H6e	Yes	Yes		Same
PINT	0.006	0.010	0.019	0.019	0.326	0.500	0.744	0.617					Different
CRXPINT	-0.039	-0.084	0.056	0.048	-0.685	-1.760	0.493	0.078					Different
CRECEN	0.002	0.002	0.009	0.009	0.267	0.267	0.789	0.789	H10e.cen				Same
CRESM	0.004	0.004	0.007	0.007	0.486	0.486	0.627	0.627	H10e.sm				Same
PROCRH	0.133	0.321	0.070	0.049	1.904	6.562	0.057	0.000	H13e.h		Yes		Different
PROCRL	0.289	0.500	0.062	0.062	4.696	8.099	0.000	0.000	H13e.l	Yes	Yes		Same
SATCRH	0.196	0.331	0.056	0.039	3.476	8.561	0.001	0.000	H14e.h	Yes	Yes		Different
SATCRL	0.253	0.454	0.072	0.064	3.532	7.109	0.000	0.000	H14e.l	Yes	Yes		Same
PROCRE1	0.000	0.001	0.001	0.003	0.256	0.266	0.798	0.790	H15e.cen.h				Different
PROCRE2	0.001	0.001	0.003	0.004	0.268	0.267	0.789	0.790	H15e.cen.l				Different
PROCRE3	0.000	0.001	0.001	0.002	0.508	0.477	0.612	0.634	H15e.sm.h				Different
PROCRE4	0.001	0.002	0.002	0.004	0.491	0.480	0.623	0.631	H15e.sm.l				Different
SATCRE1	0.000	0.001	0.002	0.003	0.264	0.267	0.791	0.789	H16e.cen.h				Different
SATCRE2	0.001	0.001	0.002	0.004	0.277	0.269	0.782	0.788	H16e.cen.l				Different
SATCRE3	0.001	0.001	0.001	0.002	0.496	0.496	0.620	0.620	H16e.sm.h				Same
SATCRE4	0.001	0.002	0.002	0.003	0.477	0.481	0.634	0.631	H16e.sm.l				Different

Table 13C. (Punishment) Path Model Output for Hypothesis Testing (Continued)

Variable	Estimate		SE		Est./S.E		Two-Tailed P-value		Hypothesis	Ovr. Sig. p<0.05	Ind. Sig. p<0.05	Two-Tailed P-value
	Ovr	Ind	Ovr	Ind	Ovr	Ind	Ovr	Ind				
PROMOT ON												
OT	-0.005	-0.005	0.010	0.010	-0.536	-0.536	0.592	0.592	H2f			Same
SELFMAN	0.229	0.229	0.046	0.046	4.978	4.978	0.000	0.000		Yes	Yes	Same
OTXSM	-0.009	-0.009	0.010	0.010	-0.861	-0.861	0.389	0.389				Same
PRODUCT ON												
OT	0.003	0.019	0.005	0.007	0.676	2.682	0.499	0.007			Yes	Different
SELFMAN	0.086	0.091	0.029	0.031	3.021	2.954	0.003	0.003		Yes	Yes	Same
OTXSM	0.013	0.014	0.010	0.012	1.310	1.156	0.190	0.248				Different
PROMOT	0.130	0.352	0.049	0.043	2.657	8.221	0.008	0.000	H5f	Yes	Yes	Different
PINT	-0.054	-0.084	0.022	0.034	-2.451	-2.479	0.014	0.013		Yes	Yes	Different
PROXPINT	-0.002	-0.042	0.068	0.064	-0.035	-0.660	0.972	0.509				Different
SATISF ON												
OT	0.002	0.006	0.005	0.005	0.465	1.146	0.642	0.252				Different
SELFMAN	0.074	0.081	0.036	0.041	2.060	1.960	0.039	0.050		Yes		Different
OTXSM	0.000	0.002	0.011	0.013	-0.017	0.194	0.987	0.846				Different
PROMOT	0.207	0.358	0.042	0.040	4.966	8.853	0.000	0.000	H6f	Yes	Yes	Same
PINT	0.006	-0.020	0.019	0.024	0.326	-0.840	0.744	0.401				Different
PROXPINT	-0.026	-0.058	0.064	0.061	-0.411	-0.944	0.681	0.345				Different
PROCEN	0.000	0.000	0.012	0.012	0.029	0.029	0.977	0.977	H10f.cen			Same
PROSM	-0.011	-0.011	0.012	0.012	-0.922	-0.922	0.356	0.356	H10f.sm			Same
PROPRH	0.128	0.322	0.082	0.071	1.559	4.551	0.119	0.000	H13f.h		Yes	Different
PROPRL	0.131	0.383	0.054	0.055	2.434	6.907	0.015	0.000	H13f.l	Yes	Yes	Different
SATPRH	0.187	0.316	0.063	0.060	2.973	5.302	0.003	0.000	H14f.h	Yes	Yes	Different
SATPRL	0.226	0.401	0.063	0.062	3.590	6.445	0.000	0.000	H14f.l	Yes	Yes	Same
PROPRO1	0.000	0.000	0.001	0.004	0.029	0.029	0.977	0.977	H15f.cen.h			Same
PROPRO2	0.000	0.000	0.002	0.004	0.029	0.029	0.977	0.977	H15f.cen.l			Same
PROPRO3	-0.001	-0.003	0.002	0.004	-0.821	-0.924	0.412	0.356	H15f.sm.h			Different
PROPRO4	-0.001	-0.004	0.002	0.004	-0.820	-0.932	0.412	0.351	H15f.sm.l			Different
SATPRO1	0.000	0.000	0.002	0.004	0.029	0.029	0.977	0.977	H16f.cen.h			Same
SATPRO2	0.000	0.000	0.003	0.005	0.029	0.029	0.977	0.977	H16f.cen.l			Same
SATPRO3	-0.002	-0.003	0.002	0.004	-0.867	-0.880	0.386	0.379	H16f.sm.h			Different
SATPRO4	-0.002	-0.004	0.003	0.005	-0.866	-0.906	0.386	0.365	H16f.sm.l			Different

PROCESS GAIN

PROMOTION OPPORTUNITY

Notes 13A
p. 137 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TINT=Task Interdependence; FATXTINT=Fatigue*Task Interdependence; FATCEN=Fatigue*Centralized; FATSM=Fatigue*Self-Management; PROFH=Productivity*Fatigue*High Interdependence; PROFL=Productivity*Fatigue*Low Interdependence; SATFH=Satisfaction*Fatigue*High Interdependence; SATFL=Satisfaction*Fatigue*Low Interdependence; PROFAT1=Productivity*Fatigue*Centralized*High Interdependence; PROFAT2=Productivity*Fatigue*Centralized*Low Interdependence; PROFAT3=Productivity*Fatigue*Self-Management*High Interdependence; PROFAT4=Productivity*Fatigue*Self-Management*Low Interdependence; SATFAT1=Satisfaction*Fatigue*Centralized*High Interdependence; SATFAT2=Satisfaction*Fatigue*Centralized*Low Interdependence; SATFAT3=Satisfaction*Fatigue*Self-Management*High Interdependence; SATFAT4=Satisfaction*Fatigue*Self-Management*Low Interdependence;*

Notes 13A
p. 138 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; ABSENT=Absenteeism; TINT=Task Interdependence; ABXTINT=Absenteeism*Task Interdependence; ABSCEN=Absenteeism*Centralized; ABSSM=Absenteeism*Self-Management; PROABH=Productivity*Absenteeism*High Interdependence; PROABL=Productivity*Absenteeism*Low Interdependence; SATABH=Satisfaction*Absenteeism*High Interdependence; SATABL=Satisfaction*Absenteeism*Low Interdependence; PROABS1=Productivity*Absenteeism*Centralized*High Interdependence; PROABS2=Productivity*Absenteeism*Centralized*Low Interdependence; PROABS3=Productivity*Absenteeism*Self-Management*High Interdependence; PROABS4=Productivity*Absenteeism*Self-Management*Low Interdependence; SATABS1=Satisfaction*Absenteeism*Centralized*High Interdependence; SATABS2=Satisfaction*Absenteeism*Centralized*Low Interdependence; SATABS3=Satisfaction*Absenteeism*Self-Management*High Interdependence; SATABS4=Satisfaction*Absenteeism*Self-Management*Low Interdependence;*

Notes 13A
p. 139 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TINT=Task Interdependence; COXTINT=Conflict*Task Interdependence; CONCEN=Conflict*Centralized; CONSM=Conflict*Self-Management; PROCOH=Productivity*Conflict*High Interdependence; PROCOL=Productivity*Conflict*Low Interdependence; SATCOH=Satisfaction*Conflict*High Interdependence; SATCOL=Satisfaction*Conflict*Low Interdependence; PROCON1=Productivity*Conflict*Centralized*High Interdependence; PROCON2=Productivity*Conflict*Centralized*Low Interdependence; PROCON3=Productivity*Conflict*Self-Management*High Interdependence; PROCON4=Productivity*Conflict*Self-Management*Low Interdependence; SATCON1=Satisfaction*Conflict*Centralized*High Interdependence; SATCON2=Satisfaction*Conflict*Centralized*Low Interdependence; SATCON3=Satisfaction*Conflict*Self-Management*High Interdependence; SATCON4=Satisfaction*Conflict*Self-Management*Low Interdependence;*

Notes 13A
p. 140 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TEAMWRK=Teamwork; TINT=Task Interdependence; TEXTINT=Teamwork*Task Interdependence; TEACEN=Teamwork*Centralized; TEASM=Teamwork*Self-Management; PROCOH=Productivity*Teamwork*High Interdependence; PROCOL=Productivity*Teamwork*Low Interdependence; SATCOH=Satisfaction*Teamwork*High Interdependence; SATCOL=Satisfaction*Teamwork*Low Interdependence; PROTEA1=Productivity*Teamwork*Centralized*High Interdependence; PROTEA2=Productivity*Teamwork*Centralized*Low Interdependence; PROTEA3=Productivity*Teamwork*Self-Management*High Interdependence; PROTEA4=Productivity*Teamwork*Self-Management*Low Interdependence; SATTEA1=Satisfaction*Teamwork*Centralized*High Interdependence;*

*SATTEA2=Satisfaction*Teamwork*Centralized*Low Interdependence; SATTEA3=Satisfaction*Teamwork*Self-Management*High Interdependence; SATTEA4=Satisfaction*Teamwork*Self-Management*Low Interdependence;*

Notes 13A

p. 141

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; CREAT= Creativity; TINT=Task Interdependence; CRXTINT=Creativity*Task Interdependence; CRECEN=Creativity*Centralized; CRESM=Creativity*Self-Management; PROCOH=Productivity*Creativity*High Interdependence; PROCOL=Productivity*Creativity*Low Interdependence; SATCOH=Satisfaction*Creativity*High Interdependence; SATCOL=Satisfaction*Creativity*Low Interdependence; PROCRE1=Productivity*Creativity*Centralized*High Interdependence; PROCRE2=Productivity*Creativity*Centralized*Low Interdependence; PROCRE3=Productivity*Creativity*Self-Management*High Interdependence; PROCRE4=Productivity*Creativity*Self-Management*Low Interdependence; SATCRE1=Satisfaction*Creativity*Centralized*High Interdependence; SATCRE2=Satisfaction*Creativity*Centralized*Low Interdependence; SATCRE3=Satisfaction*Creativity*Self-Management*High Interdependence; SATCRE4=Satisfaction*Creativity*Self-Management*Low Interdependence;*

Notes 13A

p. 142

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PROMOT=Promotion; TINT=Task Interdependence; PROXTINT=Promotion*Task Interdependence; PROCEN=Promotion*Centralized; PROSM=Promotion*Self-Management; PROCOH=Productivity*Promotion*High Interdependence; PROCOL=Productivity*Promotion*Low Interdependence; SATCOH=Satisfaction*Promotion*High Interdependence; SATCOL=Satisfaction*Promotion*Low Interdependence; PROPRO1=Productivity*Promotion*Centralized*High Interdependence; PROPRO2=Productivity*Promotion*Centralized*Low Interdependence; PROPRO3=Productivity*Promotion*Self-Management*High Interdependence; PROPRO4=Productivity*Promotion*Self-Management*Low Interdependence; SATPRO1=Satisfaction*Promotion*Centralized*High Interdependence; SATPRO2=Satisfaction*Promotion*Centralized*Low Interdependence; SATPRO3=Satisfaction*Promotion*Self-Management*High Interdependence; SATPRO4=Satisfaction*Promotion*Self-Management*Low Interdependence;*

Notes 13B

p. 143

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; RINT=Reward Interdependence; FATXRINT=Fatigue*Reward Interdependence; FATCEN=Fatigue*Centralized; FATSM=Fatigue*Self-Management; PROFH=Productivity*Fatigue*High Interdependence; PROFL=Productivity*Fatigue*Low Interdependence; SATFH=Satisfaction*Fatigue*High Interdependence; SATFL=Satisfaction*Fatigue*Low Interdependence; PROFAT1=Productivity*Fatigue*Centralized*High Interdependence; PROFAT2=Productivity*Fatigue*Centralized*Low Interdependence; PROFAT3=Productivity*Fatigue*Self-Management*High Interdependence; PROFAT4=Productivity*Fatigue*Self-Management*Low Interdependence; SATFAT1=Satisfaction*Fatigue*Centralized*High Interdependence; SATFAT2=Satisfaction*Fatigue*Centralized*Low Interdependence; SATFAT3=Satisfaction*Fatigue*Self-Management*High Interdependence; SATFAT4=Satisfaction*Fatigue*Self-Management*Low Interdependence;*

Notes 13B

p. 144

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; ABSENT=Absenteeism; RINT=Reward Interdependence; ABXRINT=Absenteeism*Reward Interdependence; ABSCEN=Absenteeism*Centralized; ABSSM=Absenteeism*Self-Management; PROABH=Productivity*Absenteeism*High Interdependence; PROABL=Productivity*Absenteeism*Low Interdependence; SATABH=Satisfaction*Absenteeism*High Interdependence; SATABL=Satisfaction*Absenteeism*Low Interdependence;*

*PROABS1=Productivity*Absenteeism*Centralized*High Interdependence; PROABS2=Productivity*Absenteeism*Centralized*Low Interdependence; PROABS3=Productivity*Absenteeism*Self-Management*High Interdependence; PROABS4=Productivity*Absenteeism*Self-Management*Low Interdependence; SATABS1=Satisfaction*Absenteeism*Centralized*High Interdependence; SATABS2=Satisfaction*Absenteeism*Centralized*Low Interdependence; SATABS3=Satisfaction*Absenteeism*Self-Management*High Interdependence; SATABS4=Satisfaction*Absenteeism*Self-Management*Low Interdependence;*

Notes 13B

p. 145

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; RINT=Reward Interdependence; COXRINT=Conflict*Reward Interdependence; CONCEN=Conflict*Centralized; CONSM=Conflict*Self-Management; PROCOH=Productivity*Conflict*High Interdependence; PROCOL=Productivity*Conflict*Low Interdependence; SATCOH=Satisfaction*Conflict*High Interdependence; SATCOL=Satisfaction*Conflict*Low Interdependence; PROCON1=Productivity*Conflict*Centralized*High Interdependence; PROCON2=Productivity*Conflict*Centralized*Low Interdependence; PROCON3=Productivity*Conflict*Self-Management*High Interdependence; PROCON4=Productivity*Conflict*Self-Management*Low Interdependence; SATCON1=Satisfaction*Conflict*Centralized*High Interdependence; SATCON2=Satisfaction*Conflict*Centralized*Low Interdependence; SATCON3=Satisfaction*Conflict*Self-Management*High Interdependence; SATCON4=Satisfaction*Conflict*Self-Management*Low Interdependence;*

Notes 13B

p. 146

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TEAMWRK=Teamwork; RINT=Reward Interdependence; TEXRINT=Teamwork*Reward Interdependence; TEACEN=Teamwork*Centralized; TEASM=Teamwork*Self-Management; PROCOH=Productivity*Teamwork*High Interdependence; PROCOL=Productivity*Teamwork*Low Interdependence; SATCOH=Satisfaction*Teamwork*High Interdependence; SATCOL=Satisfaction*Teamwork*Low Interdependence; PROTEA1=Productivity*Teamwork*Centralized*High Interdependence; PROTEA2=Productivity*Teamwork*Centralized*Low Interdependence; PROTEA3=Productivity*Teamwork*Self-Management*High Interdependence; PROTEA4=Productivity*Teamwork*Self-Management*Low Interdependence; SATTEA1=Satisfaction*Teamwork*Centralized*High Interdependence; SATTEA2=Satisfaction*Teamwork*Centralized*Low Interdependence; SATTEA3=Satisfaction*Teamwork*Self-Management*High Interdependence; SATTEA4=Satisfaction*Teamwork*Self-Management*Low Interdependence;*

Notes 13B

p. 147

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; CREAT= Creativity; RINT=Reward Interdependence; CRXRINT=Creativity*Reward Interdependence; CRECEN=Creativity*Centralized; CRESM=Creativity*Self-Management; PROCOH=Productivity*Creativity*High Interdependence; PROCOL=Productivity*Creativity*Low Interdependence; SATCOH=Satisfaction*Creativity*High Interdependence; SATCOL=Satisfaction*Creativity*Low Interdependence; PROCRE1=Productivity*Creativity*Centralized*High Interdependence; PROCRE2=Productivity*Creativity*Centralized*Low Interdependence; PROCRE3=Productivity*Creativity*Self-Management*High Interdependence; PROCRE4=Productivity*Creativity*Self-Management*Low Interdependence; SATCRE1=Satisfaction*Creativity*Centralized*High Interdependence; SATCRE2=Satisfaction*Creativity*Centralized*Low Interdependence; SATCRE3=Satisfaction*Creativity*Self-Management*High Interdependence; SATCRE4=Satisfaction*Creativity*Self-Management*Low Interdependence;*

Notes 13B
p. 148 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PROMOT=Promotion; RINT=Reward Interdependence; PROXRINT=Promotion*Reward Interdependence; PROCEN=Promotion*Centralized; PROSM=Promotion*Self-Management; PROCOH=Productivity*Promotion*High Interdependence; PROCOL=Productivity*Promotion*Low Interdependence; SATCOH=Satisfaction*Promotion*High Interdependence; SATCOL=Satisfaction*Promotion*Low Interdependence; PROPRO1=Productivity*Promotion*Centralized*High Interdependence; PROPRO2=Productivity*Promotion*Centralized*Low Interdependence; PROPRO3=Productivity*Promotion*Self-Management*High Interdependence; PROPRO4=Productivity*Promotion*Self-Management*Low Interdependence; SATPRO1=Satisfaction*Promotion*Centralized*High Interdependence; SATPRO2=Satisfaction*Promotion*Centralized*Low Interdependence; SATPRO3=Satisfaction*Promotion*Self-Management*High Interdependence; SATPRO4=Satisfaction*Promotion*Self-Management*Low Interdependence;*

Notes 13C
p. 149 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PINT=Punishment Interdependence; FATXPINT=Fatigue*Punishment Interdependence; FATCEN=Fatigue*Centralized; FATSM=Fatigue*Self-Management; PROFH=Productivity*Fatigue*High Interdependence; PROFL=Productivity*Fatigue*Low Interdependence; SATFH=Satisfaction*Fatigue*High Interdependence; SATFL=Satisfaction*Fatigue*Low Interdependence; PROFAT1=Productivity*Fatigue*Centralized*High Interdependence; PROFAT2=Productivity*Fatigue*Centralized*Low Interdependence; PROFAT3=Productivity*Fatigue*Self-Management*High Interdependence; PROFAT4=Productivity*Fatigue*Self-Management*Low Interdependence; SATFAT1=Satisfaction*Fatigue*Centralized*High Interdependence; SATFAT2=Satisfaction*Fatigue*Centralized*Low Interdependence; SATFAT3=Satisfaction*Fatigue*Self-Management*High Interdependence; SATFAT4=Satisfaction*Fatigue*Self-Management*Low Interdependence;*

Notes 13C
p. 150 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; ABSENT=Absenteeism; PINT=Punishment Interdependence; ABXPINT=Absenteeism*Punishment Interdependence; ABSCEN=Absenteeism*Centralized; ABSSM=Absenteeism*Self-Management; PROABH=Productivity*Absenteeism*High Interdependence; PROABL=Productivity*Absenteeism*Low Interdependence; SATABH=Satisfaction*Absenteeism*High Interdependence; SATABL=Satisfaction*Absenteeism*Low Interdependence; PROABS1=Productivity*Absenteeism*Centralized*High Interdependence; PROABS2=Productivity*Absenteeism*Centralized*Low Interdependence; PROABS3=Productivity*Absenteeism*Self-Management*High Interdependence; PROABS4=Productivity*Absenteeism*Self-Management*Low Interdependence; SATABS1=Satisfaction*Absenteeism*Centralized*High Interdependence; SATABS2=Satisfaction*Absenteeism*Centralized*Low Interdependence; SATABS3=Satisfaction*Absenteeism*Self-Management*High Interdependence; SATABS4=Satisfaction*Absenteeism*Self-Management*Low Interdependence;*

Notes 13C
p. 151 *OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PINT=Punishment Interdependence; COXPINT=Conflict*Punishment Interdependence; CONCEN=Conflict*Centralized; CONSM=Conflict*Self-Management; PROCOH=Productivity*Conflict*High Interdependence; PROCOL=Productivity*Conflict*Low Interdependence; SATCOH=Satisfaction*Conflict*High Interdependence; SATCOL=Satisfaction*Conflict*Low Interdependence; PROCON1=Productivity*Conflict*Centralized*High Interdependence; PROCON2=Productivity*Conflict*Centralized*Low Interdependence; PROCON3=Productivity*Conflict*Self-Management*High Interdependence; PROCON4=Productivity*Conflict*Self-Management*Low Interdependence; SATCON1=Satisfaction*Conflict*Centralized*High Interdependence; SATCON2=Satisfaction*Conflict*Centralized*Low Interdependence;*

*Interdependence; SATCON3=Satisfaction*Conflict*Self-Management*High Interdependence; SATCON4=Satisfaction*Conflict*Self-Management*Low Interdependence;*

Notes 13C

p. 152

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; TEAMWRK=Teamwork; PINT=Punishment Interdependence; TEXPINT=Teamwork*Punishment Interdependence; TEACEN=Teamwork*Centralized; TEASM=Teamwork*Self-Management; PROCOH=Productivity*Teamwork*High Interdependence; PROCOL=Productivity*Teamwork*Low Interdependence; SATCOH=Satisfaction*Teamwork*High Interdependence; SATCOL=Satisfaction*Teamwork*Low Interdependence; PROTEA1=Productivity*Teamwork*Centralized*High Interdependence; PROTEA2=Productivity*Teamwork*Centralized*Low Interdependence; PROTEA3=Productivity*Teamwork*Self-Management*High Interdependence; PROTEA4=Productivity*Teamwork*Self-Management*Low Interdependence; SATTEA1=Satisfaction*Teamwork*Centralized*High Interdependence; SATTEA2=Satisfaction*Teamwork*Centralized*Low Interdependence; SATTEA3=Satisfaction*Teamwork*Self-Management*High Interdependence; SATTEA4=Satisfaction*Teamwork*Self-Management*Low Interdependence;*

Notes 13C

p. 153

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; CREAT= Creativity; PINT=Punishment Interdependence; CRXPINT=Creativity*Punishment Interdependence; CRECEN=Creativity*Centralized; CRESM=Creativity*Self-Management; PROCOH=Productivity*Creativity*High Interdependence; PROCOL=Productivity*Creativity*Low Interdependence; SATCOH=Satisfaction*Creativity*High Interdependence; SATCOL=Satisfaction*Creativity*Low Interdependence; PROCRE1=Productivity*Creativity*Centralized*High Interdependence; PROCRE2=Productivity*Creativity*Centralized*Low Interdependence; PROCRE3=Productivity*Creativity*Self-Management*High Interdependence; PROCRE4=Productivity*Creativity*Self-Management*Low Interdependence; SATCRE1=Satisfaction*Creativity*Centralized*High Interdependence; SATCRE2=Satisfaction*Creativity*Centralized*Low Interdependence; SATCRE3=Satisfaction*Creativity*Self-Management*High Interdependence; SATCRE4=Satisfaction*Creativity*Self-Management*Low Interdependence;*

Notes 13C

p. 154

*OT=Overtime; SELFMAN=Self-Management; OTXSM=Overtime*Self-Management; PROMOT=Promotion; PINT=Punishment Interdependence; PROXPINT=Promotion*Punishment Interdependence; PROCEN=Promotion*Centralized; PROSM=Promotion*Self-Management; PROCOH=Productivity*Promotion*High Interdependence; PROCOL=Productivity*Promotion*Low Interdependence; SATCOH=Satisfaction*Promotion*High Interdependence; SATCOL=Satisfaction*Promotion*Low Interdependence; PROPRO1=Productivity*Promotion*Centralized*High Interdependence; PROPRO2=Productivity*Promotion*Centralized*Low Interdependence; PROPRO3=Productivity*Promotion*Self-Management*High Interdependence; PROPRO4=Productivity*Promotion*Self-Management*Low Interdependence; SATPRO1=Satisfaction*Promotion*Centralized*High Interdependence; SATPRO2=Satisfaction*Promotion*Centralized*Low Interdependence; SATPRO3=Satisfaction*Promotion*Self-Management*High Interdependence; SATPRO4=Satisfaction*Promotion*Self-Management*Low Interdependence;*

Table 14. Summary of Hypotheses Testing across Three Categories of Interdependence

Hypotheses Testing	Hypothesis	Effect	<i>Task</i>	<i>Reward</i>	<i>Punishment</i>	Consistency across Variables and Three Level of Interdependence
			<i>Interdependence</i>	<i>Interdependence</i>	<i>Interdependence</i>	
			Supported	Supported	Supported	
Hypothesis 1: Association of Overtime to Process Loss						
<i>Loss Variable</i>						
Fatigue	H1a	+	Yes	Yes	Yes	No
Absenteeism	H1b	+	No	No	No	
Conflict	H1c	+	No	No	No	
Hypothesis 2: Association of Overtime to Process Gain						
<i>Gain Variable</i>						
Teamwork	H2d	+	Yes	Yes	Yes	No
Creativity	H2e	+	No	No	No	
Promotion Opportunity	H2f	+	No	No	No	
Hypothesis 3: Association of Process Loss to Productivity						
<i>Loss Variable</i>						
Fatigue	H3a	-	No	No	No	No
Absenteeism	H3b	-	No	No	No	
Conflict	H3c	-	Yes	Yes	Yes	
Hypothesis 4: Association of Process Loss to Satisfaction						
<i>Loss Variable</i>						
Fatigue	H4a	-	Yes	No	Yes	No
Absenteeism	H4b	-	Yes	Yes	Yes	
Conflict	H4c	-	Yes	Yes	Yes	
Hypothesis 5: Association of Process Gain to Productivity						
<i>Gain Variable</i>						
Teamwork	H5d	+	Yes	Yes	Yes	Yes
Creativity	H5e	+	Yes	Yes	Yes	
Promotion Opportunity	H5f	+	Yes	Yes	Yes	
Hypothesis 6: Association of Process Gain to Satisfaction						
<i>Gain Variable</i>						
Teamwork	H6d	+	Yes	Yes	Yes	Yes
Creativity	H6e	+	Yes	Yes	Yes	
Promotion Opportunity	H6f	+	Yes	Yes	Yes	

Note:

a for Fatigue; b for Absenteeism; c for Conflict; d for Teamwork; e for Creativity; f for Promotion Opportunity;

Table 14. Summary of Hypotheses Testing across Three Categories of Interdependence (Continued)

Hypotheses Testing	Hypothesis	Effect	Task	Reward	Punishment	Consistency across Variables and Three Level of Interdependence	
			Interdependence	Interdependence	Interdependence		
			Supported	Supported	Supported		
Moderating Hypotheses - Self-management							
Overtime to Process Loss - Hypothesis 9							
	Fatigue	H9a	+	Yes	Yes	Yes	No
	Absenteeism	H9b	+	No	No	No	
	Conflict	H9c	+	No	No	No	
Overtime to Process Gain - Hypothesis 10							
	Teamwork	H10d	+	Yes	Yes	Yes	No
	Creativity	H10e	+	No	No	No	
	Promotion Opportunity	H10f	+	No	No	No	
Moderating Hypotheses - Interdependence (High)							
Process Loss to Productivity - Hypothesis 11							
	Fatigue	H11a	-	No	No	No	No
	Absenteeism	H11b	-	No	Yes	Yes	
	Conflict	H11c	-	Yes	Yes	Yes	
Process Loss to Satisfaction- Hypothesis 12							
	Fatigue	H12a	-	Yes _a	Yes _a	Yes _a	No
	Absenteeism	H12b	-	No	No	No	
	Conflict	H12c	-	Yes	Yes	Yes	
Process Gain to Productivity - Hypothesis 13							
	Teamwork	H13d	+	Yes	Yes	Yes	Yes
	Creativity	H13e	+	Yes	Yes	Yes	
	Promotion Opportunity	H13f	+	Yes	Yes	Yes	
Process Gain to Satisfaction- Hypothesis 14							
	Teamwork	H14d	+	Yes	Yes	Yes	Yes
	Creativity	H14e	+	Yes	Yes	Yes	
	Promotion Opportunity	H14f	+	Yes	Yes	Yes	
Moderated Mediating Hypotheses - Productivity							
	Centralized x high interdependence	H15*.cen.h		Yes _b	Yes _b	Yes _b	Yes _b
	Centralized x low interdependence	H15*.cen.l		Yes _b	Yes _b	Yes _b	
	Self-management x high interdependence (Hypothesis 15)	H15*.sm.h		Yes _b	Yes _b	Yes _b	
	Self-management x low interdependence	H15*.sm.l		Yes _b	Yes _b	Yes _b	
Moderated Mediating Hypotheses - Satisfaction							
	Centralized x high interdependence	H16*.cen.h		Yes _b	Yes _b	Yes _b	Yes _b
	Centralized x low interdependence	H16*.cen.l		Yes _c	Yes _c	Yes _b	
	Self-management x high interdependence (Hypothesis 16)	H16*.sm.h		Yes _b	Yes _b	Yes _b	
	Self-management x low interdependence	H16*.sm.l		Yes _c	Yes _c	Yes _b	

Note:

a for Fatigue; b for Absenteeism; c for Conflict; d for Teamwork; e for Creativity; f for Promotion Opportunity;

a: with Low Interdependence; b: with Team Work; c: with Fatigue, Team Work;

Table 15. Summary of Fit Indices

	MODEL	χ^2	df	CFI	TLI	SRMR	RMSEA	AIC
TASK	OVERALL	101.075	69	0.963	0.932	0.047	0.025	14,006.06
	PROJECT LOSS							
	FATIGUE	80.793	32	0.864	0.796	0.064	0.046	11,385.50
	ABSENTEEISM	82.77	32	0.714	0.571	0.06	0.047	12,076.25
	CONFLICT	93.284	32	0.739	0.608	0.071	0.052	11,463.64
	PROJECT GAIN							
	TEAM WORK	73.233	32	0.866	0.8	0.063	0.042	11,228.88
	CREATIVITY	77.32	32	0.849	0.774	0.062	0.044	10,965.93
	PROMOTION OPPORTUNITY	86.357	32	0.817	0.725	0.065	0.049	11,111.65
REWARD	OVERALL	104.29	69	0.965	0.936	0.044	0.027	14,127.60
	PROJECT LOSS							
	FATIGUE	25.302	10	0.957	0.889	0.033	0.046	6,795.61
	ABSENTEEISM	17.332	10	0.943	0.851	0.032	0.032	7,495.73
	CONFLICT	17.247	10	0.959	0.893	0.04	0.032	6,884.18
	PROJECT GAIN							
	TEAM WORK	11.484	10	0.994	0.985	0.031	0.014	6,643.17
	CREATIVITY	13.384	10	0.986	0.963	0.034	0.022	6,382.43
	PROMOTION OPPORTUNITY	14.236	10	0.98	0.949	0.036	0.024	6,534.872
PUNISHMENT	OVERALL	114.255	69	0.952	0.912	0.051	0.03	14,158.72
	PROJECT LOSS							
	FATIGUE	18.929	10	0.975	0.934	0.03	0.035	6,817.60
	ABSENTEEISM	13.784	10	0.97	0.922	0.029	0.023	7,506.09
	CONFLICT	20.82	10	0.936	0.834	0.049	0.039	6,897.34
	PROJECT GAIN							
	TEAM WORK	12.229	10	0.992	0.979	0.033	0.018	6,657.97
	CREATIVITY	10.238	10	0.999	0.997	0.031	0.006	6,392.75
	PROMOTION OPPORTUNITY	10.717	10	0.996	0.99	0.034	0.01	6,547.27

Notes:

- χ^2 = Chi Square. CFI = Comparative Fit Index. TLI = Tucker-Lewis Index. SRMR = Standardized Root Mean Residual. RMSEA = Root Mean Square Error of Approximation. AIC = Akaike Information Criterion

- Fit indices of overall model and 6 individual models for each category of interdependence (Task, Reward, and Punishment) were estimated, showing that all three overall model fit the data for task, reward, and punishment moderators. Given that, six corresponding local models were tested with the six variables under process loss and process gain. It was evidence from this table the 18 local models were considered fit the data then the outputs of the 18 local models were selected to examine the hypotheses testing.

Table 16. Standardized Loading & R-square - Confirmation Factor Analysis

	Residual Variance		Starting variance		R-Square	Standard Loading
Process Gain (3 Factors)	TE6	0.378	TE6	0.693	0.455	0.674
	TE7	0.358	TE7	0.796	0.550	0.742
	TE9	0.299	TE9	0.675	0.557	0.746
	TE10	0.323	TE10	0.710	0.545	0.738
	TE11	0.251	TE11	0.625	0.598	0.774
	TE12	0.280	TE12	0.669	0.581	0.763
	CR2	0.323	CR2	0.553	0.416	0.645
	CR4	0.400	CR4	0.632	0.367	0.606
	CR10	0.322	CR10	0.620	0.481	0.693
	CR11	0.263	CR11	0.501	0.475	0.689
	CR12	0.277	CR12	0.515	0.462	0.680
	CR13	0.311	CR13	0.568	0.452	0.673
	PRO1	0.295	PRO1	0.637	0.537	0.733
	PRO2	0.425	PRO2	0.675	0.370	0.609
	PRO3	0.359	PRO3	0.662	0.458	0.677
PRO4	0.460	PRO4	0.747	0.384	0.620	
PRO5	0.376	PRO5	0.638	0.411	0.641	
Process Loss (2 Factors)	FA1	0.481	FA1	1.028	0.532	0.729
	FA2	0.448	FA2	0.958	0.532	0.730
	FA3	0.391	FA3	0.890	0.561	0.749
	FA4	0.368	FA4	0.953	0.614	0.783
	FA6	0.387	FA6	0.821	0.529	0.727
	FA7	0.540	FA7	0.940	0.426	0.652
	CO2	0.393	CO2	0.612	0.358	0.598
	CO3	0.424	CO3	0.727	0.417	0.646
	CO5	0.431	CO5	0.799	0.461	0.679
	CO6	0.382	CO6	0.826	0.538	0.733
	CO7	0.359	CO7	0.758	0.526	0.726
	CO8	0.450	CO8	0.892	0.496	0.704

Notes:

TE=Teamwork; CR=Creativity; PRO=Promotion; FA=Fatigue; CO=Conflict

Table 16. Standardized Loading & R-square - Confirmation Factor Analysis (Continued)

	Residual Variance		Starting variance		R-Square	Standard Loading
Interdependence (3 Factors)	TI1	0.510	TI1	0.646	0.211	0.459
	TI2	0.444	TI2	0.660	0.327	0.572
	TI3	0.333	TI3	0.670	0.503	0.709
	TI4	0.332	TI4	0.694	0.522	0.722
	TI5	0.357	TI5	0.664	0.462	0.680
	TI6	0.554	TI6	0.751	0.262	0.512
	R1	0.440	R1	0.686	0.359	0.599
	R2	0.389	R2	0.725	0.463	0.681
	R3	0.435	R3	0.665	0.346	0.588
	PI1	0.349	PI1	0.632	0.448	0.669
	PI2	0.242	PI2	0.641	0.622	0.789
	PI3	0.380	PI3	0.658	0.422	0.650
	Productivity and Satisfaction (2 Factors)	PROD1	0.371	PROD1	0.637	0.418
PROD3		0.323	PROD3	0.561	0.424	0.651
PROD4		0.294	PROD4	0.568	0.482	0.695
PROD9		0.397	PROD9	0.635	0.375	0.612
PROD11		0.471	PROD11	0.687	0.314	0.561
PROD15		0.500	PROD15	0.781	0.360	0.600
SA1		0.226	SA1	0.548	0.588	0.767
SA2		0.344	SA2	0.557	0.382	0.618
SA3		0.766	SA3	0.781	0.019	0.139
SA4		0.304	SA4	0.550	0.447	0.669

Notes:

TI= Task Interdependence; R= Reward Interdependence; PI= Punishment Interdependence; PROD= Productivity; SA=Satisfaction

Table 17A. Mediating Hypotheses Test - Task

		Estimate	P-value	Significance	Effect	Mediating Effects Significance		
PROCESS LOSS	FATIGUE	FATIGUE ON OT	0.125	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue	
		PRODUCT ON OT	0.023	0.008	Yes	Direct Effect		
		FATIGUE	-0.048	0.278	No	Indirect Effect		
		SATISF ON OT	0.012	0.002	Yes	Direct Effect		Existed mediating effect between OT and Satisfaction via Fatigue
		FATIGUE	-0.063	0.036	Yes	Indirect Effect		
		ABSENTEISM	ABSENT ON OT	0.013	0.370	No		Indirect Effect
	PRODUCT ON OT	0.017	0.038	Yes	Direct Effect			
	ABSENT	-0.029	0.089	No	Indirect Effect			
	CONFLICT	SATISF ON OT	0.005	0.365	No	Direct Effect	No mediating effect between OT and Satisfaction via Absenteeism	
		ABSENT	-0.039	0.039	Yes	Indirect Effect		
		CONFLICT ON OT	-0.004	0.722	No	Indirect Effect	No mediating effect between OT and Product via Conflict	
		PRODUCT ON OT	0.017	0.045	Yes	Direct Effect		
		CONFLICT	-0.223	0.000	Yes	Indirect Effect		
		TEAM WORK	SATISF ON OT	0.004	0.508	No	Direct Effect	No mediating effect between OT and Satisfaction via Absenteeism
	CONFLICT		-0.116	0.000	Yes	Indirect Effect		
	TEAMWRK ON OT		0.052	0.000	Yes	Indirect Effect	Existed mediating effect between OT and Product via Teamwork	
	PRODUCT ON OT		-0.004	0.573	No	Direct Effect		
	TEAMWRK		0.444	0.000	Yes	Indirect Effect		
CREATIVITY	SATISF ON OT		-0.009	0.210	No	Direct Effect	Existed mediating effect between OT and Satisfaction via Teamwork	
	TEAMWRK	0.258	0.000	Yes	Indirect Effect			
	CREATE ON OT	0.003	0.608	No	Indirect Effect	No mediating effect between OT and Product via Fatigue		
	PRODUCT ON OT	0.016	0.030	Yes	Direct Effect			
	CREATE	0.418	0.000	Yes	Indirect Effect			
	PROMOTION OPPORTUNITY	SATISF ON OT	0.003	0.563	No	Direct Effect	No mediating effect between OT and Product via Fatigue	
CREATE		0.395	0.000	Yes	Indirect Effect			
PROMOT ON OT		-0.005	0.592	No	Indirect Effect	No mediating effect between OT and Product via Fatigue		
PRODUCT ON OT		0.018	0.011	Yes	Direct Effect			
PROMOT		0.362	0.000	Yes	Indirect Effect			
		SATISF ON OT	0.005	0.311	No	Direct Effect	No mediating effect between OT and Product via Fatigue	
	PROMOT	0.367	0.000	Yes	Indirect Effect			

Notes

OT=Overtime; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; TEAMWRK=Teamwork; PROMOT=Promotion.

Table 17B. Mediating Hypotheses Test - Reward

		Estimate	P-value	Significance	Effect	Mediating Effects Significance	
PROCESS LOSS	FATIGUE	FATIGUE ON OT	0.125	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PRODUCT ON OT	0.023	0.008	Yes	Direct Effect	
		FATIGUE	-0.039	0.350	No	Indirect Effect	
		SATISF ON OT	0.013	0.000	Yes	Direct Effect	
	ABSENTEEISM	PRODUCT ON OT	0.017	0.041	Yes	Direct Effect	No mediating effect between OT and Satisfaction via Absenteeism
		ABSENT	-0.027	0.103	No	Indirect Effect	
		SATISF ON OT	0.006	0.320	No	Direct Effect	
		ABSENT	-0.040	0.032	Yes	Indirect Effect	
	CONFLICT	CONFLICT ON OT	-0.004	0.722	No	Indirect Effect	No mediating effect between OT and Satisfaction via Absenteeism
		PRODUCT ON OT	0.017	0.043	Yes	Direct Effect	
		CONFLICT	-0.223	0.000	Yes	Indirect Effect	
		SATISF ON OT	0.005	0.409	No	Direct Effect	
PROCESS GAIN	TEAM WORK	CONFLICT CONFLICT	-0.117	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Teamwork
		TEAMWRK ON OT	0.052	0.000	Yes	Indirect Effect	
		PRODUCT ON OT	-0.005	0.496	No	Direct Effect	
		TEAMWRK	0.447	0.000	Yes	Indirect Effect	
	CREATIVITY	SATISF ON OT	-0.008	0.245	No	Direct Effect	Existed mediating effect between OT and Satisfaction via Teamwork
		TEAMWRK	0.259	0.000	Yes	Indirect Effect	
		CREATE ON OT	0.003	0.608	No	Indirect Effect	
		PRODUCT ON OT	0.016	0.030	Yes	Direct Effect	
	PROMOTION OPPORTUNITY	CREATE	0.415	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue
		SATISF ON OT	0.004	0.455	No	Direct Effect	
		CREATE	0.392	0.000	Yes	Indirect Effect	
		PROMOT ON OT	-0.005	0.592	No	Indirect Effect	
PROMOTION OPPORTUNITY	PRODUCT ON OT	0.018	0.013	Yes	Direct Effect	No mediating effect between OT and Product via Fatigue	
	PROMOT	0.352	0.000	Yes	Indirect Effect		
	SATISF ON OT	0.006	0.261	No	Direct Effect		
	PROMOT	0.359	0.000	Yes	Indirect Effect		

Notes

OT=Overtime; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; TEAMWRK=Teamwork; PROMOT=Promotion.

Table 17C. Mediating Hypotheses Test - Punishment

		Estimate	P-value	Significance	Effect	Mediating Effects Significance	
PROCESS LOSS	FATIGUE	FATIGUE ON					
		OT	0.125	0.000	Yes	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PRODUCT ON					
		OT	0.024	0.007	Yes	Direct Effect	
		FATIGUE	-0.048	0.273	No	Indirect Effect	
		SATISF ON					Existed mediating effect between OT and Satisfaction via Fatigue
	OT	0.012	0.001	Yes	Direct Effect		
	ABSENTEEISM	FATIGUE	-0.059	0.043	Yes	Indirect Effect	
		ABSENT ON					
		OT	0.013	0.370	No	Indirect Effect	No mediating effect between OT and Product via Absenteeism
		PRODUCT ON					
		OT	0.018	0.027	Yes	Direct Effect	
ABSENT		-0.025	0.141	No	Indirect Effect		
SATISF ON					No mediating effect between OT and Satisfaction via Absenteeism		
OT	0.005	0.324	No	Direct Effect			
CONFLICT	ABSENT	-0.038	0.039	Yes	Indirect Effect		
	CONFLICT ON						
	OT	-0.004	0.722	No	Indirect Effect	No mediating effect between OT and Product via Conflict	
	PRODUCT ON						
	OT	0.018	0.030	Yes	Direct Effect		
	CONFLICT	-0.217	0.000	Yes	Indirect Effect		
SATISF ON					No mediating effect between OT and Satisfaction via Absenteeism		
OT	0.004	0.443	No	Direct Effect			
PROCESS GAIN	CONFLICT	CONFLICT	-0.115	0.000	Yes	Indirect Effect	
		TEAMWRK ON					
		OT	0.052	0.000	Yes	Indirect Effect	Existed mediating effect between OT and Product via Teamwork
		PRODUCT ON					
		OT	-0.003	0.635	No	Direct Effect	
		TEAMWRK	0.444	0.000	Yes	Indirect Effect	
	SATISF ON					Existed mediating effect between OT and Satisfaction via Teamwork	
	OT	-0.008	0.218	No	Direct Effect		
	TEAMWORK	TEAMWRK	0.260	0.000	Yes	Indirect Effect	
		CREATE ON					
		OT	0.003	0.608	No	Indirect Effect	No mediating effect between OT and Product via Fatigue
		PRODUCT ON					
OT		0.017	0.018	Yes	Direct Effect		
CREATE		0.411	0.000	Yes	Indirect Effect		
SATISF ON					No mediating effect between OT and Product via Fatigue		
OT	0.004	0.443	No	Direct Effect			
CREATIVITY	CREATE	0.393	0.000	Yes	Indirect Effect		
	PROMOT ON						
	OT	-0.005	0.592	No	Indirect Effect	No mediating effect between OT and Product via Fatigue	
	PRODUCT ON						
	OT	0.019	0.007	Yes	Direct Effect		
	PROMOT	0.352	0.000	Yes	Indirect Effect		
SATISF ON					No mediating effect between OT and Product via Fatigue		
OT	0.006	0.252	No	Direct Effect			
PROMOTION OPPORTUNITY	PROMOT	0.358	0.000	Yes	Indirect Effect		

Notes

OT=Overtime; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; TEAMWRK=Teamwork; PROMOT=Promotion

Table 18. Summary of Supported Hypotheses across Characterized Interdependence

Summary of Hypotheses Testing	Hypothesis	Effect	Task Int.	Reward Int.	Punishment Int.
Hypothesis 1: Association of Overtime to Process Loss					
<i>Loss Variable</i>					
Fatigue	H1a	+	Yes	Yes	Yes
Hypothesis 2: Association of Overtime to Process Gain					
<i>Gain Variable</i>					
Teamwork	H2d	+	Yes	Yes	Yes
Hypothesis 3: Association of Process Loss to Productivity					
<i>Loss Variable</i>					
Conflict	H3c	-	Yes	Yes	Yes
Hypothesis 4: Association of Process Loss to Satisfaction					
<i>Loss Variable</i>					
Fatigue	H4a	-	Yes	No	Yes
Absenteeism	H4b	-	Yes	Yes	Yes
Conflict	H4c	-	Yes	Yes	Yes
Hypothesis 5: Association of Process Gain to Productivity					
<i>Gain Variable</i>					
Teamwork	H5d	+	Yes	Yes	Yes
Creativity	H5e	+	Yes	Yes	Yes
Promotion Opportunity	H5f	+	Yes	Yes	Yes
Hypothesis 6: Association of Process Gain to Satisfaction					
<i>Gain Variable</i>					
Teamwork	H6d	+	Yes	Yes	Yes
Creativity	H6e	+	Yes	Yes	Yes
Promotion Opportunity	H6f	+	Yes	Yes	Yes
Moderating Hypotheses - Self-management					
Overtime to Process Loss - Hypothesis 9					
Fatigue	H9a	+	Yes	Yes	Yes
Overtime to Process Gain - Hypothesis 10					
Teamwork	H10d	+	Yes	Yes	Yes
Moderating Hypotheses - Interdependence (High)					
Process Loss to Productivity - Hypothesis 11					
Absenteeism	H11b	-	No	Yes	Yes
Conflict	H11c	-	Yes	Yes	Yes
Process Loss to Satisfaction- Hypothesis 12					
Fatigue	H12a	-	Yes _a	Yes _a	Yes _a
Absenteeism	H12b	-	No	No	No
Conflict	H12c	-	Yes	Yes	Yes
Process Gain to Productivity - Hypothesis 13					
Teamwork	H13d	+	Yes	Yes	Yes
Creativity	H13e	+	Yes	Yes	Yes
Promotion Opportunity	H13f	+	Yes	Yes	Yes
Process Gain to Satisfaction- Hypothesis 14					
Teamwork	H14d	+	Yes	Yes	Yes
Creativity	H14e	+	Yes	Yes	Yes
Promotion Opportunity	H14f	+	Yes	Yes	Yes
Moderated Mediating Hypotheses - Productivity					
Centralized x high interdependence	H15*.cen.h		Yes _b	Yes _b	Yes _b
Centralized x low interdependence	H15*.cen.l		Yes _b	Yes _b	Yes _b
Self-management x high interdependence (Hypothesis 15)	H15*.sm.h		Yes _b	Yes _b	Yes _b
Self-management x low interdependence	H15*.sm.l		Yes _b	Yes _b	Yes _b
Moderated Mediating Hypotheses - Satisfaction					
Centralized x high interdependence	H16*.cen.h		Yes _b	Yes _b	Yes _b
Centralized x low interdependence	H16*.cen.l		Yes _c	Yes _c	Yes _b
Self-management x high interdependence (Hypothesis 16)	H16*.sm.h		Yes _b	Yes _b	Yes _b
Self-management x low interdependence	H16*.sm.l		Yes _c	Yes _c	Yes _b

Notes:

a for Fatigue; b for Absenteeism; c for Conflict; d for Teamwork; e for Creativity; f for Promotion Opportunity.

a: with Low Interdependence; b: with Team Work; c: with Fatigue, Team Work.

Table 19: Joint table for Study 1 and Study 2

Hypotheses Testing	Hypothesis	Significance		
		Study 1	Study 2	Joint Study 1 & Study 2
Hypothesis 1: Association of Overtime to Process Loss <i>Loss Variable</i> Fatigue Absenteeism Conflict	H1a H1b H1c	With Conflict Only	With Fatigue Only	Inconsistency
Hypothesis 2: Association of Overtime to Process Gain <i>Gain Variable</i> Team Work Creativity Promotion Opportunity	H2d H2e H2f	With Team Work Only	With Team Work Only	Consistency with: Team Work Only
Hypothesis 3: Association of Process Loss to Productivity <i>Loss Variable</i> Fatigue Absenteeism Conflict	H3a H3b H3c	With Fatigue Only	With Conflict Only	Inconsistency
Hypothesis 4: Association of Process Loss to Satisfaction <i>Loss Variable</i> Fatigue Absenteeism Conflict	H4a H4b H4c	No	Fatigue (Task & Punishment); Absenteeism; Conflict	Inconsistency
Hypothesis 5: Association of Process Gain to Productivity <i>Gain Variable</i> Team Work Creativity Promotion Opportunity	H5d H5e H5f	- Team Work - Creativity - Promotion Opportunity	- Team Work - Creativity - Promotion Opportunity	Consistency with: - Team Work - Creativity - Promotion Opportunity
Hypothesis 6: Association of Process Gain to Satisfaction <i>Gain Variable</i> Team Work Creativity Promotion Opportunity	H6d H6e H6f	- Team Work - Creativity - Promotion Opportunity	- Team Work - Creativity - Promotion Opportunity	Consistency with: - Team Work - Creativity - Promotion Opportunity
Moderating Hypotheses - Self-management Overtime to Process Loss - Hypothesis 9 Fatigue Absenteeism Conflict	H9a H9b H9c	With Conflict Only	With Fatigue Only	Inconsistency
Overtime to Process Gain - Hypothesis 10 Team Work Creativity Promotion Opportunity	H10d H10e H10f	With Team Work Only	With Team Work Only	Consistency with Team Work
Moderating Hypotheses - Interdependence (High) Process Loss to Productivity - Hypothesis 11 Fatigue Absenteeism Conflict	H11a H11b H11c	With Fatigue Only	- Absenteeism (Reward & Punishment) - Conflict	Inconsistency
Process Loss to Satisfaction- Hypothesis 12 Fatigue Absenteeism Conflict	H12a H12b H12c	- Absenteeism (Task) - Conflict (Task & Reward)	- Fatigue - Conflict	Consistency with Conflict (Task & Reward)
Process Gain to Productivity - Hypothesis 13 Teamwork Creativity Promotion Opportunity	H13d H13e H13f	- Team Work - Creativity - Promotion Opportunity	- Team Work - Creativity - Promotion Opportunity	Consistency with - Team Work - Creativity - Promotion Opportunity
Process Gain to Satisfaction- Hypothesis 14 Teamwork Creativity Promotion Opportunity	H14d H14e H14f	- Team Work - Creativity - Promotion Opportunity	- Team Work - Creativity - Promotion Opportunity	Consistency with: - Team Work - Creativity - Promotion Opportunity

Notes:

a for Fatigue; b for Absenteeism; c for Conflict; d for Teamwork; e for Creativity; f for Promotion Opportunity.

Table 19: Joint table for Study 1 and Study 2 (Continued)

Hypotheses Testing	Hypothesis	Significance		
		Study 1	Study 2	Joint Study 1 & Study 2
Moderated Mediating Hypotheses				
<i>Productivity</i> Centralized x high interdependence (CHI) Centralized x low interdependence (CLI) Self-management x high interdependence (SMHI) (Hyp 15) Self-management x low interdependence (SMLI)	H15*.cen.h H15*.cen.l H15*.sm.h H15*.sm.l	- CHI with Teamwork - CLI with Teamwork	- CHI with Teamwork - CLI with Teamwork - SMHI with Teamwork - SMLI with Teamwork	Consistency with: CHI with Teamwork CLI with Teamwork
<i>Satisfaction</i> Centralized x high interdependence (CHI) Centralized x low interdependence (CLI) Self-management x high interdependence (SMHI) (Hyp 16) Self-management x low interdependence (SMLI)	H16*.cen.h H16*.cen.l H16*.sm.h H16*.sm.l	CHI with Conflict	- CHI with Teamwork - CLI with Fatigue, Teamwork - SMHI with Teamwork -SMLI with Fatigue, Teamwork	Inconsistency

Notes:

a for Fatigue; b for Absenteeism; c for Conflict; d for Teamwork; e for Creativity; f for Promotion Opportunity;

APPENDIX C

FIGURES

Figure 1. Theoretical Framework

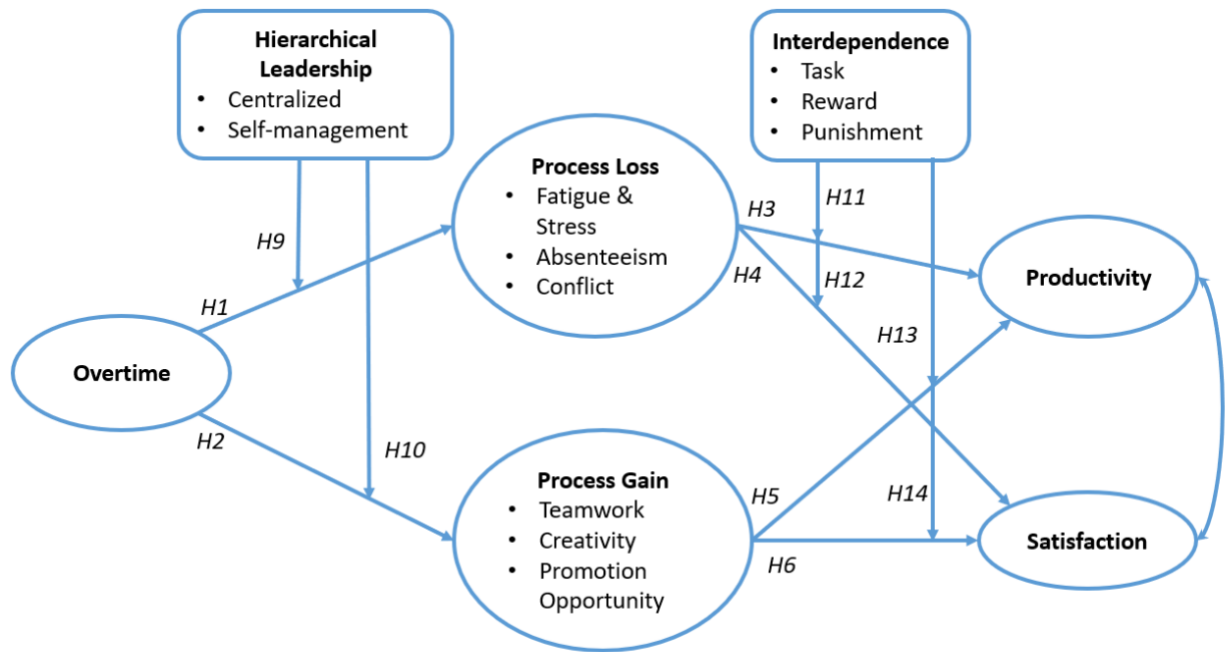


Figure 2. Data Collection Procedure for MEPG (Study 1)

				Data Collection		
				Source	Type	
					Archival	Survey
Timing	T1	T2	T3	Employee	/	Overtime Process Loss & Gain Hierarchical Leadership Interdependence Productivity Satisfaction
	Start of Overtime	Overtime Period (2 months)	End of overtime period			
Action	Recruitment	/	Data Collection	Supervisor	/	Creativity Productivity Satisfaction
				HR	Overtime Absenteeism	

Figure 3. Data Collection Procedure for participants working for another 104 firms (Study 2)

		Data Collection		
		Source	Type	
			Archival	Survey
Timing	T3	Employee	/	Overtime Process Loss & Gain Hierarchical Leadership Interdependence Productivity Satisfaction
	End of overtime period			
Action	Data Collection			

Figure 4.1. EFA For Item - Parcel CFA (Study 1)

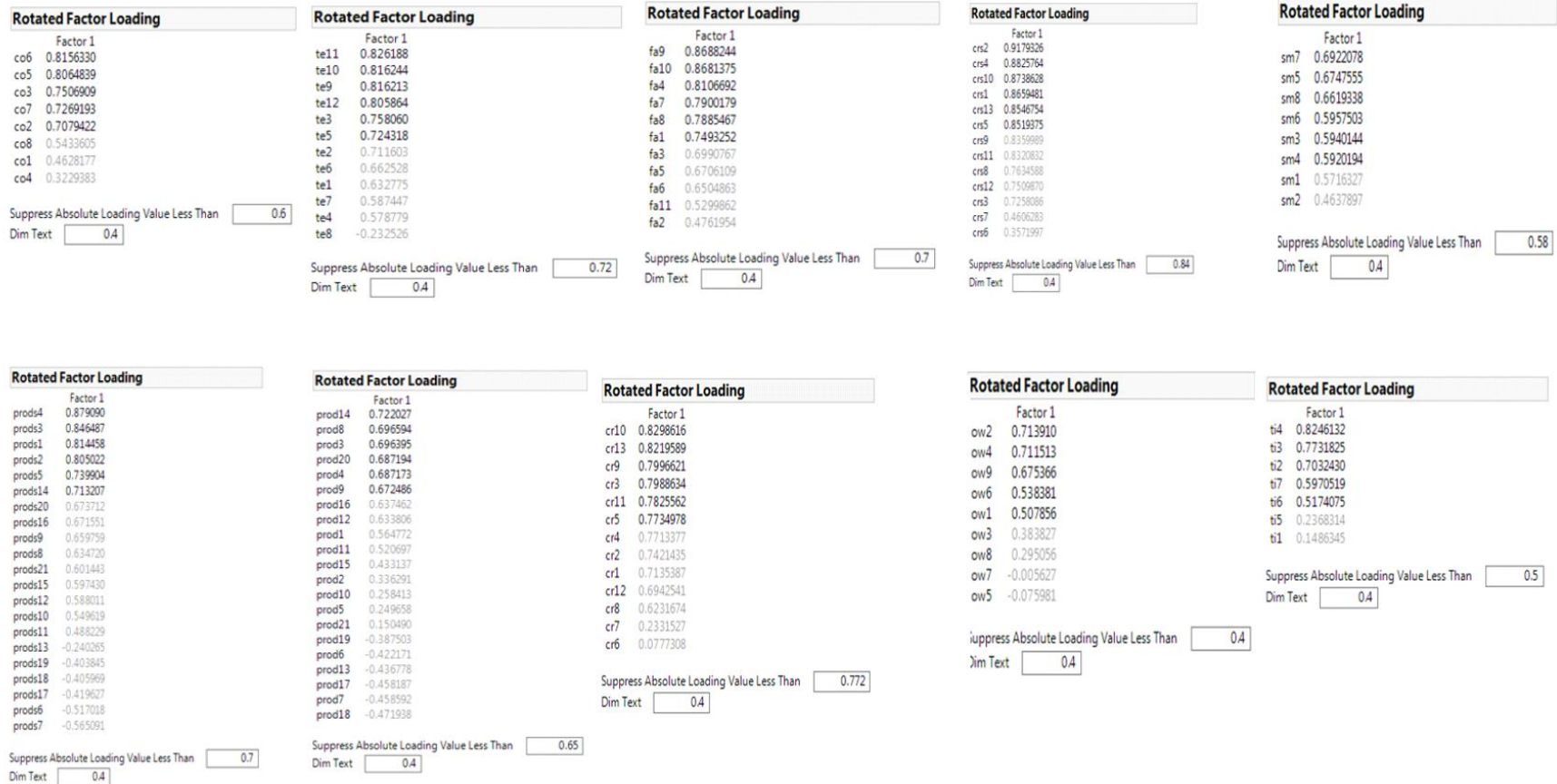


Figure 4.2. EFA For Item - Parcel CFA (Study 2)

Rotated Factor Loading	
	Factor 1
ow3	0.6354560
ow4	0.6251477
ow9	0.6153444
ow2	0.5476156
ow1	0.4990454
ow8	0.4443179
ow7	0.3628355
ow5	0.0769547
ow6	0.0640906

Suppress Absolute Loading Value Less Than

Dim Text

Rotated Factor Loading	
	Factor 1
fa4	0.7557370
fa7	0.7375166
fa3	0.7347979
fa6	0.7273278
fa1	0.7160925
fa2	0.7135178
fa5	0.6793538
fa8	0.6618826
fa11	0.6390699
fa10	0.6379686
fa9	0.6228755

Suppress Absolute Loading Value Less Than

Dim Text

Rotated Factor Loading	
	Factor 1
co6	0.7848916
co8	0.7483582
co7	0.7474698
co5	0.7358833
co3	0.6753099
co2	0.6440350
co4	0.3011395
co1	0.2543731

Suppress Absolute Loading Value Less Than

Dim Text

Rotated Factor Loading	
	Factor 1
sm8	0.6679378
sm4	0.6488264
sm6	0.6164237
sm7	0.5619322
sm3	0.5561664
sm2	0.5496615
sm5	0.2340377
sm1	0.1516010

Suppress Absolute Loading Value Less Than

Dim Text

Rotated Factor Loading	
	Factor 1
prod1	0.6542685
prod15	0.6524882
prod9	0.6468064
prod11	0.6398544
prod3	0.6336759
prod4	0.6294144
prod8	0.6247580
prod12	0.6244002
prod20	0.6132056
prod16	0.5866902
prod14	0.5648418
prod2	0.5113648
prod10	0.5043348
prod5	0.4733517
prod21	0.4340275
prod17	0.2188012
prod13	0.2065444
prod6	0.2046566
prod7	0.1552306
prod18	0.1524773
prod19	0.1349776

Suppress Absolute Loading Value Less Than

Dim Text

Rotated Factor Loading	
	Factor 1
te12	0.7591681
te10	0.7535281
te11	0.7507171
te7	0.7489883
te9	0.7401136
te6	0.7233553
te2	0.7183128
te5	0.6971294
te4	0.6886405
te1	0.6885689
te3	0.6512930
te8	0.1747652

Suppress Absolute Loading Value Less Than

Dim Text

Rotated Factor Loading	
	Factor 1
cr11	0.6894101
cr12	0.6854451
cr10	0.6821128
cr13	0.6703395
cr2	0.6688440
cr4	0.6507882
cr1	0.6403277
cr8	0.6128222
cr9	0.6108982
cr5	0.6087434
cr3	0.6008787
cr7	0.4475460
cr6	0.4300561

Suppress Absolute Loading Value Less Than

Dim Text

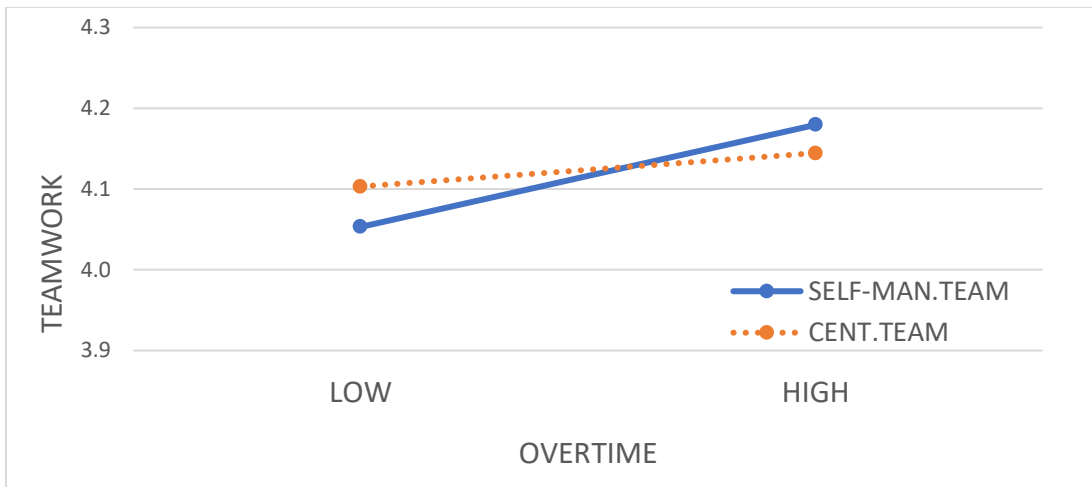
Rotated Factor Loading	
	Factor 1
t4	0.7559193
t5	0.7435111
t3	0.7314775
t2	0.5870532
t6	0.5560757
t1	0.4844622
t7	0.4765404

Suppress Absolute Loading Value Less Than

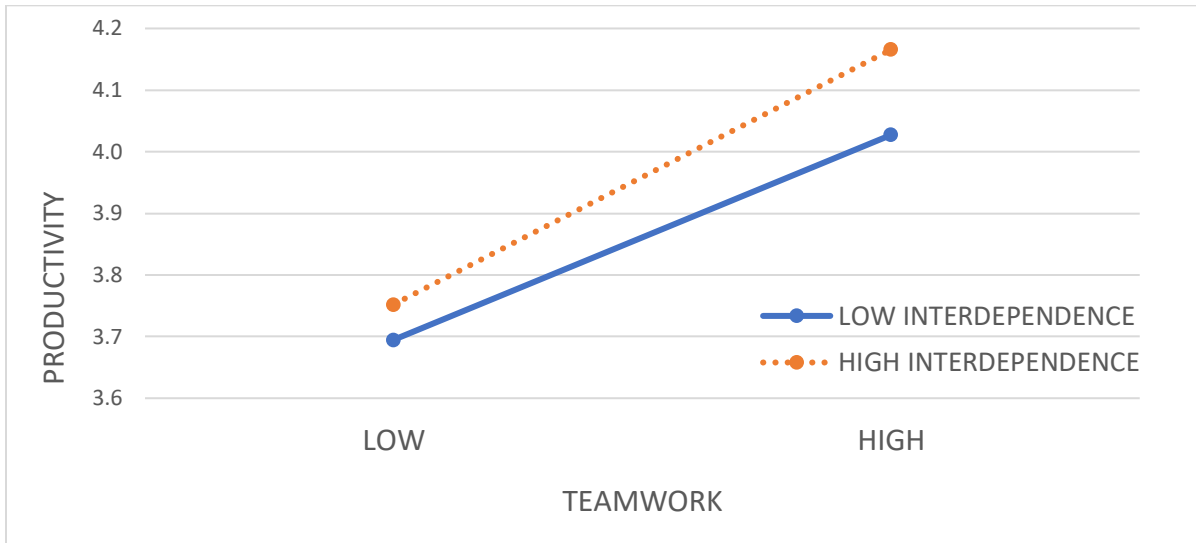
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Figure 5.1. Relationship between Overtime, Teamwork, and Productivity (Task) – Study 1

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Productivity with Task interdependence Moderator



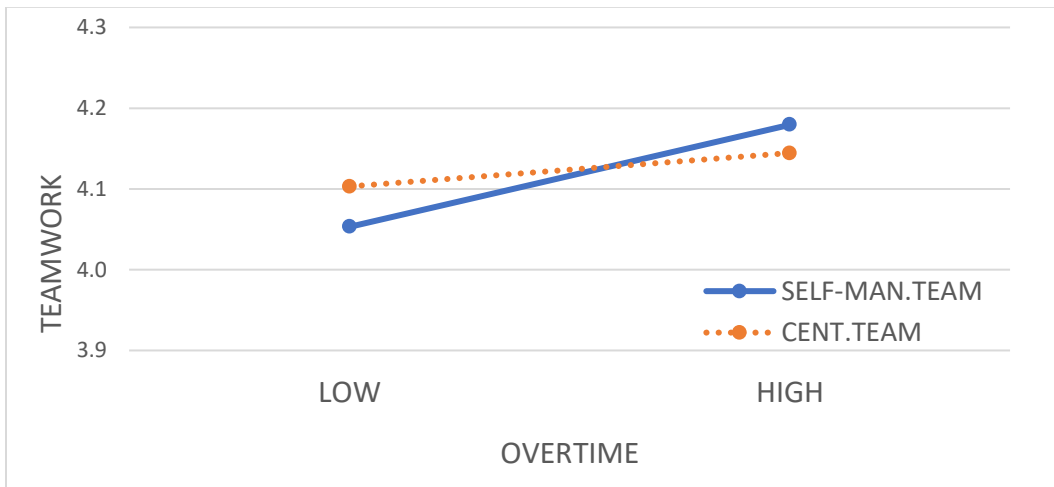
Relationship between Overtime, Teamwork, and Productivity with Self-management and Task Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.003*	0.002*
Self-management	0.001*	0.001*	

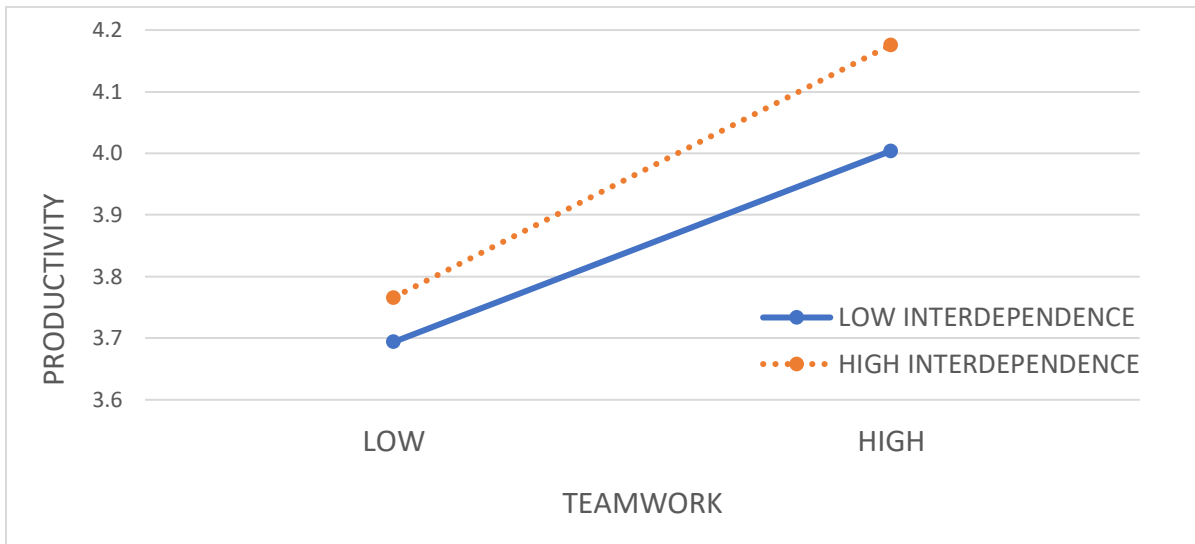
* Significant @ p<0.05

Figure 5.2. Relationship between Overtime, Teamwork, and Productivity (Reward) – Study 1

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Productivity with Reward interdependence Moderator



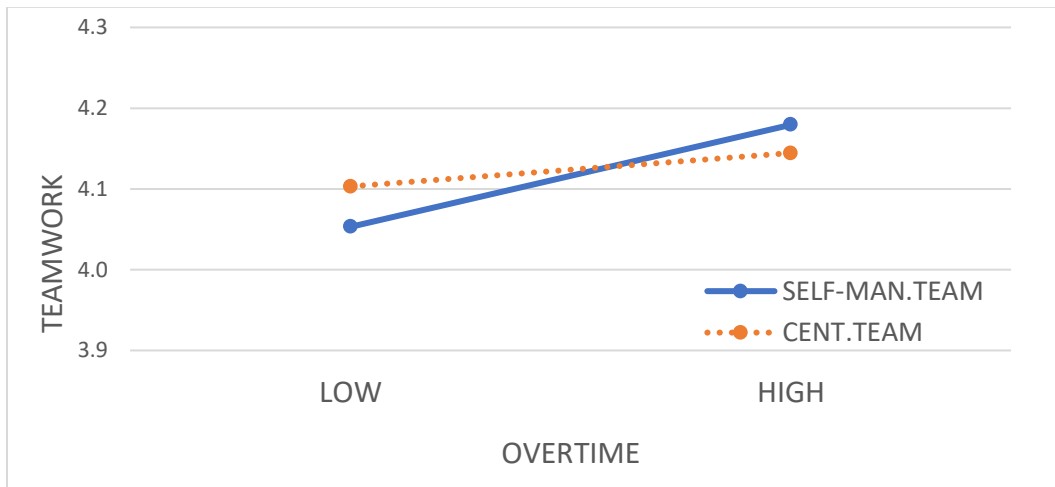
Relationship between Overtime, Teamwork, and Productivity with Self-management and Reward Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.003*	0.002*
Self-management	0.001*	0.001*	

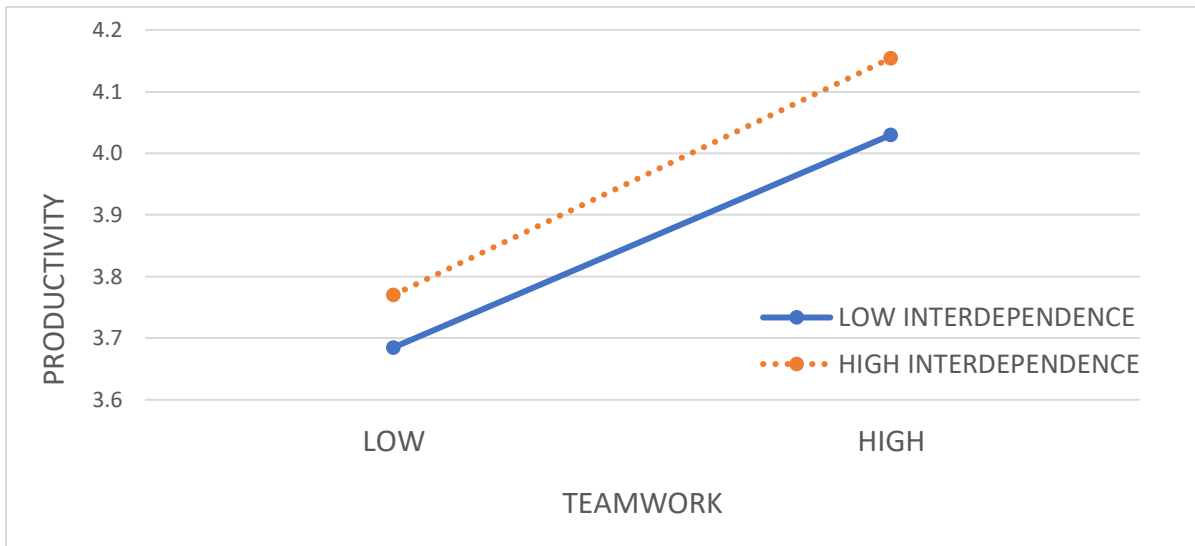
* Significant @ p<0.05

Figure 5.3. Relationship between Overtime, Teamwork, and Productivity (Punishment) – Study 1

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Productivity with Punishment interdependence Moderator



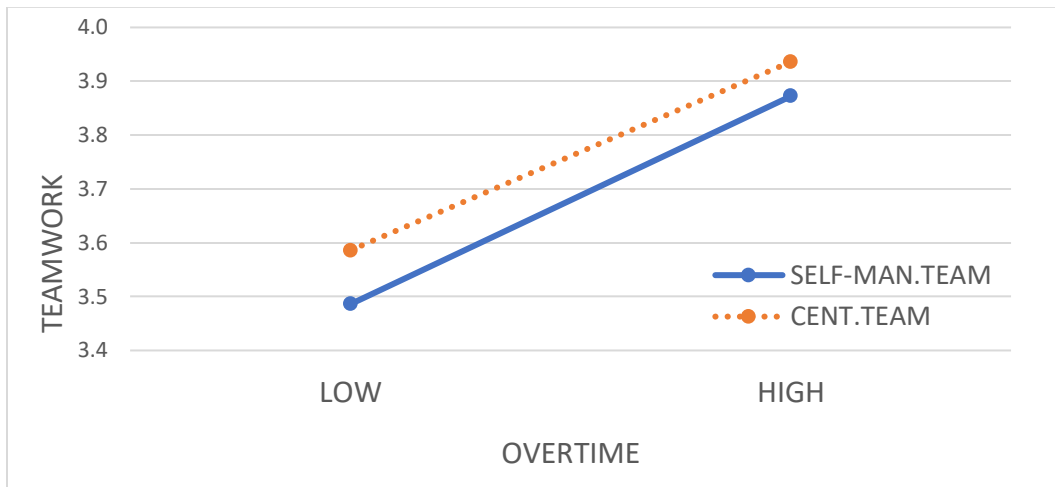
Relationship between Overtime, Teamwork, and Productivity with Self-management and Punishment Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.002*	0.002*
Self-management	0.001*	0.001*	

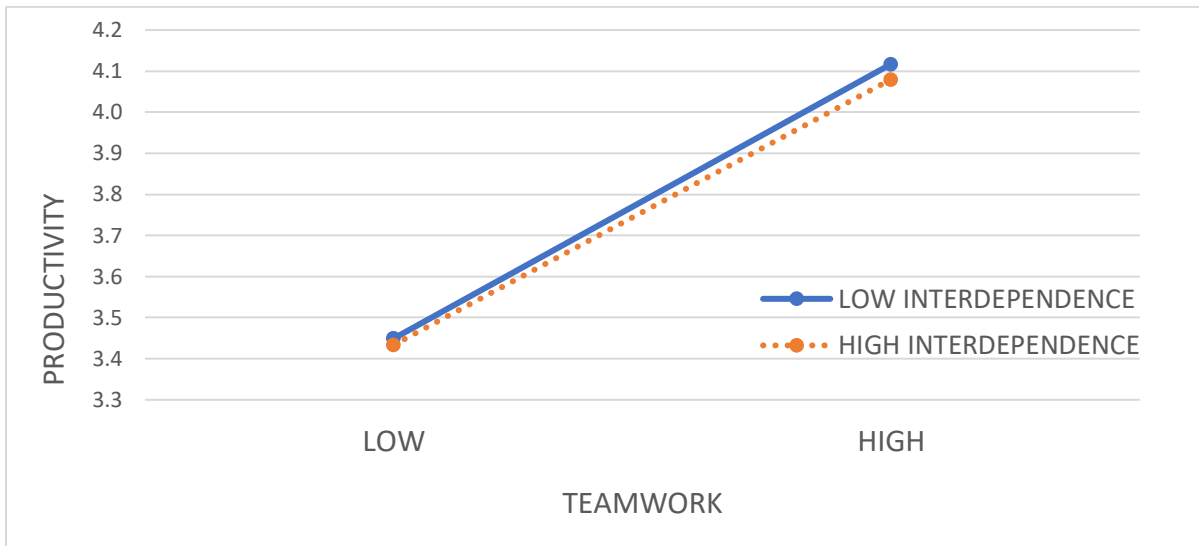
* Significant @ p<0.05

Figure 5.4. Relationship between Overtime, Teamwork, and Productivity (Task) - Study 2

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Productivity with Task interdependence Moderator



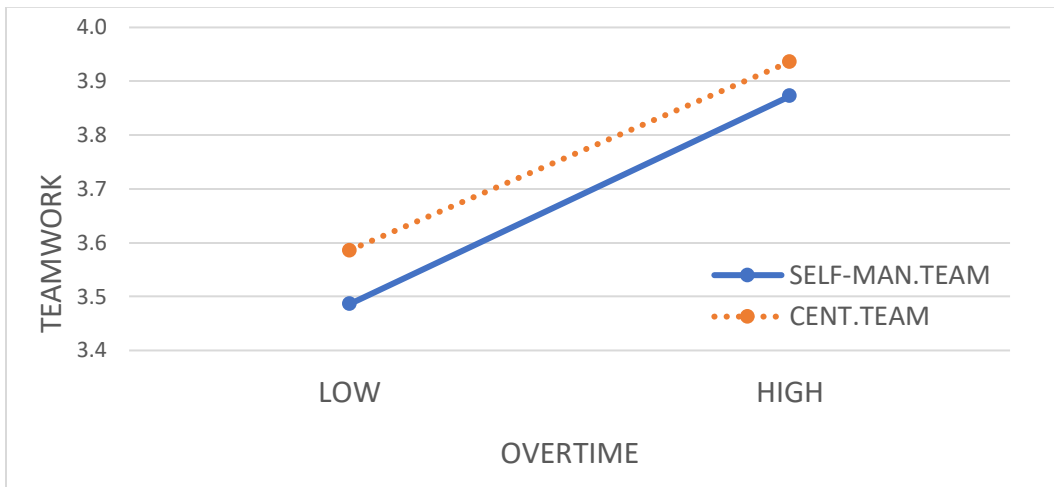
Relationship between Overtime, Teamwork, and Productivity with Self-management and Task Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.024*	0.025*
Self-management	0.022*	0.022*	

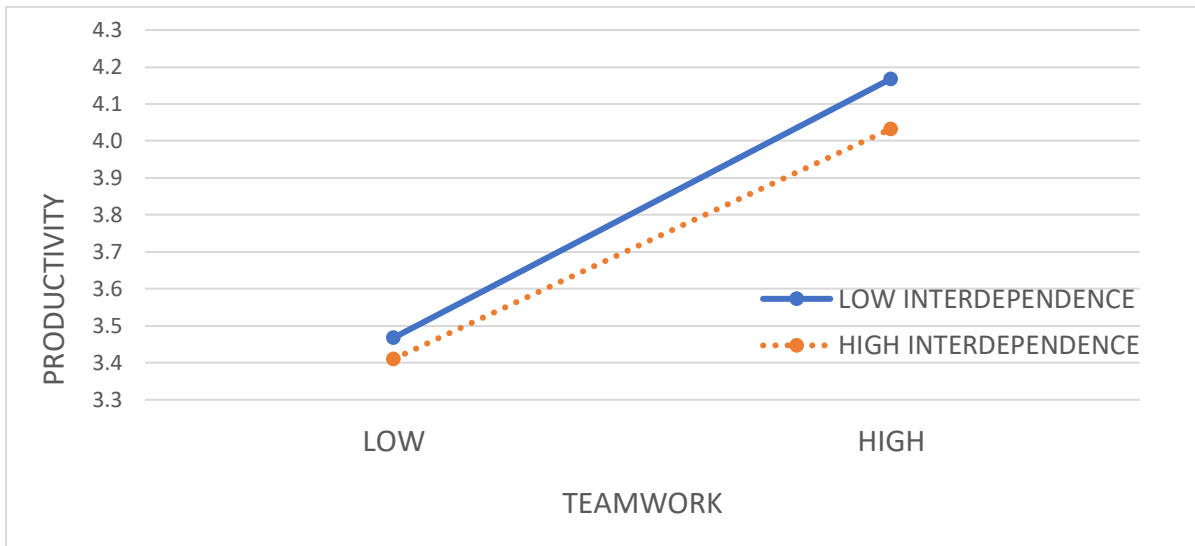
* Significant @ p<0.05

Figure 5.5. Relationship between Overtime, Teamwork, and Productivity (Reward) - Study 2

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Productivity with Reward interdependence Moderator



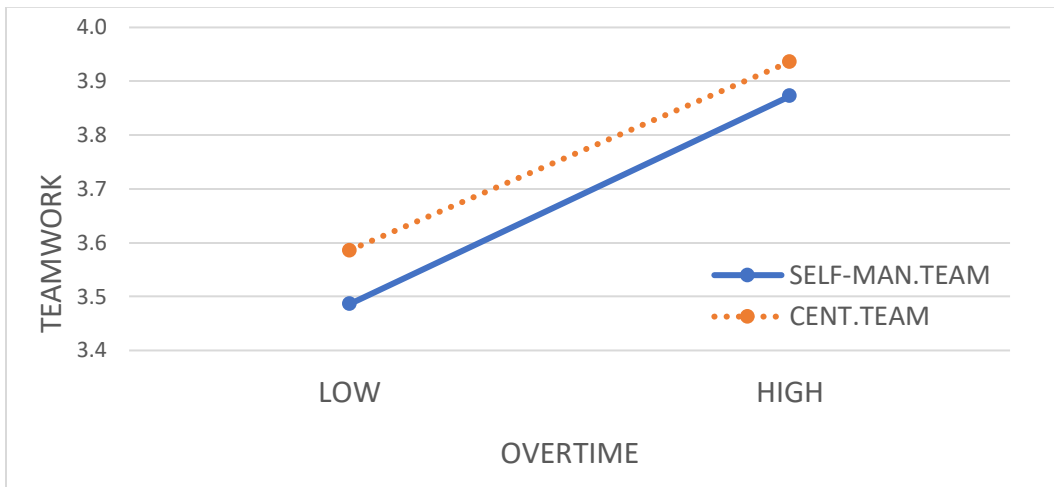
Relationship between Overtime, Teamwork, and Productivity with Self-management and Reward Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.023*	0.026*
Self-management	0.021*	0.023*	

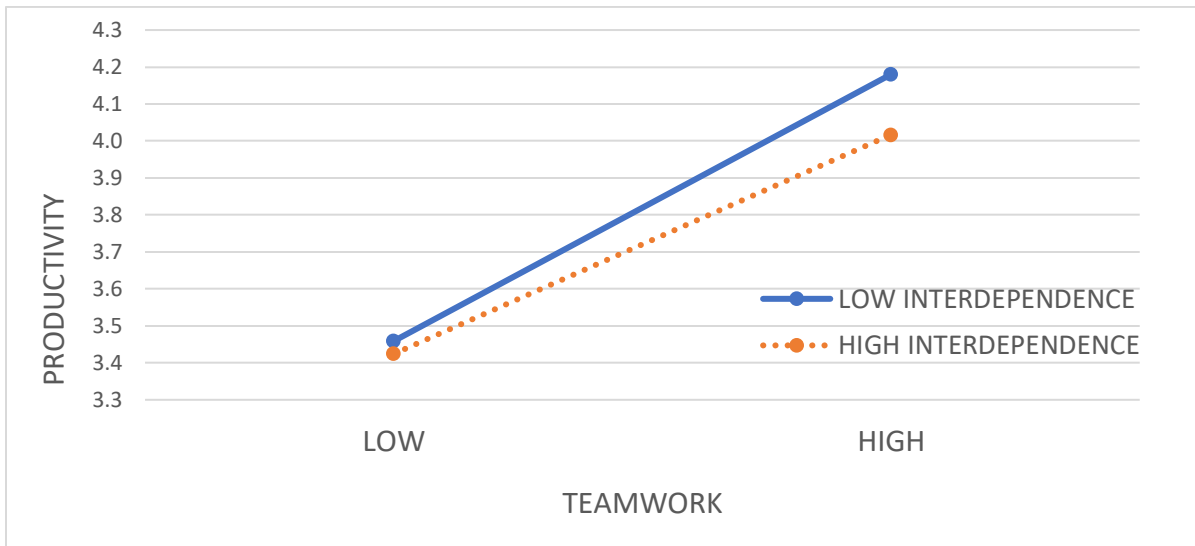
* Significant @ p<0.05

Figure 5.6. Relationship between Overtime, Teamwork, and Productivity (Punishment) - Study 2

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Productivity with Punishment interdependence Moderator



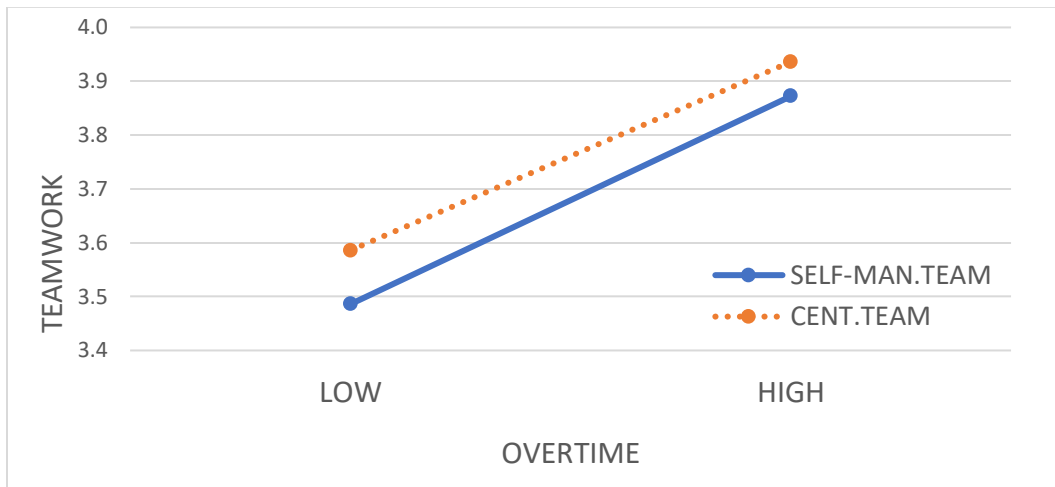
Relationship between Overtime, Teamwork, and Productivity with Self-management and Punishment Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.022*	0.027*
Self-management	0.020*	0.024*	

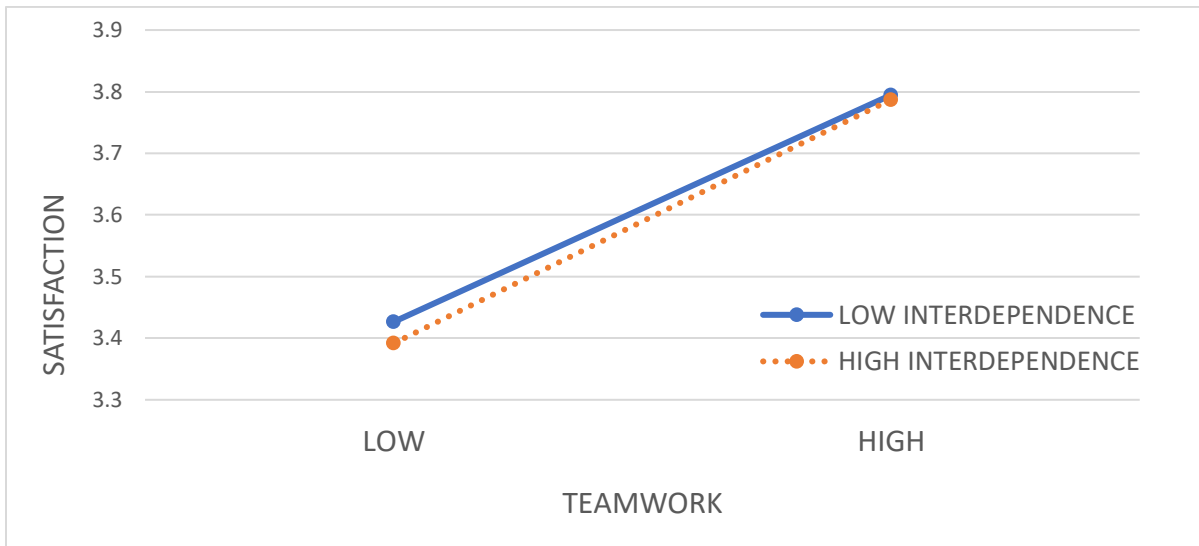
* Significant @ p<0.05

Figure 5.7. Relationship between Overtime, Teamwork, and Satisfaction (Task) - Study 2

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Satisfaction with Task interdependence Moderator



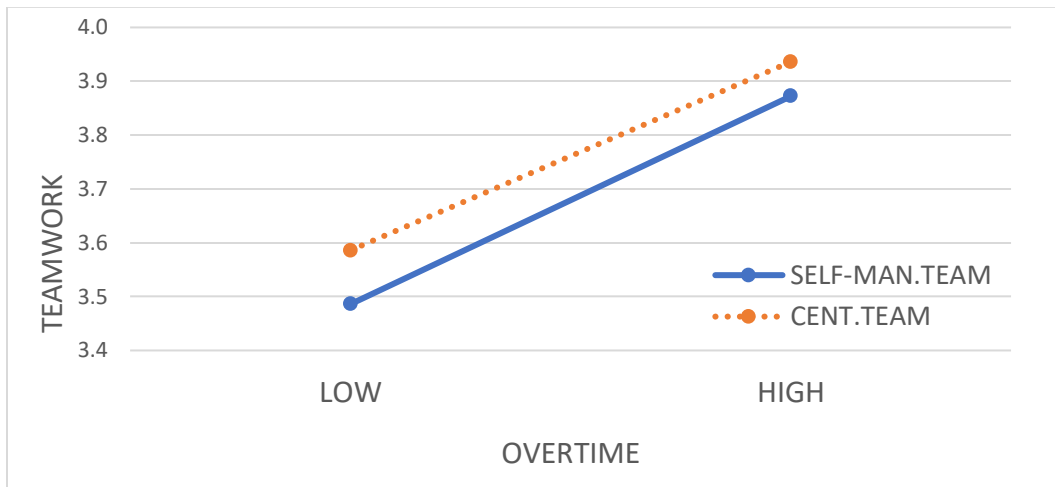
Relationship between Overtime, Teamwork, and Satisfaction with Self-management and Task Interdependence as Moderators

Hierarchical Leadership	Interdependence		
	Centralized	High	Low
Self-management		0.015*	0.014*
		0.013*	0.012*

* Significant @ p<0.05

Figure 5.8. Relationship between Overtime, Teamwork, and Satisfaction (Reward) - Study 2

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Satisfaction with Reward interdependence Moderator



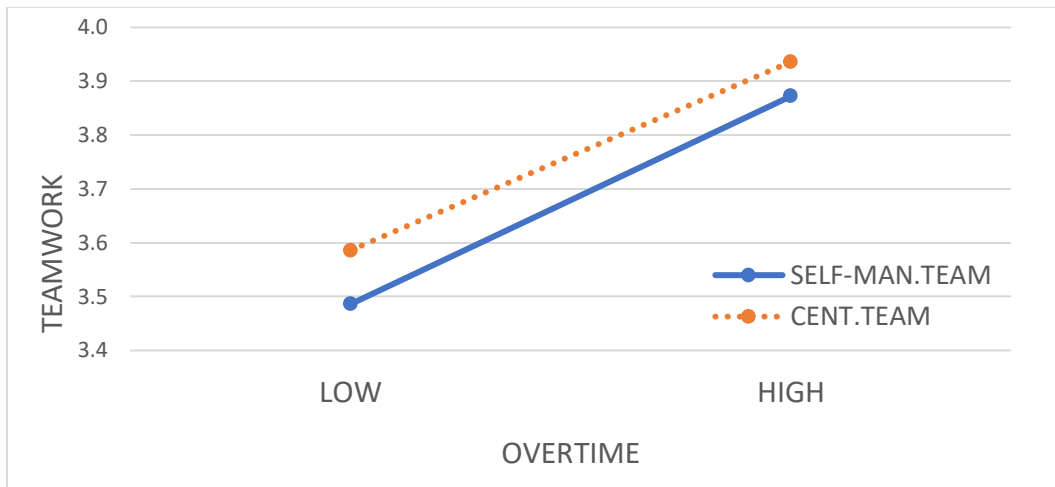
Relationship between Teamwork and Satisfaction with Reward Interdependence as Moderator

Hierarchical Leadership	Interdependence	
	High	Low
Centralized	0.015*	0.013*
Self-management	0.014*	0.012*

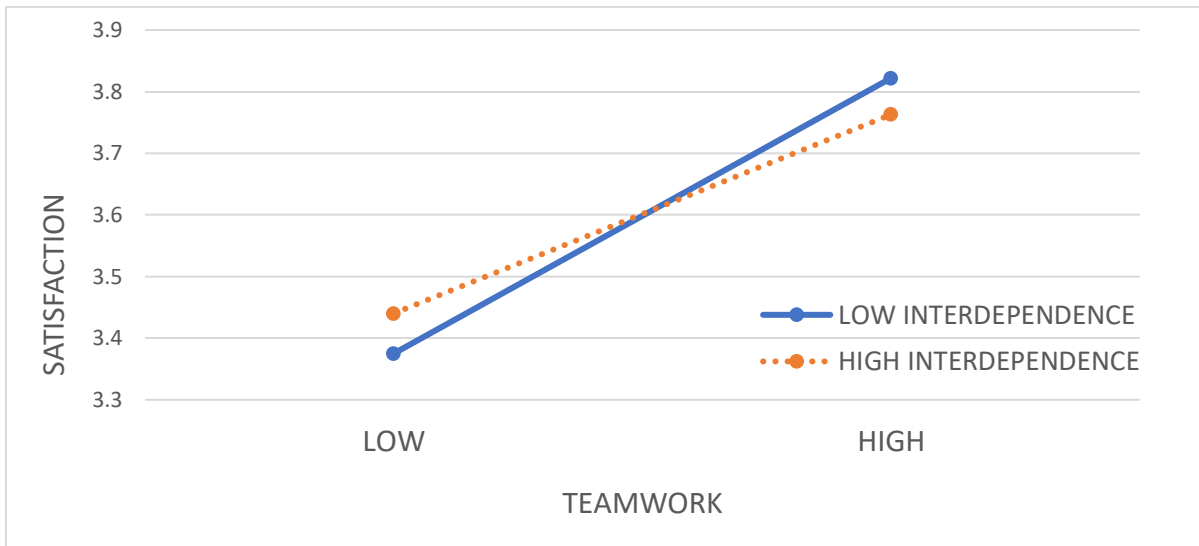
* Significant @ p<0.05

Figure 5.9. Relationship between Overtime, Teamwork, and Satisfaction (Punishment) - Study 2

Relationship between Overtime and Teamwork with Self-management Moderator



Relationship between Teamwork and Satisfaction with Punishment interdependence Moderator



Relationship between Overtime, Teamwork, and Satisfaction with Self-management and Punishment Interdependence as Moderators

Hierarchical Leadership	Interdependence		
		High	Low
	Centralized	0.012*	0.017*
Self-management	0.011*	0.015*	

* Significant @ p<0.05

Figure 6.1. Power Analysis (Study 1)

	t-stat	Z(1-B)	Power		t-stat	Z(1-B)	Power		t-stat	Z(1-B)	Power
FATIGUE ON											
OT	0.811	-0.834	20%		0.811	-0.834	20%		0.811	-0.834	20%
SELFMAN	4.813	3.168	100%		4.813	3.168	100%		4.813	3.168	100%
OTXSM	0.829	-0.816	21%		0.829	-0.816	21%		0.829	-0.816	21%
PROD_SR ON											
FATIGUE	-2.43	0.785	78%		-3.094	1.449	93%		-2.839	1.194	88%
TINT	2.693	1.048	85%		4.151	2.506	99%		4.460	2.815	100%
FATXTINT	3.349	1.704	96%		3.662	2.017	98%		2.048	0.403	66%
SATISF_SR ON											
FATIGUE	-0.777	-0.868	19%		-1.294	-0.351	36%		-1.480	-0.165	43%
TINT	0.092	-1.553	6%		3.380	1.735	96%		3.516	1.871	97%
FATXTINT	0.026	-1.619	5%		-0.312	-1.333	9%		-0.575	-1.07	14%
ABSENT ON											
OT	-0.39	-1.255	10%		-0.390	-1.255	10%		-0.390	-1.255	10%
SELFMAN	-0.58	-1.065	14%		-0.580	-1.065	14%		-0.580	-1.065	14%
OTXSM	-0.107	-1.538	6%		-0.107	-1.538	6%		-0.107	-1.538	6%
PROD_SR ON											
ABSENT	1.206	-0.439	33%		1.255	-0.39	35%		0.987	-0.658	26%
TINT	2.231	0.586	72%		3.236	1.591	94%		4.226	2.581	100%
ABXTINT	1.73	0.085	53%		0.620	-1.025	15%		-0.573	-1.072	14%
SATISF_SR ON											
ABSENT	-0.492	-1.153	12%		-0.530	-1.115	13%		-0.095	-1.55	6%
TINT	0.124	-1.521	6%		4.761	3.116	100%		2.773	1.128	87%
ABXTINT	-3.107	1.462	93%		-1.393	-0.252	40%		-0.354	-1.291	10%
CONFLICT ON											
OT	-2.875	1.23	89%		-2.875	1.23	89%		-2.875	1.23	89%
SELFMAN	4.597	2.952	100%		4.597	2.952	100%		4.597	2.952	100%
OTXSM	1.217	-0.428	33%		1.217	-0.428	33%		1.217	-0.428	33%
PROD_SR ON											
CONFLICT	-1.438	-0.207	42%		-1.574	-0.071	47%		-1.775	0.13	55%
TINT	2.269	0.624	73%		3.501	1.856	97%		4.152	2.507	99%
COXTINT	0.226	-1.419	8%		0.772	-0.873	19%		-0.010	-1.635	5%
SATISF_SR ON											
CONFLICT	1.579	-0.066	47%		1.870	0.225	59%		1.756	0.111	54%
TINT	0.441	-1.204	11%		5.342	3.697	100%		2.551	0.906	82%
COXTINT	2.546	0.901	82%		1.048	-0.597	28%		0.403	-1.242	11%
TEAMWRK ON											
OT	2.489	0.844	80%		2.489	0.844	80%		2.489	0.844	80%
SELFMAN	0.16	-1.485	7%		0.160	-1.485	7%		0.160	-1.485	7%
OTXSM	-0.874	-0.771	22%		-0.874	-0.771	22%		-0.874	-0.771	22%
PROD_SR ON											
TEAMWRK	5.008	3.363	100%		4.370	2.725	100%		4.572	2.927	100%
TINT	1.963	0.318	62%		2.514	0.869	81%		3.569	1.924	97%
TEXTINT	0.923	-0.722	24%		0.811	-0.834	20%		0.335	-1.31	10%
SATISF_SR ON											
TEAMWRK	2.633	0.988	84%		0.766	-0.879	19%		0.827	-0.818	21%
TINT	-0.339	-1.306	10%		4.302	2.657	100%		2.689	1.044	85%
TEXTINT	-1.874	0.229	59%		-2.073	0.428	67%		-2.757	1.112	87%

Notes:

*OT=Overtime; SELFMAN=Self-management; OTXSM=Overtime*Self-management; *_SR=Self-Report; TINT=Task Interdependence; *XTINT = * TINT=Task Interdependence; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; PROD= Productivity; TEAMWRK=Teamwork; PROMOT=Promotion; ; FAT = Fatigue; AB= Absenteeism; CO=Conflict; Tea=Teamwork; CREA = Creativity; PRO=Productivity*

Figure 6.1. Power Analysis (Study 1) (Continued)

	t-stat	Z(1-B)	Power		t-stat	Z(1-B)	Power		t-stat	Z(1-B)	Power
CREAT_SR ON											
OT	0.068	-1.577	6%		0.068	-1.577	6%		0.068	-1.577	6%
SELFMAN	3.707	2.062	98%		3.707	2.062	98%		3.707	2.062	98%
OTXSM	0.506	-1.139	13%		0.506	-1.139	13%		0.506	-1.139	13%
PROD_SR ON											
CREAT_SR	9.645	8	100%		9.564	7.919	100%		9.450	7.805	100%
TINT	0.776	-0.869	19%		2.288	0.643	74%		3.263	1.618	95%
CRXTINT	2.225	0.58	72%		1.508	-0.137	45%		1.432	-0.213	42%
SATISF_SR ON											
CREAT_SR	3.558	1.913	97%		3.013	1.368	91%		3.586	1.941	97%
TINT	-0.679	-0.966	17%		3.301	1.656	95%		2.131	0.486	69%
CRXTINT	-2.434	0.789	78%		-2.462	0.817	79%		-1.438	-0.207	42%
PROMOT ON											
OT	-0.8	-0.845	20%		-0.800	-0.845	20%		-0.800	-0.845	20%
SELFMAN	3.056	1.411	92%		3.056	1.411	92%		3.056	1.411	92%
OTXSM	0.596	-1.049	15%		0.596	-1.049	15%		0.596	-1.049	15%
PROD_SR ON											
PROMOT	4.934	3.289	100%		4.633	2.988	100%		5.042	3.397	100%
TINT	2.607	0.962	83%		3.102	1.457	93%		4.350	2.705	100%
PROXTINT	-1.254	-0.391	35%		-1.162	-0.483	31%		0.620	-1.025	15%
SATISF_SR ON											
PROMOT	7.786	6.141	100%		7.295	5.65	100%		7.274	5.629	100%
TINT	-0.281	-1.364	9%		4.192	2.547	99%		2.141	0.496	69%
PROXTINT	1.962	0.317	62%		1.722	0.077	53%		2.020	0.375	65%
		Task Inter.	50%			Reward Inter.	59%			Punishment Inter.	55%
			Hence, the power of Study 1 :			55%					

Notes:

*OT=Overtime; SELFMAN=Self-management; OTXSM=Overtime*Self-management; *_SR=Self-Report; TINT=Task Interdependence; *XTINT = *TINT=Task Interdependence; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; PROD=Productivity; TEAMWRK=Teamwork; PROMOT=Promotion; ; FAT = Fatigue; AB= Absenteeism; CO=Conflict; Tea=Teamwork; CREA = Creativity; PRO=Productivity*

Figure 6.2. Power Analysis (Study 2)

	t-stat	Z(1-B)	Power		t-stat	Z(1-B)	Power		t-stat	Z(1-B)	Power
FATIGUE ON											
OT	9.15	7.505	100%		9.150	7.505	100%		9.150	7.505	100%
SELFMAN	5.656	4.011	100%		5.656	4.011	100%		5.656	4.011	100%
OTXSM	-3.24	1.595	94%		-3.240	1.595	94%		-3.240	1.595	94%
PRODUCT ON											
FATIGUE	-1.955	0.31	62%		-3.094	1.449	93%		-2.839	1.194	88%
PINT	-2.526	0.881	81%		4.151	2.506	99%		4.460	2.815	100%
FATXPINT	2.008	0.363	64%		3.662	2.017	98%		2.048	0.403	66%
SATISF ON											
FATIGUE	-2.1	0.455	68%		-1.926	0.281	61%		-2.026	0.381	65%
PINT	-1.307	-0.338	37%		3.380	1.735	96%		3.516	1.871	97%
FATXPINT	2.202	0.557	71%		2.202	0.557	71%		1.134	-0.511	30%
ABSENT ON											
OT	0.897	-0.748	23%		0.897	-0.748	23%		0.897	-0.748	23%
SELFMAN	0.164	-1.481	7%		0.164	-1.481	7%		0.164	-1.481	7%
OTXSM	1.018	-0.627	27%		1.018	-0.627	27%		1.018	-0.627	27%
PRODUCT ON											
ABSENT	-1.701	0.056	52%		-1.629	-0.016	49%		-1.471	-0.174	43%
PINT	-2.714	1.069	86%		-3.226	1.581	94%		-4.226	2.581	100%
ABXPINT	-1.728	0.083	53%		-0.854	-0.791	21%		-1.728	0.083	53%
SATISF ON											
ABSENT	-2.06	0.415	66%		-2.146	0.501	69%		-2.060	0.415	66%
PINT	-1.564	-0.081	47%		1.568	-0.077	47%		-1.759	0.114	55%
ABXPINT	-0.646	-0.999	16%		1.393	-0.252	40%		-0.953	-0.692	24%
CONFLICT ON											
OT	-0.457	-1.188	12%		-0.725	-0.92	18%		-0.684	-0.961	17%
SELFMAN	6.16	4.515	100%		6.160	4.515	100%		6.160	4.515	100%
OTXSM	-1.258	-0.387	35%		-1.393	-0.252	40%		-1.789	0.144	56%
PRODUCT ON											
CONFLICT	-4.254	2.609	100%		-4.260	2.615	100%		-4.263	2.618	100%
PINT	-2.257	0.612	73%		-2.782	1.137	87%		-2.257	0.612	73%
COXPINT	0.938	-0.707	24%		-0.789	-0.856	20%		0.938	-0.707	24%
SATISF ON											
CONFLICT	-3.817	2.172	99%		-3.860	2.215	99%		-3.767	2.122	98%
PINT	-0.988	-0.657	26%		0.927	-0.718	24%		-0.955	-0.69	25%
COXPINT	-0.859	-0.786	22%		-0.852	-0.793	21%		-0.978	-0.667	25%
TEAMWRK ON											
OT	4.478	2.833	100%		4.478	2.833	100%		4.478	2.833	100%
SELFMAN	1.492	-0.153	44%		1.492	-0.153	44%		1.492	-0.153	44%
OTXSM	-0.987	-0.658	26%		-0.987	-0.658	26%		-0.844	-0.801	21%
PRODUCT ON											
TEAMWRK	9.696	8.051	100%		9.837	8.192	100%		10.038	8.393	100%
PINT	-1.789	0.144	56%		-3.795	2.15	98%		-3.957	2.312	99%
TEXPINT	-1.899	0.254	60%		-1.589	-0.056	48%		-1.614	-0.031	49%
SATISF ON											
TEAMWRK	5.208	3.563	100%		4.942	3.297	100%		5.247	3.602	100%
PINT	-1.95	0.305	62%		1.536	-0.109	46%		1.758	0.113	54%
TEXPINT	0.987	-0.658	26%		0.996	-0.649	26%		-1.836	0.191	58%

Notes:

*OT=Overtime; SELFMAN=Self-management; OTXSM=Overtime*Self-management; TINT=Task Interdependence; *XTINT = * TINT=Task Interdependence; PROD=Productivity; SATISF=Satisfaction; ABSENT=Absenteeism; PROD= Productivity; TEAMWRK=Teamwork; PROMOT=Promotion; ; FAT = Fatigue; AB= Absenteeism; CO=Conflict; Tea=Teamwork; CREA = Creativity; PRO=Productivity*

APPENDIX D

Summary of Hypotheses

- Hypotheses 1 Overtime work is positively associated with fatigue and stress (1A), absenteeism (1B), and conflict (1C)*
- Hypotheses 2 Overtime work is positively associated with teamwork (2A), creativity (2B), and promotion opportunity (2C)*
- Hypotheses 3 Productivity is negatively associated with fatigue and stress (3A), absenteeism (3B), and conflict (3C)*
- Hypotheses 4 Satisfaction is negatively associated with fatigue and stress (4A), absenteeism (4B), and conflict (4C)*
- Hypotheses 5 Productivity is positively associated with teamwork (5A), creativity (5B), and promotion opportunity (5C)*
- Hypotheses 6 Satisfaction is positively associated with teamwork (6A), creativity (6B), and promotion opportunity (6C)*

Mediating Hypotheses

- Hypothesis 7 The relationship between overtime work and productivity will be mediated by (a) process loss and (b) process gain. Specifically, overtime work will be positively related to process loss and process gain. In turn, process gain will be positively related to productivity and process loss will be negatively related to productivity.*
- Hypothesis 8 The relationship between overtime work and satisfaction will be mediated by (a) process loss and (b) process gain. Specifically, overtime work will be positively related to process loss and process gain. In turn, process gain will be positively related to satisfaction and process loss will be negatively related to satisfaction.*

Moderating Hypotheses

- Hypothesis 9 Self-management in team moderates the relationship between overtime and process loss such that there is a less positive relationship between overtime work and process loss when self-management in teams is high*
- Hypothesis 10 Self-management in team moderates the relationship between overtime and process gain such that there is a more positive relationship between overtime work and process gain when self-management in teams is high.*
- Hypothesis 11 Team interdependence moderates the process loss and productivity relationship such that there is a less negative relationship between process loss and productivity when there is high interdependence in teams.*
- Hypothesis 12 Team interdependence moderates the process loss and satisfaction relationship such that there is a less negative relationship between process loss and satisfaction when there is high interdependence in teams.*
- Hypothesis 13 Team interdependence moderates the process gain and productivity relationship such that there is a more positive relationship between process gain and productivity when there is high interdependence in teams.*

Hypothesis 14 Team interdependence moderates the process gain and satisfaction relationship such that there is a more positive relationship between process gain and satisfaction when there is high interdependence in teams.

Moderated Mediating Hypotheses

Hypothesis 15 The mediated relationship (indirect effect) between overtime work and productivity (through process loss/process gain) is less negative/more positive when there are high interdependence and self-management in teams

Hypothesis 16 The mediated relationship (indirect effect) between overtime work and satisfaction (through process loss/process gain) is less negative/more positive when there are high interdependence and self-management in teams

Survey Questionnaires

1. Demographics

1. What is your gender? (circle one): Male - Female
2. What is your age? _____
3. What is your education level? (circle one)
 - Elementary school
 - Some high school
 - Finished high school
 - Some university (undergrad)
 - University graduate (Undergrad)
 - Graduate degree
4. How long have you worked for your company? _____

2. Psychological Test

Emotions: Indicate to what extent you are feeling this way.

		Very slightly or not at all				Extremely
1.	Interested	1	2	3	4	5 6 7
2.	Distressed	1	2	3	4	5 6 7
3.	Excited	1	2	3	4	5 6 7
4.	Upset	1	2	3	4	5 6 7
5.	Strong	1	2	3	4	5 6 7
6.	Guilty	1	2	3	4	5 6 7
7.	Scared	1	2	3	4	5 6 7
8.	Hostile	1	2	3	4	5 6 7
9.	Enthusiastic	1	2	3	4	5 6 7
10.	Proud	1	2	3	4	5 6 7
11.	Irritable	1	2	3	4	5 6 7
12.	Alert	1	2	3	4	5 6 7
13.	Ashamed	1	2	3	4	5 6 7
14.	Inspired	1	2	3	4	5 6 7
15.	Nervous	1	2	3	4	5 6 7
16.	Determined	1	2	3	4	5 6 7
17.	Attentive	1	2	3	4	5 6 7
18.	Jittery	1	2	3	4	5 6 7
19.	Active	1	2	3	4	5 6 7
20.	Afraid	1	2	3	4	5 6 7

Personality: How accurately can you describe yourself? Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly your same age.

		Strongly Disagree							Strongly Agree							Strongly Disagree							Strongly Agree						
Extroversion	1. Talkative	1	2	3	4	5	6	7	5. Disorganized	1	2	3	4	5	6	7	Stability	1. Unenvious	1	2	3	4	5	6	7				
	2. Extroverted	1	2	3	4	5	6	7	6. Sloppy	1	2	3	4	5	6	7		2. Relaxed	1	2	3	4	5	6	7				
	3. Bold	1	2	3	4	5	6	7	7. Inefficient	1	2	3	4	5	6	7		3. Moody	1	2	3	4	5	6	7				
	4. Energetic	1	2	3	4	5	6	7	8. Careless	1	2	3	4	5	6	7		4. Jealous	1	2	3	4	5	6	7				
	5. Shy	1	2	3	4	5	6	7								5. Temperamental		1	2	3	4	5	6	7					
	6. Quiet	1	2	3	4	5	6	7								6. Envious		1	2	3	4	5	6	7					
	7. Bashful	1	2	3	4	5	6	7								7. Touchy		1	2	3	4	5	6	7					
	8. Withdrawn	1	2	3	4	5	6	7								8. Fretful		1	2	3	4	5	6	7					
Agreeableness	1. Sympathetic	1	2	3	4	5	6	7								Openness													
	2. Warm	1	2	3	4	5	6	7								1. Creative	1	2	3	4	5	6	7						
	3. Kind	1	2	3	4	5	6	7								2. Imaginative	1	2	3	4	5	6	7						
	4. Cooperative	1	2	3	4	5	6	7								3. Philosophical	1	2	3	4	5	6	7						
	5. Cold	1	2	3	4	5	6	7								4. Intellectual	1	2	3	4	5	6	7						
	6. Unsympathetic	1	2	3	4	5	6	7								5. Complex	1	2	3	4	5	6	7						
	7. Rude	1	2	3	4	5	6	7								6. Deep	1	2	3	4	5	6	7						
	8. Harsh	1	2	3	4	5	6	7								7. Uncreative	1	2	3	4	5	6	7						
Conscientiousness	1. Organized	1	2	3	4	5	6	7								8. Unintellectual	1	2	3	4	5	6	7						
	2. Efficient	1	2	3	4	5	6	7																					
	3. Systematic	1	2	3	4	5	6	7																					
	4. Practical	1	2	3	4	5	6	7																					

	Strongly Disagree					Strongly Agree
Whim						
1. I tend to see a toy in everyday things	1	2	3	4	5	6 7
2. I always use objects for fun things they were not designed for	1	2	3	4	5	6 7
3. People can be toys	1	2	3	4	5	6 7
4. Almost everything I have can be a toy	1	2	3	4	5	6 7
5. Everything I interact with can be an object to play with	1	2	3	4	5	6 7
6. I like to do or say things just to see how others react.	1	2	3	4	5	6 7
7. When I'm waiting, I tend to play with whatever is around me	1	2	3	4	5	6 7
Interests	Strongly Disagree					Strongly Agree
1. I seek an active role in the leadership of a group	1	2	3	4	5	6 7
2. I find myself organizing and directing the activities of others	1	2	3	4	5	6 7
3. I strive to gain more control over the events around me at work	1	2	3	4	5	6 7
4. I strive to be "in command" when I am working in a group.	1	2	3	4	5	6 7
5. I avoid trying to influence those around me to see things my way	1	2	3	4	5	6 7
Self-Efficacy	Strongly Disagree					Strongly Agree
1. I will be able to achieve most of the goals that I have set for myself.	1	2	3	4	5	6 7
2. When facing difficult tasks, I am certain that I will accomplish them.	1	2	3	4	5	6 7
3. In general, I think that I can obtain outcomes that are important to me.	1	2	3	4	5	6 7
4. I believe I can succeed at most any endeavor to which I set my mind.	1	2	3	4	5	6 7
5. I will be able to successfully overcome many challenges.	1	2	3	4	5	6 7
6. I am confident that I can perform effectively on many different tasks.	1	2	3	4	5	6 7
7. Compared to other people, I can do most tasks very well.	1	2	3	4	5	6 7
8. Even when things are tough, I can perform quite well.	1	2	3	4	5	6 7
Dominance	Strongly Disagree					Strongly Agree
1. I try to surpass others' accomplishments	1	2	3	4	5	6 7
2. I try to outdo others	1	2	3	4	5	6 7
3. I am quick to correct others	1	2	3	4	5	6 7
4. I impose my will on others	1	2	3	4	5	6 7
5. I demand explanations from others	1	2	3	4	5	6 7
6. I want to control the conversation	1	2	3	4	5	6 7
7. I am not afraid of providing criticism	1	2	3	4	5	6 7
8. I challenge others' points of view	1	2	3	4	5	6 7
9. I lay down the law to others	1	2	3	4	5	6 7
10. I put people under pressure	1	2	3	4	5	6 7
11. I hate to seem pushy	1	2	3	4	5	6 7
Uncertainty Avoidance	Strongly Disagree					Strongly Agree
1. I prefer certainty rather than taking risks at work	1	2	3	4	5	6 7
2. It is better to have job requirements and instructions spelled out in detail so that I know what I am expected to do	1	2	3	4	5	6 7
3. Rules and regulations are important because they tell me what the organization expects of me	1	2	3	4	5	6 7
4. I follow company rules precisely in order to perform well	1	2	3	4	5	6 7
5. I prefer work to have detailed standard operating procedures spelled out to me	1	2	3	4	5	6 7
6. I prefer to have superiors who expect me to follow instructions and procedures closely	1	2	3	4	5	6 7

Social Skills	Strongly Disagree	Strongly Agree
1. I find it easy to put myself in the position of others	1 2 3 4 5 6 7	
2. I am keenly aware of how I am perceived by others	1 2 3 4 5 6 7	
3. In social situations, it is always clear to me exactly what to say and do	1 2 3 4 5 6 7	
4. I am particularly good at sensing the motivations and hidden agendas of others	1 2 3 4 5 6 7	
5. I am good at making myself visible with influential people in my organization	1 2 3 4 5 6 7	
6. I am good at reading others' body language	1 2 3 4 5 6 7	
7. I am able to adjust my behavior and become the type of person dictated by any situation	1 2 3 4 5 6 7	
Self-monitoring	Strongly Disagree	Strongly Agree
1. I would make a good actor	1 2 3 4 5 6 7	
2. I put on a show to impress people	1 2 3 4 5 6 7	
3. I am likely to show off if I get the chance	1 2 3 4 5 6 7	
4. I am the life of the party	1 2 3 4 5 6 7	
5. I am good at making impromptu speeches	1 2 3 4 5 6 7	
6. I like to attract attention	1 2 3 4 5 6 7	
7. I use flattery to get ahead	1 2 3 4 5 6 7	
8. I hate being the center of attention	1 2 3 4 5 6 7	
9. I would not be a good comedian	1 2 3 4 5 6 7	
10. I don't like to draw attention to myself	1 2 3 4 5 6 7	
Perspective-Taking (Davis, 1983)	Does Not Describe Me Well	Describes Me Well
1. Before criticizing somebody, I try to imagine how I would feel if I were in their place	1 2 3 4 5 6 7	
2. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.	1 2 3 4 5 6 7	
3. I sometimes try to understand my friends better by imagining how things look from their perspective	1 2 3 4 5 6 7	
4. I believe that there are two sides to every question and try to look at them both	1 2 3 4 5 6 7	
5. I sometimes find it difficult to see things from the "other guy's" point of view	1 2 3 4 5 6 7	
6. I try to look at everybody's side of a disagreement before I make a decision	1 2 3 4 5 6 7	
7. When I'm upset at someone, I usually try to "put myself in his shoes" for a while	1 2 3 4 5 6 7	
Empathic Concern (Davis, 1983)	Does Not Describe Me Well	Describes Me Well
1. When I see people being taken advantage of, I feel kind of protective towards them	1 2 3 4 5 6 7	
2. When I see people being treated unfairly, I sometimes don't feel very much pity for them	1 2 3 4 5 6 7	
3. I often have tender, concerned feelings for people less fortunate than me	1 2 3 4 5 6 7	
4. I would describe myself as a pretty soft-hearted person	1 2 3 4 5 6 7	
5. Sometimes I don't feel very sorry for other people when they are having problems	1 2 3 4 5 6 7	
6. Other people's misfortunes do not usually disturb me a great deal	1 2 3 4 5 6 7	
7. I am often quite touched by things that I see happen	1 2 3 4 5 6 7	

3. Overwork (Janssen, 2001)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I have to work fast.
2. I have too much work to do.
3. I have to work extra hard to finish a task.
4. I have to work under time pressure.
5. I can do my work in comfort.
6. I can take my time in doing my work.
7. I have to deal with a work backlog.
8. I have problems with the high pace of work.
9. The workload is high

4. Fatigue & Stress

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Physical Fatigue (Shirom & Melamed, 2006)

1. I have no energy.
2. I feel physically drained
3. I feel tired.

Cognitive Fatigue (Shirom & Melamed, 2006)

1. My thinking process is slow.
2. I have difficulty concentrating.
3. I feel I was not thinking clearly.
4. I feel I was not focused in my thinking.

Self-reported stress (Cohen et al., 1983)

1. I am upset because of something that happened unexpectedly
2. I feel nervous and "stressed"
3. I am angry because of things outside my control.
4. I cannot cope with all the things I had to do

5. Absenteeism

Please indicate the extent to which you experience the following:

1	2	3	4	5
None	One Time	Two Times	Three Times	Four time and more

During the last three months, how many different times were you off from regularly scheduled work?

6. Conflict (Pelled et al., 1999)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. My team has differences of opinion.
2. My team-members disagree about how things should be done.
3. My team-members disagree about task and work decisions?
4. Arguments on my team are task-related.
5. There are personality clashes on my team
6. There is tension among members of my team.
7. People get angry while working in my team.
8. There is jealousy or rivalry among members of my team

7. Teamwork (Lim et al., 2006)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. Team members understand the team's task.
2. Team members agree on a strategy to carry out the team task.
3. Team members understand other members' tasks.
4. Tasks in the team are assigned according to individual member's ability.
5. Team members are cross-trained to carry out other members' tasks.
6. Team members are proficient in their own areas.
7. Team members work well together.
8. Team members often disagree with each other on issues faced by the team.
9. Team members trust each other.
10. Team members communicate openly with each other.
11. Team members agree on decisions made in the team.
12. Team members back each other up in carrying out team tasks.

8. Creativity (George & Zhou, 2001)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I suggest new ways to achieve goals or objectives
2. I come up with new and practical ideas to improve performance
3. I search out new technologies, processes, techniques, and/or product ideas*
4. I suggest new ways to increase quality
5. I am a good source of creative ideas
6. I am not afraid to take risks
7. I promote and champion ideas to others*
8. I exhibit creativity on the job when given the opportunity to
9. I develop adequate plans and schedules for the implementation of new ideas*
10. I often have new and innovative ideas
11. I come up with creative solutions to problems
12. I often have a fresh approach to problems
13. I suggest new ways of performing work tasks

9. Promotion Opportunity (Fimian, 1988)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I have adequate promotion and/or advancement opportunities
2. I can progress in my job as rapidly as I like
3. I receive status and respect on my job
4. I receive an adequate salary for the work I do
5. I receive recognition for extra work I do.

10. Hierarchical Leadership (Kerr & Jermier, 1978)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. Because of my ability, experience, training, or job knowledge, I have the competence to act independently of my immediate superior in performance my day-to-day duties.
2. The quantity of work I turn out depends largely on the performance of members of my work group other than my superior.

3. I am dependent on members of my work group other than superior for important organization rewards
4. The quality of work I turn out depends largely on the performance of members of my work group other than my superior.
5. Because of my ability, experience, training or job knowledge, I have the competence to act independently of my immediate superior in performance unusual and unexpected job duties.
6. For feedback about how well I am performing I rely on members of my work group other than my superior
7. I receive very useful information and advice from members of my work group other than my superior
8. My job satisfaction depends to a considerable extent on members of my work group other than my superior

11. Interdependence (Rossi, 2008)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Task Interdependence

1. My job is designed in such a way that I must interact with my co-workers in order to perform effectively.
2. The nature of my job requires me to work together with my co-workers to complete specific tasks.
3. I often need to work directly with my co-workers in order to effectively perform my job.
4. If I do not engage in job-related interactions with my co-workers, it is difficult to adequately perform my job.
5. My job requires me to coordinate my actions with those of my co-workers.
6. I am unable to perform my job effectively if certain co-workers are unavailable.
7. My co-workers and I depend on each other's actions in order to complete our own assignments.

Reward Interdependence

1. I could receive a high pay increase if my performance was average but my coworkers performed exceptionally.
2. My organization focuses on the performance of teams or work units when allocating rewards.
3. My salary increases and/or bonuses I receive for performance depend on the performance of my co-workers.

Punishment

4. I am punished based on the performance of my co-workers, not my individual performance.”
5. It would be difficult for me to receive a high pay increase if my co-workers do not perform well in their jobs
6. In my organization, pay decline and or penalty are often similar in amount for individual within the same team or work group.”

12. Productivity (William & Anderson, 1991)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. Adequately completes assigned duties
2. Fulfils responsibilities specified in job description
3. Performs tasks that are expected of him/her
4. Meets formal performance requirements of the job
5. Engages in activities that will directly affect his/her performance evaluation
6. Neglects aspects of the job he/she is obligated to perform
7. Fails to perform essential duties
8. Helps others who have been absent
9. Helps others who have heavy work loads
10. Assists supervisor with his/her work(when not asked)
11. Takes time to listen to co-workers' problems and worries
12. Goes out of way to help new employees
13. Takes a personal interest in other employees
14. Passes along information to co-workers
15. Attendance at work is above the norm
16. Gives advance notice when unable to come to work
17. Takes undeserved work breaks
18. Great deal of time spent with personal phone conversations
19. Complains about insignificant things at work
20. Conserves and protects organizational property
21. Adheres to informal rules devised to maintain order

13. Satisfaction (Judge et al., 1998; Brayfield & Rothe, 1951)

Please use a number from this scale to indicate your agreement to the following phrases that describe your situation at work

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I feel enthusiastic about my work.
2. I feel fairly satisfied with my job.
3. Every minute of work seems like it will never end.
4. I find real enjoyment in my work.
5. I consider my job rather unpleasant.

Supervisor Questionnaires

14. Creativity

Please indicate your agreement to the following statements

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. He/she suggests new ways to achieve goals or objectives
2. He/she comes up with new and practical ideas to improve performance
3. He/she searches out new technologies, processes, techniques, and/or product ideas*
4. He/she suggests new ways to increase quality
5. He/she is a good source of creative ideas
6. He/she is not afraid to take risks
7. He/she promotes and champions ideas to others*
8. He/she exhibits creativity on the job when given the opportunity to
9. He/she develops adequate plans and schedules for the implementation of new ideas*
10. He/she often has new and innovative ideas
11. He/she comes up with creative solutions to problems
12. He/she often has a fresh approach to problems
13. He/she suggests new ways of performing work tasks

15. Productivity

Please indicate your agreement to the following statements

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. He/she adequately completes assigned duties
2. He/she fulfils responsibilities specified in job description
3. He/she performs tasks that are expected of him/her
4. He/she meets formal performance requirements of the job
5. He/she engages in activities that will directly affect his/her performance evaluation
6. He/she neglects aspects of the job he/she is obligated to perform
7. He/she fails to perform essential duties
8. He/she helps others who have been absent
9. He/she helps others who have heavy work loads
10. He/she assists supervisor with his/her work(when not asked)
11. He/she takes time to listen to co-workers' problems and worries
12. He/she goes out of way to help new employees
13. He/she takes a personal interest in other employees
14. He/she passes along information to co-workers
15. He/she attendance at work is above the norm
16. He/she gives advance notice when unable to come to work
17. He/she takes undeserved work breaks
18. He/she treats deal of time spent with personal phone conversations

- 19. He/she complains about insignificant things at work
- 20. He/she conserves and protects organizational property
- 21. He/she adheres to informal rules devised to maintain order

16. Satisfaction

Please indicate your agreement to the following statements

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

- 1. He/she feels enthusiastic about his/her work.
- 2. He/she feels fairly satisfied with his/her job.
- 3. Every minute of work seems like it will never end.
- 4. He/she finds real enjoyment in his/her work.
- 5. He/she considers his/her job rather unpleasant.

List of Companies whose employees participated in Study 2

No.	COMPANY NAME	REGION	WEBSITE
1	Bao Phuc Medical Company	VN	-
2	FedEx Office Print & Ship Center	US	https://www.fedex.com/en-us/office.html
3	AE Urbia	US	http://www.aeurbia.com/
4	Amazon	US	https://www.amazon.com/
5	American Appliance	US	https://americanappliancerepair.com/
6	Amper TechYeslogies	US	https://www.amper.xyz/
7	Ardor Architect	VN	http://www.ardorarch.com/home.html
8	Arizona State University	US	https://www.asu.edu/
9	Artelia Viet Nam	VN	https://www.arteliagroup.com/en
10	Artian	US	https://theartian.com/
11	Asian Answers	US	https://www.asiaanswers.com/
12	Avant Garde Appraisal Group	US	https://www.agappraisal.ca/
13	BAE Systems	US	https://www.baesystems.com/en/home
14	Bao Long Land	VN	http://baolongland.com.vn/
15	Bebo	US	-
16	Bench Industries	US	https://www.benchindustries.com/
17	Better Business Ideas and Services	US	-
18	Big Wheel	US	http://originalbigwheel.us/CustomerServ.html
19	Brilliant Home Designs	US	-
20	Buena Vista Garden Maintenance	US	https://www.buenavistagardening.org/
21	Burns & McDonnell	US	https://www.burnsmcd.com/
22	California State Buyers	US	-
23	Capitalcorp	US	http://www.thecapitalcorp.com/
24	Captains Of Industry	US	https://www.captainsofindustry.com
25	Caterpillar	US	https://www.caterpillar.com/
26	CBS Interactive	US	https://cbsinteractive.com/
27	CDC	US	https://www.cdc.gov/
28	Central Loan & Finance Company	US	https://www.centralloanatlanta.com/
29	Champion Auto	US	https://championtireandauto.com/
30	Ben Thanh BSH Insurance Company	VN	https://bshc.com.vn/

31	Phat Dat Real Estate Development Corporation	VN	http://www.phatdat.com.vn/
32	Royal Home Company	VN	-
33	ASANZO GROUP JOINT STOCK COMPANY	VN	https://asanzo.vn/
34	Logistic VINA Smart	VN	https://vinasmart.com.vn/
35	Vietnam Investment Consulting & Construction Designing JSC	VN	http://cdcjsc.vn/en/home.h.html
36	Powerwell Viet Nam	VN	http://www.powerwell.com.my/
37	Vu Hien Commercial Service Co. Ltd	VN	-
38	Ngoc Minh Long Commercial Technology Co.Ltd	VN	https://ngocminhlong.com/
39	Lien An Medical Group	VN	https://thuocdantoc.vn/phong-kham-da-khoa-lien-an.html
40	Dai Quang Minh Real-Estate Investment Joint Stock Company	VN	http://www.dqmcorp.vn/
41	DataCorp	US	http://www.datacorp.net/
42	Elan Group of Companies	MM	http://www.elan-group.com/company
43	Endicott Shoes	US	https://www.ejfootwear.com/
44	Esourcing	MM	https://elanlogistics.com/myanmar/
45	FedEx Home Delivery	US	-
46	Firestone Complete Auto Care	US	https://www.firestonecompleteautocare.com/
47	First Choice Garden Maintenance	US	http://firstchoicegardencare.com.au/
48	Gorham/Schaffler, Inc.	US	http://gorhamschaffler.com/
49	Grand Imperial Co; Ltd	MM	https://www.grandimperial.com.mm/
50	Heritage Hotel Group	US	https://www.heritagehotelgroup.com/
51	IEM Companies	MM	https://www.iemmyanmar.com/
52	Industry Intel	US	https://www.industryintel.com/
53	Kentic	US	https://www.kentik.com/
54	Klopfenstein	US	https://www.klopfensteinfurniture.com/
55	Landskip Yard Care	US	-
56	LECADE	VN	http://lecade.com.vn/
57	Marina Motorworks	US	http://marinamotorworksla.com/
58	MB Bank	VN	https://www.mbbank.com.vn/
59	Momentum Engineering	US	http://www.momentumtx.com/
60	Monk Home Improvements	US	https://monkshomeimprovements.com/
61	More Choices Insurance	US	https://morechoicesinsurance.com/
62	Mortgage Smart App	US	-
63	Muirhead	US	https://muirheadfoods.com/index.php
64	NASA	US	https://www.nasa.gov/

65	Newport Design Group	US	https://hoteldesignpartners.com/
66	My Khang Interior Company	VN	http://mykhang.com.vn/
67	ON Semiconductor	US	https://www.onsemi.com/
68	Oregon Ice Cream Co.	US	https://www.oregonicecream.com/
69	Parekh Architects PLLC	US	-
70	PAS Global, LLC	US	https://www.pas.com/
71	PENH Studio, LLC	US	http://www.penhstudio.com/
72	Phunware, Inc	US	https://www.phunware.com/
73	Pro Property Maintenance	US	https://www.propromaintenance.com/
74	Rack N Sack	US	-
75	RFTA	US	http://rftarch.com/index.html
76	Robert Arrington	US	-
77	Salinas Tire	US	https://salinastiresonline.com/
78	Samsung Austin Semiconductor	US	https://www.samsung.com/us/sas/
79	Saturday Matinee	US	-
80	SHB BANK	US	https://www.shbintonline.com/index.html
81	Sherman	US	https://www.sherman-company.com/
82	Shoe Pavilion	US	-
83	Silverwoods	US	http://www.silverwoodcompanies.com/
84	Specialty Restaurant Group	US	https://www.specialtyrestaurants.com/
85	STM Auto Parts	US	-
86	NOVALAND Group	VN	https://www.novaland.com.vn/
87	Taurus paperboard corp sdn bhd		-
88	Team Electronics	US	http://www.teamelectronix.com/
89	TEN GROUP	US	https://www.tenlifestylegroup.com/
90	Texas AirSystems	US	https://www.texasairsystems.com/capabilities/
91	THANH CONG COMPANY	VN	https://www.thanhcong.com.vn/
92	Thorofare	US	https://www.thorofarecapital.com/about/
93	THU ĐỨC HOUSE	VN	http://thuduchouse.vn/
94	TIM VIEC NHANH SERVICE JSC	VN	https://www.timviecnhanh.com/
95	Tn Associates	US	http://www.tnassociatesinc.com/
96	Viettien General Garment Joint Stock Company	VN	-
97	TP BANK	VN	https://tpb.vn/
98	Trex	US	https://www.trex.com/

99	Trimcos	US	-
100	Minh Duc Sun Kids	VN	http://minhducsunkids.com/gioi-thieu/
101	Green Consultancy Company	VN	http://www.congtrinhxanh.net/
102	UnionBanCal Corporation	US	http://www.congtrinhxanh.net/
103	University of Houston	US	https://www.uh.edu/
104	Wal-Mart	US	https://www.walmart.com/

VITA

Dung Vu

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Doctor of Philosophy

Dissertation: TEAM PROCESS, TEAM STRUCTURE, AND TEAM INTERDEPENDENCE: A THEORETICAL MODEL OF THEIR IMPACTS ON PRODUCTIVITY AND SATISFACTION FOR TEAM MEMBERS IN OVERTIME WORK

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