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THE EFFECTS OF INTRATEAM AND INTERTEAM TRUST ON ORGANIZATIONAL OUTCOMES: A MULTILEVEL STUDY

by

ABERE ADANE KASSA

DISSERTATION

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

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Approved By:

Advisor

Date



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DEDICATION

In Loving memory of

my late sister Yewlsew Adane Kassa



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Dedie	cation		ii
Ackn	Acknowledgements		
List o	of Tables		vii
List o	List of Figures		
CHAPTER 1: INTRODUCTION			1
1.1.	Statem	ent of the Problem	2
1.2.	Purpose of the Study		
1.3.	Significance of the Study		
1.4.	Organi	zation of the Study	6
CHAPTER 2: LITERATURE REVIEW			7
2.1.	Overvi	ew	7
2.2.	Research on Trust in Teams		7
	2.2.1.	Definition and Types of Trust	7
	2.2.2.	Theoretical Perspectives Used in Trust Research	11
	2.2.3.	Team Trust and Organizational Outcomes	14
	2.2.4.	Mediating Mechanisms That Link Intrateam Trust and	
		Organizational Outcomes	21
	2.2.5.	Moderators of the Relationship Between Intrateam Trust and Organizational Outcomes	26
СНА	PTER 3	: RESEARCH MODEL AND HYPOTHESES	32
3.1.	1. Intrateam Trust and Organizational Outcomes		
	3.1.1.	Intrateam Trust and Individual Level Outcomes	33

TABLE OF CONTENTS



	3.1.2.	Intrateam Trust and Team Level Outcomes	34
	3.1.3.	Intrateam Trust and Organizational Level Outcomes	36
3.2.	Media	tors of Intrateam Trust-Organizational Outcomes	37
	3.2.1.	Team Reflexivity	38
	3.2.2.	Team Psychological Safety	40
	3.2.3.	Team Behavioral Integration	42
	3.2.4.	Team Learning	46
3.3.	Moder	rators of Intrateam Trust-Organizational Outcomes	49
	3.3.1.	Team Value Congruence	50
	3.3.2.	Team Feedback Seeking Behavior	54
3.4	Interte	am Trust and Organizational Outcomes	59
3.5.	Joint E	Effects of Intrateam and Interteam Trust	62
СН	APTER 4	4: METHOD	65
4.1.	Sampl	e and Data Collection	65
4.2.	Measu	ires	66
	4.2.1.	Independent Variables	66
	4.2.2.	Mediating Variables	67
	4.2.3.	Moderating Variables	68
	4.2.4.	Outcome Variables	69
	4.2.5.	Control variables	71
4.3	Data A	Analysis	72
	4.3.1.	Preliminary Analyses	72
	4.3.2.	Statistical Analysis	76



CHAPTER 5: RESULTS		
5.1. Hypothesis Testing about the Effects of Intrateam Trust	78	
5.2. Hypothesis Testing about the Effects of Interteam Trust	99	
5.3. Hypothesis Testing about the Joint Effects of Intrateam and Interteam Trust	100	
CHAPTER 6: DISCUSSION AND CONCLUSION		
6.1. Summary of the Major Findings	111	
6.2. Contributions of the Study	116	
6.3. Limitations and Future Research Directions	120	
6.4. Conclusion	122	
Appendix: Scales and Items		
References		
Abstract		
Autobiographical Statement		



LIST OF TABLES

Table 1 : Summary of the Study Variables	69
Table 2a : Discriminant Validity of the Mediators	75
Table 2b: Discriminate Validity of Team Level Mediators and Outcomes Reported by Team members	75
Table 3a : Descriptive Statistics and Correlations (Team Level)	82
Table 3b : Descriptive Statistics and Correlations (Unit Level)	84
Table 3c: Descriptive Statistics and Correlations (Individual Level)	85
Table 4a : Multi-Level Regression Results for Predicting the Mediating Role of Team Reflexivity in Intrateam Trust-Individual Level Outcomes Relationship	86
Table 4b : Multi-Level Regression Results for Predicting the Mediating Role of Team Behavioral Integration in Intrateam Trust-Individual Level Outcomes Relationship	87
Table 4c: Multi-Level Regression Results for Predicting the Mediating Role of Team Learning in Intrateam Trust-Individual Level Outcomes Relationship	88
Table 5a : Regression Results for Predicting the Mediating Role of Team Reflexivity in Intrateam Trust-Team Level Outcomes Relationship	89
Table 5b : Regression Results for Predicting the Mediating Role of Team Behavioral Integration in the Intrateam Trust-Team Level Outcomes Relationship	90
Table 5c: Regression Results for Predicting the Mediating Role of Team Learning in the Intrateam Trust-Team Level Outcomes Relationship	91
Table 6a : The Moderating effect of Team Value Congruence on the Intrateam Trust-Team Behavioral Integration Relationship	97
Table 6b : The Moderating effect of Team Feedback Seeking Behavioron the Intrateam Trust-Team Reflexivity and IntrateamTrust-Team Learning Relationships	98



Table 7a : Multi-Level Regression Results for Predicting the MediatingRole of Team Reflexivity Integration in Interteam Trust-Individual Level	
Outcomes	101
Table 7b : Multi-Level Regression Results for Predicting the Mediating Role of Team Behavioral Integration in Interteam Trust-Individual Level	
Outcomes	102
Table 7c: Multi-Level Regression Results for Predicting the Mediating	
Role of Team Learning in Interteam Trust-Individual Level Outcomes	103
Table 8a: Multi-Level Regression Results for Predicting the Mediating	
Role of Team Reflexivity in Interteam Trust-Team Level Outcomes	104
Table 8b: Multi-Level Regression Results for Predicting the Mediating	
Role of Team Behavioral Integration in Interteam Trust-Team Level Outcomes	105
	105
Table 8c : Multi-Level Regression Results for Predicting the Mediating Role of Team Learning in Interteam Trust-Team Level Outcomes	106
	100
Table 9 : The Moderating Effect of Interteam Trust on Intrateam Trust-Mediators Relationship	107
	107
Table 10 : Summary of Hypotheses and Results	108



LIST OF FIGURES

Figure 1:	The Hypothesized (Research) Model	33
Figure 2:	The Moderating Effect of Team Value Congruence on the Relationship between Intrateam Trust and Team Behavioral Integration	96
Figure 3:	The Moderating Effect of Team Feedback Seeking Behavior on the Relationship between Intrateam Trust and Team Reflexivity	97



CHAPTER 1: INTRODUCTION

Trust is considered as one of the vital ingredients in work and interpersonal relationships (Kramer, 1999). It is believed to enhance organizational relationships by increasing the ability of team members to work together (Mayer, Davis, & Schoorman, 1995; McAllister, 1995). Trust is an essential part of teamwork because team tasks require a high level of interdependence among members (Mach, Dolan, & Tzafrir, 2010) such that the mutual dependence generates synergy in the form of cooperation and interaction amongst team members (Fiore, Salas, & Cannon-Bowers, 2001). That is, based on the reasoning that trust serves as a precursor of productive interactions and effective social exchange relationships among team members (Jones & George, 1998) trust is believed to have a constructive effect on team performance.

Trust studies suggest that trust enhances in-role performance (Dirks & Ferrin, 2001, 2002; Rousseau, Sitkin, Burt, & Camerer, 1998), improves organizational citizenship behavior (OCB), reduces counterproductive work behavior such as intention to quit (Colquitt, Scott, & LePine, 2007; Dirks & Ferrin, 2002) and withdrawal (Colquitt, LePine, Zapata, & Wild, 2011), enhances job satisfaction (Dirks & Ferrin, 2002), organizational commitment (Dirks & Ferrin, 2002), and organizational identification (Edwards & Cable, 2009), improves decision making effectiveness (Alge, Wiethoff, & Klein, 2003), enhances creativity (Ford & Gioia, 2000), reduces transactional cost (Dyer & Chu, 2003), facilitates knowledge exchange (Andrews & Delahaye, 2000), and reduces uncertainty at work (Colquitt, LePine, Piccolo, Zapata, & Rich, 2012).

Despite a steady growth in the number of trust studies conducted at the team and organizational levels (e.g., De Jong & Elfring, 2010; Langfred, 2004; Serva, Fuller, & Mayer, 2005), extant trust research primarily has focused on trust at the individual level (e.g., Lewicki,



Tomlinson, & Gillespie, 2006; Mayer et al., 1995; Rousseau et al., 1998). The growth in the trust studies has made significant contributions to our understanding at the individual, team, and organizational level, and there is an increasing accumulation of insights at each respective level (Cao & Lumineau, 2015; De Jong, Dirks, & Gillespie, 2016). In contrast, however, very little progress is being made in terms of cross-level research on trust. One exception is the study by Braun, Peus, Weisweiler, and Frey (2013), who examined the impact of intrateam trust on both team- and individual-level performance. Organizations are multilevel systems, and trust, like other constructs, operates at the individual, team, and organizational levels of analysis (Fulmer & Gelfand, 2012). Although the large body of trust research has uncovered important findings, a study of team trust and specifically, a study that addresses the effects of interteam and intrateam trust is not examined yet. Thus, a study of trust that investigates the effect of team trust on outcomes across multiple levels (individual, team, and organization) is sorely needed.

1.1. Statement of the Problem

The main problem examined in this study is: what are the effects or consequences, mediating mechanisms, and moderators of the relationship between intrateam and interteam trust and individual, team and organizational outcomes. As indicated above, extant research has mainly focused on examining the effects of trust on individual employees (e.g., Brower, Lester, Korsgaard, & Dineen, 2009; Dirks & Skarlicki, 2009; Mayer & Gavin, 2005) with minimal emphasis on its effect on teams and organizations. Those studies that address effects of trust at team and organizational levels mainly focused on the effects of trust at their respective levels without considering the cross-level effects. That is, team trust studies haven't explored the



effects of interteam and intrateam team trust on individual, team and organizational outcomes. Neither are the interactive effects of interteam and intrateam trust haven been studied at all. Therefore, investigating the effects of interteam and intrateam team trust [and their interactive effect] on individual, team and organizational outcomes helps to better understand the dynamics of the relationship between trust in teams and its consequences.

Due to the lack of studies that examine the cross-level effects of trust on organizational outcomes, Mayer & Gavin (2005) call for a research that investigates the relationship between the trust and outcomes by looking at both individual and organizational measures. To this end, this study measured the effects of interteam and intrateam team trust from individuals, teams and organizations using individual, team, and organizational measures of outcomes.

Furthermore, limited past research attempted to examine the potential mechanism through which team trust influences team outcomes (e.g., De Jong & Dirks, 2012; De Jong & Elfring, 2010; Mach et al., 2010). That is, studies explored limited factors or team processes (e.g., team monitoring & team effort, De Jong & Elfring, 2010; team cohesion, Mach et al., 2010; team psychological safety, Madjar & Ortiz-Walters, 2009) as mediators of the team trust-team outcomes relationship. However, it was not clear whether these mediators still work across levels. Thus, this study examined if these mediators (team psychological safety) hold while testing the effect of interteam and intrateam team trust on individual, team and organizational outcomes. In addition, the study investigated the mediating role of two unexplored team processes (team behavioral integration and team learning), and one team process (team reflexivity) about which empirical evidences have been mixed.

Finally, research in organizational behavior show that context does matter. Specifically, Johns (2006) indicated the importance of context in organizational research and suggested that



the influence of context is often unrecognized and that it could reverse the sign of relationships between variables. With few exceptions (e.g., De Jong & Dirks, 2012, team trust asymmetry and team monitoring dissensus; Yakovleva, Reilly, & Werko, 2010, team members' colocation), extant research that examined the relationship between trust in teams and organizational outcomes has failed to address one of the important questions, the context under which trust in teams affect individual, team and organizational outcomes. Thus, this study examined how team value congruence and team feedback-seeking behavior moderate the relationship between intrateam trust and organizational outcomes through the team processes.

1.2. Purpose of the Study

The major purpose of this study was to examine the individual and interactive effects of interteam and intrateam team trust on individual, team and organizational outcomes. In addition, the potential mediating mechanisms that link intrateam and interteam trust to outcomes were examined. Further, the contextual factors affecting the above relationships were investigated. Overall, based on these study objectives, the following research questions were addressed: What are the effects of intrateam team trust on individual, team and organizational outcomes? What are the effects of interteam trust be on individual, team and organizational outcomes? What are the joint (interactive) effects of intrateam team and interteam trust be on individual, team and organizational outcomes? Do team psychological safety, team learning, team reflexivity, and team behavioral integration mediate the effect of intrateam and interteam trust on organizational outcomes? How do team value congruence and team feedback seeking behavior moderate the intrateam and interteam trust-outcomes relationship?



1.3. Significance of the Study

Through the multitude of team trust studies, considerable progress has been made with respect to understanding the effects of trust on individual, team and organizational outcomes. However, there is very limited research that investigates the concepts of interteam and intrateam trust (and their interplay thereof) and their consequences on individual, team and organizational outcomes in a cross-level study design. In addressing this gap in the literature, this research attempted to identify the consequences, mediating mechanisms and moderators of interteam and intrateam trust on individual, team, and organizational outcomes. By doing so, this dissertation aimed at making the following contributions to the team trust literature.

First, previous studies examining trust have focused on studying its effect at a single level at a time. That is, there has been little research that addresses the effect of trust at multiple levels. The focus of the team trust studies had been on the impacts of team trust on team level outcomes. Hence, this dissertation adds to the literature on team trust by investigating a neglected area in team trust research, the effects of intrateam and interteam trust on individual, team, and organizational outcomes using a multilevel study design.

Second, extant research investigating team trust has never tested how interteam and intrateam trust interact to influence individual, team and organizational outcomes. This study would, therefore, shed light on the effects of the interactive or joint effects of interteam and intrateam team trust on organizational outcomes. Specifically, this dissertation examined how interteam trust moderates the effects of intrateam trust on the team processes, which transmit the ultimate effects on organizational outcomes.

Third, past research attempted to examine limited sets of team processes as mechanism through which team trust influences team outcomes (De Jong & Elfring, 2010). That is, extant



studies explored narrow sets of factors as mediators of the team trust-outcomes relationship. Thus, this study contributes to the existing team trust research by identifying additional team processes (team behavioral integration, team learning, and team reflexivity) through which interteam and intrateam team trust influences individual, team and organizational outcomes. Moreover, this study examined whether team psychological safety mediates the relationship between team trust and organizational outcomes across multiple levels.

Finally, context is vital in organizational research. Its effect extends up to reversing the sign and direction of relationships among variables (Johns, 2006). Nevertheless, thus far, very limited sets of moderators that are typically team characteristic have been examined in the team trust research (Fulmer & Gelfand, 2012). Even so, the team characteristic moderators haven't been examined in a cross-level study. This study contributed to the literature by identifying team value congruence and team feedback seeking behavior as potential moderators that shape the effects of interteam and intrateam trust on individual, team, and organizational outcomes.

1.4. Organization of the Study

This dissertation is structured as follows. Chapter two, the literature review, provides a review of the literature on trust and the constructs of (interteam and intrateam) team trust. Chapter three presents the theoretical framework and then discusses the study hypotheses. Chapter four describes the measures, sample, and methodology of the study. Chapter five reports the results of each hypothesis tested. Chapter six discusses the contributions, limitations, and implications of the current research. The study concludes by providing an overall summary of the research.



CHAPTER 2: LITERATURE REVIEW

2.1. Overview

This chapter is divided into four sections. In the first section, a review of the literature on the meaning and the types of team trust will be presented. In the second section, the effect of team trust on individual, team, and organizational outcomes will be reviewed. In the third section, the mechanisms through which trust influences the outcomes (i.e., the mediators) will also be discussed. In the fourth section, the moderators of the relationship between team trust and organizational outcomes will be highlighted. Finally, the gaps in the literature will be outlined.

2.2. Research on Trust in Teams

2.2.1. Definition and Types of Trust

A review of the literature reveals that there are various definitions of trust often due to the multitude of disciplines-organizational behavior, human resources management, psychology, social psychology, information technology/systems, economics, sociology, strategy, etc. - in which the concept has been studied and used. Here, trust is used in the context of interpersonal and social relationships in organizational setting. In their seminal work, Mayer et al. (1995) define trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p. 712). Rousseau et al. (1998) define trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (p. 395). Similarly, Jones and George (1998) define trust as "an expression of confidence between the parties in an exchange of some kind - confidence that they will not be harmed or put at risk by the actions of the other party or confidence that no party to the exchange will exploit the other's vulnerability" (pp. 531-



532). In a similar vein, Lewicki, McAllister, and Bies (1998) define trust as an individual's confidence and willingness to act based on words, actions, and decisions of another.

All in all, trust is understood as the confidence that one party (the trustor) has in the other party (the trustee) to behave in a certain way such that the trustor willingly forsakes control over the actions performed by the trustee without fear of being taken advantage of. Hence, trust is considered as a behavioral deterrent of opportunistic behavior (Lado, Dant & Tekleab, 2008). The confident expectation of the trustor and thereby the willingness exhibited to be vulnerable to the actions of the trustee are taken as vital components in the definition of trust (Rousseau et al., 1998). As correctly pinpointed by Lado et al (2008), since trust is used in the context of interpersonal and social relationships in organizations, it is considered as an element of exchange relationship, not a characteristic of a particular exchange party.

In organizations, trust can be studied at different levels such as at an individual level (interpersonal trust), team level (intrateam and interteam trust), and organizational level (interorganizational trust). Because this dissertation focuses on examining trust at the team level, this section of the dissertation primarily provides a review of the literature on team (both intrateam and interteam) trust.

In the team trust literature, trust is mainly classified into two types; namely, intrateam trust and interteam trust. Intrateam trust is defined as "shared generalized perceptions of trust that team members have in their fellow teammates" (De Jong & Elfring, 2010, p. 536). That is, intrateam trust represents the aggregate levels of trust that team members have in their teammates (Langfred, 2004). The shared perceptions in intrateam trust develop because of team membership and social categorization processes (Williams, 2001), team members' collective "sense-making" about their shared experiences (Shamir & Lapidot, 2003), and contextual factors



that reassure team members and constrain their interactions (McKnight, Cummings, & Chervany, 1998).

Interteam trust may be defined as "a shared belief by members of a focal team about how willing that team is to be vulnerable to a target (i.e., trustee) team" (Serva et al., 2005, p. 627). In other words, interteam trust refers to a "collectively held" confidence in another team (Zaheer, McEvily, & Perrone, 1998). Extending Mayer et al.'s (1995) definition of individual trust to the team level, we can define interteam trust as the willingness of one team to be vulnerable to the actions of another team based on the expectation that the other team will perform what is required, irrespective of the ability to monitor or control that other team. In a nutshell, while intrateam trust is concerned with the degree to which members of a given team do develop confidence in their own team, interteam trust focuses on the extent to which members of a given team collectively trusts the members of another team.

The question "Why do people trust?" is fundamental in trust research. The answer lies in the discussion of the two bases of trust: affect and cognition (Chua, Ingram, & Morris, 2008; McAllister, 1995). Using these two bases McAllister (1995) developed a conceptual framework that distinguishes two types of trust: affect-based trust and cognition-based trust. Affect-based trust refers to the "emotional bonds between individuals" that are grounded in expressions of "genuine care and concern for the welfare" of the other party (McAllister, 1995, p. 26). It emphasizes compassion, attachment, self-disclosure, and affinity based on shared concern for the other person (Chua et al., 2008; Schaubroeck, Lam, & Peng, 2011). Affect-based trust, therefore, is "trust 'from the heart', a bond that arises from one's own emotions and sense of the other's feelings and motives" (Chua et al., 2008, p. 437). In this type of trust, the trusting parties are emotionally involved, and they value the intrinsic virtue of these relationships and believe that



these feelings will be reciprocated (Guinot, Chiva, & Mallen, 2013). In affect-based trust, social interactions are the foundations for the formation (Ng & Chua, 2006), mutual exhibition of care and concern are the main indicators (Zhu, Newman, Miao, & Hooke, 2013), and the emotional ties provide the linkage between the trusting parties (Chowdhury, 2005).

Cognition-based trust, on the other hand, refers to trust that is based on performancerelevant cognitions such as competence, responsibility, reliability, and dependability (McAllister, 1995; Schaubroeck et al., 2011). That is, cognition-based trust refers to trust 'from the head', a judgment based on evidence of another's competence and reliability" (Chua et al., 2008, p. 437). It is an instrumental and calculative inference that one makes from information about the other's behavior under specific circumstances (Chua et al., 2008). Cognitive-based trust arises from an accumulated knowledge that allows the trustor to predict, with some level of confidence, about the likelihood that the trustee will live up to his/her obligations (Johnson & Grayson, 2005). It is pivoted on the assessment of the other's performance history (Ng & Chua, 2006). Therefore, the basis of cognition-based trust is cognitive reasoning (Chowdhury, 2005). Cognitive-based trust impacts people's attitudes by making them feel more confident in the competence of the other person or party to meet or exceed expected performance targets (Zhu et al., 2013). Together, the two bases of trust suggest that rational expectations about another party's behavior and/or emotional rapport with the other party are the cornerstones for developing trust in another party (Ng & Chua, 2006).

In summary, trust is understood as a firm belief that one party (trustor) has in the other party (trustee) to act to the best interest of him or her (the trustor) to the best of the trustee's ability. This confidence might be between individuals (interpersonal trust), between group or team of individuals (team/group trust), between organizations (organizational trust), or a



combination of these different levels. The literature on team trust also identified two main types of team trust (viz., intrateam trust and interteam trust) and two bases of trust has two bases (cognition and affect), which affect outcomes differentially.

2.2.2. Theoretical Perspectives Used in Trust Research

In the trust literature, numerous theoretical perspectives have also been used to explain the effect of trust on outcomes, including but not limited to, social exchange theory, the conservation of resources theory, the transactional cost approach, and social identity theory. Of these, the social exchange theory has been the most prominently used perspective across different study contexts. Thus, below a broader description of the social exchange theory along with a brief discussion of the other theories is provided.

The Social Exchange Theory: the social exchange theory (Blau, 1964) suggests that one party trusts another party based on what he or she puts into and what he or she receives in a return from a relationship (Fulmer & Gelfand, 2012). Manager-subordinate relationship is one of the most defining characteristics of organizations, and it is one of the most common forms of relationship in organizations. In this type of relationship (i.e., working relationship between employees and a manager), social exchange theory suggests that when subordinates trust their managers, they become more willing to put in extra effort toward their job, develop more favorable attitudes toward the exchange relationship (Brower et al., 2009; Dirks & Skarlicki, 2009; Mayer & Gavin, 2005), become more likely to initiate and be engaged in exchange relations, which ultimately allow him or her to perform better (Dirks & Skarlicki, 2009). Moreover, the theory suggests that performance of subordinates engaged in a trustful relationship would improve since they are not distracted by concerns about being taken advantage of by their untrustworthy managers (Mayer & Gavin, 2005) as the trust they have formed helps them



suspend the uncertainty about the manager's actions (De Jong & Elfring, 2010; Lado et al., 2008). In addition, when employees trust their managers, they develop strong bonds which results in more efficient coordination of tasks (Blatt, 2009; Lado et al., 2008), flexibility to make changes to unforeseen circumstances (Lewicki & Bunker, 1996), cooperative problem solving (Hempel, Zhang, & Tjosvold, 2009; Ferrin, Bligh, & Kohles, 2008), open and collaborative communication, greater levels of commitment, and high physical, psychological and emotional investment (Lewicki & Bunker, 1996; McAllister, 1995) which all lead to better outcomes.

Similarly, when managers trust their subordinates, the managers are more likely to be generous to their subordinates that in turn enhances subordinates' self-esteem (Pierce & Gardner, 2004), pride (Baer, Dhensa-Kahlon, Colquitt, Rodell, Outlaw, & Long, 2015), and job satisfaction (Ambrose & Schminke, 2003). Thus, subordinates would be more motivated to perform better and become more loyal to their organization (Brower et al., 2009) with less intention to be involved in dysfunctional behaviors such as intention to quit (Dirks & Ferrin, 2002; Jiang & Probst, 2015) and withdrawal (Colquitt et al., 2011). Besides, the social exchange theory suggests that when subordinates trust their managers, they develop a feeling of obligation to reciprocate the 'favor' (Cropanzano & Mitchell, 2005). In addition, the expectations of future benefits would encourage trusting subordinates to engage in actions that preserve the relationship (Dirks & Skarlicki, 2009).

Note that the above explanation of how social exchange theory is used to explain how trust helps people to suspend the uncertainty and to focus on the task, to engage in a functional behavior, to become more loyal to the relationship, and to reciprocate favorable treatments, and ultimately to become more productive applies in any other form of work relationship such as



between coworkers, among team members, between teams, and between employees and their employing organization.

The Transactional Cost Economics Theory: The transaction cost economics (TCE, Williamson, 1985) theory is another important theoretical perspective that has been used to explain the effect of trust on organizational outcomes. The theory suggests that in establishing relationships and conducting transactions, firms (and individuals) incur three categories of costs: search and information cost, bargaining and contact formulation costs and policing and contract reinforcement costs (Williamson, 1985). Williamson (1979) identified opportunistic behavior as one of the determinants of transaction costs. With respect to trust, the TCE theory suggests that high (vs. low) trust has the advantage of curtailing, if not eliminating, the costs of 'opportunism'intentional efforts to exploit circumstances for self-interest without regard to others' interest (Williamson, 1985)- 'ex ante and ex post'. Ex ante, trust reduces costs of 'initiating and writing extensive contracts' intended to curtail opportunism, and ex post, trust reduces the costs of 'monitoring, modifying, and enforcing the terms of the exchange contract' (Lado et al., 2008, p. 404). Thus, trust plays a transaction-cost-reducing role (Boersma, Buckley, & Ghauri, 2003). In line with this, for instance, Lado et al. (2008) hypothesized and found empirical support for the argument that trust reduces the transaction costs involved in governing interfirm relationships.

The Conservation of Resources Theory: The conservation of resources (COR) theory (Hobfoll, 1989) is another important theoretical perspective that has been used to explain the effect of trust on organizational outcomes. Almost always, employees' valuable resources are of limited availability (Kanfer & Ackerman, 1989). The COR theory suggests that individuals need to protect and preserve those resources that they value (Hobfoll, Freedy Lane, & Geller, 1990). One's level of trust in his/her teammates affects his or her outcomes including performance. This



is because individuals who trust others (vs. those who do not) expend fewer resources covering their backside (Dirks & Skarlicki, 2009) and can focus their attention on performance (Colquitt et al., 2011; Mayer & Gavin, 2005). However, if employees do not trust their coworkers, they get distracted and spend their time and attention behaving defensively and away from their jobs (McAllister, 1995).

The Social Identity Theory: The social identity theory (Tajfel & Turner, 1985) is another important theoretical perspective that has been used to explain the effect of trust on organizational outcomes. The social identity theory suggests that people do have a strong desire to identify themselves with a given social category or group (Tajfel & Turner, 1985). Because individuals strive to maintain a positive view of the self, they tend to trust the group members they belong to more (Fulmer & Gelfand, 2012). Individuals' desire to be part of a given social category or group is partly driven by their desire to reduce subjective uncertainty (Han & Harms, 2010). Trust helps people suspend uncertainty about and vulnerability towards their fellow teammates, thereby allowing them to interact with their teammates as if this uncertainty and vulnerability were favorably resolved (De Jong & Elfring, 2010), enabling them to work together more effectively and efficiently (Dirks, 1999).

2.2.3. Team Trust and Organizational Outcomes

Scholars from various time periods and a diversity of disciplines seem to agree that trust is highly beneficial to the functioning of organizations. For example, early organizational scholars stated trust to be an important hall-mark of effective organizations (e.g., Argyris, 1962, McGregor, 1967). Then, decades of empirical research that followed have highlighted the central role of trust in organizations. At the micro level, trust has been linked to outcomes such as employee satisfaction (Edwards & Cable, 2009), effort and performance (Colquitt et al., 2007),



citizenship behavior (Mayer & Gavin, 2005), collaboration and teamwork (Sargent & Waters, 2004), leadership effectiveness (Dirks & Ferrin, 2002; Gillespie & Mann, 2004), human resource management perceptions (Graham & Tarbell, 2006), and negotiation success (Olekalns & Smith, 2007). At the macro level, trust has been credited as a driving force in organizational change and survival (Sonpar, Handelman, & Dastmalchian, 2009), entrepreneurship (Blatt, 2009), strategic alliances (Fryxell, Dooley, & Vryza, 2002; Ireland, Hitt, & Vaidyanath, 2002), mergers and acquisitions (Maguire & Phillips, 2008), international alliances/partnership performance (e Silva, Bradley, & Sousa, 2012), and even national-level economic health (Fukuyama, 1995). The following sections provide summaries of research on the consequences of team trust delineating between intrateam trust and interteam trust.

2.2.3.1. Intrateam trust and organizational outcomes

Due to the popularity of teams in organizations, scholarly interest in intrateam trust and its implications for organizational outcomes has rapidly increased, resulting in a multitude of studies across different contexts (Braun et al., 2013; Lee, Gillespie, Mann, & Wearing, 2010). Despite an abundance of findings, research on intrateam trust and organizational outcomes has yielded mixed results with effect sizes varying substantially in magnitude and direction (De Jong & Elfring, 2010; Aubert & Kelsey, 2003; Langfred, 2004). This has triggered skepticism, with scholars questioning whether intrateam trust has a main effect on team outcomes at all (Dirks, 1999; Dirks & Ferrin, 2001; Jarvenpaa, Shaw, & Staples, 2004) as well as triggering scholarly attempts to account for mixed findings by examining moderators of the trust-outcomes relationship (De Jong & Dirks, 2012; Langfred, 2004).

Significant contributions to our understanding of trust continue to be made at the individual, team, and organizational level (Fulmer & Gelfand, 2012), and there is an increasing



accumulation of insights at each respective level (Cao & Lumineau, 2015; De Jong, Kroon, & Schilke, in press). However, very little progress is being made in terms of cross-level research on trust. The continued lack of scholarly attention to cross-level effects is surprising, given that trust itself is a multi-level phenomenon (Currall & Inkpen, 2002; De Jong et al., in press) and its antecedents and consequences exist across different levels of analysis (Fulmer & Gelfand, 2012). Cross-level investigations have great potential to advance our understanding of organizational trust, and there are calls for such types of studies in this area (De Jong et al., in press). This dissertation will address this gap by examining the cross-level effects of interteam and intrateam trust [and their interactive effect] on individual, team and organizational outcomes at an individual, team and organizational levels of analyses.

2.2.3.1.1. The effect of intrateam trust on individual level outcomes

Scholarly interest in intrateam trust and its effects on organizational outcomes has rapidly increased for the past several decades (Braun et al., 2013; Lee et al., 2010). Nevertheless, with very few exceptions (e.g., Colquitt et al., 2011; Braun et al., 2013; Parker, Williams, & Turner, 2006) there has been very little research that examines the cross-level effects of team trust on the individual level outcomes (Fulmer & Gelfand, 2012).

Colquitt et al (2011) compared the role of intrateam trust in influencing performance among firefighters in typical task contexts (predictable and less dangerous situations) and "high reliability" task contexts (unpredictable and dangerous situations). They reported that trust in high-reliability task contexts was a more positive predictor of performance when unpredictable and dangerous calls were more frequent. That is, the relationship between trust in teams and performance was stronger when the task contexts were high on unpredictability and danger



compared to when the task contexts were low on these features. This study also found that trust in teams was negatively associated with withdrawal in predictable and safe task contexts and with physical symptoms, such as a headache and digestive problems, in unpredictable and dangerous contexts.

Braun et al.'s (2013) study examined the relationship between transformational leadership, trust in supervisor and team, job satisfaction, and team performance in a multilevel study. They found that transformational leadership was positively related to followers' individual job satisfaction with trust in the supervisor and trust in the team being important mediators of the aforementioned relationship. Parker et al. (2006) tested a model in which personality and work environment antecedents affect proactive work behavior via cognitive-motivational mechanisms. The authors used co-worker trust as one of the work environment antecedents. They found that coworker trust is associated with proactive behavior (operationalized as proactive idea implementation and proactive problem solving) via flexible role orientation.

2.2.3.1.2. The effect of intrateam trust on team level outcomes

Intrateam trust has been linked to a wide range of positive outcomes with team performance being the most important one. As a result, the relationship between intrateam trust and team performance has been a subject of scientific inquiry for a long time. Over that time, the relationship was found to be inconsistent at best with some researchers suggesting a positive relationship (e.g., De Jong & Elfring, 2010; Dirks, 2000) while others suggesting a weak (e.g., Aubert & Kelsey, 2003) or indirect (e.g., Langfred, 2004) relationship. In a meta-analysis involving 112 independent studies (N=7,763 teams) conducted over two decades, De Jong et al. (2016) attempted to resolve these mixed findings relating intrateam trust and team performance. The results of the meta-analytic structural equations modeling analyses show a significant



positive relationship between intrateam trust and performance showing that trust significantly predicts team performance even when team trust in leader and past performance are controlled for. The study also indicates that intrateam trust predicts both effectiveness and efficiency. Specifically, cognition-based trust uniquely predicts both effectiveness and efficiency after controlling for affect-based trust. Affect-based trust uniquely predicted effectiveness, but not efficiency after controlling for cognition-based trust.

Besides performance, researchers have examined the effect of trust on other outcomes. For example, research has examined different components of intrateam trust in leaders. Schaubroeck et al. (2011) suggested that affective team trust in leaders increases team psychological safety while cognitive team trust in leaders increases team potency. Team trust in leaders has also been shown to have a positive effect on team-level sales, profits, and turnover rates, supporting the notion that team trust in leaders provides a competitive advantage (Davis, Schoorman, Mayer, & Tan, 2000). Interestingly, team trust in leaders has been found to be a stronger predictor of team performance than team trust in teams (Dirks, 2000), suggesting divergent effects for team trust in different referents.

Moreover, intrateam trust has been found to increase team-level satisfaction with the team (Costa, 2003), information sharing (Howorth, Westhead, & Wright, 2004), team learning (Bogenrieder & Nooteboom, 2004), team member autonomy and task interdependence (Langfred, 2007), team affective commitment (Costa, 2003), and team OCB and performance (Hempel et al., 2009; Joshi, Pandey, & Han, 2009; Langfred, 2004), collaboration and teamwork (Sargent & Waters, 2004), leadership effectiveness (Dirks & Ferrin, 2002; Gillespie & Mann, 2004). De Jong and Elfring (2010) found that the effect of team trust in teams on performance



was mediated by factors such as team adaptability and team effort, presumably due to an increase in promotion focus among team members.

Intrateam trust also predicts team decision-making effectiveness (McEvily, Perrone, & Zaheer, 2003), but only when the team interdependence is high (Alge et al., 2003). Interteam trust has also been found to increase resource and knowledge exchange (Chowdhury, 2005), which in turn boosts innovation in teams (Tsai & Ghoshal, 1998), but the trust and knowledge exchange relationship is weaker if the knowledge being transferred is unspecified and its function is ambiguous (Szulanski, Cappetta, & Jensen, 2004).

Intrateam trust helps members suspend uncertainty about and vulnerability towards their fellow teammates, thereby allowing them to interact with their teammates as if this uncertainty and vulnerability were favorably resolved (De Jong & Elfring, 2010), enabling them to work together more effectively and efficiently (Dirks, 1999). When team members lack trust, they lose sight of the team's goals and interests and engage in defensive actions aimed at protecting themselves from possible harm by others (Joshi et al., 2009; Mayer & Gavin, 2005). Moreover, studies have found that trust in teams facilitates group buying behaviors (Jing & Xie, 2011), and fosters a collaborative culture that enhances creativity (Barczak, Lassk, & Mulki, 2010).

2.2.3.1.3. The Effect of Intrateam Trust on Organizational Level Outcomes

In recent years, research on the importance of trust in organizations has grown rapidly, and the role of trust in influencing organizational-level outcomes is being acknowledged (Fulmer & Gelfand, 2012). However, so far, no study that examines the effect of team trust on organization-level outcomes has been conducted. Thus, the below paragraphs are a brief summary of how trust (in management and in the organization) affects organization-level outcomes.



Researchers have sought to understand the relationship between trust and organizational outcomes, with performance being the key outcome variable. For example, Davis et al. (2000) found that employees' trust in the general manager of a given restaurant was positively related to the restaurant's sales and net profits. Hodson (2004) argues that organizational trustworthiness (in the form of supportive employment practices and management competence) has a positive effect in enhancing on employees' citizenship behavior and eroding employee-management conflict. Similarly, Collins and Smith (2006) found that trust in organizations, which emanates from commitment-based human resource management practice, enhances organizations' knowledge creation performance (revenue from new products and services and sales growth). Thus, Hodson (2004) and Collins and Smith's (2006) underscore that to the extent human resource management indicates commitment and support, employees are more likely to trust the organization, which leads to better organizational outcomes.

In summary, the literature on trust has revealed that trust has constructive consequences to individual, team and organization level outcomes. Although these reviews indicate how vital trust is in interpersonal and social relationships, the effect of intrateam trust on organizational outcomes across the three levels of analysis is lacking. Thus, further research on how intrateam trust affects individual level, team level, and organizational level outcomes would enable us to better understand the role of intrateam trust in organizations.

2.2.3.2. Interteam trust and Organizational Outcomes

To date, substantial research has been published on team trust. Most of these studies focus on understanding intrateam trust, trust within members of a particular team. Only a few researchers (e.g., Serva et al., 2005; Tsai & Ghoshal, 1998) conducted studies on interteam trust, trust between teams, and its effect on organizational outcomes. Serva et al. (2005) conducted a



longitudinal study on 24 interacting student teams who worked on a 6-week information systems project. The authors found that risk-taking actions exhibited by one team predict the other team's trustworthiness and the resulting trust. The level of trust formed in turn predicts the team's subsequent risk-taking behaviors with respect to the other team. Similarly, Tsai & Ghoshal (1998) conducted a study in a large multinational electronics company and found that interteam trust, which was used as an indicator of relational dimension of social capital, significantly affects (increases) inter-unit knowledge and resource exchange, which in turn had a significant effect on product innovation.

Although Tsai and Ghoshal (1998) and Serva et al.'s (2005) works clearly showed that interteam trust is an essential variable that affects how teams react to the actions of others and vice-versa, so far scholars have neglected to include interteam trust into their research models or make it a focus of their studies. The little attention given to interteam trust is even more startling when we look at the attention given to interorganizational or interfirm trust, which can be defined as trust between independent firms or organizations (Zhong, Su, Peng, & Yang, 2014), and the popularity of interacting teams in organizations.

2.2.4. Mediating mechanisms that link intrateam trust and organizational outcomes

There is a consensus among scholars that trust plays a pivotal role in the effective functioning of teams, groups, organizations and the larger society. Along with the understanding of the criticality of trust in teams and organizations' functioning, scholars have examined several processes that transmit the effects of team trust to outcomes. Since the mediators examined are numerous, for the sake of parsimony, only the most commonly used mediators are discussed hereunder. These (mediators) include team monitoring and team effort (De Jong & Elfring,



2010), team cohesion (Mach et al., 2010), responsibility norms (Salamon & Robinson, 2008), and psychological safety (Madjar & Ortiz-Walters, 2009).

Team monitoring refers to a process of observing the activities and performances of teammates and watching for errors or discrepancies so that performance improvement proposals or corrective action feedbacks can be provided (De Jong & Elfring, 2010; Marks & Panzer, 2004). Generally, team monitoring aims at keeping up to date with and catching up potential mistakes rather than recording mistakes for bad intentions (McAllister, 1995). Team monitoring enables team members to recognize when their teammates need assistance or make mistakes so that they can lend helping hands to teammates (Albon & Jweles, 2014; Marks & Panzer, 2004). Team monitoring is believed to serve as an important function for team regulation and thus for team performance (Marks, Mathieu, & Zaccaro, 2001), particularly in dynamic work environments (Baker, Days, & Salas, 2006).

Team trust positively affects outcomes through team monitoring in such a way that team monitoring based on deep and affective trust promotes performance by reducing the effects of social loafing, channeling the team's effort to focus on fulfilling team goals, and by increasing the awareness of team members to the need to synchronize their contributions in ways that maximize team goal achievement (De Jong & Elfring, 2010; McAllister, 1995). However, team monitoring performed in an environment where trust is low might be unwittingly understood as a "deliberate acts to control fellow teammates" (De Jong & Elfring, 2010, p. 538) towards which team mates may react negatively.

Team effort is defined as "the extent to which team members devote their resources (i.e., energy, attention, time) to executing team tasks" (De Jong & Elfring, 2010, p. 537). Team effort involves sustaining one's drive to exert effort toward team goal achievement, even in the face of



setbacks (Yeo & Neal, 2004). Trust promotes cooperation among team members (Ferrin et al., 2008; Hempel et al., 2009). Over time, trust strengthens the interpersonal bonds between team members. As the bond among teammates matures, they develop a sense of identification amongst themselves that goes above and beyond formal working relationships (Lewicki & Bunker, 1996). The identification team members develop and the strong interpersonal bonds created drive team members to work harder leading the team to become more productive (De Jong & Elfring, 2010). Thus, when team members work harder or put in a higher level of effort, teams become more productive (LePine & Van Dyne, 2001).

Team cohesion refers to the degree to which team members work together and remain united as they pursue the team's goals (Carron, Brawley, & Widmeyer, 1998). It is the degree of sense of belongingness and togetherness that exists in a team (Furumo & Pearson, 2006). When one member views the other as trustworthy and having a genuine interest in the team, cohesion among the members grows (Mach et al., 2010). In an effort to show the role of trust in developing cohesiveness, Fine & Holyfield (1996) calls trust "a fundamental anchoring dimension of cohesiveness" (p. 26).

Empirical studies also underline the role that trust plays in building cohesion. For example, Mach and colleagues (2010) demonstrated the role of trust in building cohesion using data collected from 690 professional elite athletes. Hansen, Morrow, and Batista (2002), using 71 responses from two different marketing co-ops, found a consistently positive relationship between trust and group cohesion. In their study on teachers, Grossman, Wineburg, and Woolworth (2001) conclude that trust is one of the necessary elements to build cohesion. Similarly, Thau, Crossley, Bennett, and Sczesny (2007) conducted a field study of a Dutch healthcare organization and found that trust in organizations is related to workgroup cohesion.



As outlined above, trust creates camaraderie and togetherness among team members. That is, trust helps people to stick together. Because of the affinity and identification that members of a cohesive team develop, members are more cooperative and willing to help each other out (Mullen & Copper, 1994) thereby stimulating team performance (Beal, Cohen, Burke, & McLendon, 2003). Thus, cohesiveness mediates the relationship between team trust and team performance (Mach et al., 2010).

Responsibility norms refer to "employees' shared beliefs regarding the importance of accepting responsibility for organizational outcomes" (Salamon & Robinson, 2008, p. 595). The social exchange theory (Blau, 1964) suggests that when team members are treated fairly, are trusted and supported by their teammates, supervisors, or the entire organization, the reciprocity norm obliges them to return the favor (Rhoades & Eisenberger, 2002), to be less calculative (Scanzoni 1979), to care about the organization's welfare and to help the organization reach its objectives (Rhoades, Eisenberger, & Armeli, 2001). Specifically, when team members perceive that they are trusted, they will act responsibly in a manner that respects the expectations of other team mates and other trusting parties (Deutsch, 1958; Lado et al., 2008).

With the objective of examining employees' perception of the extent to which they are being trusted by management affects organizational performance, Salamon and Robinson (2008) develop and test a model showing that when employees believe that they are being trusted, they develop higher responsibility norms. Besides, Salamon and Robinson found evidence that the responsibility norms mediate the relationship between perceptions of being trusted and sales performance. Accordingly, responsibility norms should be able to mediate the relationship between team trust and organizational outcomes.



Psychological safety refers to "a shared belief held by members of a team that the team is safe for interpersonal risk taking" (Edmondson, 1999, p. 354). Similarly, Kahn (1990) defined psychological safety as employees' sense of "feeling able to show and employ one's self without fear of negative consequences to self-image, status, or career" (p. 708). Generally, people feel safe in situations where they are trusted and that they would not suffer for their personal engagement (Kahn, 1990). In fact, Edmondson (2004) contend that psychological safety and trust are two intrapsychic states that are closely related, but still distinct from one another. They argue that psychological safety describes a climate characterized by interpersonal trust and mutual respect in which people are comfortable being themselves. In so being, psychological safety involves but goes beyond trust. In line with this, Madjar & Ortiz-Walters (2009) conducted a study that examined the relationship between trust (in supervisors) and performance, measured by supervisors' rating. Also, they examined the mediating effect of psychological safety mediates the trust in supervisor-performance links.

In summary, while some scholars focus on the direct effect of team trust on outcomes, others have examined the mechanisms that enable team trust transmit its effect on organizational outcomes. These mediating mechanisms are many and varied. To add to what looks like an impressive list of mediators that have been empirically examined and to clarify the mixed results obtained for some of the mediators (e.g., team reflexivity), this dissertation will investigate how behavioral integration, team learning, team psychological safety, and team reflexivity transmit the effect of team trust to organizational outcomes across multiple levels. In so doing, this dissertation will be able to show how these mediators are operating across multiple levels of analysis.



2.2.5. Moderators of the Relationship Between Intrateam Trust and Organizational Outcomes

Partly due to the mixed results obtained in the relationship between trust and performance, researchers have examined factors that affect the nature of relationship between intrateam trust and outcomes, with team performance being the key variable of interest. Some of the factors considered include characteristics of teams, and types of trust.

Characteristics of teams: Characteristics of teams appear to be an important moderation that affects the nature of relationship between intrateam trust and team performance. Some of the characteristics of teams that have been examined include task interdependence (De Jong & Elfring, 2010; Staples & Webster, 2008), team virtuality (Muethel, Siebdrat, & Hoegl, 2012), temporal stability of teams (Hollenbeck, Beersma & Schouten, 2012), authority differentiation (Edmondson, 2004), and skill differentiation/ Knowledge specificity (Szulanski et al., 2004; Zheng, 2012).

Task interdependence refers to the degree to which individuals are dependent upon and receive support from other team members in order to accomplish work (Thompson, 1967). Task interdependence affects the nature of team processes because it shapes the links among the different roles in the team and the coordination requirements from the team members (Kozlowski, Gully, Nason, &Smith, 1999). Interdependence exists when each individual's outcome is affected by the actions of others (Johnson & Johnson, 1989).

The level of task interdependence varies on a continuum from low to high. The lowest level of interdependence is when each team member contributes to the team output without the need for direct interaction with other team members. In such cases, team performance is measured as the sum of individual performances. On the other hand, when tasks are highly



interdependent, team members must interact with each other to perform the team task, and the individual contributions cannot be separated out (Saavedra, Early, & Van Dyne, 1993). Under this type of high interdependence, the team members commonly have different roles, skills, and resources, and they perform their parts of the task in a flexible order (Katz-Navon & Erez, 2005). Team performance requires mutual interactions and coordination among team members, and the final output cannot be obtained unless all team members interactively collaborate on task completion (Wageman, 1995).

While trust facilitates teamwork (De Jong & Elfring, 2010), the phenomenon of task interdependence requires that such teamwork will only contribute to team performance if it is required for team goal accomplishment (Katz-Navon & Erez, 2005; Staples & Webster, 2008). When task interdependence is high, teamwork is more critical for accomplishing team goals (Alge et al., 2003; Katz-Navon & Erez, 2005), and hence, trust will be more strongly translate into superior performance than when task interdependence is low (De Jong et al., 2016).

Team virtuality refers to the degree to which members use technology to interact across geographic, organizational, or other boundaries (Bierly, Stark, & Kessler, 2009). Team virtuality has three components: reliance on virtual tools; information value; and synchronicity (Kirkman & Mathieu, 2005). Reliance on virtual tools refers to the extent which teams use virtual technologies (i.e., e-mail, video conferencing, chat, document sharing, etc.) to coordinate work activities and to communicate when compared to face-to-face interaction. Informational value refers to how important that information shared between team members is to the success of the virtual team. Synchronicity is concerned with how well the team can support simultaneous communication (e.g., face-to-face interactions and technologies such as video conferencing and instant messaging accommodate interactive immediate exchanges).



While in the traditional or co-located team members work in physical proximity, members in virtual teams work across space, time, and organizational boundaries using a variety of communication technologies (DeSanctis & Monge, 1998). The success and failure of virtual teams is primarily contingent upon *trust*. This is because, with the absence of face-to-face interaction and thereby the chance to monitor each other's progress (Muethel et al., 2012), trust functions like the glue that holds and links virtual teams together (Kanawattanachai & Yoo, 2002). Thus, team virtuality is expected to strengthen the trust-team performance relationship due to increased ambiguity and vulnerability that results from dispersion and technology-mediated communication.

Temporal stability refers to the degree to which team members have a past history of working together and an expectation of working together in the future (Hollenbeck et al., 2012). Newly formed teams are essentially different from matured teams (Kozlowski et al., 1999; Tuckman, 1965). Extant theory and research on temporal stability suggests that mature teams have much higher levels of member familiarity (Harrison, Mohammed, McGrath, Florey, & Vanderstoep, 2003), are much more integrated (Rico, Sánchez-Manzanares, Gil, & Gibson, 2008), and do have performance, learning, and cohesiveness benefits of having gone through a series of performance/feedback cycles (Marks et al., 2001; Mathieu & Button, 1992) over extended time periods than their unstable counterparts.

Matured teams also develop highly shared mental models (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000) and more differentiated transactive memory systems (Moreland & Myaskovsky, 2000) relative to new teams. Having a shared history has been shown to affect the dynamics of teamwork (Beersma, Hollenbeck, Conlon, Humphrey, Moon, & Ilgen, 2009) and teams adapt more or less easily to new situations partly as a result of the nature of their



shared experiences. Still, some of these virtues of maturity are offset by certain liabilities, in the sense that if a highly stable team seems to lack creativity or is experiencing the typical problems associated with groupthink (Janis, 1982), then the team might benefit from breaking up the unit and reforming into different teams (Hollenbeck et al., 2012).

Established working relationship with others enables people to develop trust on others (Gulati, 1995). This is because the shared history created and familiarity formed among team members enables members to develop trust amongst themselves (Uzzi, 1997). Dependence on others for an extended period of time heightens team members' vulnerability to each other and allows the impact of (a lack of) trust to accumulate over time (Zand, 1972). Short-lived teams, however, are more interested in work-related issues than in developing and maintaining trusting relationships due to the understanding of the team's finite existence (Karau & Kelly, 2004).

Authority differentiation refers to "the degree to which decision-making responsibility is vested in individual members, subgroups of the team, or the collective as a whole" (Hollenbeck et al., 2012, p. 84). Authority differentiation, thus, is concerned with who has responsibility for making decisions in the face of disagreement or conflict. In authority-differentiated teams, a subset of members makes decisions on behalf of their team. In this situation, high- authority members depend on others to provide them with the information needed to make good decisions and rely on them to implement those decisions. Low-authority members rely on high-authority members to feel safe sharing information and opinions (Edmondson, 2004) and to accept others' decisions (Zand, 1972). Trust mitigates high-authority members' tendency to discount input provided by low-authority counterparts (Tost, Gino, & Larrick, 2012).



Skill differentiation captures the degree to which employees do have unique sets of skills and abilities such that it is difficult to substitute members with one another (Hollenbeck et al., 2012). Skill differentiation, thus, refers to specific functional responsibility of the individuals in the team. In skill-differentiated teams, members hold highly specialized, unique skills and knowledge such that other members heavily rely on others' unique knowledge and skills to perform well as a team. The dependence on others' unique knowledge also limits the ability of the team members to accurately assess their teammates' knowledge and contributions, thus making them vulnerable (Szulanski et al., 2004). Trust increases members' willingness to share their skills and knowledge in ways that benefit the team (Zheng, 2012), and to work through interpretational differences to enable effective integration of members' inputs (Cronin, Bezrukova, Weingart, & Tinsley, 2007). Trust is less critical for low skill-differentiated teams because members' knowledge and skills are largely substitutable and redundant. Members are therefore less dependent on any single teammate, making trust less critical for team performance (De Jong et al., 2016).

Type of trust: As discussed above, trust is a multi-dimensional construct. One of the most commonly used taxonomies is McAllister's (1995) categorization between cognitive and affective dimensions of trust. Cognition-based trust and affect-based trust are viewed as both conceptually and functionally distinct (De Jong et al., 2016; McAllister, 1995; Schaubroeck et al., 2011). Conceptually, while affect-based trust is more of emotion-based that is grounded in exhibiting emotive investment, cognition-based trust is reason-based centered on demonstrated competence to fulfil obligations. Functionally, affect-based trust affects the outcomes by enabling members feel at ease to discuss even sensitive issues, enhance team cohesiveness, and maintain positive team spirit which ultimately translates to better outcomes. On the other hand,



cognition-based trust affects outcomes by strengthening members' confidence about the capacity of the team to achieve its goals (De Jong et al., 2016). Noting the above differences, recently, Schaubroeck et al. (2011) conducted an empirical study using a sample of 191 financial services teams in Hong Kong and the U.S. The result indicates that affect-based team trust enhances team psychological safety, while cognitive based trust in teams increases team potency.

As discussed above, partly due to the mixed results obtained in the relationship between team trust and outcomes, researchers have examined several moderators that either strengthen or weaken these relationships. Such studies help us have a better understanding of the circumstances under which team trust affects outcomes. However, such moderators haven't been examined in a cross-level study. Hence, this dissertation will address this gap in the literature and attempt to examine the moderating effect of five team level moderators (team size, team longevity/stability, goal congruence, team performance feedback, and team potency) in how team trust affects individual level, team level, and organizational level outcomes.

In summary, through the multitude of team trust studies, considerable progress has been made with respect to understanding the effects of trust on individual, team and organizational outcomes. However, there is still limited research that investigates the concepts of interteam and intrateam team trust (and their interplay thereof) and their consequences on individual, team and organizational outcomes in a multilevel perspective. In addressing this gap in the literature, this dissertation attempts to identify the consequences, mediating mechanisms and moderators of interteam and intrateam team trust on individual, team, and organizational outcomes.



CHAPTER 3: RESEARCH MODEL AND HYPOTHESES

As indicated in previous chapters, this research attempts to explore the effects or consequences, mediators and moderators of intrateam and interteam trust on organizational outcomes from a multilevel perspective. In this section, I develop a conceptual model of how team trust, both intrateam and interteam, affects organizational outcomes. The model delineates: (1) how intrateam trust affects individual, team, and organizational level outcomes through team processes; (2) how interteam trust affects individual, team, and organizational level outcomes through team processes; (3) how interteam trust moderates the effects of intrateam trust on outcomes at the individual, team and organizational levels; (4) how other team processes (i.e., team value congruence and team feedback-seeking behavior) moderate the relationship between intrateam trust and outcomes at the individual, team, and organizational levels. Figure 1 below depicts the research model for the dissertation.

3.1. Intrateam Trust and Organizational Outcomes

Trust plays a crucial role in initiating, establishing, and maintaining relationships in social interactions and organizational relationships (Balliet & Van Lange, 2013). It is considered as a glue that holds relationships together (Caldwell & Dixon, 2010). The contributions of trust in organizations range from inducing individual employees to perform better and engage in other productive workplace behaviors (De Dreu, 2007; Mayer & Gavin, 2005) to enhancing team productivity (De Jong et al., 2016; Jiang & Probst, 2015) and ultimately facilitating fulfillment of the organizational goals (Davis et al., 2000). This section focuses on examining the effects of intrateam trust on organizational outcomes. To that end, in the next sections I will discuss the effects of intrateam trust on outcomes and then present study hypotheses.



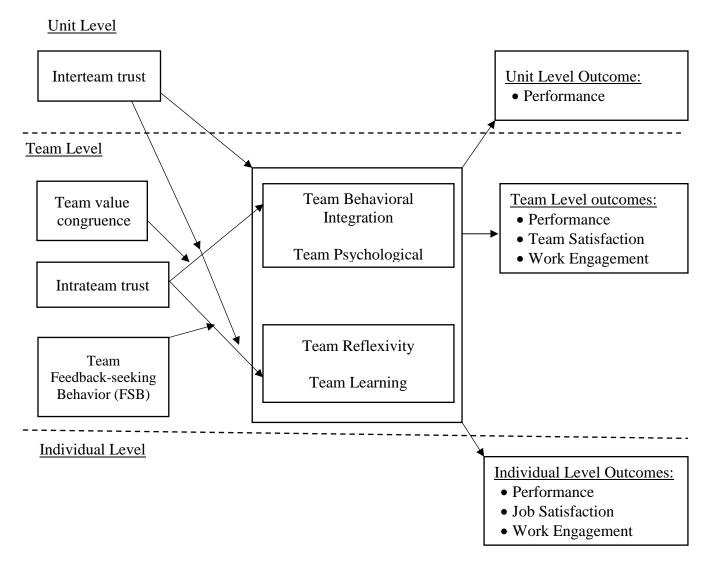


Figure 1: The Effects of Team Trust on Organizational Outcomes

3.1.1. Intrateam Trust and Individual Level Outcomes

Extant research at an individual level indicates that interpersonal trust enhances employee satisfaction (Edwards & Cable, 2009), job performance (Colquitt et al., 2007; Colquitt et al., 2011), and work engagement (Bakker & Demerouti, 2007; Chughtai & Buckley, 2013; Jiang & Probst, 2015). The social exchange theory (Blau, 1964) and norm of reciprocity (Gouldner, 1960) provide theoretical arguments for these effects. Specifically, these theories suggest that when individuals trust one another, they reciprocate in various forms, including developing more



favorable attitudes among themselves (Mayer & Gavin, 2005), putting in extra effort and other resources to develop and maintain the relationship (Brower et al., 2009), spending more time on required tasks (Konovsky & Pugh, 1994), and being more productive (Dirks & Skarlicki, 2009). Owing to the social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), I argue here that intrateam trust would have similar effect on individual level outcomes. That is, when there is trust in a team, team members believe that other teammates are honest, do have integrity, and may not take advantage of fellow teammates (Lado et al., 2008); thus, team memebrs become committed to the team goals (Dirks & Ferrin, 2002), loyal to the employing organization (Brower et al., 2009), and engaged in their work (Bakker & Demerouti, 2007). Similarly, when there is high trust among teammates, they develop similar trust-related schemas about the trustworthiness of the team and interpret trust-related events in similar ways (Dionne, Sayama, Hao, & Bush, 2010), develop a sense of belongingness to the team (Den Hartog, De Hoogh, & Keegan, 2007), and actively share resources among themselves (Dirks & Skarlicki, 2009). The shared mental models and sense of belongingness help team members to be more satisfied (Braun et al., 2013), more engaged (Jiang & Probst, 2015) and become more productive (Colquitt et al., 2011). Consequently, based on the social exchange theory and the above literature, I propose:

Hypothesis 1: Intrateam trust is positively related to team members' individual job performance, job satisfaction, and work engagements.

3.1.2. Intrateam Trust and Team Level Outcomes

Intrateam trust has been associated with a wide range of team level outcomes. Despite the multiplicity of the studies examining the relationship between intrateam trust and team performance, the results have been inconsistent at best (De Jong et al., 2016), with some studies



reporting a positive relationship (e.g., De Jong & Elfring, 2010; Hempel et al., 2009; Joshi et al., 2009) while others suggesting a weak relationship (e.g., Aubert & Kelsey, 2003) or indirect relationship (e.g., Langfred, 2004). The results in variabilities were attributed to sampling errors and measurement artifacts, substantive moderators, and methodological moderators (De Jong et al., 2016). Intrateam trust helps members improve productivity by making them suspend uncertainty about and vulnerability towards their fellow teammates, thereby enabling them to work together more effectively and efficiently (Dirks, 1999) and allowing them to interact freely (De Jong & Elfring, 2010). Moreover, when team members perceive high trust within the team, they will be confident to rely on each other's abilities to get the job done (Arnold, Barling, & Kelloway, 2001) and support each by sharing task-relevant information or resources (Dirks & Skarlicki, 2009). This mutual trust and thereby support in teams is particularly relevant when innovative and creative solutions are needed (Eisenbeiss, van Knippenberg, & Boerner, 2008). When team members lack trust, they lose sight of the team's goals and interests and engage in defensive actions (McAllister, 1995) aimed at protecting themselves from possible harm by others (Joshi et al. 2009; Mayer & Gavin, 2005). The distractions created by this distrust can ultimately consume employees' invaluable time and energy making them less productive (Colquitt et al., 2011).

Intrateam trust may also enhance members' satisfaction with the team (Chou, Wang, Wang, Huang, & Cheng, 2008; Costa, 2003). This is because the confidence that exists among team members enables them to openly communicate with one another and protects team members from fears of being taken advantage of by opportunistic team members (Costa, Roe, & Taillieu, 2001; Smith & Barclay, 1997). Similarly, a lack of trust in other team members has been attributed as one of the top reasons for employees' turnover (Jiang & Probst, 2015).



Moreover, studies indicate that trust in management improves employees' work engagement behaviors (Macey & Schneider, 2008) and affective commitment (Costa, 2003), which is known to be a significant, albeit negative, predictor of both absenteeism and intent to leave (Gellatly, Meyer, & Luchak, 2006; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Based on the above literature, the following hypothesis is derived:

Hypothesis 2: Intrateam trust is positively related to team performance, team satisfaction, and team work engagement

3.1.3. Intrateam Trust and Organizational/Unit Level Outcomes

As explained above, research on the importance of trust in organizations has grown rapidly, and the role of trust in influencing organizational-level outcomes is being acknowledged (Fulmer & Gelfand, 2012). Particularly, researchers have sought to understand the relationship between trust and organizational performance. Empirical studies (e.g., Chowdhury, 2005; Collins & Smith, 2006; Davis et al., 2000) that examine the effect of trust on organization-level outcomes have been conducted. For example, Davis et al. (2000) found that employees' trust in the general manager of a given restaurant significantly affects the restaurant's sales and net profits. The authors contend that trust in the general manager enhances employees' commitment to the causes of the firm, facilitates communication, problem-solving, and adaptivity, and ultimately leads to better performance. In the same vein, Chowdhury (2005) and Collins and Smith (2006) argued that when employees trust the organization, they facilitate the firm's capability to exchange and combine knowledge, which in turn, leads to better firm performance.

As argued above, intrateam trust affects both individual-level and team-level outcomes. Similarly, intrateam trust affects organization/unit level outcomes through collective intrateam trust. Collective intrateam trust represents the average of the intrateam trust of all teams in a



certain unit or organization (Brahm & Knuze, 2012). It reflects team members' collective judgment about the overall trustworthiness of the entire workplace in which teammates perform their duties (Jiang & Probst, 2015). Thus, this collective intrateam trust shapes the trust climate in a given unit or organization (Costigan, Ilter, & Berman, 1998) with the trust climate, in turn, shaping people's belief and understanding about the team and its constituents (Ning & Jin, 2009; Menges, Walter, Vogel, & Bruch, 2011).

Collective intrateam trust, which can be understood as the overall average intrateam trust, affects unit-level performance. This is because, as argued above, intrateam trust positively affects the outcomes by creating a favorable atmosphere for members to coordinate their resources and direct their effort and attention on the task at hand. When there is high trust in multiple teams, their corresponding members will reciprocate to their teams through better performance, enhanced loyalty, and more commitment and engagement. If members of all or majority of the teams in a particular unit behave this way, the performance of the unit will improve through the collective efforts of the team members in the unit. Thus, based on the above reasoning, I propose the following:

Hypothesis 3: Intrateam trust is positively related to unit-level performance

3.2. The Mediators of the Intrateam Trust-Organizational Outcomes Relationship

It is argued above that intrateam trust elicits organizational outcomes across different levels of organizational hierarchy. Moreover, there is an overall consensus on the constructive effects of intrateam trust on organizational outcomes. However, the mechanism through which intrateam trust affects outcomes is understudied. Thus, this dissertation examines the role of four team processes, which are defined as "members' acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed toward achieving collective goals (De Jong



& Elfring, 2010, p. 537)" as mediators of the effects of intrateam trust on organizational outcomes. The four team processes chosen in this dissertation are team behavioral integration, team psychological safety, team learning, and team reflexivity. The choice of these four team processes is based on evidence of their relevance as mediators between trust and outcomes (Edmondson, 1999; Langfred, 2004; Lubatkin, Simsek, Ling, & Veiga, 2006; Schippers, Den Hartog, Koopman, & Wienk, 2003). Moreover, the choice is informed by the fact that the role these mediators in the trust-outcomes relationship is understudied (e.g., team behavioral integration), or mixed findings were obtained (e.g., team reflexivity). Below I discuss how the four team processes transmit the effects of intrateam trust to organizational outcomes. Also, based on the discussions, hypotheses are formulated.

3.2.1. Team Reflexivity

Team reflexivity refers to the "extent to which team members collectively reflect upon the team's objectives, strategies, and processes as well as their wider organizations and environments, and adapt them accordingly" (West, 1996, p. 559). It involves openly reflecting up on team's goals, strategies, and work methods and modifying them as desired to current or anticipated conditions (Carter & West, 1998; De Dreu, 2002; West & Hirst, 2005). Team reflexivity involves questioning, reviewing, evaluating, debating and adapting (Bolinger & Stanton, 2014), and hence it provides team members with the opportunity to learn from past experiences, both successes and failures, and consider alternative viewpoints that may facilitate future performance (Ellis, Carette, Anseel, & Lievens, 2014; Schippers, Edmondson, & West, 2014). The systematic reflection enables team members to develop mutual understandings of each other's strengths and weaknesses (Vashdi, Bamberger, & Erez, 2013), have a clear view of



the objectives to be pursued and strategies to be employed (Schippers, Den Hartog, Koopman, & van Knippenberg, 2008).

Team reflexivity has two dimensions: task reflexivity and social reflexivity (Carter & West, 1998; De Dreu, 2007). Social reflexivity refers to the degree to which "the team reflects upon the ways in which it provides support to members, resolves conflict, and promotes the wellbeing of its members" (West, 2012, p. 6). Task reflexivity, on the other hand, involves actively monitoring and assessing a team's objectives, strategies and regularly reviewing the objectives and the methods used to achieve them (West, 2012; West & Hirst, 2005).

Team reflexivity requires openly revealing feelings and thoughts about team processes, objectives, strategies, and outcomes. Doing so makes team members vulnerable and force them to take personal risk (Widmer, Schippers, & West, 2009). Intrateam trust facilitates team reflexivity through increased exchange of ideas and shared communication among teammates (MacCurtain, Flood, Ramamoorthy, West, & Dawson, 2010). The confidence that team members have in each other and thereby the strong positive relationship created fosters the team members' capacity to reflect on their experience (Tjosvold, Tang, & West, 2004), and drives team members to strive toward team goal attainment (De Jong & Elfring, 2010). Moreover, open team communication that is built on mutual trust forms the basis of effective teamwork by providing team members with information, ideas, and perspectives (Hirst, Mann, Pirola-Merlo, & Richver, 2004). Based on the above reasoning, I propose the following:

Hypothesis 4a: Intrateam trust has a positive relationship with team reflexivity

Extant research indicates that team reflexivity affects several outcomes. For example, it positively influences performance (Bolinger & Stanton, 2014; Konradt, Otte, Schippers, & Steenfatt, 2016; Schippers et al., 2008), innovation (Schippers et al., 2014; Tjosvold et al., 2004),



job satisfaction (Gurtner, Tschan, Semmer, & Nägele, 2007), performance rating (Carter & West, 1998), decision quality (Van Ginkel & van Knippenberg, 2009), clarity of team objectives (De Dreu, 2002). This is because, team reflexivity affords members to evaluate and reflect on the goals pursued and methods and processes followed (Schippers et al., 2003; West 1996) enabling team members to make the necessary adjustments to the goals or processes (Shippers, Homan, & van Knippenberg, 2013) ultimately leading to improved performance and satisfaction (Konradt et al., 2016). Similarly, team reflexivity enhances team members' participation in decision making by taking into account their opinions, ideas, and insights, and their affective well-being (De Dreu, 2007). All in all, team reflexivity seems to be an asset for teams, which leads to better outcomes over time (Schippers et al., 2013). Thus, in combination with Hypothesis 4a above, I propose the following:

Hypothesis 4b: Team reflexivity mediates the relationship between intrateam trust and a) performance, b) job satisfaction, and c) employee engagement at individual, team, and organizational levels.

3.2.2. Team Psychological Safety

Team psychological safety refers to "a shared belief that the team is safe for interpersonal risk taking" (Edmondson, 1999, p. 354). The shared belief gives team members the confidence to freely share ideas in the team without the risk of being embarrassed, rejected, or punished (Kessel, Kratzer, & Schultz, 2012). This confidence to speak up ones' mind arises from mutual support and trust among the team members (Edmondson, 1999). Psychological safety manifests itself in open communication, speaking up, and interpersonal risk taking (Baer & Frese, 2003; Walumbwa & Schaubroeck, 2009). The feeling of security encourages team members to admit mistakes, share a potentially inaccurate information with teammates (Siemsen, Roth,



Balasubramanian, & Anand, 2009), express concerns and self-doubts (Hirak, Peng, Carmeli, & Schaubroeck, 2012), offer suggestions for organizational improvements (Liang, Farh, & Farh, 2012), take the initiative to develop new products and services (Baer & Frese 2003), and exchange divergent perspectives (Bradley, Postlethwaite, Klotz, Hamdani, & Brown, 2012).

The formation of team psychological safety requires the existence of mutual trust in the behavior and actions of team members (Edmondson, 1999; Madjar & Ortiz-Walters, 2009). That is, supportive and trustworthy working relationships among teammates create feelings of safety (May, Gilson, & Harter, 2004). In a psychologically safe environment, team members can freely admit mistakes and discuss errors, contribute their personal ideas and viewpoints, share their skills and knowledge, and consider alternative views and thereby challenge the status quo (Kostopoulos & Bozionelos, 2011).

In addition to the arguments presented above, the social exchange theory (Blau, 1964) explains how intrateam trust makes teammates feel psychologically safe. The social exchange theory (Blau, 1964) suggests that when team members trust one another, they develop more favorable attitudes among themselves (Mayer & Gavin, 2005) and they tend to view their working relationship and work environment as 'predictable and dependable' rather than 'uncertain and unreliable' (Rempel & Holmes, 1986). Moreover, the theory suggests that mutual trust cultivates the desire to care for and appreciate the involvement and contributions of other teammates (Harvey, Kelloway, & Duncan-Leiper, 2003). Therefore, team members in a trustful working relationship are likely to feel safer and more positive about their work environment. Thus, I propose the following:

Hypothesis 5a: Intrateam trust has a positive relationship with team psychological safety.



Prior research has provided ample evidence on the constructive effect of psychological safety on work outcomes. For example, in a psychologically safe environment, team members do have the confidence to speak up and inquire about a failure without ramifications (Hirak et al., 2012), which improve team members' engagement at work ultimately leading to higher levels of team performance (Pearsall & Ellis, 2011; Schaubroeck et al., 2011), and challenging unethical behavior (Walumbwa & Schaubroeck, 2009). Moreover, in a psychologically safe environment, team members can freely admit mistakes and discuss errors, contribute their personal ideas and viewpoints, share their skills and knowledge, and consider alternative views and thereby challenge the status quo (Kostopoulos & Bozionelos, 2011). As a result, there will be more ideas for deliberation, discussions will be richer, and more time would be spent on constructive problem solving and less time on mending interpersonal infractions (Bradley et al., 2012). However, when psychological safety is low, team members would be cautious to contribute new ideas and envisage new approaches (Gilson & Shalley, 2004) as well as become less engaged in team tasks (Edmondson, 1999). Based on the above reasoning and empirical evidences as well as Hypothesis 5a, I propose the following:

Hypothesis 5b: Team psychological safety mediates the relationship between intrateam trust and a) performance, b) job satisfaction, and c) work engagement at individual, team and organizational levels.

3.2.3. Team Behavioral Integration

Team behavioral integration refers to "the degree to which a team engages in mutual and collective interaction" (Hambrick, 1994, p. 188). It represents the degree to which teams exhibit wholeness and unity of effort (Carmeli & Halevi, 2009; Lubatkin et al., 2006). Team behavioral integration has three interrelated and reinforcing components (Hambrick, 1994; Simsek, Veiga,



Lubatkin, & Dino, 2005; Carmeli & Schaubroeck, 2006): (1) social integration - the level of psychological or affective linkage exhibited by the team members, (2) the quantity and quality (richness, timeliness, accuracy) of information exchanged among teammates, and (3) the extent to which teammates practice joint decision-making. While the first dimension (social integration) captures the social dimension of teamwork, the other two (quantity and quality of information exchange, and joint decision-making) capture the task aspects of teamwork (Hambrick, 1994; Simsek et al., 2005). Thus, team behavioral integration captures the social and task-related processes that are vital for the effective functioning of successful teams (Simsek et al., 2005). The three interrelated components make teams integrated such that members share information, resources, and decisions (Hambrick, 2007; Simsek et al., 2005).

For teams to be behaviorally integrated and thereby openly discuss differing views, get immediate feedback from one another, make decisions in a collaborative and mutually responsible manner, team members need to have mutual confidence and trust among themselves (De Dreu, 2007; Howorth et al., 2004; Sargent & Waters, 2004). That is, supportive and trustworthy working relationships enable teammates to create a sense of unity and togetherness (i.e., team behavioral integration; Mach et al., 2010; Thau et al., 2007). Further, when team members trust one another, the propensity to perceive their team as a tight collective unit increases. This perception of collectiveness boosts individuals' beliefs in the ability of the team to work together and achieve common goals. On the other hand, without trust, team members won't be open to one another, willing to rely on others' knowledge and inputs, give honest feedback, and accept the interdependence needed for teamwork to occur and a team to succeed (Grossman et al., 2001; Mayer et al., 1995). That is, if team members are not honest with one another about their mistakes and weaknesses, then building a behaviorally integrated team is



nearly impossible (DeOrtentiis, Summers, Ammeter, Douglas, & Ferris, 2013). Ultimately, the absence of mutual trust makes teams fragmented (low or no behavioral integration) with team members duplicating efforts making the achievement of team goals more difficult (Lencioni, 2002). Thus, I propose the following:

Hypothesis 6a: Intrateam trust has a positive relationship with team behavioral integration.

Behaviorally integrated teams can synchronize the team's social and task processes (Lubatkin et al., 2006) such that team members freely share information and get more immediate feedback on their actions (Magni, Proserpio, Hoegl, & Provera, 2009), make decisions in a collaborative fashion as a result of which decisions are well-received with higher commitment and follow-up (Carmeli & Schaubroeck, 2006) and teammates are clear about what needs to be done (Carmeli, 2008). Members of behaviorally integrated teams are more likely to experience more positive affect and emotions (Raes, Bruch, & De Jong, 2013), and are more likely to encourage cooperation among team members (Carmeli, 2008). Thus, employees experience fewer 'hassles' and more 'uplifts' at work (Dasborough, Ashkanasy, Tee, & Herman, 2009). Besides, in behaviorally integrated teams team members will form positive cognitions about their team and their organization (Kim, Bateman, Gilbreath, & Andersson, 2009; Mayer & Gavin, 2005), resulting in more cognitive capacity to focus on their work (Kanfer & Ackerman, 1989; Mayer & Gavin, 2005), more energy to think constructively and to solve work-related problems (Raes et al., 2013). Thus, team behavioral integration enhances team members' positive affect and emotions, free up cognitive resources and make behavior more productive and goal-oriented (Raes et al., 2013). Studies (e.g., Beal et al., 2003; Chiocchio & Essiembre, 2008) also indicate that the collectiveness of team members has a positive relationship with team effectiveness.



However, when a team has a low behavioral integration, team members are likely to behave in a fragmented and inconsistent manner (Sims, 2003), spend more time on sense-making and backup behavior (Raes, et al, 2013), experience lack of direction and unity (Kim et al., 2009), have multiple and often conflicting goals (Schmidt, Dolis, & Tolli, 2009), which all ultimately lead to less capacity to concentrate on their work (Mayer & Gavin, 2005). That is, teams with low behavioral integration are fragmented entities characterized by minimal interaction, communication, or collaboration (Evans & Butler, 2011). These attributes ultimately lead to poor organizational performance outcomes and other less desirable firm outcomes (Barrick, Bradley, Kristof-Brown, & Colbert, 2007; Evans & Butler, 2011).

Extant research indicates that team behavioral integration influences organizational processes and outcomes. It helps teams to integrate knowledge and insights (Hambick, 1994), reduce affective and cognitive conflict (Mooney & Sonnenfeld, 2001), facilitate product innovativeness (Li & Zhang, 2002), enhance performance of firms (Carmeli, 2008), enhance group performance especially when organizations face rapid and unexpected changes that are precursors to organizational decline (Carmeli & Schaubroeck, 2006), and facilitate team ambidextrous orientation (Carmeli & Harlevi, 2009; Lubatkin et al., 2006). Behaviorally integrated teams appreciate how each member's skills and knowledge can be integrated that in turn makes them more effective (Carmeli, 2008; Ling, Simsek, Lubatkin, & Veiga, 2008). Further, using top management teams, Raes et al. (2013) showed that team behavioral integration enhances an organization's productive energy, which in turn leads to employees' increased job satisfaction and decreased turnover intentions. Given the above discussion of the role of intrateam trust (and the absence thereof) in creating behaviorally (dis)integrated teams (Hypothesis 6a) and the consequences of behavior integrations, I propose the following.



Hypothesis 6b: Team behavioral integration mediates the relationship between intrateam trust and a) performance, b) job satisfaction, and c) work engagement at individual, team and organizational levels.

3.2.4. Team Learning

Team learning can be defined as "a relatively permanent change in the team's collective level of knowledge and skill produced by the shared experience of the team members" (Ellis, Hollenbeck, Ilgen, Porter, West, & Moon, 2003, p. 822). It is an iterative process that involves acquisition, distribution, interpretation, storage and retrieval of task-relevant information via interaction with one another (van Offenbeek, 2001). Team learning involves such activities as asking questions, challenging conventions, seeking feedback, exploring various perspectives, assessing alternatives, and reflecting on past actions (Edmondson, 1999; Gibson & Vermeulen, 2003; Schaubroeck, Carameli, Bhatia, & Paz, 2016; van der Vegt & Bunderson, 2005). On top of learning from their own direct experiences, team learning creates the possibility for team members to be engaged in social learning - learning from the experiences of other team members (Ellis et al., 2003; Hirst, van Knippenberg, & Zhou, 2009). In team learning, members engage in multiple periods of action and reflection that results in developing shared understandings of each other's beliefs, opinions, sensitivities, strengths, and weaknesses (Edmondson, Dillon, & Roloff, 2007; Huber & Lewis, 2010; Vashdi et al., 2013).

Team learning involves asking questions, challenging assumptions, raising doubts, soliciting feedback, exploring differing viewpoints, assessing alternatives, and collectively reflecting on past behavior (Schaubroeck et al., 2016; van der Vegt & Bunderson, 2005). For teams to engage in these activities, members must be willing and able to freely share their opinions, listen to one another, reexamine their own views, and integrate them with others



(Burke, Salas, & Diaz, 2008; Edmondson, 1999). This would be possible if team members do have a mutual trust among themselves (Lee et al., 2010; MacCurtain et al., 2010; Sankowska & Söderlund, 2015). That is, the confidence that exists in teams enable team members to overtly share and exchange information, ideas, knowledge, and insights, seek feedback and be involved in experimentation (Kozlowski & Bell, 2008; Lee et al., 2010). That is, intrateam alleviates team members' concern about others' reactions (e.g., errors) that have the potential for embarrassment or threat (Edmondson, 1999; Kozlowski & Bell, 2008). Confidence in teammates encourages members to share theirs (Politis, 2003) and take in and use others' knowledge (Levin & Cross 2004). Moreover, intrateam enhances the degree of openness and transparency among teammates (Chowdhury, 2005; Zand, 1972) such that suggesting new, unpopular or extraordinary ideas, expressing doubts, discussing divergent viewpoints, and challenging assumptions are nonthreatening to others (Akgün, Lynn, Keskin, & Dogan, 2014; Baer & Frese, 2003). In a nutshell, mutual confidence among teammates creates perceived learning climate that encourages the creation, acquisition, and exchange of knowledge (Eldor & Harpaz, 2016). In contrast, in teams where intrateam is low, members' perceptions of the risk for raising problems, sharing and discussing new ideas or information is high (Edmondson et al., 2007). Based on the above line of reasoning, I propose the following:

Hypothesis 7a: Intrateam trust has a positive relationship with team learning.

Regarding the consequences, team learning can affect organizational outcomes in different ways. First, team learning leads to better decisions (Davenport, Jarvenpaa, & Beers, 1996) by enabling team members to consider more alternatives and learn from others' experiences and adjust their responses (Argote, McEvily, & Reagans, 2003). Second, team learning leads to better problem solving (Salisbury, 2001) by creating the chance for team



members to deliberate on issues at length and to consider various alternatives and evaluate the possible solutions from multiple angles. Third, team learning leads to enhanced creativity through the exchange of tacit knowledge - insights, hunches, and lessons learned from previous experience (Edmondson et al., 2007) among teammates. Exchanging such tacit knowledge, in turn, leads to the creation of novel ideas that leads to new products and processes (Lee et al., 2010). Fourth, team learning helps to establish better approaches for performing a task (Schaubroeck et al., 2016), facilitate the utilization of new technology, and improve team members' skills (Edmondson, 2004). Fifth, team learning helps teams and their members adapt to changing circumstances and uncertainties (van Woerkom & Croon, 2009) by facilitating the absorption of new information in the team thereby help to refine processes and practices, and discover new and better ways of achieving team objectives (Bunderson & Sutcliffe, 2003; Edmondson, 1999). Moreover, Lee at al. (2010) reported that team knowledge sharing (i.e., team learning) significantly predicted team performance as measured through leaders' and managers' ratings. Similarly, by encouraging adaptive behaviors, team learning orientation was found to have a positive effect on business unit performance (Bunderson & Sutcliffe, 2003).

Besides enhancing team performance, team learning affects team members' work engagement and job satisfaction. This is because, team learning helps employees achieve their goals and facilitates their personal development because of which team members are more likely to be satisfied with their job, engaged in their work, and feel content and appreciate their team membership (Eldor & Harpaz, 2016). Further, when employees perceive that they are supported and their efforts are valued through supportive and challenging learning activities that cater to their needs, they are more likely to be satisfied in their work and engaged in their work (Burke, Holman, & Birdi, 2006). The more employees perceive that the learning activities of their



organization are effective for achieving their personal and organizational goals, the more they find meaning and competence in meeting these learning challenges and the more willing employees will become engaged and satisfied (Bakker, Albrecht, & Leiter, 2011). In addition, the learning climate provides greater opportunities for challenge, responsibility, and control, nurturing the employees' sense of fulfillment. Hence, seeing their organization as one that offers them the opportunities for both accomplishments of their work goals and self-development strengthens their willingness to engage themselves fully at work (Bakker & Demerouti, 2007). Furthermore, learning environment also provides greater opportunities for responsibility and growth, allows employees greater control over their work, and nurtures a sense of meaning (Wright, 2004). Learning environment contributes to employees viewing an organization as offering opportunity for self-fulfillment and growth, thereby increasing their willingness to fully engage (Eldor & Harpaz, 2016). Based on these arguments and that intrateam creates conducive atmosphere for team learning to take place (Hypothesis 7a), I propose the following:

Hypothesis 7b: Team learning mediates the relationship between intrateam trust and a) performance, b) job satisfaction, and c) work engagement at individual, team and organizational levels.

3.3. Moderators of the Relationship between Intrateam Trust and Mediating Mechanisms

While I argue that intrateam trust is positively related with team processes and thereby elicit organizational outcomes, I also expect other factors such as characteristics of teams and team members to affect the nature of relationship between intrateam trust and team processes. In examining the moderating role of team characteristics, I focus on team value congruence and team feedback-seeking behavior of team members. The choice of the moderating variables is grounded in the social identity theory (Tajfel & Turner, 1985), the similarity-attraction paradigm



(Byrne, 1971), and the Living-Systems Perspective (Arrow, McGrath, & Berdahl, 2000) as well as the nature of team processes that are used in the study. The social identity theory (Tajfel & Turner, 1985) and the similarity-attraction paradigm (Byrne, 1971) suggest that teammates are more likely to be attracted to and stay attached to their teams when they share similar interests, characteristics and values. I will use these theories to justify the moderating effect of value congruence. The living-systems perspective (Arrow et al., 2000), on the other hand, suggests that living systems such as teams continuously interact with their environment to take in inputs and feedback to maintain and renew themselves (London & Sessa, 2006) in such a way that it facilitates team learning (Edmondson, 2004). I will use this theory to argue for the moderating role of feedback-seeking behavior. Below I discuss the moderating role of each team characteristic.

3.3.1. Team Value Congruence

Values are enduring beliefs about the importance of desirable behaviors, states, objects, or goals (Hayibor, Agle, Sears, Sonnenfeld, & Ward, 2011). Values serve as guiding principles for attitudes, behaviors, and decisions (Suar & Khuntia, 2010) and have profound effects on peoples' lives (Lee, Choi, Youn, & Chun, 2015). They specify that certain modes of conduct or end states are more desirable than others (Williams, Pillai, Deptula, & Lowe, 2012). Values guide individuals' preference as to 'what' is important and 'how' important that thing is (Robbins & Judge, 2013). Organizational value systems specify how employees should behave and how resources should be allocated (Edwards & Cable, 2009).

Value congruence refers to the similarity or consistency that exists between the value systems of two or more entities such as individuals, groups/teams, or organizations (Hoffman, Bynum, Piccolo, & Sutton, 2011; Li, Wang, You, & Gao, 2015). It describes awareness of



similarity regarding beliefs about what is important for an entity (Mitchell, Parker, Giles, Joyce, & Chiang, 2012). Accordingly, team value congruence may be defined as the degree to which teammates do have similar or consistent value systems (Edwards & Cable, 2009) about issues relevant to the team's task (Liao, Chuang, & Joshi, 2008; Williams, Parker, & Turner, 2007). Thus, team value congruence measures the degree of compatibility among the value systems of members of a given team (Ostroff, Shin, & Kinicki, 2005).

Team members having congruent value systems do have greater commonality in the way they perceive their environment and the behaviors they exhibit (Hayibor et al., 2011). Such similarities lead to positive organizational outcomes such as greater interpersonal attraction and positive affect (Meglino & Ravlin, 1998), better team performance (Hoffman et al., 2011; Liao et al., 2008; Mitchell et al., 2012), greater likelihood of job engagement behavior (Li et al., 2015), and satisfaction with career and job (Kristof-Brown & Stevens, 2001) as well as quality and effort of team members (Adkins, Ravlin &, Meglino, 1996). The underlying reason for these positive effects is that the match among values of team members satisfies individuals' basic psychological needs that shape their attitudes and behaviors (Vogel, Rodell, & Lynch, 2015).

As highlighted above, I will use the value congruence perspective and social identity theory to explain the moderating role of team value congruence. The value congruence perspective and the social identity theory (Tajfel & Turner, 1985) suggest that people are more likely to be attached to their teams when they are similar to its other teammates (Wheeler, Gallagher, Brouer, & Sablynski, 2007). Likewise, the similarity-attraction paradigm (Byrne, 1971) suggests that individuals are attracted to other individuals who have similar interests and characteristics, such as values (Zhang & Bloemer, 2011). Sharing essential characteristics with teammates stimulates ones' commitment to and identification with the team (Edwards & Cable,



2009) whereas the feeling of being different in a team encourages quitting team membership (Gonzalez, 2016). Thus, the presence of similar value systems, shared goals, similar interests and characteristics among teammates (i.e., team value congruence) enhances the sense of unity and togetherness (i.e., team behavioral integration) in teams (Mach et al., 2010; Thau et al., 2007) and further boosts team members' confidence in each other. In contrast, when teammates do have incongruent value systems, there will be significant differences in the interests, goals and guiding principles involving decisions and actions (Brown & Treviño, 2009). As a result, there will be increased uncertainty (i.e., less team psychological safety) among teammates (Suar & Khuntia, 2010) and weakened togetherness (i.e., low behavioral integration), higher turnover intentions (Bao, Vedina, Moodie, & Dolan, 2013), and negative attitudes (Guan, Verkuyten, Fung, Bond, Chen, & Chan, 2011) in the teams.

As noted above, mutual trust in teams enables team members to feel safe (Edmondson, 1999). The presence of similar value systems among team members would strengthen this feeling of safety (Edwards & Cable, 2009; Gonzalez, 2016) by facilitating information exchange that reduces chance of misunderstanding among teammates (Erdogan & Bauer, 2005), stimulating members' commitment and belongingness to and identification with the team (Greguras & Diefendorff, 2009), and promoting mutual liking, friendship, harmony and cooperation among team mates (Edwards & Cable, 2009). Thus, the presence of team value congruence reinforces the positive effect of intrateam trust on team psychological safety to elicit the positive organizational outcomes. However, value incongruence or mismatch in teams weakens this positive linkage [between intrateam trust and team psychological safety] by creating uncertainty through diverse and possibly contradictory interests, priorities, and goals (Brown & Treviño, 2009), and deprivation of members' core needs (Vogel et al., 2015). That is,



the feeling of safety created due to mutual trust among teammates will be weakened due to the disparities in the value systems of team members. Besides, value incongruence engenders cynicism (Naus, van Iterson, & Roe, 2007) in teams ultimately leading to poor outcomes (Deng, Wu, Leung, & Guan, 2016). Therefore, the presence of congruent values among teammates enhances the feeling of safety and security while its absence brings uncertainty, confusion and alienation (Kristof-Brown & Guay, 2010). Based on the above reasoning I propose the following:

Hypothesis 8a: Team value congruence moderates the intrateam trust-team psychological safety relationship, such that the positive relationship is stronger when value congruence is high (vs. low).

Moreover, the degree to which intrateam trust elicits outcomes through team behavioral integration depends on whether or not team members have compatible, matching values. When team members have congruent values, they share similar goals, interests, characteristics (Hoffman et al., 2011). This similarity further enhances teammates solidarity and togetherness formed through mutual trust (Mach et al., 2010). However, a mismatch in the value systems of the teammates (i.e., low value congruence) weakens the influence of intrateam trust to form a solidified team as the incompatible objectives, priorities, and characteristics of team members creates a negative working environment (Deng et al., 2016) in which teammates have no common destiny (Raes et al., 2013). Thus, I propose the following:

Hypothesis 8b: Team value congruence moderates the intrateam trust-team behavioral integration relationship, such that the positive relationship is stronger when value congruence is high (vs. low).



3.3.2. Team Feedback-seeking Behavior

Feedback-seeking behavior (FSB) refers to individuals' search for evaluative information about their performance, internal processes and other behaviors for attaining valued goals (Crommelinck & Anseel, 2013; De Stobbeleir, Ashford, & Buyens, 2011). It involves individuals' attempt to proactively seek for feedback either by directly asking or indirectly observing cues in the environment to infer from them (Ashford, De Stobbeleir, & Nujella, 2016). Accordingly, team FSB can be defined as team members' collective search for evaluative information about the behavior and performance of individual teammates and the team as a whole (De Stobbeleir et al., 2011; Robinson & Weldon, 1993). Intrateam feedback involves team members providing information about other teammates' performance and/or asking input or guidance about their own performance (Dickinson & McIntyre, 1997). It allows a team to reflect, adapt, and self-correct until desired behavioral and performance standards are met (van der Vegt, De Jong, Bunderson, & Molleman, 2010).

Team FSB constitutes goal-oriented behavior where team members aim to improve their chances of attaining their valued objectives, such as skill development, improved performance, citizenship behavior, or creativity (Ashford et al., 2016; Crommelinck & Anseel, 2013) by obtaining information about how well they are performing. Thus, contrary to the traditional belief that depicts feedback seeking as a strategy to conform to the requirements of the environment (Parker & Collins, 2010), in this dissertation feedback seeking is used as an individual and/or a team resource that can help individuals and teams to achieve a variety of outcomes (De Stobbeleir et al., 2011). Team FSB enables teammates to gather information about the demands and expectations of the environment so that they will respond accordingly and perform more effectively (Parker & Collins, 2010). Further, team FSB enables team members to



monitor and, if necessary, adjust their own actions and behaviors (Stoker, Grutterink, & Kolk, 2012) and helps them to evaluate proactively whether their work has met performance standards and their behavior is considered appropriate (Lam, Peng, Wong, & Lau, 2015). Thus, team FSB helps teams understand whether their actions are correct and adequate, prevent the possibility of committing errors (Marks & Pazner, 2004) and negative consequences associated with poor performance (Chen, Lam, & Zhong, 2007), provide information about how to improve performance (Ashford, Blatt, & Walle, 2003), and prevent the possibility of misunderstanding with others (Chen et al., 2007). In effect, FSB enables employees to have a better understanding of, and control over, their working behavior. It also helps teammates enjoy the job satisfaction associated with better performances and reduced errors (Anseel, Beatty, Shen, Lievens, & Sackett, 2015).

Team learning requires obtaining and processing information to detect errors, reflect on results, and adapt to the environment (Edmondson, 1999). Feedback allows teams to reflect, adapt, and self-correct until desired performance standards and acceptable behaviors are achieved (Van der Vegt et al., 2010). Through feedback seeking team members can discover opportunities for skill improvement and obtain information about the 'appropriate' behavioral norms in a team or organization (Crommelinck & Anseel, 2013). When team learning focuses on competence improvement, feedback in areas of improvement is highly valuable (Gong, Wang, Huang, & Cheung, 2014). For example, Yanagizawa (2008) reported that individuals who sought feedback more frequently learned more than their counterparts. Similarly, De Stobbeleir et al. (2011) found that employees who sought more direct feedback from multiple sources showed greater creativity at work. Besides, the more an individual and/or a team is involved in feedback seeking, the more likely it is to learn more new skills and be more productive (Lam et al., 2015).



Furthermore, when feedback is directed to the team, attention will be directed toward the entire team as a result of which individual members will be motivated to focus on activities (such as better coordination, greater information sharing, less interpersonal strain, etc.) that improve organizational outcomes (van der Vegt et al., 2010).

As argued earlier, intrateam trust facilitates team learning by creating a conducive atmosphere in which members freely share their thoughts, ideas, knowledge and insights, and be involved in experimentation (Burke et al., 2008; Lee et al., 2010). That is, the trustful environment created by intrateam trust creates a favorable environment for team learning (Kozlowski & Bell, 2008). Nevertheless, the presence of a favorable environment does not necessarily lead to learning. Feedback seeking behavior plays a critical role in harnessing this conducive learning atmosphere created through trustful working relationships by providing the necessary informational inputs for the learning to take place (Ashford et al., 2016). In other words, the extent to which intrateam trust stimulates team learning is partly dependent upon the extent to which team members are proactive to solicit information (Crommelinck & Anseel, 2013) that would be used as an input to acquire new skills, modify an already existing knowledge, and integrate the skills learnt into the products, systems, and processes of an organization (Presbitero, Roxas, & Chadee, 2015). The effects of intrateam trust on team learning would be strengthened if members have the will to preemptively gather information about the teams and their individual members (De Stobbeleir et al., 2011), the expectations and demands of the environment (Parker & Collins, 2010), and information about how to improve performance in future endeavors (Ashford et al., 2003). Thus, team FSB helps teams not only to obtain information to learn new skills and modify existing ones (Ashford et al., 2016) but also to capitalize on the trusting relationship among the team members.



Team feedback fosters collective team orientation created by intrateam trust and acts as a stimulus for learning (Konradt et al., 2016). Thus, the role of intrateam trust in facilitating learning in teams would be enhanced if teams are preemptive to look for suggestions, recommendations, and comments within the team and outside. Hence, teams would have a better chance of learning and would take advantage of the opportunity created by the trustful working relationship when team members are proactive rather than reactive in gathering and exchanging information. On the other hand, if a team is less proactive (i.e., reactive) in gathering information, then there would be lower information exchange and learning among teammates; and hence, the opportunity created by the climate of trust for learning would be weakened. Thus, based on the above lines of reasoning, I propose the following:

Hypothesis 9a: Team FSB moderates the intrateam trust-team learning relationship, such that the positive relationship between intrateam trust and team learning will be stronger when team FSB is high (vs. low).

As discussed above, team reflexivity involves a thoughtful and thorough reflection about team processes, objectives, strategies, and outcomes (West & Hirst, 2005). Team reflexivity focuses on reflecting on past performance and preparing for possible future actions (LePine, Piccolo, Jackson, Mathieu, & Saul, 2008). The trustful environment created by intrateam trust makes team reflexivity easy and worriless (Sankowska & Söderlund, 2015; Tekleab, et al., 2009). However, the presence of a worriless environment does not make teams inherently reflective. The extent to which intrateam trust enables or stimulates team reflexivity may be contingent upon the degree of openness and proactivity among teammates to actively solicit information about their performance, internal processes and other behaviors for attaining valued goals (Crommelinck & Anseel, 2013). The effects of intrateam trust on team reflexivity would be



strengthened if members have the desire to proactively gather information about the performance of the teams and their individual members (De Stobbeleir et al., 2011), the expectations and demands of the environment (Parker & Collins, 2010), and information about how to improve performance in future endeavors (Ashford et al., 2003). Thus, the presence of FSB at the team level helps teams not only to obtain information to make accurate and relevant refection (Ashford et al., 2016) but also to capitalize on the trusting relationship among the team members. Specifically, in a trusting relationship, the FSB will be construed as positive and members would make sure that they utilize the information they gather through FSB to reflect upon and be prepared for future actions. In other words, with intrateam trust, team feedback fosters collective team orientation and act as a stimulus for reflection (Konradt et al., 2016; van der Vegt et al., 2010). That is, the role of intrateam trust in facilitating open reflection in teams would be enhanced if teams are preemptive to look for suggestions, recommendations, and comments within the team and outside. Hence, teams would become more reflective and take advantage of the opportunity created by the trustful working relationship when team members are proactive rather than reactive in soliciting feedback. On the other hand, if a team is less proactive (i.e., reactive) in obtaining feedback, then there would be lower reflexivity among teammates; and hence, the opportunity created by the climate of trust for a thorough reflection would be weakened. Based on the above lines of reasoning, I propose the following:

Hypothesis 9b: Team FSB moderates the intrateam trust-team reflexivity relationship, such that the positive relationship between intrateam trust and team reflexivity will be stronger when team FSB is high (vs. low).



3.4. Interteam Trust and Organizational Outcomes

The role of trust in facilitating achievement of objectives in the context of intrateam is well researched. However, as highlighted above, with very few exceptions (e.g., Serva et al, 2005; Tsai & Ghoshal, 1998) hardly little has been done on the on the role of interteam trust, which can be loosely defined as trust between two or more interacting teams, in organizations. This dissertation tries to fill this gap in research by investigating the role of interteam trust in organizational setting. To this end, below the effects of interteam trust on outcomes and the mechanisms that transmit these effects are discussed and a hypothesis is forwarded.

Nowadays organizations are increasingly filled with teams that operate in an interdependent manner. Due to the interdependencies between these teams and the presence of common goals, within- and between-team coordination are crucial to effective performance (Mathieu, Marks, & Zaccaro, 2001). Effective between-team coordination requires processing information obtained from multiple, often specialized, teams (Davison, Hollenbeck, Barnes, Sleesman, & Ilgen, 2012). This, in turn, requires the willingness of teams to share and rely on the information that is shared among themselves (Firth, Hollenbeck, Miles, Ilgen, & Barnes, 2015). One way of enhancing such willingness to exchange and rely on information provided by other teams is developing mutual trust among the teams involved.

The interdependence between teams makes the presence of some element of trust among these teams an essential requirement (Jones & George, 1998). Thus, interteam trust involves at least two interdependent teams that are willing to be vulnerable to the behavior and actions of each other. These teams interact with each other to achieve some common objectives (Serva et al., 2005). While trust plays an important role in all organizational relationships, it is even more crucial when these relationships are between distinct entities, such as between work teams



(Krishnan, Martin, & Noorderhaven, 2006). This is because team members from distinct teams are likely to be less similar because of the differences in work units, location, type of task they perform, experiences they have been through, differences in work culture, norms, and values, etc. (Ertug, Cuypers, Noorderhaven, & Bensaou, 2013; Polzer, Crisp, Jarvenpaa, & Kim, 2006). Such differences increase the need for effective coordination between teams (Bienefeld & Grote, 2014). Even though it is more difficult to develop trust among distinct yet operationally related teams than within members of a specific team (Gulati & Sytch, 2007; Zaheer & Kamal, 2011), trust plays a critical role in establishing the coordination needed between work teams.

Interteam trust plays a significant effect on the operational relationship between interacting teams. It reduces transaction costs, increases information-sharing, facilitates learning (Ashleigh & Nandhakumar, 2007; Dyer & Chu, 2003; Nielsen & Nielsen, 2009) and enhances coordination and reduces conflict between parties (Gulati & Nickerson, 2008) which, all in turn, lead to better performance, efficiency and satisfaction (Ertug et al., 2013; Robson, Katsikeas, & Bello, 2008; Zaheer et al., 1998). Similarly, interteam trust increases resource and knowledge exchange (Szulanski et al., 2004) that ultimately boosts innovation across teams (Tsai & Ghoshal, 1998), reduces perceptions of relational risk between teams (Nooteboom, Berger, & Noorderhaven, 1997), and enhances expectation of relationship continuation among teams (Jap & Anderson, 2003). Moreover, interteam trust fosters the productivity of teams by allowing teammates to stay task-focused, promoting more efficient communication and maximizing interteam accountability (Adler, 2007). Thus, the above evidences suggest that, like intrateam trust, interteam trust can help achieve numerous valuable economic and relational outcomes (Zaheer & Harris, 2006).



Trust between teams make team members feel confident in each other such that they freely exchange ideas (MacCurtain et al., 2010), reflect on their experience (Tjosvold et al., 2004), learn from past mistakes (MacCurtain et al., 2010), share information, feelings and thoughts about team processes, objectives, strategies, and even mistakes and errors (Jimenez-Rodriguez, 2012; Sankowska & Söderlund, 2015) without worrying about being taken advantage of (Lado et al., 2008) or fears of expropriation of proprietary knowledge and business secrets (Janowicz-Panjaitan, & Noorderhaven, 2009), seen as incompetent (Edmondson, 2004) or harming mutual relationship (Simons & Peterson, 2000). Similarly, interteam trust helps different teams to bring members together, create a sense of unity and togetherness, integrate knowledge and insights (Hambick, 2007), and work on common goals or objectives (Thau et al., 2007). Further, interteam trust creates supportive and trustworthy working relationships among teams and creates feelings of safety among members of the teams (May et al., 2004). The faith and confidence that exists between teams, in turn, creates a psychologically safe environment for team members to interact. In addition, it expedites information exchange and promotes reflection, builds the sense of unity, togetherness, common purpose and mutual accountability. These, in turn, lead to better organizational outcomes. Based on Hypotheses 4a-7b and the above lines of reasoning, I propose the following:

Hypothesis 10: Team learning, team psychological safety, team reflexivity and team behavioral integration mediate the relationship between interteam trust and organizational outcomes.



3.5. Joint/Interactive Effects of Intrateam and Interteam Trust

In addition to being independent drivers of organizational outcomes, I expect intrateam and interteam trust to interact in their effects on the outcomes (Fulmer & Gelfand, 2012) as well as the transmission mechanisms. Specifically, interteam trust is expected to moderate the relationship between intrateam trust and organizational outcomes via the mediating mechanisms. While intrateam trust stipulates mutual trust among teammates, interteam trust is concerned with trust among distinct, yet operationally related, teams. Thus, the two types of team trust complement each other by combining both espoused behaviors and the work structures within which those behaviors are enacted.

As elucidated above, intrateam trust should positively influence organizational outcomes by creating psychologically safe environment, promoting knowledge exchange and sharing, creating behaviorally integrated teams and facilitating reflection and deliberation among team members. However, this form of team trust could be more efficacious in promoting higher levels of the outcomes if the boundary conditions that support the desired behaviors are in place. By providing greater levels of confidence and security for how team members should behave beyond what they get from their own teammates (Menges et al., 2011), high level of interteam trust promotes an environment in which everybody feels supported, secured and protected (Kessel et al., 2011).

Specifically, intrateam trust facilitates team reflexivity through increased exchange of ideas and shared communication among the team members (MacCurtain et al., 2010). This increased exchange of ideas and shared communication would further be enhanced if there is trust across teams as within teams. The confidence that exists between teams would augment the positive influence of intrateam trust on team members' capacity to overtly reflect on



organizational processes, strategies, objectives, and outcomes (Carter & West, 1998; De Dreu, 2002; West & Hirst, 2005) as well as their experiences (Tjosvold, et al., 2004). Moreover, mutual confidence among members of interacting teams enriches the learning climate created by intrateam trust that encourages the creation, acquisition, and exchange of knowledge (Eldor & Harpaz, 2016) in a non-threatening manner (Akgün et al., 2014; Baer & Frese, 2003). On the other hand, when trust is limited to members of the same team (i.e., low interteam trust), members' perceptions of the risk of sharing and discussing new ideas or raising problems with 'outsiders' is high (Edmondson et al., 2007). As a result, exchange of idea or knowledge, reflecting on processes, strategies, goals and outcomes will be limited to the internal affairs of that team.

Similarly, the extent to which a psychologically safe team environment is created in a given organization depends on the degree of mutual trust within and between teams. Trust within teams determine the degree of safety and comfort members feel to admit mistakes, discuss errors, air personal ideas and viewpoints, etc. in relation to their specific team (Kostopoulos & Bozionelos, 2011). Hence, the feeling of safety is limited to discussing matters of the specific team from which they come. But, when there is trust within and across teams, there will be more ideas for deliberation, discussions will be richer, and more time would be spent on wider sets of issues and problems (Bradley et al., 2012). Also, intrateam trust enables teammates to form strong social bond with high sense of unity and togetherness (Thau et al., 2007). This perception of collectiveness boosts members' confidence to work together and achieve common goals (Grossman et al., 2001). Members' confidence in their capabilities to achieve common goals would be enhanced if there is mutual trust between teams as well because trust between teams creates additional resource pool to tap into.



In a nutshell, the presence of trust across teams, on top of what they get from their own teammates, boosts team members' confidence so that they will be more open to reflect on issues of team or organizational concern (Carter & West, 1998; West & Hirst, 2005), freely share their opinions, listen to one another, reexamine their own views, and integrate them with others (Burke et al., 2008), and exhibit wholeness and unity of effort to openly discuss differing views, get immediate feedback from one another, and make decisions in a collaborative and mutually responsible manner (Carmeli & Halevi, 2009; Lubatkin et al., 2006) without fear of being taken advantage of (Widmer et al., 2009) or seen as incompetent (Edmondson, 2004). Thus, under such conditions, the effect of intrateam trust on organizational outcomes and team processes is expected to be stronger. In contrast, when trust is limited to members of a particular team and doesn't cross team boundaries, open discussion of team or organizational issues and concerns will be limited to the members of a given team only, constructive types of conflicts between teams will be suppressed or kept at a low level (Curseu & Schruijer, 2010), and employees will not feel safe in their interactions with members of other teams, which all weaken the relationship between intrateam trust and team processes. Therefore, based on the above lines of reasoning, I propose the following:

Hypothesis 11: Intrateam trust and interteam trust will have an interactive effect on team processes such that the relationship between intrateam trust team processes will be stronger when interteam is high (vs. low).



CHAPTER 4: METHOD

In this chapter, I present the data collection and analysis methods for my study. I first describe my sample. Then, I describe my data collection procedures, measures, and analytic procedures.

4.1. Sample and Data Collection

Data for this study were collected from 282 team members (78 teams), 77 team leaders and 21 branch managers employed at a big bank located in Addis Ababa, Ethiopia. Data Collection was performed from early February to mid-April 2017. Participation was voluntary and the subjects were given a compensation of 100 Ethiopian Birr (about 5 USD) for their participation. The average work experience of team members was 4.02 years while the average work experiences of team leaders and branch managers were 8.76 years and 14.06 years, respectively. Actual team sizes ranged from 3 to 6 with an average of 3.62. The number of teams in a branch range from 1 to 16 with the average being 3.25. The branch with one team was excluded from all analyses that require interteam interaction. Sixty-nine percent of the team members, 72 percent of the team leaders, and 90 percent of the branch managers were male.

The study employed a longitudinal research design in which data were collected at two¹ time periods. At the beginning of the study period (February, Time 1), team members' demographic characteristics, intrateam trust, team value congruence, and team feedback-seeking behavior were collected from team members while data on interteam trust were collected from team leaders. A month² later (March, Time 2), data on team processes (i.e., team behavioral integration, team psychological safety, team reflexivity, and team learning) and outcomes (i.e.,

 $^{^{2}}$ Even though there is no universally accepted definite time period that should elapse between successive data collection times, a four-week time period is subjectively chosen as the time it takes for the attitude variables to influence one another is relatively short (Menard, 2008).



¹ Based on the suggestion of the Committee members, a three-wave data collection design was modified to be done in two rounds.

individual job satisfaction, individual work engagement, team work engagement, and team satisfaction) were collected from team members while data on performance (individual and team) were collected from team leaders. Similarly, data on branch performance were collected from branch managers at Time 2. After the data collection was completed, remuneration was paid to those who have completed the surveys in both rounds³.

4.2. Measures

Multi-item scales that have been widely used in previous research were used in this study. The scales along with the reliability coefficients, interclass correlation coefficients (ICCs) and interrater agreements, when applicable, are presented in Table 1. All scales but one had reliability coefficients that are at acceptable levels ($\alpha >.70$). Team psychological safety had a reliability coefficient of 0.63. Details regarding the team psychological safety scale is provided in the mediating variables section below. ICC(1) values ranged from .00 to .42, except for intrateam trust, which had a negative ICC(1). Similarly, ICC(2) values ranged from 0.00 to .72, except for intrateam trust (see details below). The interrater agreements were found to be very good (rwg>.70). The items for each construct are listed in Appendix A. Unless otherwise indicated, responses were obtained on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). In order to form team level variables, all individual responses were aggregated to the team level as appropriate.

4.2.1. Independent Variables

Intrateam Trust. Intrateam trust was measured using McAllister's (1995) 11-items scale. The items were modified to reflect team setting and the referent was adjusted to teammates. A sample item reads "If I share my problems with my teammates, they would respond constructively and with care.' The internal reliability yielded acceptable value with .80.

³ Due to lack of access regarding the number of team members in each team, response rates were not calculated.



Interteam Trust. Data about trust between teams were obtained from the leaders of the interacting teams. Like intrateam trust, McAllister's (1995) 11-items scale was used to measure interteam trust. The measure was adapted to reflect interteam relationships. Thus, each team leader was asked to respond to questions that asked about the level of trust between teams within a branch. A sample item reads "If our team shares problems with the other teams in the branch, the other teams would respond constructively and with care.' The internal reliability of the interteam trust scale was .80.

4.2.2. Mediating Variables

Team Behavioral Integration. Team behavioral integration was measured using a nineitem scale adapted from Simsek et al. (2005). A sample item reads "Team members are willing to help each other complete jobs and meet deadlines." The internal reliability of the team behavioral integration scale was .94.

Team Psychological Safety. To gauge the extent to which members of a team feel psychologically safe to take risks, speak up, and discuss issues openly, Edmondson's (1999) seven-items team psychological safety scale was used. A sample item reads "It is safe to take a risk in this team." The internal reliability of the team psychological safety scale was .54. Deleting items raised the reliability of the scale. Nonetheless, the reliability of the scale didn't improve up to the standard level; when three of the seven items are deleted, the reliability of the scale improved only to .63 (see Table 1 below). Further examination of the items revealed that some of the items cross-loaded on other constructs while others lacked face validity. Hence, the team psychological safety construct was dropped from any further consideration. As a result, Hypotheses 5a, 5b, and 8a were not tested.



Team Reflexivity. Team reflexivity was measured using Carter and West's (1998) fiveitems measure adopted and validated by De Jong & Elfring (2010). A sample item reads "In this team we often review the feasibility of our objectives." The internal reliability of the team reflexivity safety scale was .92

Team Learning. Team learning was measured with Edmondson's (1999) seven-item scale. Due to weak loadings and cross loading on other variables (see below), three items were dropped from the final scale. A sample item reads "We invite people from outside the team to present information or have discussions with us." The internal reliability of the team learning scale was .73.

4.2.3. Moderating Variables

Team Value Congruence. Team value congruence was assessed using a three-item scale adapted from Cable and DeRue's (2002) subjective fit measure. The measure was adapted to reflect within team value congruence. A sample item reads "My personal values match my teammates' values and ideals." The internal reliability of the team value congruence scale was .80.

Team Feedback-Seeking Behavior. To assess the extent to which team members actively seek feedback, a five-item, seven-point (1 = very unlikely: 7 = very likely) scale adopted from VandeWalle, Ganesan, Challagalla, & Brown (2000) was used. A sample item reads "How likely are your team members to ask for feedback regarding overall work performance?" The scale was modified by adding "my team would seek feedback from others regarding ..." in front of each item to better orient the respondents. The internal reliability of the team feedback seeking behavior scale was .90.



Construct	Level of Measurement	Reliability, α	ICC1	ICC2	Rwg(j) Mean/Median
Intrateam Trust	Team level	.80	01	02	.80/.84
Interteam Trust	Unit level	.80	-	-	-
Team Behavioral Integration	Team level	.94	.12	.32	.82/.86
Team Psychological Safety ⁴	Team level	.63	.14	.36	.69/.83
Team Reflexivity	Team level	.92	.11	.30	.80/.89
Team Learning	Team level	.73	.00	.02	.77/.89
Team Value Congruence	Team level	.80	.02	.06	.75/.79
Team Feedback Seeking	Team level	.90	.00	.00	.74/.89
Team Performance	Team level	.84	-	-	-
Team Engagement	Team level	.98	.04	.13	.90/.98
Team Satisfaction	Team level	.94	.08	.23	.69/.95
Individual Performance	Individual level	.95	.42	.72	-
Individual Engagement	Individual level	.97	.11	.31	-
Individual Job satisfaction	Individual level	.90	.02	.06	-
Branch Performance	Unit level	.85	-	-	-

Table 1. Summary of the Study Variables

4.2.4. Outcome Variables

Individual Job Performance. Team members' individual job performance was assessed using Baer et al.'s (2015) four-item scale adapted from MacKenzie, Podsakoff, and Fetter (1991). Team leaders were asked the extent to which they agreed with statements about the team members' individual job performance. A sample item reads "Compared to his/her peers, he/she is an excellent worker." The internal reliability of the individual job performance scale was .95.

Individual Job Satisfaction. Individual Job satisfaction was measured using Netemeyer, Maxham III, & Lichtenstein's (2010) three-item scale. A sample item reads "All in all, I am

⁴ The variable is dropped from the study due to weak reliability and lack of face validity of some of its items



satisfied with my present job at [the bank]." The internal reliability of the individual job satisfaction scale was .90.

Individual Job Engagement. Team members' individual work engagement was assessed with Rich, LePine, & Crawford (2010) 18-items job engagement scale (JES). A sample item reads "I am enthusiastic about my job." The internal reliability of the individual job engagement scale was .97.

Team Satisfaction. Team satisfaction was measured using Netemeyer, Maxham III, & Lichtenstein's (2010) three-item scale. The items were modified to reflect team setting and the referent was adjusted to the team. A sample item reads "All in all, my team is satisfied with its job." The internal reliability of the individual job satisfaction scale was .94.

Team Performance. Team performance was measured using De Jong & Elfring's (2010) three-items scale that assesses teams' task accomplishment as evaluated by a team leader. A sample item includes "How do you evaluate the quality of work the team produces?" All the items were anchored on a seven-point scale ranging from 1=far below average to 7=far above average. The internal reliability of the individual job satisfaction scale was .84.

Team Job Engagement. Team work engagement was assessed using the 18-item job engagement scale developed by Rich et al. (2010). The items were modified to reflect team setting and the referent was adjusted to the team. A sample item reads "Our team works with intensity on our job." The internal reliability of the team job engagement scale was .98.

Unit Performance. Unit/branch performance was obtained by asking branch managers about the performance of their respective branches using Delaney and Huselid's (1996) six-item perceived performance scale. The scale asked branch managers about the performance of their branches. A sample item reads "Compared to other similar branches of the bank that do the same



kind of work, how would you compare your branch's performance in terms of quality of products, services, or programs?" All the items will be anchored on a seven-point scale ranging from 1=much worse to 7=much better. The internal reliability of the branch performance scale was .85.

4.2.5. Control Variables.

Individual-level Controls: The study controlled for team members' gender (coded as 0 = Female and 1 = Male), age and the number of years of experience at the individual level. However, respondents' age and the number of years of experience had a very high correlation (r = .91). In addition, there were more missing values for years of experience than age. Thus, the number of years of experience is dropped from further consideration as a control variable.

Team-Level Controls: The study controlled for participants' average age of team members, gender composition of team members, team size, gender of the team leaders (coded as 0 = Female and 1 = Male), and age of team leaders. Similar to team member respondents, team leaders' age and number of years of experience had a very high correlation (r = .93). Thus, the number of years of experience is dropped from further consideration as a control variable.

Unit-Level Controls: The study controlled for age and gender (coded as 0 = Female and 1 = Male) of the branch managers as well as the number of teams in the branch/unit. Likewise, branch managers' age and number of years of experience had a very high correlation (r = .91). Thus, the number of years of experience is dropped from further consideration as a control variable.

In addition, the study controlled for differences in location (i.e., whether the teams were obtained from the head office (coded 0) or from outlaying branches (coded 1)). This is because an analysis of variance (ANOVA) test indicates that the location of the teams (head office or



branches) had significant effect on team reflexivity (F=4.50, p<.05) and team learning (F=2.98, p<.10).

4.3. Data Analysis

4.3.1. Preliminary Analyses

Once data were collected, data screening was performed to check for issues, such as missing values, outliers, normality and multicollinearity. Frequencies were run on each variable to check the accuracy of the data and to identify the amount of missing values. Any entry errors found were corrected by looking at the original data sources. Means and standard deviations were also inspected and all were found to be plausible. The amount of missing data within all the variables was less than 5%. Thus, a mean-substitution method was conducted to replace the missing values (Tabachnick & Fidell, 2001).

A combination of several methods was used in identifying univariate outliers. First, variables were z-transformed, and cases with z values above + 3.29 or below -3.29 were considered outliers (Tabachnick & Fidell, 2001). In addition, QQ plots were also investigated. The results of these two methods were combined so that extreme values identified in both methods were considered outliers. These outliers were removed from the data set, and all analyses were performed with and without outliers. Because the results were similar, the analyses with outliers are reported here in order to utilize all available data.

The issue of multicollinearity was investigated by checking the values of Variable Inflation Factor (VIF) and examining the correlation coefficients. Because VIF values were lower than the cut-off point of 10 (Cohen, Cohen, West, & Aiken, 2003) and no extreme correlation was observed (r>.80), multicollinearity was assumed not to be a problem. Besides, the variables were mean centered to minimize the problem of multicollinearity.



Then, I checked the appropriateness of aggregating data from individual-level to team level by calculating $r_{wg(j)}$ as a measure of agreement within teams (James, Demaree, & Wolf, 1984, 1993). I also checked for interclass correlations (ICC1) and the reliability of team means (ICC2) (Bliese, 2000) whether the scales varied between teams and their reliabilities at the team level, respectively. As shown in Table 1 above, I obtained a substantial interrater agreement (i.e., $r_{wg} >$ 0.70) for most of the study variables. Thus, I aggregated the individual level data into team level. Finally, I calculated the reliability of each measurement scale through team-level Cronbach's alpha coefficients, which were all found to be good except for one variable (team psychological safety). See Table 1 above for the results.

From the results in Table 1 above, we learn that ICCs for intrateam trust are negative while the ICCs for team learning, team value congruence, team feedback seeking behavior, team engagement the ICCs are very small. The negative ICCs indicate that the within team differences are higher than the between team differences; while, the very small positive ICCs indicate little variation within and between teams (Shrout & Fleiss, 1979). In such cases, LeBreton, Burgess, Kaiser, Atchley, and James (2003) suggest using a different measure of reliability that does not depend on correlation; their recommendation is the Rwg score. Rwg score compares the observed variance to a "null distribution" that could be expected to occur by chance (James et al., 1984). A closer look at the RWG values indicate a presence of high degree of agreement among the raters in each team (RWG>.70). Therefore, aggregating the individual level measurements to team level is appropriate.

So as to establish the discriminant validity of the four mediators, I conducted a preliminary confirmatory factor analysis (CFA) using SPSS. The results indicate that the items of team psychological safety cross-loaded on other variables and dropping these items didn't improve the



reliability of the scale significantly. Thus, I dropped the team psychological safety variable altogether. Hence, all hypotheses (e.g., Hypotheses 5a and 5b) involving team psychological safety were not tested. Moreover, three items of team learning had a poor loading and, hence, I dropped the three items.

Then, I conducted a series of CFA using Amos to test for the factor structure of the three remaining mediators (team behavioral integration, team reflexivity, and team learning) with their respective items. Specifically, I ran a three-factor model, a one-factor model and three separate two-factor models. The three-factor model assumes that the three mediators are distinct constructs while the one-factor model combines all three contracts together. Meanwhile, the two-factor models combine two constructs while leaving the other to stand by itself. Two-factor Model A combined team behavioral integration and team reflexivity while team learning stood alone. Two-factor Model B combined team behavioral integration with team learning while team reflexivity stood by itself. Two-factor Model C combined team behavioral integration stood by itself. As can be seen in Table 2a below, the three-factor model had the best fit to the data. Thus, the three mediators of the study were found to have discriminant validity. Based on the result of the CFA, I constructed the scales. Once this was completed, the hypotheses were tested using a series of OLS regressions and hierarchical linear modelling.



Model	χ^2 value	df	CFI	SRMR	RMSEA	Changes in df	Changes in χ ²
Three-Factor Model	169.25	144	.98	.03	.05	-	-
Two-Factor Model A	258.57	146	.90	.04	.10	2	89.32***
Two-Factor Model B	247.97	146	.91	.05	.10	2	78.72***
Two-Factor Model C	204.76	146	.95	.04	.07	2	35.51***
One-Factor Model	299.26	147	.86	.05	.12	3	130.01***
*P<.10	** P	<i>v</i> <.05		*	**p<.01		

75

Table 2a. Discriminant Validity of the Mediators

Besides testing for the discriminant validity of the three mediators, I have also run a CFA of the three mediators and two team-level outcome variables (job satisfaction and job engagement) reported by team members. The five-factor model had a very good fit to the data (χ^2 = 1292.31; df = 743; CFI = .95; SRMR = .04; RMSEA = .05). Moreover, I also ran two alternative models to see if they better fit the data. The first alternative model is a two-factor model that combines mediators and outcomes in separate categories. The second alternative model is a one-factor model that combines all the five variables together. The chi-square difference test shown in Table 2b below indicates that the five-factor model best fit to the data.

Table 2b.	Discriminate	Validity	of Te	am Leve	l Mediators	and	Outcomes	Reported	by
	Team membe	ers							

Model	χ^2 value	df	CFI	SRMR	RMSEA	Changes in df	Changes in χ^2
Five-Factor Model	1292.31	743	.95	.04	.05	-	-
Two-Factor Model	1983.57	750	.89	.06	.08	7	691.26***
One-Factor Model	2911.36	751	.81	.09	.10	8	1619.05***
*P<.10	**/	<i>o<.05</i>		*	***p<.01		



4.3.2. Statistical Analyses

To test the relationships hypothesized in the study, a two-part analysis was conducted. In the first part, OLS regression was used to examine relationships among team-level constructs. In the second part, hierarchical linear modelling (HLM) was employed to assess relationships across levels. The detailed analyses are shown below:

4.3.2.1 Part A: OLS Regression

To test relationships (direct and mediation) between variables that were measured at the team-level of analysis, OLS regression analyses were performed using SPSS 24.0. To test for mediation, I used the Baron and Kenny (1986)⁵ method and the Hayes' (2013) indirect effects methods as appropriate. Similarly, an OLS regression analysis was used to test the moderating role of the team value congruence and team feedback-seeking behavior on the relationship between intrateam trust and the team processes. In doing so, the significance of the main effects of the moderators and the interaction effects were examined. Accordingly, hypotheses 2, 4a, 6a, 7a, 8a, 8b, 9a, and 9b were tested using OLS regression.

4.3.2.2 Hierarchical Linear Modelling (HLM)

The research model for this study specifies relationships at three-levels: Individuals nested in teams and teams nested in units/branches. Hence, following Bliese (2002), hierarchical linear modeling (HLM) was conducted using R software to test hypotheses across levels. HLM is a more appropriate linear modeling tool than OLS regression because the variables represent different levels of analysis-individual, team and unit levels (Ambrose & Schminke, 2003). HLM models within-group and between-group variance simultaneously (Raudenbush & Bryk, 2002). That is, HLM is a useful tool in partitioning between-group versus within-group variance where

⁵ The Baron and Kenny (1986) method is used to test mediation tests because the Hayes' (2013) indirect effects method couldn't be used in multilevel mediation.



appropriate. Hypotheses 1, 3, 4b, 6b, 7b, 10, and 11 were tested using HLM. In calculating the total amount of variance explained by the predictors, R^2 , I used the Snijders and Bosker's (1994) procedure. The formula used to calculate the variance explained by the whole model is as follows:

$$R^{2}(S\&B) = 1 - \frac{(\sigma_{full}^{2} + \tau_{00full})}{(\sigma_{null}^{2} + \tau_{00null})}$$

Where:

$$\sigma_{full}^2$$
 within-group variance of the full model
 τ_{oofull} = between-group intercept variance of the full model
 τ_{oonull} = between-group intercept variance of the null model
 σ_{null}^2 = within-group variance of the null model

This procedure is also recommended based on the comparisons of different techniques that can be used to calculate R^2 (LaHuis, Hartman, Hakoyama & Clark, 2014).

To test relationships at the unit/branch level, I first aggregated the study variables of interest (intrateam trust, interteam trust, the mediators, and the controls) to branch level. This resulted in data with 57 teams nested under 21 branches. Three branches along with their corresponding teams were excluded from the study: two branches from which managers didn't participate in the study and one branch due to having only 1 team with complete data (from branch managers, team members and team leaders) in the two rounds.



CHAPTER 5: RESULTS

This chapter outlines the results of data analyses. Tables 3a-3c below present descriptive statistics and correlations for individual-, team-, and unit-level variables, respectively. These tables show that most of the substantive variables are not strongly correlated with the controls. The exceptions were team reflexivity (with location of the team: r = .31, p<.01), team engagement (with location of the team: r = .24, p<.05; with age of team leaders: r = .24, p<.05; with gender of team leaders: r = .25, p<.25), and team performance (with location of the team: r = .24, p<.05) at the team level. Hence, for brevity purposes, the control variables are not included in the tables that are used to show the hypotheses testing results.

5.1.Hypothesis Testing about the Effects of Intrateam Trust

Hypothesis 1 predicted that intrateam trust would be positively related to team members' individual job performance, job satisfaction, and work engagements. The results presented in Tables 4a-4c (Model 2s) below revealed that intrateam trust was significantly related to individual job satisfaction (b=.53, s.e.= .23, p<.01) and individual engagement (b=.49, s.e.= .16, p<.01). However, the effect of intrateam trust on individual performance was not significant (b=.26, s.e=.22, p>.10). Thus, Hypothesis 1 was partially supported.

Hypothesis 2 predicted that intrateam trust would be positively related to team performance, team members' satisfaction, and team work engagement. As shown in Tables 5a-5c (Model 2s) below, the results revealed that intrateam trust was significantly related to team satisfaction (b=.58, s.e. = .20, p<.01) and team engagement (b=.62, s.e. = .14, p<.01). However, the effect of intrateam trust on team performance was not significant (b=-.01, s.e. = .20, p>.10). Thus, Hypothesis 2 was partially supported.



Hypothesis 3 predicted that intrateam trust would be positively related to unit-level outcomes (i.e., branch performance). A regression analysis indicates that the effect of (average) intrateam trust on branch performance was not significant (b=.00, s.e.=.25, p>.10). Thus, Hypothesis 3 was not supported. In addition, I also checked if the mediators were related with branch performance. However, none of the mediators was significantly related with branch performance. Thus, no further mediation tests involving branch performance and intrateam trust was conducted.

Hypothesis 4a predicted that intrateam trust would be positively related to team reflexivity. As indicated in Table 5a (Model 2) below, the results revealed that intrateam trust was significantly related to team reflexivity (b=.72, s.e. = .17, p<.01). Hence, Hypothesis 4a was supported.

Hypothesis 4b proposed that team reflexivity would mediate the relationship between intrateam trust and the outcomes (performance, job satisfaction, and employee engagement) at individual, team, and organizational levels. At the individual level, the results shown in Table 4a (Model 2) below indicate intrateam trust was significantly related to individual job satisfaction (b=.52, s.e=.23, p<.05) and individual engagement (b=.49, s.e.=.16, p<.01). However, the effect of intrateam trust on individual performance was not significant (b=.26, s.e.=.22, p>.10). Thus, no mediation test was done on team performance. The results presented in Table 4a (Model 3) show that after controlling for team reflexivity, the relationships between intrateam trust and individual job satisfaction (b=.16, s.e.=.25, p>.10) and intrateam trust and individual job satisfaction (b=.16, p>.10) were no longer significant. Full mediation was, therefore, found for two of the three individual-level outcome variables.



At the team level, the results presented in Table 5a (Model 2) below indicate that intrateam trust significantly predicted team reflexivity (b=.72, s.e.=.17, p<.01), team satisfaction (b=.58, s.e.=.20, p<.01) and team engagement, (b=.62, s.e.=.14, p<.01). However, the effect of intrateam trust on team performance was not significant (b=-.01, s.e.=.20, p>.10). The results presented in Table 5a (Model 3) show that after controlling for team reflexivity, the relationship between intrateam trust and team satisfaction was no longer significant (b=.25, s.e.=.21, p>.10). However, the relationship between intrateam trust and team engagement was still significant (b=.33, s.e.=.14, p<.05), though reduced. Moreover, team reflexivity did not mediate the relationship between intrateam trust and team performance (b=-.10, s.e.=.22, p>.10). To check the significance of indirect effects of the mediated relationships, I used the PROCESS procedure for bias-corrected bootstrapping (Hayes, 2013) to compute a 95% confidence interval. The results confirmed the significant indirect effect of team reflexivity on the relationship between intrateam trust and team satisfaction (indirect effect = .32, boot S.E. = .12, p < .01, 95% CI = [.13, .62]) and on the relationship between intrateam trust and team engagement (indirect effect = .28, boot S.E. = .10, p < .01, 95% CI = [.12, .49]). This is because the confidence intervals did not contain zero. Nevertheless, indirect effect of team reflexivity on the relationship between intrateam trust and team performance was not significant (indirect effect = .07, boot S.E. = .10, p > .10, 95% CI = [-.13, .27]), as the confidence interval contained zero.

At the unit level, average intrateam trust significantly predicted average team reflexivity (b=.91, s.e.=.22, p<.05). However, intrateam trust was not significantly related to branch performance (b=.18, s.e.=.88, p>.10). Thus, team reflexivity did not mediate the



relationship between intrateam trust and branch performance. Based on the results just described, Hypothesis 4b was partially supported.

Finally, to see the relative importance of the mediators in explaining how intrateam trust affects team-level outcomes, I ran a mediation model by entering all the three mediators at the same time for each team-level outcome. The results indicate that team behavioral integration (b=.38, s.e. = .20, p<.10) and team learning (b=.41, s.e. = .16, p<.05) had significant effects in transmitting the effects of intrateam trust to team satisfaction. However, team reflexivity didn't have a significant effect (b = .10, s.e. = .18, p>.10) in transmitting the effect of intrateam trust to team satisfaction. Similarly, in mediating the relationship between intrateam trust and team engagement, team behavioral integration had a significant effect (b=.66, s.e. = .11, p<.01) while the effects of team reflexivity (b = -.01, s.e. = .11, p>.10) and team learning (b = .13, s.e. = .10, p>.10) were not significant. Since, none of the mediators explain how intrateam trust affect team performance, none of the results were significant (team behavioral integration: b = .32, s.e. = .23, p>.10; team reflexivity: b = -.08, s.e. = .20, p>.10; team learning: b = .09, s.e. = .18, p>.10).



Tab	Table 3a. Descriptive Statistics and Correlations (Team Level)	Correl	tions ('	Team Le	vel)					
N0.	Variable	Mean	SD	-	17	e	4	S	9	7
	Location of the team									
	(head office or branches)	0.74	0.44							
i,	Team Size	3.62	0.71	.10						
ω.	Gender (Team Members)	0.30	.29	.07	.22					
4	Age (Team Members)	29.30	4.36	41***	24**	31***				
5.	Age (Team Leaders)	34.69	7.06	21	28**	13	.26**			
6.	Gender (Team Leaders)	0.28	.45	.11	.18	.22	13	08		
7.	Intrateam Trust	5.32	0.43	-00	.13	.06	00	11	.13	
×.	Interteam Trust	5.19	0.75	.17	.07	02	06	04	.12	.06
9.	Team Behavioral Integration	5.16	0.63	17	.07	08	.10	12	.18	.56***
10.	Team Reflexivity	4.84	0.73	31***	.14	11	.11	08	06	.45***
11.	Team Learning	4.53	0.56	17	.08	07	.08	-00	.07	.34***
12.	Team Value Congruence	4.66	0.69	14	.14	04	60.	05	03	.47***
13.	Team Feedback-Seeking Behav.	5.02	0.63	08	03	-00	.10	.03	02	.30***
14.	Team Satisfaction	4.47	0.78	.10	.06	15	01	05	.17	.31***
15.	Team Engagement	5.22	0.60	02	04	22*	.04	24**	.25**	.43***
16.	Team Performance	5.75	0.75	.24**	06	.13	15	16	.06	03
N = 78	78 *P<.10	*	* p<.05			*** p<.01	Ι			
	Note: The control variables were omitted from this table for brevity purposes. All significance levels are based on two-tailed tests.	ables w levels	rere om	itted from d on two-	this table tailed tes	ts.	y purpose	es.		
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82

Tab	Table 3a. Descriptive Statistics and Correlations (Team Level) (Continued)	Correlatic	ons (Team	Level) (Co	ntinued)		
No.	No. Variables	×	6	10	11	12	13
9.	Team Behavioral Integration	.11					
10.	Team Reflexivity	00.	.75***				
11.	Team Learning	.10	.51***	.64***			
12.		.13	.30***	.41***	.29**		
13.	Team Feedback Seeking Behavior	.05	.13	.27**	.35***	.32***	
14.	Team Satisfaction	.21*	.49***	.44**	.45***	.22**	0.23**
15.	Team Engagement	.21*	.74***	.55***	.47***	.21*	0.24**
16.	Team Performance	.31***	60.	02	.07	.02	-0.01
	N= 78 (Teams) $*P<.I0$ $**$ $p<.05$ $***$ $p<.01$ Note: The control variables were omitted from this table for brevity purposes. All significance levels are based on two-tailed tests.	* <i>P<.10</i> iables were e levels are	$\sum_{p=0}^{**} \frac{p}{p < .05}$ omitted from based on two	Σ m this tabl vo-tailed te	e for brevi ssts.	p < 01	83
)						

	4														
	Variable	Mean	SD	1	7	3	4	S	9	7	8	6	10	11	12
1.	Age (Branch Managers)	39.90	4.81												
5.	Gender (Branch Managers)	0.05	0.22	09											
ω.	Age (Team Leader)	33.05	4.89	60.	38										
4	Gender (Team Leaders)	0.32	0.28	24	.14	28									
5.	Age (Team Members)	27.97	2.29	.33	.07	06	.18								
9.	Gender (Team Members)	0.33	0.20	.24	.39	54	.19	16							
7.	No of Teams	2.71	1.38	.35	12	.25	18	.28	-00						
%	Average Intrateam Trust	5.27	0.26	05	.07	.24	02	14	.14	.26					
9.	Average Interteam Trust	5.25	0.49	.14	.27	.35	04	.06	15	.05	.14				
10.	Ave. Team Behav. Integ.	5.11	0.47	21	03	.21	.19	30	.12	05	.67***	.16			
11.	Average Team Reflexivity	4.70	0.58	20	02	.16	.06	37	.10	03	.71***	.03	.79***		
12.	Average Team Learning	4.50	0.43	12	.10	11	.14	03	.17	13	.50**	.28	.69	.79***	
13.	Branch Performance	5.50	0.84	07	.14	21	19	.01	04	.17	11	.16	35	07	.02
	N = 21 (Branches)	*P<.10	.10		* *	**P<.05	*	***p<.01							
	Note: All significance levels are based on	are based		two-tailed tests	ests.										

Table 3b. Descriptive Statistics and Correlations (Unit-Level)

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	Variable	Mean	SD	1	2	3	4
1.	Age (Team Members)	29.05	6.20				
2.	Gender (Team Members)	.31	.46	14**			
3.	Individual Job Satisfaction	4.51	1.60	.10	05		
4.	Individual Job Engagement	5.57	1.05	.08	10	.62***	
5.	Individual Job Performance	5.56	1.03	.02	.11*	02	02
	N = 282 (Team Me	mbers)	*P	<.10		**P<.	.05
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85

 Table 3c. Descriptive Statistics and Correlations (Individual-Level)

***p<.01



Variables	Individua Satisfac		Individu Engage		Individ Perfor	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor						
Intrateam Tru	st .52***	.16	.49***	.23	.26	.15
	(.23)	(.25)	(.16)	(.16)	(.22)	(.24)
Mediators						
Team Reflexiv	ity	.54***		.39***		.20
		(.16)		(.10)		(.15)
\mathbb{R}^2	.01	.05	.06	.10	.03	.04
1	N = 282 (Individuals)	N	=78 (teams)		*P<.10	
*	**P<.05	***p<.01	!			
1	Note: All control van Unstandardize		e omitted from efficients are re		or brevity pu	rposes.

All significance levels are based on two-tailed tests.

Standard errors are reported in brackets

Table 4a. Multi-Level Regression Results for Predicting the Mediating Role of Team Reflexivity in the Intrateam Trust-Individual Level Outcomes Relationship



Variables		lual Job action		lual Job gement	Individ Perfor	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor						
Intrateam Trust	.52***	01	.49***	.13	.26	.18
	(.23)	(.26)	(.16)	(.17)	(.22)	(.26)
Mediators						
Team Behavioral		.67***		.47***		.14
Integration		(.18)		(.12)		(.19)
\mathbb{R}^2	.01	.05	.06	.10	.03	.03
N=282 (Individuals)	N = 7	8 (teams)		*P<.10	
**P<.05	*	**p<.01				
Note: A	ll control variab	oles were on	nitted from	this table for	r brevity pu	rposes.
	[netandardized]				• 1	-

Table 4b.	Multi-Level	Regression	Results	for Predic	ting the Mediatin	ng Role of Team
	Behavioral	Integration	in the	Intrateam	Trust-Individual	Level Outcomes
	Relationship)				

Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables		dual Job	Indivi	dual Job	Indiv	vidual Job
	Satis	faction	Enga	gement	Per	formance
	Model 2	Model 3	Model 2	Model	3 Model 2	Model 3
Predictor						
Intrateam Trust	.52***	.24	.49***	.35**	.26	.16
	(.23)	(.23)	(.16)	(.16)	(.22)	(.24)
Mediators						
Team Learning		.68***		.36***		.24
C C		(.18)		(.12)		(.20)
\mathbb{R}^2	.01	.06	.06	.08	.03	.05
N=	282 (Individu	uals)	N = 78 (team	ns) *	*P<.10	**P<.05
***	p<.01					

 Table 4c. Multi-Level Regression Results for Predicting the Mediating Role of Team

 Learning in the Intrateam Trust-Individual Level Outcomes Relationship

Note: All control variables were omitted from this table for brevity purposes. Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables	Team	Team		Te	am	Team Performance	
	Reflexivity	Satisf	action	Engagement			
	Model 2	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor							
Intrateam Trust	.72***	.58***	.25	.62***	.33**	01	10
	(.17)	(.20)	(.21)	(.14)	(.14)	(.20)	(.22)
Mediators							
Team Reflexivity			.48***		.41***		.13
			(.13)		(.09)		(.14)
\mathbb{R}^2	.31***	.14***	.28***	.25***	.42***	.08	.09
ΔR^2	.17***	.10***	.14***	.20***	.17***	.00	.01
Δ F-value	17.61***	8.56	13.34***	18.73***	20.79***	.00	.81
N =		*P<.10		**P<.05			

 Table 5a. Regression Results for Predicting the Mediating Role of Team Reflexivity in the Intrateam Trust-Team Level Outcomes Relationship

***p<.01

Note: All control variables were omitted from this table for brevity purposes.

Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables	Team	Team Satisfaction		Team Engagement		Team Performance	
	Behav. Integ						
	Model 2	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor							
Intrateam Trust	.80***	.58***	.12	.62***	.08	01	23
	(.14)	(.20)	(.22)	(.14)	(.13)	(.20)	(.24)
Mediator							
Team Behav. Integ.			.59***		.69***		.28*
C			(.15)		(.09)		(.17)
\mathbb{R}^2	.34***	.14***	.29***	.25***	.59***	.08	.12*
ΔR^2	.29***	.10***	.15***	.20***	.35***	.00	.04*
Δ F-value	31.50***	8.56***	14.77***	18.73***	59.69***	.00	2.84*
N = 78 (teams)		*P<.10		**P<.05		***p<.01	

Table 5b.	Regression 1	Results for	Predicting	the	Mediating	Role	of Team	Behavioral
	Integration in	in the Intra	team Trust-1	ſeam	Level Outo	omes l	Relationsh	nip

90

Notes: All control variables were omitted from this table for brevity purposes. Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables	Team Team			Team]	Team	
	Learning	Sa	tisfaction	Engagement		Performance	
	Model 2	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor							
Intrateam Trust	.42***	.58***	.35*	.62***	.46***	01	10
	(.14)	(.20)	(.19)	(.14)	(.14)	(.20)	(.21)
Mediator							
Team Learning			.56***		.38***		.21
			(.15)		(.11)		(.17)
\mathbb{R}^2	.15***	.14***	.28***	.25***	.36***	.08	.10
ΔR^2	.10***	.10***	.14***	.20***	.11***	.00	.02
Δ F-value	8.46***	8.56***	13.55***	18.73***	12.25****	.00	1.61
N = 78 (teams) *P<.10		<.10		**P<.03	5	<i>o<.01</i>	
No	tes: All cor	trol variabl	les were om	itted from t	his table for	brevity pu	rposes.
	Unstan	dardized Be	eta coefficie	ents are repo	orted.		

Table 5c. Regression Results for Predicting the Mediating Role of Team Learning in the
Intrateam Trust-Team Level Outcomes Relationship

Standard errors are reported in brackets

All significance levels are based on two-tailed tests.

Hypothesis $6a^6$ predicted that intrateam trust would be positively related to team behavioral integration. As indicated in Table 5b above, the results revealed that intrateam trust was significantly related to team behavioral integration (b=.80, s.e.=.14, p<.01). Hence, Hypothesis 6a was supported.

Hypothesis 6b proposed that team behavioral integration would mediate the relationship between intrateam trust and the outcomes (performance, job satisfaction, and employee engagement) at individual, team, and organizational levels. At the individual level, the results shown in Table 4b above indicate intrateam trust was significantly related to individual job satisfaction (b=.52, s.e.=.23, p<.05) and individual engagement (b=.49, s.e.=.16, p<.01), but not to individual performance (b=.26, s.e.=.22, p>.10). Thus, no mediation test was

⁶ Note that Hypotheses 5a, 5b, and 8a, which involved team psychological safety that was dropped due low reliability of scale were not tested.



done on team performance. The results presented in Table 4b (Model 3) show that after controlling for team behavioral integration, the relationships between intrateam trust and individual job satisfaction (b=-.01, s.e.=.26, p>.10) and intrateam trust and individual job engagement (b=.13, s.e.=.17, p>.10) were no longer significant. Full mediation was, therefore, found on two of the three individual-level outcome variables.

At the team level, the results presented in Table 5b (Model 2) above indicate that intrateam trust was significantly predicted team behavioral integration (b=.80, s.e.=.14, p<.01), team satisfaction (b=.58, s.e.=.20, p<.01) and team engagement, (b=.62, s.e.=.14, p<.01). However, the effect of intrateam trust on team performance was not significant (b= -.01, s.e.=.20, p>.10). The results presented in Table 5b (Model 3) show that after controlling for team behavioral integration, the relationship between intrateam trust and team satisfaction (b=.12, s.e.=.22, p>.10) and intrateam trust and team engagement (b=.08, s.e.=.13, p>.10) were no longer significant. However, team behavioral integration did not mediate the relationship between intrateam trust and team performance (b=-.23, s.e.=.24, p>.10).

To establish the significance of indirect effects of the mediated relationships, I used the PROCESS procedure for bias-corrected bootstrapping (Hayes, 2013) to compute a 95% confidence interval. The result confirmed the significant indirect effect of team behavioral integration on the relationship between intrateam trust and team satisfaction (indirect effect = .46, boot S.E. = .14, p < .01, 95% CI = [.23, .82]) and on the relationship between intrateam trust and team engagement (indirect effect = .54, boot S.E. = .13, p < .01, 95% CI = [.32, .84]). Nevertheless, indirect effect of team behavioral integration on the relationship between intrateam trust and team performance was not significant (indirect effect = .21, boot S.E. = .13, p > .10,



95% CI = [-.05, .46]). Hence, full mediation was obtained on two of the three team-level outcome variables.

At the unit level, average intrateam trust significantly predicted average team behavioral integration (b=.70, s.e. = .20, p<.05). However, intrateam trust was not significantly related to branch performance (b=.18, s.e. = .88, p>.10). Thus, team behavioral integration did not mediate the relationship between intrateam trust and branch performance. Based on the results just described, Hypothesis 6b was partially supported.

Hypothesis 7a predicted that intrateam trust would be positively related to team learning. As indicated in Table 5c above, the results revealed that intrateam trust was significantly related to team learning (b=.42; s.e.=.14, p<.01). Hence, Hypothesis 7a was supported.

Hypothesis 7b proposed that team learning would mediate the relationship between intrateam trust and the outcomes (performance, job satisfaction, and employee engagement) at individual, team, and organizational levels. At the individual level, the results shown in Table 4c indicate intrateam trust was significantly related to individual job satisfaction (b=.52, s.e.=.23, p<.05) and individual engagement (b=.49, s.e.=.16, p<.01). However, the effect of intrateam trust on individual performance was not significant (b=.26, s.e.=.22, p>.10). Thus, no mediation test was done on team performance. The results presented in Table 4c (Model 3) show that after controlling for team learning, the relationships between intrateam trust and individual job satisfaction was no longer significant (b=.24, s.e.=.23, p>.10) while the relationship between intrateam trust and individual job engagement was still significant (b=.35, s.e.=.16, p<.05). Thus, a full mediation and a partial mediation were found on individual job satisfaction and individual job engagement, respectively.



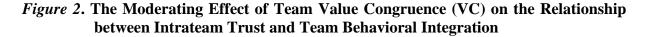
At the team level, the results presented in Table 5c (Model 2) indicate that intrateam trust significantly predicted team learning (b=.42, s.e.=.14, p<.01), team satisfaction (b=.58, s.e.=.20, p<.01) and team engagement, (b=.62, s.e.=.14, p<.01). However, the effect of intrateam trust on team performance was not significant (b=-.01, s.e.=.20, p>.10). The results presented in Table 5c (Model 3) show that after controlling for team learning, the relationship between intrateam trust and team satisfaction (b=.35, s.e.=.19, p<.10) and intrateam trust and team engagement (b=.46, s.e.=.14, p<.01) were still significant, implying partial mediation. However, team learning did not mediate the relationship between intrateam trust and team performance (b=-.10, s.e.=.21, p>.10).

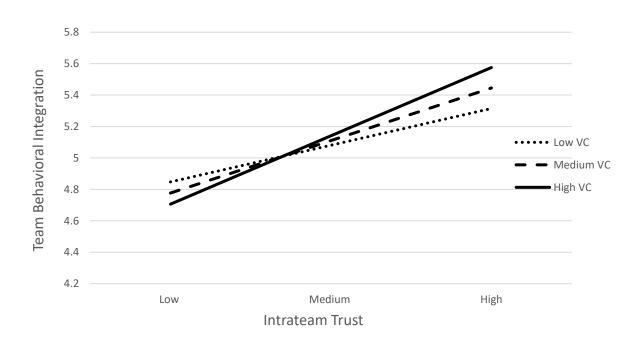
To establish the significance of indirect effects of the mediated relationships, I used the PROCESS procedure for bias-corrected bootstrapping (Hayes, 2013) to compute a 95% confidence interval. The result confirmed the significant indirect effect of team learning on the relationship between intrateam trust and team satisfaction (indirect effect = .24, boot S.E. = .12, p < .01, 95% CI = [.06, .54]) and on the relationship between intrateam trust and team engagement (indirect effect = .16, boot S.E. = .08, p < .01, 95% CI = [.04, .37]). Nevertheless, the indirect effect of team learning on the relationship between intrateam trust and team performance was not significant (indirect effect = -.03, boot S.E. = .03, p > .10, 95% CI = [-.104, .002]). Hence, full mediation was obtained on two of the three team-level outcome variables.

At the unit level, average intrateam trust did not significantly predicted average team learning (b=.28, s.e. = .38, p>.10) as well as branch performance (b=.18, s.e.=.88, p>.10). Thus, team learning did not mediate the relationship between intrateam trust and branch performance. Based on the results just described, Hypothesis 7b was partially supported.



Hypothesis 8b predicted that team value congruence would moderate the relationship between intrateam trust and team behavioral integration. The results presented in Table 6a revealed that the main effect of team value congruence was not significant (b=.03, s.e.=.10; p>.10) while the interaction effect of team value congruence and intrateam trust was marginally significant (b=.34, s.e.=.20; p<.10). Figure 2 below shows that the relationship between intrateam trust and team behavioral integration is stronger when team value congruence is high than when it is low. This is particularly true at high level of intrateam trust. Thus, Hypothesis 8b was supported.





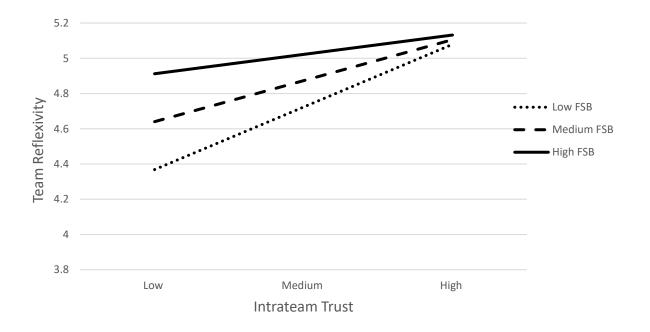
Hypotheses 9a predicted that team feedback seeking behavior would moderate the relationship between intrateam trust and team learning. The results presented in Table 6b (Model 3) revealed that the main effect of team feedback seeking behavior was significant (b=.25, s.e.=.10; p<.05) while the interaction effect of team feedback seeking behavior and intrateam



trust (Model 4) was not significant (b=.04, s.e.=.22; p>.10). Therefore, Hypothesis 9a was not supported.

Hypothesis 9b predicted that team feedback seeking behavior would moderate the relationship between intrateam trust and team reflexivity. The results presented in Table 6b (Model 3) revealed that the main effect of feedback seeking behavior was not significant (b=.19, s.e.=.12; p>.10) while the interaction effect of intrateam trust and feedback seeking behavior (Model 4) was marginally significant (b= -.45, s.e.=.26; p<.10), albeit in opposite direction. Figure 3 below shows that the relationship between intrateam trust and team reflexivity is stronger when team feedback-seeking behavior is low than when it is high. Therefore, Hypothesis 9b was not supported.

Figure 3. The Moderating Effect of Team Feedback Seeking Behavior (FSB) on the Relationship between Intrateam Trust and Team Reflexivity





		Team Behavioral Integration	n
Variables	Model 2	Model 3	Model 4
Predictors			
Intrateam Trust	.80***	.78***	.77***
	(.14)	(.16)	(.16)
Moderator			
Team Value Congruence		.03	.05
(TVC)		(.10)	(.10)
Interaction			
Intrateam Trust*TVC			.34*
			(.20)
\mathbb{R}^2	.33***	.33	.35*
ΔR^2	.30***	.00	.03*
Δ F-value	32.82***	.07	2.83*
N=78 Teams	*P<.10	**P<.05	***p<.01
Notes: All control va	riables were omitted	from this table for brevity	purposes.
	ed Beta coefficients a	-	
	rs are reported in bra	1	
	ce levels are based or		

Table 6a. The Moderating effect of Team Value Congruence (TVC) on the Intrateam Trust-Team Behavioral Integration Relationship



Relationships	Π		•4	Teens Leensing			
	168	am Reflexiv	vity	Team Learning			
Variables	Model 2	Model 3	Model 4	Model 2	Model 3	Model 4	
Predictors							
Intrateam Trust	.72***	.64***	.54***	.42***	.31**	.32**	
	(.17)	(.18)	(.19)	(14)	(.14)	(.15)	
Moderator							
Team Feedback Seeking Behavior		.19	.24*		.25**	.24**	
(FSB)		(.12)	(.12)		(.10)	(.10)	
Interaction							
Intrateam Trust*FSB			45*			.04	
			(.26)			(.22)	
R ²	.29***	.31	.34*	.16***	.23**	.23	
ΔR^2	.18***	.02	.03*	.10***	.07**	.00	
Δ F-value	18.23***	2.45	2.95*	8.81***	6.28**	.04	
N=78 Teams	*P<.10		**P<.05	5			

Table 6b.	The Moderating effect of Team Feedback Seeking Behavior (FSB) on the	
	Intrateam Trust-Team Reflexivity and Intrateam Trust-Team Learning	
	Relationships	

***p<.01

Notes: All control variables were omitted from this table for brevity purposes.

Unstandardized Beta coefficients are reported.

Standard errors are reported in brackets



5.2. Hypothesis Testing about the Effects of Interteam Trust

Hypothesis 10 predicted that team reflexivity, team behavioral integration, and team learning would mediate the relationship between *interteam* trust and organizational outcomes. To test mediation, I first checked whether interteam trust has a significant effect on the outcome variable at individual, team and organizational levels⁷.

At the individual level, the results shown in Tables 7a-7c indicate interteam trust was significantly related to average individual job performance (b=.57, s.e.=.20, p<.05) but not to average individual job satisfaction (b=.10, s.e.=.26, p>.10) and average individual engagement (b=.00, s.e.=.24, p>.10). Similarly, the results also showed that interteam trust was not significantly related to all the three mediators (average team reflexivity: b=.01, s.e.=.29, p>.10; average team behavioral integration: b=.14, s.e.=.22, p>.10; average team learning: b=.13, s.e.=.19, p>.10). Thus, no mediation test was done on average individual job satisfaction and individual engagement. As shown in Tables 7a-7c (Model 3s), the relationship between interteam trust and average individual performance remained significant after I controlled for average team reflexivity (b=.59, s.e.=.20, p<.01), average team behavioral integration (b=.57, s.e.=.20, p<.05), and average team learning (b=.56, s.e.=.20, p<.01) indicating that the effect of interteam trust on individual performance was not mediated by any of the team processes.

At the team level, the results shown in Tables 8a-8c indicate that interteam trust was not significantly related to both the outcome variables (average team performance: b=.24, s.e.=.24, p>.10; average team satisfaction: b=.36, s.e..26, p>.10; average team engagement: b=.06, s.e.=.18, p>.10) and the three team processes (average team reflexivity: b=.01, s.e.=.29, p>.10;

⁷ In testing the effect of interteam trust on outcomes (and mediators), I ran the analyses with and without intrateam trust. However, controlling for intrateam trust had no effect on the relationship between interteam trust and the outcomes as well as on the relationship between interteam trust and the mediators. Thus, the results presented in Tables 7a-7c are without intrateam trust.



average team behavioral integration: b=.14, s.e.=.22, p>.10; average team learning: b=.13, s.e.=.19, p>.10). Thus, no mediation was found between interteam trust and the team-level outcome variables.

At the unit level, interteam trust was significantly related with branch performance (b =.56, s.e.=.10, p<.01). However, as reported above, the effects of interteam trust on the mediators were not significant. Therefore, there was no mediation. Based on the results just described, Hypothesis 10 was not supported.

5.3. Hypothesis Testing about the Joint Effects of Intrateam and Interteam Trust

Hypothesis 11 predicted that intrateam trust and interteam trust will have an interactive effect on team processes such that the relationship between intrateam trust and the team processes will be stronger when interteam is high (vs. low). The results shown in Table 9 below revealed that the interactive effects of intrateam and interteam trust was not significant on any of the team processes (on team reflexivity: b=.73, s.e.=.49, p>.10; on team behavioral integration: b=-.12, s.e.=.42, p>.10; on team learning: b=.16, s.e.=.46, p>.10). Hence, Hypothesis 11 was not supported. Table 10 below provides a summary of the results of the hypotheses tested.



Variables	0	Individual tisfaction	0	Individual gagement	Average Individual Job Performance		
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	
Predictor							
Interteam Trust	.10	.25	.00	.03	.57**	.59***	
	(.26)	(.25)	(.24)	(.20)	(.20)	(.20)	
Mediators							
Team Reflexivity		.56***		.34***		.18*	
2		(.14)		(.10)		(.10)	
\mathbb{R}^2	.02	.08	.05	.26	.08	.09	
N=	262 (Individua	als) N	V = 23 (Branc	hes) *P<.	10		
**P	<.05	*	**p<.01				
Note	es: All contro	ol variables we	ere omitted fr	om this table	for brevity p	urposes.	
	Unstandar	dized Beta co	efficients are	reported			

Table 7a.	Multi-Level	Regression	Results f	for	Predicting	the	Mediating	Role of	Team
	Reflexivity of	on the Intert	eam Trus	t-In	dividual Le	vel (Dutcomes		

Standard errors are reported in brackets



Variables	0	ndividual	Average l	Individual	0	Average Individual		
	Job Sati	sfaction	Job Eng	agement	Job Performance			
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3		
Predictor								
Interteam Trust	.10	.16	.00	01	.57**	.57**		
	(.26)	(.25)	(.24)	(.20)	(.20)	(.20)		
Mediators								
Team Behavioral Integration		.63***		.42***		.10		
C C		(.17)		(.10)		(.11)		
R ²	.02	.07	.05	.14	.08	.08		
N= 262 (Individuals)	N = 23	3 (Branche	s)	*P<.10				
P<.05	*p<	.01						

Table 7b. Mu	ılti-Level	Regression	Results	for	Predicting	the	Mediating	Role of	Team
Be	havioral I	Integration o	on the Int	erte	am Trust-Ir	ndivi	dual Level	Outcome	es

102

Notes: All control variables were omitted from this table for brevity purposes. Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables		Average Ind. Job Satisfaction		ge Ind. agement	Average Ind. Job Performance		
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	
Predictor							
Interteam Trust	.10	.09	.00	03	.57**	.56***	
	(.26)	(.25)	(.24)	(.22)	(.20)	(.20)	
Mediators							
Team Learning		.73***		.29**		.19	
-		(.19)		(.10)		(.13)	
\mathbb{R}^2	.02	.08	.05	.10	.08	.09	
N= 2	62 (Individual	s) N	V = 23 (Brand	ches) *P<	<.10		
P<	<i>05 *</i> µ	<i>o<.01</i>					
Notes	s: All control	variables we	ere omitted fi	rom this tabl	e for brevity	purposes.	
	Unstandard	ized Beta co	efficients are	e reported	-		
			orted in brack	-			

Table7c.	Multi-Level	Regression	Results	for	Predicting	the	Mediating	Role of	Team
	Learning on	the Intertea	am Trust	-Ind	lividual Lev	el O	utcomes		

103

Standard errors are reported in brackets All significance levels are based on two-tailed tests.



Variables	Team Sa	tisfaction	Team En	gagement	Team Performance		
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	
Predictor							
Interteam Trust	.36	.37	.06	.07	.24	.24	
	(.26)	(.21)	(.18)	(.11)	(.24)	(.24)	
Mediators							
Average Team		.57***		.43***		.10	
Reflexivity		(.07)		(.05)		(.08)	
\mathbb{R}^2	.09	.33	.24	.53	.09	.08	

Table 8a.	Multi-Level	Regression	Results for	or Predicting	the	Mediating	Role of	Team
	Reflexivity of	on the Intert	eam Trust	-Team Level (Dutco	omes		

N= 78 (Teams) N = 23 (Branches) *P<.10 **P<.05 ***p<.01

Notes: All control variables were omitted from this table for brevity purposes.

Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables	Team Sa	tisfaction	Team En	gagement	Team Performance	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor						
Interteam Trust	.36	.29	.06	00	.24	.21
	(.26)	(.22)	(.18)	(.09)	(.24)	(.24)
Mediators						
Team Behavioral Integration		.58***		.61***		.21**
-		(.07)		(.04)		(.08)
\mathbb{R}^2	.09	.30	.24	.67	.09	.08
N= 78 (Teams) ***p<.01	N	= 23 (Branc	hes) *P<	<.10	**P	<.05

Table 8b.	Multi-Level Regression	n Results for Predictin	g the Mediating Role of Team
	Behavioral Integration	on the Interteam Trust-	Team Level Outcomes

Notes: All control variables were omitted from this table for brevity purposes.

Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



Variables	Team S	atisfaction	Team E	ngagement	Team Performance	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Predictor						
Interteam Trust	.36	.28	.06	.02	.24	.21
	(.26)	(.21)	(.18)	(.15)	(.24)	(.24)
Mediators						
Team Learning		.61***		.30***		.18*
-		(.08)		(.06)		(.10)
\mathbb{R}^2	.09	.30	.24	.37	.09	.08
N=7	78 (Teams)	N = 23 (E	Branches)	*P<.10	**	P<.05
	***p<.01					

Table8c.	Multi-Level	Regression	Results	for	Predicting	the	Mediating	Role o	f Team
	Learning on	the Intertea	am Trust	-Tea	ım Level Ou	itcor	nes		

Notes: All control variables were omitted from this table for brevity purposes. Unstandardized Beta coefficients are reported

Standard errors are reported in brackets



	50	Model 4	33 (2.47)	77 (2.42)	.16 (46)	co.
	Team Learning	Model 3	.52** (.22)	.07 (.21)	2	
	Te	Model 2	.58*** (.20)		ት ት ጊ	C 1 .
lationship	egration	Model 4	1.41 (2.25)	.57 (2.21)	12 (.42)	
ediators Re	Team Behavioral Integration	Model 3	.75*** (.19)	08 (.18)	ŭ	.22. * ity purpose
team Trust on Intrateam Trust-Mediators Relationship	Team Bel	Model 2	.83*** (.19)		÷ * 7 0	uble for brev tests.
n Intratear	ity	Model 4	-3.19 (2.57)	-3.90 (2.53)	.73 (.49)	
am Trust o	Feam Reflexivity	Model 3	.68*** (.24)	10 (.26)	2	.12 nes) ere omitted oefficients a orted in brad are based oi
of Intertes	Te	Model 2	.80*** (.23)		ج ج ج	N = 23 (Branches) trol variables were lardized Beta coeffi d errors are reporte ificance levels are l
Table 9. The Moderating Effect of Inter		Variables	Predictor Intrateam Trust	Moderator Interteam Trust	Interaction Intrateam Trust*Interteam Trust	: 78 (Teams) Note: All con Unstanc Standar All sign
لم للاستشارات	L	i				

107

Hypotheses	Results	Comment
Hypothesis 1: Intrateam trust is	Partially supported	
positively related to team members'	 Intrateam trust positively predicted 	
individual job performance, job	individual satisfaction and	
satisfaction, and work engagements.	individual engagement but not	
	individual performance.	
Hypothesis 2: Intrateam trust is	Partially supported	
positively related to team performance	 Intrateam trust positively predicted 	
and team members' satisfaction and	team satisfaction and team	
work engagement.	engagement but not team	
	performance.	
Hypothesis 3 : Intrateam trust is	Not supported	
positively related to unit-level	• Intrateam trust did not predict	
performance.	branch/unit performance.	
Hypothesis 4a: Intrateam trust has a	Supported	
positive relationship with team	• Intrateam trust positively predicted	
reflexivity.	team reflexivity.	
Hypothesis 4b: Team reflexivity	Partially supported	
mediates the relationship between	• Team reflexivity mediated the	
intrateam trust and a) performance, b)	relationship between intrateam trust	
job satisfaction, and c) employee	and satisfaction and engagement at	
engagement at individual, team, and organizational levels.	individual and team levels.	
organizational levels.	However, it didn't mediate the	
	relationship between intrateam trust and performance at all levels.	
Hypothesis 5a: Intrateam trust has a	-	• Not tested because
positive relationship with team		the team
psychological safety.		psychological
r y z z z z z z z z z z z z z z z z z z		safety variable was
		dropped due to low
		scale reliability.
Hypothesis 5b: Team psychological	-	• Not tested because
safety mediates the relationship		the team
between intrateam trust and a)		psychological
performance, b) job satisfaction, and c)		safety variable was
employee engagement at individual,		dropped due to low
team, and organizational levels.		scale reliability.
Hypothesis 6a: Intrateam trust has a	Supported	· ·
positive relationship with team	• Intrateam trust positively predicted	
behavioral integration.	team behavioral integration.	
Hypothesis 6b: Team behavioral	Partially supported	
integration mediates the relationship	 Team behavioral integration 	
between intrateam trust and a)	mediated the relationship between	
performance, b) job satisfaction, and c)	intrateam trust and satisfaction and	
employee engagement at individual,	engagement at individual and team	
team, and organizational levels.	levels. However, it didn't mediate	
	the relationship between intrateam	
	trust and performance at all levels.	

Table 10. Summary of Hypotheses and Results



Hypotheses	Results	Comment
Hypothesis 7a: Intrateam trust has a	Supported	
positive relationship with team learning.	• Intrateam trust positively predicted team learning.	
Hypothesis 7b: Team learning mediates	Partially supported	
the relationship between intrateam trust and a) performance, b) job satisfaction, and c) work engagement at individual, team and organizational levels.	• Team learning mediated the relationship between intrateam trust and satisfaction and engagement at individual and team levels. However, it didn't mediate the relationship between intrateam trust and performance at all levels.	
Hypothesis 8a : Team value congruence moderates the intrateam trust-team psychological safety relationship, such that the positive relationship is stronger when value congruence is high (vs. low).	_	• Not tested because the team psychological safety variable was dropped due to low scale reliability.
Hypothesis 8b: Team value congruence	Supported	5
moderates the intrateam trust-team behavioral integration relationship, such that the positive relationship is stronger when value congruence is high (vs. low).	• Team value congruence moderated the intrateam trust-team behavioral integration relationship, such that the positive relationship is stronger when value congruence is high (vs. low).	
Hypothesis 9a: Team feedback-seeking	Not supported	
behavior moderates the intrateam trust- team learning relationship, such that the positive relationship between intrateam trust and team learning will be stronger when team FSB is high (vs. low).	• Team feedback-seeking behavior did not moderate the intrateam trust-team learning relationship.	
Hypothesis 9b : Team feedback-seeking behavior moderates the intrateam trust- team reflexivity relationship, such that the positive relationship between intrateam trust and team reflexivity will be stronger when team FSB is high (vs. low).	 Not supported Team feedback-seeking behavior did not moderate the intrateam trust-team learning relationship. 	
Hypothesis 10 : Team learning, team reflexivity and team behavioral integration mediate the relationship between interteam trust and organizational outcomes.	 Not supported Team learning, team reflexivity and team behavioral integration did not mediate the relationship between interteam trust and organizational outcomes. 	• Interteam trust was found to have a significant effect or performance at individual and unit levels. However, the mediation hypothesis was not supported.



Hypotheses	Results	Comment
Hypothesis 11: Intrateam trust and	Not supported	
interteam trust will have an interactive effect on team processes such that the relationship between intrateam trust team processes will be stronger when interteam is high (vs. low).	• Interteam trust did not moderate the relationship between intrateam trust and team processes	



CHAPTER 6: DISCUSSION AND CONCLUSION

The main objectives of this dissertation were to examine the main and interactive effects of intrateam and interteam trust on organizational outcomes at individual, team and organizational levels. Also, this dissertation sought to examine the mechanisms (team processes: team behavioral integration, team reflexivity, and team learning)⁸ through which intrateam and interteam trust elicit organizational outcomes. Lastly, this dissertation also sought to uncover if value congruence and team feedback seeking behavior in teams moderate the effect of intrateam trust on the team processes (team behavioral integration, team reflexivity, and reflexivity, and team learning).

Using data collected from a sample of 282 team members nested under 78 teams and 23 branches from a major bank in Addis Ababa, Ethiopia, at two different time points, the study hypotheses were tested via hierarchical linear modeling, Hayes' (2013) indirect effects test, and OLS regression analyses. The major findings of this dissertation are summarized below. This is followed by discussion of the theoretical contributions and practical implications. I conclude with a discussion of study strengths and limitations and provide directions for future research.

6.1. Summary of Major Findings

To date, numerous studies have been conducted examining the effect of trust on organizational outcomes. Yet, there is still limited research that investigates how trust, particularly team trust, affects organizational outcomes across levels. To fill this gap in the literature, this dissertation sought to explore the direct and interactive effects of intrateam and interteam trust on organizational outcomes at individual, team and unit levels. Consequently, the first research question of this study was: *What would the effect of intrateam trust be on individual, team and organizational outcomes?* In addressing this question, this study predicted

⁸ Team Psychological safety was removed from the study due to poor construct reliability.



that intrateam trust would be related to team members' satisfaction and engagement at individual and team levels and team members' performance at individual, team and unit levels. The results obtained in this study mostly supported the prediction that intrateam trust would positively affect organizational outcomes across levels except for performance, which was not predicted by intrateam trust at any of the levels. Thus, in general, partial support was found for most hypotheses. The results are in line with previous studies suggesting the constructive effects of intrateam trust on organizational outcomes (Braun et al., 2013; Edwards & Cable, 2009). It is also important to note that intrateam trust had similar effects across levels.

Contrary to the predictions and extant studies (e.g., Colquitt et al., 2007, 2011), however, intrateam trust was found to have no significant relationship with performance across organizational levels. That is, intrateam trust did not have a significant effect on individual performance, team performance, and branch performance. This might be due to the varying characteristics of trust and performance: While trust is a state of mind in social relationships, performance is a more concrete outcome amenable for measurement. The result is surprising given the plethora of evidences that suggest intrateam trust positively affects performance (e.g., Colquitt et al., 2011; De Jong & Elfring, 2010; De Jong et al., 2016; Hempel et al., 2009; Joshi et al., 2009). Nevertheless, the result is in line with an emerging branch of trust study that suggests trust may have a weak or even negative relationship with performance (e.g., Aubert & Kelsey, 2003; Bammers & Collewaert, 2014; Gargiulo & Ertug, 2006; Guinot et al., 2013; Langfred, 2004; Lumineau, 2014; McEvily et al., 2003; Skinner, Dietz, & Weibel, 2014; Zahra, Yavuz, & Ucbasaran, 2006).

This dissertation has also attempted to identify the mechanisms through which intrateam trust influences organizational outcomes. Consequently, the following research question was



posed: What are the possible mediators that transmit the effect of intrateam trust to organizational outcomes? Three team processes (team reflexivity, team behavioral integrity, and team learning), which are vital in transforming team inputs into outcomes, were identified as potential mediators. Accordingly, this dissertation predicted a positive relationship between intrateam trust and the three team processes. As hypothesized, I found strong support for the hypotheses that predicted strong relationship between intrateam trust and the three team processes. Moreover, I found strong support for most of the hypotheses which predicted that the team processes play a mediating role between intrateam trust and organizational outcomes; namely, satisfaction and engagement. The three team processes were found to either fully or partially mediate the relationship between intrateam trust and satisfaction and engagement both at the team and individual levels. It is important to note, however, that the team processes didn't have any mediating role between intrateam trust and performance at individual, team and organizational levels. Taken together, this dissertation provided evidence that intrateam trust has constructive effects across organizational levels and the effects are mediated by team processes.

Moreover, the dissertation also predicted that some contingency or contextual factors might have important roles in influencing the nature and direction of relationship between intrateam trust and team processes. In doing so, the dissertation addressed another important question: *What are the contingency factors (moderators) that affect the nature and direction of relationship between intrateam trust and team processes?*

Team value congruence was found to significantly affect the relationship between intrateam trust and team behavioral integration. The result suggests that high team value congruence (the existence of similar value systems, shared goals, similar interests and characteristics among teammates) enhances the mutual confidence and ultimately boosts a sense



unity and togetherness (i.e., high team behavioral integration) in teams (Mach et al., 2010; Thau et al., 2007), ultimately leading to enhanced outcomes. However, the results revealed that team feedback-seeking behavior did not significantly affect the relationship between intrateam trust and team learning. Given the vital role feedback plays in the learning process (De Stobbeleir et al., 2011; Gong et al., 2014; Lam et al., 2015), the result is quite unexpected. The non-significance of the moderating effect of team feedback-seeking behavior might be explained by the fact that lower level jobs at banks are structured and repetitive such that there is little room to learn new things (Staats & Gino, 2012).

Contrary to the prediction, the relationship between intrateam trust and team reflexivity was stronger (and positive) when team feedback seeking behavior was low (vs. when it is high). This finding is quite perplexing as the result suggests that high feedback-seeking behavior is more important at low levels of intrateam trust than at high levels of intrateam trust. This finding may be reflective of the fact that a high level of intrateam trust generates high degree of confidence among team members such that the environment is worriless (Sankowska & Söderlund, 2015) and soliciting information about how well things are going is 'unnecessary' while at low levels of trust getting information about the products, services and processes is necessary to protect oneself from possible negative consequences (Ashford et al., 2003; Chen et al., 2007).

The fourth research question this dissertation attempted to explore focused on the role of interteam trust, trust between two or more interacting teams, on organizational outcomes. The dissertation argued that in addition to intrateam trust, interteam trust would have a constructive effect on organizational outcomes. Hence, it attempted to address the question: *What would the effect of interteam trust be on individual, team and organizational outcomes?* In addressing this



question, this study predicted that interteam trust would predict team members' satisfaction and engagement at individual and team levels and team members' performance at individual, team, and unit levels. The results obtained in this study supported the prediction that interteam trust significantly affected performance at individual and unit levels, but not team level. This generally implies that trust among members of interacting teams improves the productivity of individual team members and work units such as branches. This result is in line with previous studies which underscore the role interteam trust plays in promoting coordination (Davison et al., 2012; Gulati & Nickerson, 2008), reducing conflict between parties (Gulati & Nickerson, 2008), reducing transaction costs, increasing information-sharing, (Ashleigh & Nandhakumar, 2007; Dyer & Chu, 2003; Nielsen & Nielsen, 2009), promoting more efficient communication and maximizing inter-team accountability (Adler, 2007) thereby facilitating achievement of mutual objectives (Robson et al., 2008; Serva et al., 2005). However, the results obtained didn't support the prediction that interteam trust would significantly affect satisfaction and engagement at individual and team levels. These results are counterintuitive and contrary to the predictions and extant studies (Ertug et al., 2013; Zaheer et al., 1998). The result might be due to the small sample size at the unit level (n=23 branches), which might have constrained the study's ability to detect the effects as expected.

In addition to predicting that interteam trust would have a positive effect on organizational outcomes, this dissertation predicted that the three team processes would mediate the relationships between interteam trust and outcomes across organizational levels. The results obtained in this study, however, did not support the mediating role of the team processes in the relationship between interteam trust and outcomes as the relationships between interteam trust and the team processes were all insignificant. The non-significant relationships between



interteam trust and the team processes (i.e., the mediators) remain the same even when average intrateam trust is controlled for. These non-significant relationships might be due to the small sample size at the unit level (n=23 branches), which might have constrained the study's ability to elicit the effects as expected.

Besides investigating the individual effects of intrateam and interteam trust, this dissertation examined whether interteam and intrateam trust would interactively or jointly affect team processes and in turn, outcomes. Accordingly, the following research question was forwarded: What would the joint (interactive) effects of intra-team and inter-team trust be on individual, team and organizational outcomes? In addressing this question this dissertation predicted that interteam would magnify or enhance the effects of intrateam trust on team processes such that the relationship between intrateam trust and team processes will be stronger when interteam is high compared to when it is low. The result obtained in this study did not support the prediction that interteam trust would enhance the effect of intrateam trust on team processes. This result is contrary to the predictions as interteam and intrateam trust were expected to complement each other by combining both espoused behaviors and the work structures within which those behaviors are enacted. Moreover, interteam trust was expected to make intrateam trust more efficacious in promoting higher levels of the outcomes by providing greater levels of confidence and security for how team members should behave beyond what they get from their own teammates (Menges et al., 2011).

6.2. Contributions of the Study

This dissertation contributes to a small but growing body of literature on the effect of team trust on organizational outcomes (e.g., Braun et al., 2013; De Jong & Dirks, 2012; Lee et al., 2010) by providing a multi-level test of the consequences, mediators and moderators of



interteam and intrateam trust as well as their joint or interactive effects on outcomes. Based on the results obtained, this dissertation contributes to the team trust literature and practice.

6.2.1. Theoretical Contributions

Several theoretical contributions stem from this dissertation and serve to promote research opportunities for future study. In this section, I highlight four primary contributions to the team trust literature.

First, this dissertation is an initial step towards understanding the multi-level effects of intrateam and interteam trust on organizational outcomes. Particularly, the findings provide empirical evidence that intrateam trust is an important predictor of job satisfaction and job engagement both at individual and team levels in banking teams. In doing so, this study has built upon Braun et al.'s (2013) earlier work theoretically and empirically suggesting the benefits associated with intrateam trust at different levels of organizational setting. Furthermore, beyond and above intrateam trust as a vital predictor of organizational outcomes, this dissertation also emphasizes the importance of interteam trust as an important driver of organizational outcomes, particularly of individual and unit level performance. As such, this study begins to answer recent calls for research to directly explore the multilevel effects of intrateam and interteam trust on organizational outcomes (e.g., De Jong et al., in press; Fulmer & Gelfand, 2012; Mayer & Gavin, 2005) and highlights the necessity for future researchers to consider a range of multi-level effects of team trust.

Second, through an investigation of the team processes as mediators of the effect of team trust, particularly intrateam trust, on organizational outcomes, I build upon and expand De Jong and colleagues' previous work exploring mediators of the effects of team trust on outcomes (e.g., De Jong & Elfring, 2010; Mach et al., 2010; Madjar & Ortiz-Walters, 2009). The current



research findings complement and expand their earlier findings (which suggested team monitoring, team effort, team cohesion and team psychological safety as mediators of the team trust-team outcomes relationship) in that team processes mediated the relationships not only at the team level but also at an individual level as well. These findings inform existing literature exploring mediators of the effects of team trust on organizational outcomes by suggesting that team reflexivity, team behavioral integration and team learning play as vital vehicles in eliciting outcomes across organizational levels.

Third, through an investigation of the contingency factors that affect the relationship between intrateam trust and team processes, I build upon and expand previous studies (e.g., De Jong & Dirks, 2012) exploring the contextual or situational factors that affect the intrateam trustoutcomes relationship. The findings of this study complement their earlier findings (which suggested trust asymmetry as an important moderator of the relationship between intrateam trust and team performance) by indicating that team value congruence would moderate the relationship between intrateam trust and team behavioral integration. The findings inform existing literature exploring contextual factors that influence the effect of intrateam trust by suggesting that the existence of congruent values further enhances teammates solidarity and togetherness formed through mutual trust (Mach et al., 2010).

Fourth, the study is the first to examine the effect of team trust on organizational outcomes in a new research context, Ethiopia (and Africa, in general), where there is scarce research on this topic. Thus, the findings of the study would answer recent calls to do trust research in different cultural and social contexts (Braun et al., 2013; Fulmer & Gelfand, 2012). In doing so, the results provide empirical support to the 'universal' role of trust in organizational relationships (Ferrin & Gillespie, 2010) in the non-Western, Educated, Industrialized, Rich, and



Democratic (WEIRD; Henrich, Heine, & Norenzayan, 2010) context. Moreover, the results revealed that the effects of trust identified in existing, typically North American, models are largely relevant across other contexts (Wasti & Tan, 2010).

Finally, the longitudinal research design addresses the shortcomings of prior crosssectional studies (e.g., De Jong & Elfring, 2010) and help to establish a cause-effect relationship between team trust and organizational outcomes across the three levels. Moreover, the longitudinal research design helps to reduce inflated relationships by minimizing common method bias (P. Podsakoff, MacKenzie, Lee, & N. Podsakoff, 2003).

6.2.2. Practical Implications

Several practical implications also stem from the findings of this dissertation. In the following paragraphs, I discuss the potential implications of the findings of this study for teams (including its individual members), managers, and organizations.

First, this study reveals that team trust (both intrateam trust and interteam trust) has a constructive effect on organizational outcomes across levels. While intrateam trust positively affects job satisfaction and employee engagement at individual and team levels, interteam trust enhances job performance at individual and branch levels. Accordingly, the results suggest that organizations will benefit significantly if they focus on trust building initiatives within and between teams. Specifically, organizations that strive to improve job performance, job satisfaction, and employee engagement should be encouraged (e.g., by managers, etc.) to work on building and nurturing trust.

Second, the positive impact of team trust on outcomes implies that, to promote organizational outcomes, managers and team leaders need to actively engage in managing interpersonal relationships and fostering trust within and between teams. Moreover, by showing



that intrateam trust enhances job satisfaction and job engagement of teams and individual team members, the findings clearly demonstrate the importance and practical meaningfulness of trust in team contexts. Further, the results suggest managers of well performing teams need to guard against complacency in maintaining and nurturing interteam trust, given that interteam team trust contributes to performance over and above intrateam trust.

Third, the results of the study suggest that team processes play a critical role in transmitting the effects of intrateam team trust to outcomes. This implies that, in addition to nurturing the development of trust within teams, managers, team leaders, supervisors, etc. should create an atmosphere that promotes camaraderie and cohesiveness and facilitates learning and reflection among teammates.

Finally, the significant interactive effect of intrateam trust and team value congruence on team behavioral integration implies that managers would be more effective in developing productive teams if teammates have similar value systems, interests, and objectives. Thus, managers should consider the compatibility of values in forming teams.

6.3.Limitations and Future Research Directions

The current findings and accompanying implications must be considered in light of the study limitations. In the following paragraphs, I discuss considerations surrounding the study sample, design issues, and potential measurement concerns.

Regarding the sample considerations, the current study investigated the effect of team trust on organizational outcomes using 282 individuals nested under 78 teams from 23 branches including the head office from one bank. Though the sample size at the individual level was moderate (282 individuals), the number of teams in this study was relatively small (78 teams), and the number of branches was very small (23 branches). This small sample size might have



constrained the study's ability to detect the effects as expected and limit the generalizability of the findings. Sampling a greater number of teams is especially important in detecting cross-level moderating effects (Mathieu et al., 2012). Thus, further studies of team trust should collect data from a larger number of teams working in different settings and/or multiple organizations.

This dissertation also has some limitations resulting from its survey methodology. One limitation is that several of the scales (e.g., interteam trust, team learning, team feedback seeking behavior) demonstrated relatively low ICC (2) values, indicating low reliability of team means. The low ICC (2) values obtained could be attributed to the small average team size (i.e., 3.62) in the present study. Thus, future research may strive for higher response rates in increasing the accuracy of team means.

Despite the use of multiple sources (team members, team leaders and branch managers) to collect data, the current study primarily used self-ratings in measuring most of the constructs. This may lead to biased responses though the longitudinal research design that involved data collection at separate times helps to deal with purported common method bias (Ployhart & Vandenberg, 2010). Future studies should therefore collect data from multiple sources to minimize any potential bias. Finally, this dissertation measured team-level constructs through the aggregation method. Yet, team-level measures can also be assessed using group discussion or consensus ratings methods. Indeed, some studies show that the group discussion method is a better predictor of team outcomes than the aggregation method (e.g., Gibson et al., 2000; Kirkman et al., 2001; Quigley et al., 2007). Hence, a future study using team-level scales that do not rely on aggregating individual level responses would be worthwhile.

Although the multiple mediator approach and longitudinal data allowed me to make causal inferences regarding chains of effects (De Jong & Elfring, 2012), it will be important for



future research to provide a more rigorous test of these mediated effects, for instance by adopting a cross-lagged panel design (e.g., Langfred, 2007) and/or testing this model using structural equations modeling (e.g., Costa, 2003).

Finally, I acknowledge that the study was limited in the number of team processes it examined as mediating mechanisms. However, examining an exhaustive set of team processes is not a particularly worthwhile undertaking in and of itself (Marks et al., 2001). Rather, it may be more fruitful to focus on a parsimonious set of processes that provides a good balance between explanatory relevance and mutual distinctiveness. The results suggest that the study was relatively successful in its attempt: it established the discriminant validity of the focal team processes and found that all three team processes each explained a substantial part of the relationship between team trust and outcomes. As discussed above, the three team processes were chosen based on extant research and their relevance in transmitting the effect of team trust on outcomes. Yet, I suggest that a next logical step in advancing understanding of the trustoutcomes relationship is to widen the focus and include as many team processes as possible.

6.4. Conclusion

Recent team trust research has shifted from its traditional focus on individual level trust to multilevel team trust study and beyond. Building upon and extending this research, the current dissertation explored the effects, mediators and moderators of intrateam trust on organizational outcomes. Support was found for the effects of intrateam trust on job satisfaction and employees' engagement at both individual and team levels. Interteam trust was also found to have a significant effect on individual and unit level performances. In addition, this dissertation also showed that team processes are important mediators of the effect of intrateam trust on organizational outcomes.



Scale		Items	Source
Intrateam Trust	1.	We have a sharing relationship. We can all freely share our ideas, feelings, and hopes.	McAllister 1995
11 ust	2.	I can talk freely to my teammates about difficulties I am	1775
	2.	having at work and know that they will want to listen.	
	3.	We would all feel a sense of loss if any one of us was	
		transferred and we could no longer work together.	
	4.	If I share my problems with my teammates, I know they	
		would respond constructively and caringly.	
	5.	I would have to say that we have all made considerable	
		emotional investments in our working relationship.	
	6.	My teammates approach their jobs with professionalism and dedication.	
	7.	Given our team's track record, I see no reason to doubt their	
		competence and preparation for the job.	
	8.	I can rely on my teammates not to make my job more	
		difficult by careless work.	
	9.	Most people, even those who aren't close friends, trust and	
		respect each other as a coworker.	
	10.	I consider my teammates to be trustworthy.	
	11.	If people knew more about my teammates and their	
		background, they would be more concerned and monitor their	
		performance more closely (R).	
Interteam	1.	My team has a sharing relationship with other teams. We can	McAllister
Trust		freely share our ideas, feelings, and hopes.	1995
	2.	My team can talk freely to other teams about difficulties we	
		are having at work and know that the other teams will want to	
	-	listen.	
	3.	We would both feel a sense of loss if one of the teams was	
		transferred and we could no longer work together.	
	4.	If my team shares my problems with other teams, I know they	
	~	would respond constructively and caringly.	
	5.	I would have to say that we have both made considerable	
	6	emotional investments in our working relationship.	
	6.	The other teams approach their job with professionalism and dedication.	
	7	Given the other teams' track record, I see no reason to doubt	
	7.	their competence and preparation for the job.	
	8.	My team can rely on the other teams not to make my job	
	0.	more difficult by careless work.	
	9.	Most people, even those who aren't close friends of the	
).	members of the other teams, trust and respect them as	
		coworkers.	
	10	Members of my team who must interact with this the other	
	10.	teams consider them to be trustworthy.	
	11	If people knew more about the other teams and their	
	11.	background, they would be more concerned and monitor their	
		performance more closely (R).	
		r · · · · · · · · · · · · · · · · · · ·	

APPENDIX: Scales and Items



Team Behavioral Integration	1. The ideas that our team members exchange are of high quality.	Simsek et al., 2005
	2. The solutions that our team members put forward are of high quality.	
	3. The dialogue among the team members produces a high level	
	of creativity and innovation.4. When a team member is busy, other team members often	
	volunteer to help her or him to manage her/his workload.5. The fact that the team members are flexible about sharing	
	responsibilities makes things easier for each of them.6. The team members are willing to help each other with complex is and meeting doublines.	
	complex jobs and meeting deadlines.7. The team members usually let each other know when their actions affect another team member's work.	
	 8. The team members have a clear understanding of job-related problems and the needs of other team members. 	
	 9. The team members usually discuss their expectations of each other. 	
Team	1. In our team we often review the feasibility of our objectives	Carter & West,
Reflexivity	 In our team we often discuss the methods used to get the job done. 	1998; De Jong & Elfring, 2010
	3. In our team we regularly discuss whether we are working effectively together.	0,
	4. In our team we modify our objectives in light of changing circumstances.	
	5. In our team we often review our approach to getting the job done.	
Team Psychological	1. If you make a mistake on this team, it is often held against you.	Edmondson, 1999
Safety	2. Members of this team are able to bring up problems and tough issues.	
	 People on this team sometimes reject others for being different. 	
	4. It is safe to take a risk on this team.	
	5. It is difficult to ask other members of this team for help.	
	6. No one on this team would deliberately act in a way that	
	7. undermines my efforts.	
	8. Working with members of this team, my unique skills and talents are valued and utilized.	
Team Learning	1. We regularly take time to figure out ways to improve our team's work processes.	Edmondson, 1999
Learning	 This team tends to handle differences of opinion privately or off-line, rather than addressing them directly as a group. 	1,,,,
	 Team members go out and get all the information they possibly can from others-such as customers, or other parts of 	
	the organization.4. This team frequently seeks new information that leads us to	



	5.	In this team, someone always makes sure that we stop to	
		reflect on the team's work process.	
	6.	People in this team often speak up to test assumptions about	
		issues under discussion.	
	7.		
		information or have discussions with us	
Team Value Congruence	1.	My personal values match my teammates' values and ideals.	Cable & DeRue, 2002
	2.	The things that I value in life are similar to the things my teammates value.	
	3.	My teammates' values provide a good fit with the things I value.	
Team	1.	My team would seek feedback from others regarding overall	VandeWalle,
Feedback-	•	work Performance.	Ganesan,
Seeking Behavior	2.	My team would seek feedback from others regarding technical performance on the job.	Challagalla, & Brown, 2000
	3	My team would seek feedback from others regarding role	
	5.	fulfilment.	
	4.	My team would seek feedback from others regarding social	
		behaviors.	
	5.	,	
		appropriateness of their values and attitudes to workplace.	
Individual	1.	All things considered, he/she is outstanding at his/her job.	Baer et al.,
performance	2.		2015
	3.	He/she is one of the best at what he/she does	
T 11 · 1 1		He/she is very good at his/her daily job activities	NT 4
Individual		All in all, I am satisfied with my present job [at the bank]	Netemeyer,
Job satisfaction	2.		Maxham III, & Lichtenstein,
saustaction		workers, etc.), I am satisfied with my present job [at the bank]	2010
	3.	-	2010
Job	<u> </u>	I work with intensity on my job	Rich, LePine,
engagement	2.	I exert my full effort to my job	& Crawford,
engugement	2. 3.	I devote a lot of energy to my job	2010
	4.	I try my hardest to perform well on my job	
	5.	I strive as hard as I can to complete my job	
	6.	I exert a lot of energy on my job	
	7.	I am enthusiastic about my job	
	8.	I feel energetic about my job	
	9.	I am interested in my job	
	10.	I am proud of my job	
	11.	I feel positive about my job	
	12.	I am excited about my job	
	13.	At work, my mind is focused on my job	
	14.	At work, I pay a lot of attention to my job	
	15.	At work, I concentrate on my job	
	16.	At work, I focus a great deal of attention on my job	
	17.	At work, I am absorbed in my job	
	18.	At work, I devote a lot of attention to my job	



Team	1. All in all, my team is satisfied with its present job [at the bank]	Netemeyer,
Satisfaction	2. All things considered (i.e., pay, promotion, supervisors, co-	Maxham III, &
	workers, etc.), my team is satisfied with its present job [at the	Lichtenstein,
	bank]	2010
	3. Generally speaking, my team is satisfied with its job	
Team	Rate the performance of this team in the light of established	De Jong &
performance	performance standards.	Elfring, 2010
	1. The amount of work the team produces	
	2. The quality of work the team produces	
	3. Your overall evaluation of the team's effectiveness	
Team Job	1. Our team works with intensity on its job.	Rich, LePine,
Engagement	2. Our team exerts its full effort to its job.	& Crawford,
	3. Our team devotes a lot of energy to its job.	2010
	4. Our team tries its hardest to perform well on the job.	
	5. Our team strives as hard as it can to complete its job.	
	6. Our team exerts a lot of energy on its job.	
	7. Our team is enthusiastic about its job.	
	8. Our team feels energetic about its job.	
	9. Our team is interested in its job.	
	10. Our team is proud of its job.	
	11. Our team feels positive about its job.	
	12. Our team is excited about its job.	
	13. At work, our team's mind is focused on its job.	
	14. At work, our team pays a lot of attention to its job.	
	15. At work, our team concentrates on its job.	
	16. At work, our team focuses a great deal of attention on its job.	
	17. At work, our team is absorbed in its job.	
	18. At work, our team devotes a lot of attention to its job.	
Unit/Branch	Compared to other similar branches of the bank that do the same	Delaney &
Performance	kind of work, how would you compare your branch's performance	Huselid, 1996
	in terms of	
	1. Quality of products, services, or programs?	
	2. Growth in sales?	
	3. Ability to retain essential employees?	
	4. Satisfaction of customers or clients?	
	5. Relations between management and other employees?	
	6. Relations among employees in general?	



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ABSTRACT

THE EFFECTS OF INTRATEAM AND INTERTEAM TRUST ON ORGANIZATIONAL OUTCOMES: A MULTILEVEL STUDY

by

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The main objectives of this dissertation were to examine the main and interactive effects of intrateam and interteam trust on organizational outcomes at individual, team and organizational levels. Also, this dissertation sought to examine the mechanisms (team processes: team behavioral integration, team psychological safety, team reflexivity, and team learning) through which intrateam and interteam trust elicit organizational outcomes. Moreover, this dissertation also sought to uncover if value congruence and team feedback seeking behavior in teams moderate the effect of intrateam trust on the team processes.

Hypotheses were tested using data collected from a sample of 282 team members nested under 78 teams and 23 branches from a major bank in Addis Ababa, Ethiopia, at two different time points. The results showed that intrateam trust has a significant effect on employees' job satisfaction and job engagement at both individual and team levels. Interteam trust was also found to have a significant effect on individual and unit level performance. In addition, this



dissertation also showed that team processes were important mediators of the effect of intrateam trust on organizational outcomes. Contrary to the hypotheses, however, the results showed that intrateam trust had no significant effect on performance at individual, team, and unit levels. Neither did team reflexivity, team behavioral integration, and team learning mediate the relationship between interteam trust and outcomes. Theoretical and practical implications are discussed.



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