THE EFFECTS OF MANAGERIAL COMMUNICATION AND JUSTICE PERCEPTIONS ON EMPLOYEE COMMITMENT TO ORGANIZATIONAL CHANGE: A MIXED METHOD FIELD STUDY

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DISSERTATION ABSTRACT

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Using a mixed method research design, this study examined relationships among managerial communication, perceptions of justice, and affective commitment to change in the context of an organizational merger. Qualitative and quantitative data were collected from employees of a public safety organization over a two year period following the announcement of the merger. At each time period, field interviews were conducted with a representative sample of 38 employees, followed by a survey administered to all field employees of the organization.

Structural equation modeling was used to test a mediational model that proposed employees' satisfaction with communication with their immediate supervisor influences their perceptions of the fairness of change-related procedures and outcomes. In turn, these perceptions were hypothesized to predict employees' level of affective commitment toward the change. Overall, support was found for the hypothesized model. Specifically, the results indicated employees' perceptions of the fairness of change-related procedures and outcomes, and their level of affective commitment to the change are positively influenced by the quality of communication with their immediate supervisor. As predicted, the effects of managerial communication on affective commitment to change were indirect, via perceptions of procedural fairness. Support was not found for prediction that distributive and interactional justice would also be positively associated with employees' level of affective commitment to organizational change. In addition, contrary to expectations, tests for changes in the strength of the relationships among the study variables revealed no significant differences between the time periods.

The findings suggest that managers who communicate effectively with employees by providing timely feedback and information about the change, and who ensure fairness in change-related procedures, are more likely to engender employee support and commitment toward the change. The implications of the study for organizations undergoing large-scale change are discussed and directions for future research provided.

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CHAPTER 1

INTRODUCTION

Organizations today are facing unprecedented change in economic, political, social, and technological environments, which often leads to substantial changes to existing structures, strategy, processes, and goals. Restructuring, downsizing, mergers, and other forms of large-scale structural change are increasingly common strategies undertaken by both private- and public-sector organizations in response to dynamic environments and pressure to increase organizational effectiveness (Armenakis, Harris, & Feild, 1999; Frumkin, 2003; Nutt & Backoff, 1993). Yet, successful organizational change remains elusive, and many change efforts fail outright (Beer & Nohria, 2000). Failures are particularly evident for organizations undergoing large- scale change as a result of an organizational merger.

Mergers represent a major transformational event for organizations and the employees in them (Buono & Bowditch, 1989; Cornett-DeVito & Friedman, 1995). Over the past two decades, the number of mergers has increased dramatically as organizations seek to achieve economies of scale, growth, diversification, and operational efficiency (Marks & Mirvis, 2001; Nguyen & Kleiner, 2003). Yet, despite the frequency of mergers as a popular strategic option (Burke & Nelson, 1998; McEntire & Bentley, 1996), past research has found that more than half of all mergers fail in terms of creating value for shareholders (Cartwright & Cooper, 1993; Marks & Mirvis, 1998). Traditionally, research on mergers and acquisitions and subsequently, reasons for their failure, has focused on strategic, technological, and financial implications of the merger (Nahavandi & Malekzadeh, 1993). Recent studies, however, have increasingly found that human resource issues, as opposed to strategic or financial factors, are the leading cause of mergers failing to meet their intended objectives (Appelbaum, Gandell, Yortis, Proper, & Jobin, 2000; Buono, Bowditch, & Lewis, 1985; Cartwright & Cooper, 1994; Covin, Sightler, Kolenko, & Tudor, 1996).

Accordingly, research related to the human resource issues of mergers has become more prevalent, focusing on both the individual and collective reactions of employees (Larsson & Finkelstein, 1999; Marks & Mirvis, 2001; Schweiger & Denisi, 1991). At the individual level, past research has primarily investigated employees' psychological reactions and attitudes following a merger (Cartwright & Cooper, 1993; Covin et al., 1996). At the collective level, employees' attitudes related to mergers have been studied primarily in terms of the cultural fit or congruence between the merging organizations (Buono et al., 1985; Nahavandi & Malekzadeh, 1988). A consistent theme throughout these studies, regardless of perspective, has been that human resource issues are an important consideration in the merger process, but are often under-managed or overlooked, thus contributing to the lack of successful organizational integration (Greenwood, Hinings, & Brown, 1994).

Yet, despite the increased scholarly attention, there is relatively little empirical research that specifically examines the human resource processes and strategies used by organizations to implement mergers, and how these processes are related to employee attitudes and perceptions toward the changes (Burke & Nelson, 1998; Zhu, May, & Rosenfeld, 2004). Moreover, as noted by Larsson and Finkelstein (1999), much of the knowledge accumulated to date is largely anecdotal and pragmatic. As a result, there is a lack of theoretical understanding of the factors that positively influence employees' perceptions of the merger process. Accordingly, this study addresses the call for more systematic and empirical research on human issues related to mergers (Napier, 1989) by examining factors that may contribute to the development of employee acceptance and commitment toward post-merger changes.

Mergers and Commitment to Organizational Change

Numerous researchers have suggested that commitment is an important factor in gaining employee acceptance and support toward organizational change initiatives (Coetsee, 1999; Herscovitch & Meyer, 2002), and a critical element of their successful implementation (Conner & Patterson, 1982; Kotter, 1995). Moreover, committed employees are seen as more likely to put forth the necessary effort, initiative, and cooperation to make the organizational change successful (Conner & Patterson, 1982; Iverson & Buttigieg, 1999; Meyer & Allen, 1991; Neubert & Cady, 2001). Although there is agreement in the literature on the importance of commitment in general, employee commitment in a change context represents a relatively new area of inquiry. A review of the literature reveals that research has only recently begun to examine the antecedents and behavioral consequences of change commitment (Herscovitch & Meyer, 2002).

Organizational strategies and processes, such as communication, participation, and empowerment, have been suggested as important factors in building commitment toward organizational change (Armenakis & Harris, 2002; Goodman & Truss, 2004; Kotter, 1995). However, few studies have empirically examined the managerial strategies and processes through which employee commitment to change is developed (Herscovitch & Meyer, 2002). In particular, there were no studies found that focused on commitment in the context of large-scale structural change resulting from an organizational merger. Accordingly, this study will attempt to contribute to the emerging knowledge base on employee commitment to change by exploring the relationship between specific managerial processes and their influence on the development of commitment to organizational change in the context of an organization undergoing substantial change as a result of an organizational merger.

Importance of Present Study

An examination of employee attitudes and perceptions toward organizational change as a result of a merger is important and relevant for several reasons. First, a growing body of research indicates that mergers are a traumatic event in the lives of employees, often requiring substantial readjustment for them, that, if not managed well, can undermine the change effort (Cartwright & Cooper, 1996). Past studies have consistently found that mergers increase the level of the stress and uncertainty employees feel, which in turn negatively affects their work-related attitudes and behavior (Covin et al., 1996; Fairfield-Sonn, Ogilvie, & DelVecchio, 2002; Marks & Mirvis, 1995). For example, employee attitudes such as job satisfaction, organizational commitment, job involvement, and intentions to remain with the organization often decrease in response to the merger-related organizational changes (Appelbaum et al., 2000; Buono et al., 1985; Cartwright & Cooper, 1993; Fairfield-Sonn et al., 2002). These outcomes, in turn, have been linked to decreased productivity and effectiveness (Cartwright & Cooper, 1996).

A second reason for examining the formation of commitment in a change context is its role in influencing employees' behavioral support for the change. The organizational development literature suggests that the success of organizational change efforts ultimately depends on employees changing their behavior, and to achieve transformational change, new behaviors must be acquired by members of the organization (Burke & Litwin, 1992; Porras & Robertson, 1992). Furthermore, Porras and Robertson (1992) maintained that "If aspects of the organization are changed, yet its members do not change their basic work related behaviors, there will be no long-term change" (p. 726). In the wake of a merger, employees are often faced with a rapidly changing environment that generally involves wide-scale integration of both people and facilities, and entails substantial changes in job descriptions, tasks, and work structures (Buono & Bowditch, 1989). These types of changes have been found to be among the most difficult for employees, as they must often develop new skills and function in unfamiliar roles and work relationships within the newly merged organization (Cartwright & Cooper, 1993). An early study by Shirley (1973), found that employees who hold negative attitudes toward the merger early on may be more resistant to subsequent operational changes. Thus, understanding determinants of positive and negative attitudes toward the merger can be useful for managers of the merger implementation process by highlighting potential areas of resistance and identifying ways to influence employee acceptance and behavioral support for the changes (Shirley, 1973).

Finally, given that successful organizational change is dependent on employees' behavioral changes, it is important that studies take an individual-level approach to investigating change (Judge, Thoresen, Pucik, & Welbourne, 1999). The organizational development literature has followed a predominantly systems or "macro" orientation to the study of change (Meyer & Herscovitch, 2001). By investigating individual employee attitudes and perceptions during an organizational merger, this study should provide valuable insight to managers by identifying mechanisms through which they can foster the commitment levels of their employees and ultimately improve organizational effectiveness (Beck & Wilson, 2000).

In summary, studies that examine the effects of mergers on employee attitudes and perceptions toward a change effort are relevant and important for both academic and applied settings. Such an examination should enhance our understanding of the complex dynamics inherent in a merger integration process and provide further insight into the factors that may help build employee commitment not only toward the merger, in general, but also to the myriad of changes that follow.

Research Purpose

The primary purpose of this study is to explore how employee commitment to organizational change develops during the post-merger integration process by considering the influence of managerial communications and justice perceptions. Specifically, the study will present and test a model that identifies the impact of managerial communication on employees' justice perceptions, and the effects of these perceptions on employees' level of affective commitment to organizational change in the context of an organizational merger. The study proposes that employees' level of satisfaction with the communication with their immediate supervisor or manager influences their perceptions of fairness related to the change. These perceptions, in turn, influence employees' level of affective commitment to the change. Thus, the model examines the mediating role played by justice perceptions in linking managerial communication and affective commitment to organizational change.

Secondly, the study examines changes in employee perceptions and attitudes related to the merger over time by evaluating changes in the influence of justice perceptions and managerial communication on employees' level of affective commitment to the organizational change as the post-merger integration process unfolds. The post-merger integration period has been acknowledged as the most crucial stage of a merger in terms of assessing employees' reactions and attitudes toward the post-merger changes, and subsequently the influence those attitudes have on the successful outcome of the merger (Larsson & Finkelstein, 1999; Pablo, 1994).

Theoretical Perspective

The theoretical framework for the study draws from the literature in four distinct areas including mergers, organizational commitment, communication, and organizational justice. The research contributing to the present framework includes studies on the relationships among work processes and strategies, such as managerial communication and fairness, and work-related outcomes that are important to the successful implementation of organizational change initiatives. The basis for the study draws extensively on Meyer and Herscovitch's (2001) general model of commitment in the workplace.

Although organizational commitment in both the private and public sectors has been studied extensively over the past three decades, research in this field has only recently begun to explore extended models of workplace commitment that examine employee commitment to other foci or entities (Herscovitch & Meyer, 2002; Meyer & Herscovitch, 2001; Neubert & Cady, 2001). Herscovitch and Meyer (2002) recently developed and validated a multidimensional model in which commitment to organizational change is defined as “a force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative” (p. 475). Further, the affective component of the commitment to change model, which is this study’s focus, suggests that employees support a change initiative because they believe in the value of the change and thus are more likely to exert the effort necessary to achieve the objectives of the change (Herscovitch & Meyer, 2002).

In the context of change, past research suggests that affective commitment develops when employees become involved in or motivated by a course of action (Miller, Johnson, & Grau, 1994), recognize the value of change (Neubert & Cady, 2001), and/or derives their identities from being associated with the change or working toward it (Meyer & Herscovitch, 2001). This conceptualization of how affective commitment develops provides a basis for why the literature has suggested certain processes and strategies as factors that help promote employees’ acceptance and support for change initiatives. This study investigates two key managerial processes and strategies, fairness perceptions and managerial communication, as important factors in gaining employee support and commitment to change as a result of an organizational merger.

Organizational justice pertains to employee perceptions of the fairness of work-related processes and outcomes (Greenberg, 1990). Past studies have supported the general idea that fairness perceptions can influence employees reactions and attitudes toward change initiatives (Citera & Rentsch, 1993; Daly & Geyer, 1994; Gopinath &

Becker, 2000; Kernan & Hanges, 2002; Paterson, Green, & Cary, 2002). In their recent meta-analysis of organizational justice research, Colquitt, Conlon, Wesson, Porter, and Ng (2001) found support for the positive effects of employees' perceptions of fair treatment on individual attitudes such as satisfaction and commitment, as well as desirable work behaviors, such as intention to remain and citizenship behavior. Specifically in the context of a merger, where reallocation of resources is generally widespread, employees are more likely to accept and support the outcomes of change processes if they feel the procedures by which the decisions were made and implemented are considered fair (Folger & Cropanzano, 1998; Meyer, 2001; Tyler & Bies, 1990).

The organizational change and development literature has widely recognized the importance of communication in organizational change processes (Goodman & Truss, 2004; Kotter, 1995; Lewis, 1999). In particular, at the individual level, studies have identified effective and timely communication as a significant factor in helping employees understand the need for change (Armenakis & Harris, 2002), reducing uncertainty about the change (Buono & Bowditch, 1989), and increasing employees' willingness to participate in the change process (Miller et al., 1994). This study draws from Crino and White's (1981) definition of communication satisfaction as "an individual's satisfaction with various aspects of communication in his organization" (p. 832), and Jablin's (1979) definition of superior-subordinate communication as "…those exchanges of information and influence between organizational members, at least one of whom has formal (as defined by official organizational sources) authority to direct and evaluate the activities of other organizational members" (p. 1202), to define managerial communication satisfaction in terms of employee satisfaction with various aspects of exchanges of information with their immediate supervisor or manager.

This study's conceptual model proposes managerial communication (Paterson & Cary, 2002), and fairness perceptions (Daly & Geyer, 1994), as important factors related to employees' level of affective commitment to change in the context of large-scale organizational change. Specifically, the model hypothesizes that employees' satisfaction with managerial communication will have a direct and positive effect on each dimension of organizational justice, and that higher levels of justice will, in turn, influence employees' level of affective commitment to organizational change. Although the relationships occur in a work environment that consists of dyadic relationships and work groups, this study will use the individual as the unit of analysis.

Significance of the Study

This study makes contributions to the literature in several research domains. First, empirical studies of organizational mergers in the public sector are sparse. Public sector organizations are increasingly involved in mergers, consolidations, restructuring, and other forms of large-scale structural change designed to improve efficiencies in response to fiscal constraints and increasing public demands (Frumkin, 2003; Nutt & Backoff, 1993; Zorn, Page, & Cheney, 2000). Yet despite this trend, there is little research related to the unique challenges faced by public sector organizations undergoing substantial change initiatives. The literature has only recently begun to acknowledge that all mergers are not the same, and that the context of the merger and environmental differences may significantly impact operational changes (Schraeder, 2001). As public sector organizations increasingly pursue large-scale structural changes such as mergers and consolidations, there are important differences in both the drivers of the decisions to merge, as well as human resource strategies employed during the post-merger integration process that bear consideration (Frumkin, 2003). While mergers between government entities are not as widely documented or pervasive as those in the private sector, researchers have indicated that large-scale change cannot only be more traumatic for public sector employees, but also more difficult to implement (Frumkin, 2003; Zorn et al., 2000). Because public sector organizations are subject to a greater range of rules and regulations and must operate in rigid bureaucratic structures that often serve to inhibit effective organizational change (Robertson & Seneviratne, 1995), extending our knowledge in this context is both relevant and informative to public sector managers faced with the difficult task of integrating previously autonomous entities.

A second contribution of the study is the use of a mixed method research design in a longitudinal framework to more fully investigate the relationships among the study variables. As noted earlier, there are very few studies to date that have explored employees' attitudes and perceptions related to a merger over time. Past research on the impact of organizational mergers on employee attitudes has consisted primarily of cross-sectional studies focused on the post-merger implementation stage (Mirvis & Marks, 1992), thus providing a relatively static view of the merger process. Cartwright and Cooper (1993) further note that the impact of a merger, and its short-and-longer term effects on the merged workforce, have tended to be neglected in the literature. This study assesses employees' attitudes and perceptions over two years during the merger integration process, thus providing insight into how attitudes and perceptions change over time as organizational changes are made, communicated, and implemented. Given the high failure rate of mergers, and empirical support for the importance of human reactions to a successful change effort, understanding the effects of post-merger changes on employees through the various stages of the merger process may help managers mitigate the negative reactions and attitudes generally associated with this type of large-scale change.

Third, the study also contributes to the extensive literature on organizational justice by empirically examining the role of fairness perceptions as a mediating mechanism through which managerial processes, such as communication, enhance employee commitment. Meyer et al. (2002) noted the importance of identifying mediating mechanisms to better explain why certain relationships exist and thus, more systematically investigate the antecedents of commitment as well as identify potential influencing factors for future research. According to Daly and Geyer (1994), few studies have specifically focused on the influence of fairness perceptions in assessing how employees become committed in the context of transformational change and thus, this study offers further insight into this complex process. Moreover, as Cobb (1995) noted, the majority of studies in organizational justice have been conducted in relatively stable organizational contexts, and that the "context of organizational change has much to offer the expansion of justice theory and research" (p. 136).

Finally, and most importantly, despite numerous references to the importance of employee commitment in a change context, evidence of its measurement and significance in the literature is limited to a few exploratory studies (Herscovitch & Meyer, 2002). Numerous change management models in the literature describe employee commitment as crucial to the change process (Conner & Patterson, 1982; Cummings & Worley, 2001), and illustrate how employees transition through change (Armenakis et al., 1999; Kotter, 1995), yet few have specifically examined and tested the commitment to organizational change construct. By integrating research from the workplace commitment, communication, and organizational justice literatures, this study contributes to understanding the importance and relevance of commitment in a change context.

Research Context

Because the merger that is subject of this study reflects a growing trend in the industry, the following section provides an overview of the fire service industry in general as background for the study. In addition, the events related to the merger and the characteristics of the merging organizations relevant to the study are discussed.

Industry background. Over the past twenty years, the fire service industry has experienced significant change as its core mission has evolved to encompass broader and more diversified public safety services (Manning, 2003). Since the early 1970's, the industry has been transforming itself from single-focus fire suppression departments to multidisciplinary organizations (Weiss, 1998). The trend toward combined services has been cited in trade publications of both services (e.g., *Fire Chief and Journal of Emergency Medical Services*) as having both strategic and operational advantages, as well as being a way to provide more efficient and cost-effective emergency services. The increasing number of cities adopting fire-based EMS models has also been driven by a change in the types of emergency calls that fire departments most often respond to. Nationwide, the number of fires has continued to decline each year due to better fire prevention efforts, building code enforcement, and improved technology (Weiss, 1998). At the same time, the volume of emergency calls has increased and the calls have become more complex, encompassing a wider range of emergency situations, including hazardous materials, terrorism, and natural disasters, for which emergency personnel must be trained and prepared to respond to (Manning, 2003). The trend toward diversifying fire departments, expanding their capabilities, and developing multidisciplinary employees by merging stand-alone fire departments and EMS organizations is expected to continue as the industry evolves and adapts to a more complex and broader range of emergency situations (Manning, 2003).

Context of the present study. In 2001, an ordinance passed by the city government mandated the consolidation of the fire department, EMS, and the Emergency Management Agency (EMA), which is responsible for coordination of regional Homeland Security and disaster planning. The decision to merge the departments represented a strategic change for the city as it faced the need to reduce costs and increase efficiencies in response to declining tax revenues and a rising demand for public services. Because fire and emergency medical services personnel are co-located and respond together to most emergency situations, they became a natural choice when city officials looked to consolidate services and reduce operational costs. The merger of the three public safety organizations represented one of the first attempts at major restructuring within the city government.

Prior to the merger, the organizations operated as autonomous entities with separate budgets, command hierarchies, resources, facilities, and operating procedures. Following the merger, all employees, budgets, and facilities were consolidated into a single organization. The merger resulted in several substantial changes for employees of the new organization including new reporting structures, relocation of personnel, new professional certification requirements, and increased job responsibilities to accommodate the expanded mission of the new organization.

The integration of the organizations was designed to be implemented over a period of several years with the first phase of the merger involving pre-combination planning and consisting primarily of financial and logistical activities. Because organizations often take several years following a merger to fully integrate their respective functions, Marks and Mirvis (1995) suggested that one to two years following a merger is a "good time to take a company's pulse," and that a comprehensive assessment conducted during this time frame can provide insight into how well an organization is progressing toward achieving its post-merger goals.

The actual changes resulting from the city’s merger that would have the most pronounced effect on the employees of the newly combined organization would be implemented over time following the initial announcement of the merger. These changes included such activities as cross training, assessment testing for promotions, and integration of command structures. The time frame for this study is also consistent with Cornet-De Vito and Friedman’s (1995) study. They suggested a time frame of 15 months to four years following the announcement of a merger as an appropriate time to assess employee responses to merger integration activities.

Organization of the Study

This chapter has examined the importance of investigating employee commitment to organizational change, and the key factors that influence the development of commitment in the context of large-scale change. The purpose of the study and its theoretical and practical significance are also discussed. An overview of the research context was provided as background for the study. Chapter 2 provides a review of the literature relevant to employee commitment to organizational change and each of its proposed antecedents. The first section provides a brief overview of mergers in general, and discusses challenges unique to public sector mergers as background for the context of the study. The second section includes an overview of the literature on workplace commitment and, in particular, the emerging literature related to commitment to organizational change. The next section reviews organizational justice and managerial communication as key antecedents that influence employees' commitment in a change context. The final section presents and discusses a conceptual model of the hypothesized relationships among the study variables. Chapter 3 discusses the methodology and provides a detailed description of the research design, procedures, and data analysis for each phase of the study.

CHAPTER 2

LITERATURE REVIEW

In today's dynamic and competitive environment, mergers, acquisitions, downsizing, and other forms of large scale structural change are common strategies undertaken by organizations in response to the rapid pace of environmental change (Burke & Nelson, 1998; Nutt & Backoff, 1993). As a result, employees are experiencing an unprecedented amount of change in their work environments (Kernan & Hanges, 2002). Most scholars agree that change is difficult, and that managing the social psychology of the change process is critical for successful organizational change. As a result, a substantial amount of the change management and organizational development literature focuses on managing or leading change processes, and on specific organizational development processes (Whelan-Berry, Gordon, & Hinings, 2003). Several studies have also focused specifically on employees' response to organizational change, and factors that influence their attitudinal and behavioral reactions to change. A consistent finding throughout this literature is that the success of an organizational change initiative is dependent on gaining employee acceptance, support, and commitment to the change.

Current perspectives on the management of organizational change suggest that acceptance and support for change is enhanced by workplace characteristics and strategies that emphasize the content and quality of change communications (Lewis, 1999), ensure that procedures and outcomes are fair and equitable (Daly & Geyer, 1994), and that provide support to employees in adjusting to the change (Paterson & Cary, 2002). Given the increase in the frequency with which organizations are pursuing large-scale or transformational change initiatives (Beckhard, 1988), a key issue for researchers and practitioners is to understand the strategies and managerial actions that not only contribute to the successful implementation of organizational change but help ensure its long-term sustainability.

This chapter reviews the literatures relevant to the development of a conceptual model of key factors that are hypothesized to influence the development of affective commitment to change in the context of an organizational merger. The first section examines the management literature on mergers as a type of large-scale organizational change as background related to the specific change context. This section also briefly reviews the environmental differences between public and private sectors that bear consideration in the post-merger integration process. The second section presents the literature on commitment in the workplace, and specifically the role of employee commitment to organizational change (Herscovitch & Meyer, 2002) as a key factor in the successful implementation of the change initiative. The third section presents a discussion of two antecedent factors, organizational justice and managerial communication, which have been identified as important factors in shaping employee attitudes and perceptions related to the merger, and more specifically, to the development of affective commitment to post-merger organizational changes. The last section presents a conceptual model that llustrates the hypothesized relationships between the factors.

Mergers as Large-Scale Organizational Change

Most scholars acknowledge that few organizational change initiatives are as comprehensive and challenging as a merger (Cornett-DeVito & Friedman, 1995; Marks & Mirvis, 2001). According to Marks and Mirvis (1995), mergers are unlike any other process of major organizational change in three important areas: the rate of change, the scale of change, and the critical mass of the unknown they represent. Mergers are broadly defined as the consolidation of two entities into a single new entity, and generally involve significant organizational change over an extended period of time (Buono & Bowditch, 1989) that may result in the integration of some or all parts of the combined organizations (Citera & Stuhlmacher, 2001). In terms of the scope and magnitude of the changes required, mergers by their very nature embody Nadler's (1988) description of large-scale change as efforts that encompass the entire organization, occur over a number of years, and involve fundamental alterations to ways of thinking about the organization and how it is managed (p. 67).

Mergers are generally conceptualized in three distinct phases: "precombination," "combination," and "postcombination" (Marks and Mirvis, 2001, p. 81). In the precombination phase, the primary focus is on strategic issues related to the merger including financial, logistical, and legal aspects. Past studies of mergers have largely focused on these aspects when evaluating the potential success of a merger (Cartwright & Cooper, 1996).

More recent research has also begun to examine the combination phase as a critical period in the ultimate success of the merger. The combination phase is when the majority of post-merger integration changes are implemented and operational and human resource issues are addressed. Consequently, this is the phase when employee reactions and perceptions to the changes are generally most pronounced, and where conflict is most likely to occur as day-to-day operations are integrated and new operating procedures and processes are implemented (Marks & Mirvis, 1992). In their review of the literature related to the human aspects of mergers, Greenwood et al. (1994) suggested that two major themes have emerged from the literature, namely; that mergers inevitably create behavioral difficulties and numerous employee-related problems, and that managers generally under-manage the planning and implementation of mergers. Further, they suggest that the under-management of the combination phase is due primarily to the lack of sensitivity to potential difficulties of the post-merger integration process and the inherent dynamics of the merger process.

The combination stage can be particularly stressful for employees as feelings of job insecurity and uncertainty increase as new expectations and contributions are negotiated and post-merger changes are implemented. Several researchers have suggested the resulting uncertainty and anxiety constitute a major source of employee stress, which in turn, has been found to reduce productivity and create adverse behavioral responses (Buono & Bowditch, 1989; Cartwright & Cooper, 1996; Kernan & Hanges, 2002). Moreover, Marks and Mirvis (1985) contended that the stress associated with feelings of uncertainty ultimately "affects perceptions, judgments, interpersonal relationships, and the dynamics of the combination itself" (p. 50). Cartwright and Cooper (1994) found empirical support for this belief in their study of the psychological effects of a merger in a sample of building society managers. Their findings indicated that the merger was a particularly stressful event for managers. However, contrary to their predictions, they did not find the merger to have a significant impact on managers' level of post-merger commitment or job satisfaction. Their findings were consistent with other studies in the literature (Ivancevich, Schweiger, & Power, 1987; Schweiger & Denisi, 1991) suggesting that the stress associated with the merger was related more to the expectancy of change and fears of the unknown, as opposed to the actual merger itself.

As a result of the combination process, employees are often faced with major alterations in reporting relationships, work groups, job duties, general operating processes and procedures, and changes in career paths and advancement opportunities (Cartwright & Cooper, 1994; Covin et al., 1996; Marks & Mirvis, 1992). Some researchers have suggested that mergers by their very nature violate the implied psychological contract between employees and their organizations (Citera & Stuhlmacher, 2001). A psychological contract represents a mutual perceived obligation between an employee and his manager that is designed to increase role clarity and commitment, reduce ambiguity, and ensure balance between expectations and contributions (Rousseau, 1996). When expectations and contributions are perceived to be equal, employees' level of attachment and affective commitment to the organization increases. In change situations, such as a merger, where expectations and contributions are likely to change, employees may perceive the organization as not fulfilling its part of the psychological contract, and as a consequence, employees' level of attachment to the organization may decrease (Citera & Stuhlmacher, 2001).

The final stage of the merger process is the post-combination phase, where the combined entity is fully integrated and the new organizational culture, missions, and identity have begun to take form (Marks & Mirvis, 2001). As many academic and practitioner studies have found, however, few organizations reach this stage of the process as noted by the high failure rate of most mergers in realizing the intended goals of the combination (Cartwright & Cooper, 1996). The focus of this study is on the critical post-merger combination stage, exploring factors that may influence employees' commitment toward the merger and subsequent organizational changes. Specifically, the context for the present study is a public sector organization undergoing substantial change as a result of an organizational merger. Although mergers in the private sector have historically been the subject of most theoretical and practical studies, the increasing frequency with which public sector organizations have begun to implement mergers has made understanding their unique characteristics increasingly important. Accordingly, the next section provides a brief discussion of the mergers in the public sector as background for the context of the present study.

Mergers in the public sector. As noted by several researchers, there are considerable differences, particularly with respect to human resources issues, that bear consideration in the study of organizational change, particularly related to large-scale structural change such as a merger (Lord & Hartley, 1998; Rush, Schoel, & Barnard, 1995). Nutt and Backoff (1993) noted that public sector organizations are increasingly faced with enormous pressure to become more efficient and effective in the delivery of services, more responsive to customers, and most importantly, more cost conscious in light of increasing fiscal constraints. As a result, many public sector organizations have pursued new work structures, often involving mergers and consolidations, in an effort to increase their flexibility and efficiency in the delivery of services. Despite the increase in public sector mergers and consolidations, however, most researchers and practitioners acknowledge that implementing change in the public organizations is particularly difficult (Robertson & Seneviratne, 1995). A key reason can be seen in the characteristics of public sector organizations, which are known for their hierarchical and bureaucratic structures, formalized job responsibilities, and limited rewards systems, all of which can inhibit the successful implementation of organizational change (Robertson & Seneviratne, 1995).

Unlike the private sector, widespread layoffs and workforce reductions are generally not common outcomes of public sector mergers, and employees are not as deeply affected by “survivor sickness” in the aftermath of a merger (Marks & Mirvis, 1992). A more common challenge in the implementation of merger-related change lies in the nature of the employment relationship between public sector employees and their organizations (Worrall, Cooper, & Campbell-Jamison, 2000). Public sector employment is generally characterized by stability and predictability in the work environment, and the establishment of long-term career structures (Rush et al., 1995). In many cases, mergers and other forms of restructuring involve redesigning traditional jobs in an effort to increase the level of functional flexibility of employees (Cordery, Sevastos, Mueller, & Parker, 1993). Functional flexibility refers to the capacity of an employee to work beyond traditional occupational boundaries, and for employees generally means acquiring new skills or additional job responsibilities (Cordery et al., 1993). However, rather than welcoming the ability to gain new skills, however, such job redesign efforts are often perceived as threatening by employees who are accustomed to the traditionally segmented and defined occupational boundaries found in public organizations (Cordery et al., 1993). Moreover, the magnitude of organizational change that commonly follows a merger creates considerable stress and uncertainty for employees, and further challenges the traditional norms, values, and cultural characteristics associated with the public sector workplace (Marks & Mirvis, 1995). Public sector employees often view changes in job responsibilities and their daily work routines and relationships negatively, and may perceive a merger as a threat to their personal career paths and financial security (Lord & Hartley, 1998).

The public sector has traditionally relied on organizational commitment as a means of ensuring productivity and competitiveness (Perry, 2004). Reduced commitment as a result of changes related to a merger may have the effect of not only reducing productivity, but also inhibiting the ability of the public sector to attract and retain high-quality employees. Because public sector mergers are generally driven by organizational needs to increase organizational capabilities in support of their primary mission, the retention of key employees to fulfill the mission is an important consideration. Thus, the challenges of gaining support and commitment to large-scale organizational change in the public sector can be a particularly difficult process given the unique characteristics of the employment relationship and the constraints imposed by the bureaucratic nature of public sector organizations.

Summary

In sum, the literature suggests, regardless of sector, that mergers represent a particularly challenging form of organizational change with important implications for individual outcomes. Further, there is evidence that the processes by which such changes are implemented are likely to influence employee attitudes and reactions toward the changes. Many researchers have concluded that employee reactions and attitudes toward a the merger are also an important determinant of its successful outcome (Cartwright & Cooper, 1996; Schweiger & Denisi, 1991).

The change management and organizational development literatures suggest that employee commitment plays an important role in the successful implementation of organizational change (Coetsee, 1999; Conner, 1992; Iverson & Buttigieg, 1999; Kotter, 1995). Highly committed employees are more willing to accept organizational change and thus are more likely to put forth the necessary effort crucial to its success (Porras & Robertson, 1992). A key challenge for organizations implementing large-scale change is to develop strategies to build and sustain employee commitment toward change throughout the process (Conner & Patterson, 1982). Recent advances in the organizational commitment literature suggest that employees can and do develop commitment to foci beyond just the organization (Meyer & Allen, 1997; Meyer & Herscovitch, 2001). The following section provides an overview of organizational commitment theory and research. Specifically, it discusses Meyer and Herscovitch’s (2001) general model of workplace as a basis for the conceptualization of commitment to organizational change as the key outcome variable of interest in this study.

Workplace Commitment

The role of commitment in organizations has received considerable theoretical attention throughout the past few decades. Organizational commitment has been identified as an important factor in organizational functioning and for explaining employees’ work-related behavior (Lord & Hartley, 1998; Meyer & Allen, 1991; Meyer & Herscovitch, 2001). A consistent theme throughout the commitment literature is that high levels of commitment are associated with positive outcomes for the organization

(Mathieu & Zajac, 1990). Furthermore, committed employees are more likely to remain with the organization, exert extra effort on behalf of the organization, and put forth effort toward attaining organizational goals (Mowday, Steers, & Porter, 1979).

Organizational commitment has been defined and conceptualized in several ways over the past few decades, and even today there exists considerable variation in how commitment is defined, the dimensionality of the construct, the factors that influence commitment, and the consequences of commitment for the organization (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). In general terms, most studies characterize organizational commitment in terms of a bond or attachment of the individual to the organization (Mowday, Porter, & Steers, 1982) that is distinguishable from other job-related attitudes, such as job satisfaction. Moreover, because an individual's commitment toward the organization develops over time it is less likely to be affected by day-to-day events (Mowday et al., 1979).

Early studies of commitment identified two dominant approaches to the study of organizational commitment, the attitudinal and the behavioral approach (Mowday et al., 1982; Mowday et al., 1979; Reichers, 1985). Attitudinal commitment refers to the relationship individuals have with their organizations, and reflects their identification and involvement in the organization, their willingness to work toward organizational goals, and their desire to maintain membership in the organization (Mowday et al., 1979). Past studies of attitudinal commitment have focused primarily on identifying specific antecedents and consequences of commitment, and on understanding the relationship between commitment and organizational outcomes (Meyer & Allen, 1997). In contrast, the behavioral approach focuses on the behavioral actions and processes through which employees link themselves to the organization (Mowday et al., 1979).

Within the commitment literature, different viewpoints have also existed on the dimensionality of organizational commitment, with some researchers arguing that commitment is one-dimensional (Mowday et al., 1982), and others suggesting that commitment can take various forms and is thus, multidimensional. For example, O'Reilly and Chatman (1986) defined commitment in terms of an employee's attachment or psychological bond with an organization. Based on Kelman's (1958) taxonomy of attitude process change, they suggested that the basis for an employees' attachment to the organization can be influenced by: (a) compliance which relates to extrinsic rewards; (b) identification which results from the desire for affiliation; and (c) internalization based on goal congruence between the individual and their organization.

Meyer and Allen (1991) similarly developed a three component conceptualization of the construct that defines commitment in terms of a psychological state. However, they argued that the nature of the employees' commitment may vary depending on the commitment target within the organization. In their model, they define organizational commitment as "a psychological state that binds the individual to the organization." (p. 14), and suggested that commitment has three distinct dimensions. The first dimension, affective commitment, refers to an employee's "emotional attachment to, identification with, and involvement in the organization" (p. 11). Normative commitment refers to an employee's feeling of obligation toward the organization, and lastly, continuance commitment is related to an employee's perceptions of the costs of leaving the organization (Meyer & Allen, 1991). While early research on commitment generally focused on employee turnover as a key outcome variable of commitment, more recent studies have recognized that each of the three dimensions of commitment may develop as the result of different antecedents, and may have different implications for work-related behavior beyond just turnover or retention.

General Model of Workplace Commitment

Meyer and Herscovitch (2001) proposed a general model of workplace commitment that could be applied to a broader range of workplace commitment studies. In their model, they suggested a more generalized definition of workplace commitment that recognizes the various forms of commitment an employee may have. Their model extends the original three-component model of commitment (Meyer & Allen, 1991) by acknowledging not only the different forms of commitment but also the various entities to which employees can become committed to within an organization. In adapting the original three-component model, they defined commitment as a “mind-set or force that binds an individual to a course of action of relevance to one or more targets” (p. 301). As with previous conceptualizations, their definition proposed commitment as a multidimensional construct, and suggested that the “the mind-set accompanying commitment can take various forms including desire, perceived cost, or obligation to continue a course of action” (p.308). Through this definition, Meyer and Herscovitch (2001) focused on both the entity to which commitment is directed and the course of action of relevance to the entity. Further, they suggested that by identifying the explicit or implied target or commitment, researchers can better predict the behavioral outcome of commitment. Moreover, the definition can be applied to any commitment construct provided the target is specified and the appropriate course of action relevant to that target is identified (Meyer & Herscovitch, 2001).

Commitment to Multiple Foci

Reichers (1985) suggested that, in addition to a global level of commitment to the organization, individuals can also develop commitments to other entities such as work groups or supervisors and to groups external to the organization such as a union or an occupation. In a test of her multiple constituency framework, Reichers (1985) found support for her theory that commitment to the organization has both global and specific components. In addition, she suggested that our understanding of organizational commitment could be enhanced by recognizing that employees can become committed to multiple organizational members and to multiple sets of goals.

Meyer, Allen, and Smith (1993) also examined the generalizability of their three-component model of organizational commitment (Meyer & Allen, 1991) by extending the model to measure employees' commitment to their occupation. In their study, they used the same dimensions of affective, normative, and continuance commitment to measure employees' level of commitment to their occupation. Their results demonstrated that organizational commitment and occupational commitment were distinguishable constructs. A similar study conducted by Irving, Coleman, and Cooper (1997) provided additional evidence for Meyer et al.'s (1993) model of occupational commitment by demonstrating the generalizability of the model across several occupational groups as opposed to the single occupation used in the Meyer et al. (1993) original study.

Two additional studies of commitment to foci other than the organization provide further evidence of the model's applicability beyond just the traditional measures of organizational or occupational commitment. Becker (1996) examined the effects of multiple commitment foci in a study that measured newcomers' commitment to both the organization, and to their immediate supervisor. He found that the effects of commitment to the supervisor were more strongly related to employees' job performance than commitment to the organization. In a more recent study, Neubert and Cady (2001) examined employees' commitment toward a specific program within an organization. They proposed that by specifying the particular program or initiative as the focus of attachment or commitment, researchers were more likely to discover unique relationships with attitudinal and behavioral variables that may not be evident when assessing global measures of organizational commitment. In two longitudinal field studies conducted to test their propositions, they found significant relationships between program commitment and employees' participation and performance in the program, and further identified specific affective variables, including organizational commitment, change self-efficacy, and teamwork orientation, as key antecedents of employees' commitment to a defined program.

Taken together, the results of past studies provide support for the contention that the affective, normative, and continuance commitment dimensions are applicable to multiple commitment domains. Moreover, the findings have important implications for understanding the relationship between commitment and employee behavior in light of Meyer, Allen, and Topolnytsky's (1998) assertion that employees who are not necessarily committed to their organization may still perform effectively as a result of commitment to their occupation, work group, or supervisor.

Organizational Commitment and Change

Several researchers have indicated that organizational commitment plays an important role in a change context. For example, Iverson (1996), in a study of a public organization undergoing extensive organizational change, found that organizational commitment was the second most important determinant of employees' attitudes and acceptance of organizational change. Employees with high levels of organizational commitment were more willing to put efforts forth toward the change and more likely to develop positive attitudes related to the change (Iverson & Buttigieg, 1999). Meyer et al. (1998) argued that organizational change initiatives often lead to changes in the nature of an employee's commitment, which, in turn, can have important implications for employees' morale, motivation, and performance, and subsequently, organizational performance. In a change context such as a merger, maintaining high levels of affective commitment to the organization is a considerable challenge given that the new organizational identity combining the merging organizations is not clearly defined, and new cultures, relationships, and ways of working are still being formed (Buono et al., 1985). Covin (1996) explained the impact, suggesting that during their work life, "employees attach themselves to jobs, co-workers, work routines, the application of personal skills, and performance and career goals" (p. 132). When these attachments are disrupted by the impact of a merger, employees may feel a reduced sense of commitment to the post-merger organization. In these situations, Meyer et al. (1998) suggested that efforts refocusing employee commitment to other foci such as the actual change initiative or mission of the new organization may be more desirable.

In sum, a considerable amount of research has examined the nature of organizational commitment, and researchers commonly acknowledge that the multidimensional approach to the study of commitment is valuable for understanding not only how commitment develops, but also the behavioral implications of each dimension. There is also consensus among researchers that individuals can develop commitment to various constituencies both within and external to the organization. Meyer and Allen (1997), however, noted that the complexity of the multidimensional model of commitment that encompasses both the nature of the commitment (i.e., affective, normative and continuance commitment), and the focus of the commitment, is almost impossible to test in its entirety. They suggested that researchers seeking to understand the processes through which employee commitment develops should narrow their focus and explicitly state what form of commitment they are interested in studying (p. 21). Consistent with much of the existing commitment literature, this study focuses on the affective dimension of commitment. Researchers have focused attention on this dimension primarily because of the strong relationship found in past research with work outcomes important in a change context (Mathieu & Zajac, 1990; Meyer et al., 2002; Perry, 2004).

Role of Affective Commitment

According to Meyer and Smith (2000), the advantages to an organization of having committed employees are the greatest when employees are affectively committed to the organization, or to the target entity. Findings from their meta-analyses of antecedents, correlates, and consequences of organizational commitment showed the strongest positive correlations between affective commitment and positive work behaviors and attitudes such as job performance, attendance, citizenship behaviors and job satisfaction. Other studies also support the general view that affectively committed employees have the strongest sense of identification and affiliation with the organization. This attachment, in turn, serves to increase not only their involvement in organizational activities, but also their willingness to put forth effort toward achieving organizational goals and initiatives (Meyer & Allen, 1991; Mowday, Porter, & Steers, 1982).

How Affective Commitment Develops

A significant amount of research over the past two decades has focused on understanding how employee commitment develops, and subsequently, the influence of such commitment on work-related behavior. Although several variables have been identified in the literature, research in this area is often criticized as being unsystematic and resulting in a “laundry list” of antecedents of organizational commitment (Meyer & Herscovitch, 2001; Reichers, 1985). A key criticism of the existing research is the lack of attention to process issues and an understanding of the underlying mechanisms through which these variables influence commitment (Meyer & Herscovitch, 2001). Therefore, there is still relatively little known about the processes through which commitment develops.

In their general model of workplace commitment, Meyer and Herscovitch (2001) suggested that antecedent variables be chosen based on their relevance to the type of commitment that is being fostered. They identified several factors that are proposed to contribute to the development of each type of commitment. They proposed that any personal or situational variable that contributes to an employee becoming involved in, recognizing the value-relevance of, or deriving their identity from being associated with an entity or working toward a course of action, will promote the development of affective commitment (Meyer & Herscovitch, 2001). Individuals with high levels of affective commitment are committed to a particular course of action relevant to a specific target out of desire, or because they want to be and thus, are more likely to exhibit the necessary discretionary or extra-role behaviors to help achieve organizational goals and objectives (Meyer et al., 2002). In a change context, this conceptualization of affective commitment is particularly important because successful change initiatives often require employees to make personal sacrifices that go beyond prescribed responsibilities in order to achieve the goals and objectives of the change.

Commitment to Organizational Change

Researchers have generally concluded that employee commitment is one of the most important factors in a successful change effort (Armenakis et al., 1999; Coetsee, 1999; Conner, 1992; Kotter, 1995). Conner and Patterson (1982) noted that when employees are committed to organizational change, they are more likely to get involved in the change process, demonstrate enthusiasm for the change, and take responsibility for its successful implementation. Further, they contended that the “most prevalent factor contributing to failed change projects is a lack of commitment by the people” (p. 18). Several researchers have also acknowledged the importance of commitment in various models of change. For example, Armenakis et al. (1999) suggested that employee commitment to change is a key component in their comprehensive model of change. They proposed that the process of making change permanent involves “building commitment to the changed state (or building resistance to changing from it) at the individual level” (p.100), and suggested that it is the commitment of the individual employee that will ultimately determine the success of the change effort.

Cummings and Worley (2001) also incorporated commitment to change in their theoretical model for managing organizational change processes. They suggested two key stages where commitment is a critical component of a successful change effort. The first occurs during the transition stage as the organization moves from the current state to the desired future state, and as part of the process, identifies key people and groups whose commitment is essential for change to occur. The second key stage is during the implementation stage where commitment to change is seen as a key to sustaining momentum for carrying a change process through completion (p.121). An earlier model proposed by Beckhard (1988) articulated similar stages of transition that include commitment as a key factor in the transformational change process as organizations transition from the present state to the desired future state.

Conner and Patterson (1982) proposed a three step theoretical model to provide a framework for organizations to use in the process of building employee commitment toward a change initiative. Their model draws on Lewin's (1951) three-stage change model in which change is treated as an event to be managed in stages. The first stage, defined as "unfreezing," represents preparation for the change. The second stage of the model is the actual implementation of the change, and the third stage, "unfreezing," occurs when the organization regains stability following the change (Lewin, 1951). In their model, Conner and Patterson (1982) similarly defined three phases of the commitment process and illustrated the phases as part of a change continuum. The phases included the preparation phase, which reflects employees' level of awareness of the actual change and how it will affect them, the acceptance phase which concerns employees' understanding and perceptions of the change, and finally, the commitment phase which refers to employees' adoption, institutionalization, and internalization of the change (Conner & Patterson, 1982). According the Conner and Patterson (1982), a critical point exists between the acceptance phase and the commitment phase during which the organization must take action to build employee understanding of the change process such that employees have a positive perception and shared vision of the change.

Similarly, Coetsee (1999) proposed a comprehensive theoretical model whereby commitment and resistance are explained as related change management issues. In his continuum model, the various phases of commitment and resistance are conceptualized as occurring in phases with commitment representing the final phase of acceptance of change. Coetsee's model identified four phases or levels of commitment. The first phase of commitment is characterized by general support for the change in terms of having a positive attitude toward the change. In this phase, employees may be supportive of a change but do not actively participate in promoting the change. The second and third phases represent increased levels of employee involvement in the change and are characterized by employees' active and cooperative engagement in the change process. The final phase, commitment to change, reflects the combination of employees' shared vision of the change, knowledge, information, rewards and recognition, and empowerment. Through his model, Coatsee (1999) sought to provide researchers with a diagnostic framework to facilitate the change management process by illustrating the key phases and factors that influence the transition of employees through each phase toward the final acceptance of change.

Although each of these models makes an important contribution to understanding the role of commitment in a change context, there remains little empirical research examining employee commitment in the domain of organizational change. One of the key reasons for this gap is the lack of valid measures of commitment to organizational change that examine not only how commitment to change develops, but the behavioral outcomes.

Herscovitch and Meyer (2002) were the first researchers to develop and validate a measure specifically focused on commitment to organizational change. Following Meyer and Herscovitch's (2001) recommendation for adapting their general model of organizational commitment, Herscovitch and Meyer (2002) specified the particular change initiative as the target and defined commitment to organizational change as a "force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative" (p. 475). Consistent with their earlier model of workplace commitment, they conceptualized commitment to organizational change as multidimensional in that it can take various forms that not only develop differently but can have different implications for employee behavior toward the change. Specifically, affective commitment to organizational change reflects an employee's commitment or support for a change initiative based on his or her belief in the value of the change. Continuance commitment to organizational change reflects an employee's perception that there are costs associated with failing to support a change (e.g., termination, demotion, loss of retirement benefits). Finally, normative commitment to change reflects an employee's sense of obligation to provide support for the change (Herscovitch & Meyer, 2002).

Herscovitch and Meyer (2002) suggested that while any of the three types of commitment to change would lead to employees enacting “focal” or required behavior, discretionary behavior that goes beyond the minimal requirements of the change effort would differ by type of commitment (p. 475). For example, they hypothesized that employees with continuance commitment to change would do little other than comply with the minimal requirements of the change. At most, employees with continuance commitment recognize there are costs associated with not complying with the requirements of the change, and therefore support the change initiative because they have to. Employees who are normatively committed to the change would similarly engage in obligatory behavior, and may also engage to some extent in discretionary or extra-role behaviors in support of the change. Employees with a sense of normative commitment feel they need to support a change effort because of a moral obligation to do so, not necessarily because they believe in the change or want to participate in it. In contrast, affectively committed employees are most likely to demonstrate behavioral support for the change that goes beyond minimal requirements and that may involve some level of personal sacrifice in order to achieve the goals of the change effort (Herscovitch & Meyer, 2002). Employees who are affectively committed generally have a strong belief in the value of the change, are intrinsically motivated to achieve the goals of the change, and are verbal in their support of the change.

To test the validity of their new measure of organizational change commitment, Herscovitch and Meyer (2002) conducted three separate studies. Their results suggested that the three components of commitment to change were distinguishable not only from each other, but also from the original organizational commitment dimensions. Further, their findings provided evidence that commitment to organizational change provided explanatory power over and above organizational commitment in predicting employees' behavioral support for the change. Of particular interest was their finding that affectively committed employees were more likely to not only put forth the extra effort necessary for a successful change effort, but also more likely to positively promote the value of the change. Their findings suggested that organizations undertaking change initiatives have the most to gain from focusing on strategies that promote the development of affective commitment toward the change initiative.

In summary, recent empirical evidence suggests employee commitment to change is a distinct construct with greater explanatory value beyond global measures of organizational commitment. Moreover, the findings suggest that employees who are affectively committed to a change initiative are most likely to demonstrate positive and "championing" behavior in support of the change (Herscovitch & Meyer, 2002). Yet, as noted by Meyer and Smith (1998), fostering affective commitment in the context of change is a difficult task. Most researchers agree that how an employee experiences change differs, and consequently, have proposed a variety of antecedents that are believed to influence the development of commitment to change including participation (Miller et al., 1994), personal attributes (Herscovitch & Meyer, 2002), and communication (Conner & Patterson, 1982; Zorn et al., 2000). Although the majority of empirical evidence related to the development of affective commitment has focused almost exclusively on organizational commitment, Meyer and Allen (2001) suggested that the processes by which each form of organizational commitment develops are also likely to apply to other commitment domains. Thus, strategies that increase involvement, value relevance, or identification are likely to also foster affective commitment to organizational change (Herscovitch & Meyer, 2002). Several past studies of organizational change and commitment have provided support for the positive effects of managerial communication and perceptions of justice as important factors in building employee acceptance and support toward change initiatives (Daly & Geyer, 1994; DeVoge & Shiraki, 2000; Lewis, 1999; Paterson & Cary, 2002).

The next sections discuss the relationships between the antecedents, managerial communication and organizational justice, and affective commitment to change in the context of organizational change. Specifically, the first section examines the role of justice perceptions as a key influence in the development of affective commitment to organizational change. The following section discusses the importance of managerial communication in a change context and its relationship to justice perceptions, and indirectly, employees' level of affective commitment toward organizational change. Specifically, this section examines the mediating role of justice as an underlying mechanism through which managerial communication influences commitment in a change context. The last section explores the possibility of changes in the relative importance of each of the antecedents over time as the changes are implemented.

Organizational Justice

Organizational justice theory focuses on individual perceptions of fairness in organizations (Cropanzano, 2001). Organizational justice is defined as the study of employees' perceptions of fairness about their work outcomes, and the processes by which these outcomes are determined and communicated (Cropanzano, 2001; Greenberg, 1990). Three distinguishable forms of organizational justice are recognized in the literature: distributive justice, which refers to the perceived fairness of outcomes or resource allocations (Greenberg, 1990); procedural justice, which relates to the procedures by which allocations are made or outcomes determined (Thibaut & Walker, 1975); and interactional justice, which concerns employees' perceptions of fairness of interpersonal treatment in work relationships (Cropanzano, 2001).

Early justice research, based on Adams' (1965) equity theory, focused primarily on perceptions of outcome fairness. According to Adams (1965), when employees perceive a balance between what they contribute and what they receive, they will regard the outcome as fair. Conversely, when outcomes are not in line with expectations, employees are more likely to be dissatisfied with the outcome, which may, in turn lead to negative attitudes and behavior (Adams, 1965). Procedural justice, in contrast, is related to the structural aspects of fairness in decision-making, such as the use of formal rules or criteria including providing employees a voice in the decision-making process and the opportunity for recourse, ensuring that decisions are unbiased, consistent, and based on accurate information (Gilliland, 1993; Leventhal, 1980; Thibaut & Walker, 1975). Employees value procedural fairness because it offers some degree of control over the processes and outcomes of decisions that affect them, and provides a level of certainty concerning the potential fairness of future decisions and outcomes (Moorman, 1991; Thibaut & Walker, 1975). Procedural justice is also thought to be important to employees, even when the process does not offer control over the outcomes, because it recognizes and respects the employees' standing in the organization (Lind & Tyler, 1988). The third type of justice, interactional justice, was introduced by Bies and Moag (1986), who distinguished between the perceived fairness of formal procedural decision-making, and the more informal aspect of the interpersonal treatment received in a decision process. Interactional fairness perceptions are largely based on the communication processes of social exchange, and include aspects such as treating employees with dignity and respect, showing consideration, and providing information concerning how decisions were determined (Konovosky & Cropanzano, 1991). Organizational justice research suggests that when employees feel they have been treated fairly, they have higher levels of trust in their organization and leaders (Alexander & Ruderman, 1987; Brockner, Seigel, Daly, Narin, & Tyler, 1997; Gopinath & Becker, 2000), are more likely to engage in organizational citizenship behaviors (Moorman, 1991), and have higher levels of commitment to their organization (Folger & Konovosky, 1989; McFarlin & Sweeney, 1992). According to Moorman (1991), “the belief of researchers who support the value of organizational justice is if employees believe that they are treated fairly, they are more likely to hold positive attitudes about their work, work outcomes, and their supervisors" (p. 845). A central finding in the justice literature is that employees’ perceptions of justice are influenced not only by the outcomes of work-related decisions, but also by the processes through which they are made, communicated and implemented (Ambrose & Schminke 2003; Mossholder, Bennett, & Martin, 1998). Several researchers have suggested that organizational justice is particularly relevant to organizational change and accordingly, have drawn on the justice perspective as a basis for examining the reactions of employees to organizational change efforts (Cobb, Wooten, & Folger, 1995; Daly & Geyer, 1994; Gopinath & Becker, 2000; Novelli, Kirkman, & Shapiro, 1995).

Organizational Justice and Change

Organizational justice perceptions play an important role in a change context as employees assess the fairness of the change-related decisions, the distribution of outcomes, and the manner in which they are communicated (Cobb et al., 1995). Past research examining the role of justice during organizational change initiatives have found that employees who feel they have been treated fairly, even under conditions of adversity or disappointing outcomes, are more likely to develop attitudes and behaviors necessary for successful change (Citera & Rentsch, 1993; Daly & Geyer, 1994; Folger & Konovosky, 1989). Novelli, Kirkman, and Shapiro (1995) suggested that the use of fair procedures when implementing change also increases the likelihood that employees will feel involved in the process and thus, identify with the goals of the change. Several researchers have tested this notion empirically, finding that when employees feel they are included in decisions that affect them, are provided with adequate communication about the change, and are treated with consideration, not only can dissatisfying outcomes be mitigated, but employees are more likely to be accepting and supportive of the change (Cordery et al., 1993; Gopinath & Becker, 2000). For instance, in a longitudinal study of two utility companies planning a strategic organizational change, Korsgaard et al. (2002) found that when procedural justice perceptions were high, employees responded favorably to the potentially adverse effects of planning change. Specifically, when employees were provided with voice, consideration, feedback, and justification, all elements of procedural justice, they expressed a more positive response to the change

A considerable body of research has also specifically addressed the role of justice perceptions in the context of large-scale organizational change such as restructuring, downsizing, and merger and acquisitions (Brockner et al., 1994; Citera & Rentsch, 1993; Daly & Geyer, 1994; Meyer, 2001). Past research focusing on mergers in particular have consistently found support for the positive effects of fairness perceptions on work outcomes (Bourantas & Nicandrou, 1998; Citera & Rentsch, 1993; Fairfield-Sonn et al., 2002). Additionally, several studies have also found that how employees are treated after a merger or acquisition may also have a significant impact on their commitment to the organization (Fairfield-Sonn et al., 2002; Folger & Cropanzano, 1998; Marks & Mirvis, 2001). In summary, prior research clearly demonstrates that fairness perceptions have important implications in determining employee reactions and attitudes toward organizational change, and more specifically, toward change following a merger. As discussed earlier, employees' level of affective commitment toward change has been suggested as a crucial element of successful implementation of organizational change. The next section explores the relationship between justice perceptions and the development of affective commitment in the context of organizational change.

Organizational Justice and Affective Commitment

Several studies have specifically focused on the relationship between justice perceptions and affective organizational commitment, finding, in general, that employees are more likely to be committed to their organization when they perceive fairness in the workplace (Folger & Cropanzano, 1998; Schappe & Doran, 1997). The relationship can be explained, in part, by Lind and Tyler's (1988) group value model, which suggests that employees are more likely to feel a strong sense of belonging and identification with their organization, and therefore, a higher level of commitment, when they feel they are treated fairly. Moreover, from a social exchange perspective, employees may reciprocate fair treatment during a period of change with a positive and supportive attitude toward the change, and are more likely to engage in “championing” or discretionary behavior in support of the change (Herscovitch & Meyer, 2002; Konovosky & Pugh, 1994). Thus, if employees perceive the change and the way it is implemented and communicated as fair, they are more likely to become affectively committed to the change and work toward its successful implementation (Herscovitch & Meyer, 2002). Drawing on Meyer and Allen’s (1997) argument that the processes by which organizational commitment develops are also likely to apply to other commitment domains, it is probable that positive perceptions of justice will have similar effects on the development of affective commitment to organizational change. The following paragraphs review each form of justice and its relationship to affective commitment in the context of organizational change.

Procedural Justice and Affective Commitment to Organizational Change

Several key aspects of procedural fairness are particularly important in how employees perceive a change situation, and subsequently their level of support and commitment toward the change. When employees feel that change-related decisions are based on fair and unbiased procedures, that they receive advance notice of the changes, and that they have a voice in decisions that affect them, they are likely to feel less threatened by the change and, thus able to respond more proactively and constructively (Lind & Tyler, 1988; Mishra & Spreitzer, 1998). Also, when employees feel informed about a change, or actively participate in its implementation, they may better understand the need for change and more likely to actively support it. Being involved through voice or participation gives employees some sense of control that may lead to more positive evaluations of change or feelings that the change process is being implemented fairly

(Daly & Geyer, 1994; Novelli et al., 1995). Conversely, when employees are not given a voice in decisions that affect them or feel uninvolved or excluded from the process, particularly when decisions relate to long-term or permanent changes, they are more likely to perceive the decision processes and resulting changes as unfair and thus feel less inclined to support the change (Cobb et al., 1995; Novelli et al., 1995).

Although the relationship between procedural fairness and specific targets of commitment have not been studied extensively in the literature, emerging evidence suggests that fairness plays a role in employees' commitment level to various entities other than the organization (Herscovitch & Meyer, 2002; Neubert & Cady, 2001). For example, in their study of strategic planning, Korsgaard et al. (1995) found support for the positive effects of justice on employees' commitment. Their results indicated that team members had higher levels of commitment to the strategic decisions when they viewed the process as fair and were provided the opportunity for input.

Procedural justice is also likely to influence employees' level of affective commitment because it indicates an employees' standing in the group (Lind & Tyler, 1988). According to the group value model (Lind & Tyler, 1988), procedural justice involves aspects of respect and status. Based on social exchange theory (Blau, 1964), when employees feel valued and respected in the decision-making process, they are more likely to reciprocate with higher levels of support for the change. Thus, the experience of procedural justice is likely to not only enhance employees' confidence in the fairness of decision processes following a change, but also build feelings of identity and importance within the group, which in turn, may increase their level of affective commitment (Schappe & Doran, 1997).

Based on this research and theory, the following hypothesis is proposed:

Hypothesis 1a: Employees' perceptions of procedural justice will be positively related to their level of affective commitment to organizational change.

Distributive Justice and Affective Commitment to Organizational Change

Perceptions of distributive justice may also influence employees' level of affective commitment because an equitable distribution of resources serves to strengthen bonds of loyalty between employees and their organization (Folger & Konovosky, 1989). Cohen-Charash and Spector (2002) found a significant, positive relationship between distributive justice and affective commitment (r = 0.37) in their recent meta-analysis of organizational justice. Their results are important considering that the findings of earlier studies have shown distributive justice perceptions more closely linked to personal level outcomes such as job satisfaction (Gilliland, 1993; McFarlin & Sweeney, 1992; Moorman, 1991) than with organizational level outcomes such as commitment. Other studies have also found a positive relationship between distributive justice perceptions and affective commitment (Konovosky & Cropanzano, 1991; Schappe & Doran, 1997), providing support that increased levels of distributive justice perceptions may lead to higher levels of attachment or identification with the organization and its goals and objectives.

Issues related to the fairness of outcomes as a result of changes are particularly salient in a merger context. In particular, increases in workload and job responsibilities, as well as new skill requirements are often perceived as unfair outcomes as a result of the merger. Equitable allocation of intangible outcomes such as training, recognition, advancement opportunities, and human resource benefits are also likely to be a key concern among employees during the post-merger integration process (Mishra & Spreitzer, 1998). Meyer (2001) specifically examined equity issues related to post-merger allocation processes in a comparative case study of two mergers in the financial services industry. She found that equitable distribution of resources in combination with fair procedures helped foster high levels of distributive justice that helped the organizations achieve economic productivity goals and foster post-merger relationships between employees of the merging organizations. Her findings suggested that resource allocations that are handled fairly and do not favor one work group or organization at the expense of another are more likely to engender more positive attitudes toward the change (Meyer, 2001). This view was further supported by Novelli et al. (1995) who argued that when employees feel that the burdens and challenges of changes as a result of a merger are shared equally between the merging organizations, employees are more likely to work together constructively in implementing the change (Novelli et al., 1995). Thus, previous studies predict that employees who feel the outcomes of merger-related decisions and changes are fairly distributed are more likely to be supportive and accepting of the change, and, in turn, have higher levels of affective commitment toward the change.

Hypothesis 1b: Employees' perceptions of distributive justice will be positively related to their level of affective commitment to organizational change.

Interactional Justice and Affective Commitment to Change

The interpersonal treatment employees receive from decision makers is also an important aspect of interactional justice perceptions. Moorman (1991) suggested that positive perceptions of interpersonal treatment should lead employees to feel respected and valued by the organization. In turn, these feelings make it more likely that employees will identify with and internalize the values of the organization, and thus have higher levels of affective commitment. Moreover, when employees view supervisors as being considerate and fair in implementing organizational decisions, they are also more likely to want to continue the relationship, thus increasing their level of affective commitment (Allen & Meyer, 1990). Therefore, to the extent that employees feel they have been provided adequate and clear information about the change, and have been treated with respect and consideration, they should be more likely to have positive attitudes and higher levels of affective commitment toward the change. Accordingly, the following hypothesis is offered:

Hypothesis 1c: Employees' perceptions of interactional justice will be positively related to their level of affective commitment to organizational change.

Procedural Justice Effects on Distributive Justice

Although both distributive and procedural justice are important factors in a change process, and have been shown to independently predict important work attitudes and behavior, several researchers have found evidence that suggests that procedural justice perceptions also positively influence distributive justice perceptions (Daly & Geyer, 1994; Mansour-Cole & Scott, 1998). Lind et al. (1993) proposed the fairness heuristic theory or fair process effect to explain why employees' perceptions of distributive justice may be influenced by procedural justice perceptions in the absence of information about the outcomes of a process. The fair process effect is particularly applicable in a change context where the outcomes of decisions are not necessarily known in the early stages of the process. In these situations, employees are likely to be accepting of the outcomes, and may subsequently judge the outcomes more favorably when fair procedures are used (Kees van den Bos & Wilke, 1997; Lind, Kulik, Ambrose, & De Vera Park, 1993). Niehoff and Moorman (1993) further contended value of fair procedures is that it makes the distribution of fair outcomes more likely and consequently, the main role of procedural justice is to enhance distributive justice. Based on the preceding theory, the following hypothesis is proposed:

Hypothesis 2: Employees' perceptions of procedural justice will be positively related to their perceptions of distributive justice.

Summary

As the discussion illustrates, the perceptions that employees have of the fairness of a change process can have important implications for the success of the change effort and on their willingness to support the changes. Mergers, in particular, are often perceived as a particularly threatening type of organizational change, and the potential for conflict is high when familiar routines, job functions, and work relationships are altered (Buono & Bowditch, 1989; Cartwright & Cooper, 1993). A key function of management during a change initiative is to not only communicate the goals and rationale for the change so employees are informed and aware of the impact of the changes, but to also build motivation and support for the change effort (Covin et al., 1996; Goodman & Truss, 2004). The literature suggests that timely and effective managerial communication is an important factor in helping employees understand the value of the change and build support and commitment toward the change. The next section examines the role of managerial communication as a key factor in shaping employees' perceptions of the justice of the change process, and subsequently, in the development of affective commitment toward the change.

Managerial Communication

Organizational researchers have suggested that communication is particularly important in organizational change processes (Armenakis & Harris, 2002; Lewis, 1999; Zorn et al., 2000). The role of organizational communication in a change context is generally defined in terms of a process through which companies announce, explain, or prepare employees for change (Lewis, 1999). The process perspective suggests that when employees receive sufficient and appropriate communication in a change context (i.e., appropriate justification for, and information about, the change and timely feedback), they will have more favorable attitudes toward the change which, in turn, should result in positive organizational outcomes (Goodman & Truss, 2004). Effective communication has also been identified as a significant factor in helping employees understand the need for change, as well as the personal effects of a proposed change (Armenakis & Harris, 2002). Increasing employees' understanding of the change process may also reduce the level of uncertainty and resistance toward the change, and thus, help promote employees' involvement in and acceptance of the change (Goodman & Truss, 2004; Lewis, 1999).

Several researchers have provided empirical support for the positive effects of communication in a change context. For example, Miller, Johnson, and Grau (1994) found that communication was a significant factor in reducing employees' anxiety about change and increasing their willingness to participate in planned change. Similarly, Wanberg and Banas (2000) examined the role of communication in a longitudinal study of government reorganization. They found that employees who received adequate information about the reorganization plan were more accepting of the change and demonstrated more positive attitudes toward the reorganization.

Researchers have also noted, however, that communication during major organizational change is a difficult process. Downs, Clampitt, and Pfeiffer (1998) contend that "the exact contribution of communication processes toward outcomes is often hard to assess, and the connection is more intuitive than demonstrated or empirically proven" (p. 171). Thus, capturing the "hearts and minds" of employees (Kotter, 1995) in the midst of rumors, anxiety, uncertainty, and fear of the unknown can be a daunting task. This is particularly evident in the context of an organizational merger where secrecy and lack of information are often more prevalent than other forms of organizational change due to the sensitive nature of the pre-merger discussions (Greenwood et al., 1994).

The importance of managerial communication is particularly evident in the context of a merger. Marks and Mirvis (1995) suggested that the post-merger integration period is when effective, timely, and adequate information is likely to have the most influence on employee attitudes and behaviors toward the merger. It is during this period, they argued, that uncertainty about their employment status, and changes in job roles and responsibilities are most pronounced, and thus, developing support and commitment toward the change can be most difficult. Additionally, employees often experience a profound sense of loss during this period and perceptions that the organization has violated its end of the psychological contract (Rousseau, 1996). This process may result in lower levels of commitment and productivity as employees strive to make sense of what the changes mean for their future (Marks & Mirvis, 1998). During this period, communication becomes instrumental in reducing employee anxiety and turnover, and thus, improving productivity (Cartwright & Cooper, 1993; Covin et al., 1996).

Several empirical studies of communication processes during mergers have provided support for the positive effects of communication on employee attitudes and behaviors related to a merger (Covin et al., 1996; Schraeder, 2001; Zorn et al., 2000). Schweiger and Denisi (1991) investigated the effects that communication had on employee attitudes in a longitudinal field study of the merger between two manufacturing plants. They found that employees who were provided with “realistic merger previews” reported lower levels of uncertainty, higher levels of job satisfaction and organizational commitment, and had more positive attitudes toward management of the acquiring company. From their study, they concluded that the lack of communication, as opposed to the actual change, creates uncertainty and stress for employees and thus, undermines the commitment necessary for the effective implementation of the merger. Napier and Simmons (1989) also examined the role of communication in a field study of a merger of two banks. In their study, they focused on employee reactions to communication throughout four phases of the merger process. Their findings suggested the importance of not only comprehensive communication about the effects of merger-related changes, but also the value of timely and effective communication throughout the merger process.

Role of Supervisor

In this study, managerial communication focuses specifically on the satisfaction of the individual employee with the exchange of information with their immediate supervisor or manager. Several studies have acknowledged the important role of the direct supervisor as critical to employee’s interpretations of events surrounding organizational change (Mansour-Cole & Scott, 1998). Schraeder (2001) argued that an employees’ supervisor or immediate manager was the most influential voice in soliciting employee support for a change initiative. Also, in the case of a large-scale change such as a merger, the supervisor may be viewed as the most credible source of the organization's intentions regarding the change. As such, supervisors play an important role in helping employees understand the personal and professional impact of the change, thereby reducing levels of uncertainty and anxiety about the change (Perry, 2004). More specifically, in a merger context, Napier (1989) found similar support for the role of the immediate supervisor as a major focal point and source of information for most employees during a merger.

Managerial Communication and Organizational Justice

A number of studies have specifically related communication satisfaction and other communication attributes such as providing adequate notification of a change (Mishra & Spreitzer, 1998), and offering adequate justification for a change (Mansour-Cole & Scott, 1998; Rousseau & Tijoriwala, 1999) to employees' justice perceptions. Specifically, in a study of the effects of communication related to a pay reduction, Greenberg (1990) also found that managerial communication practices about the reductions was significantly related to employees' perceptions of equity.

Gopinath and Becker (2000), in a study of a change as the result of a divestiture, examined the effects of managerial communication on perceptions of procedural justice and found that communications that provided adequate justification for decisions and provided opportunity for input significantly affected the employees' perceived justice of the divestiture. To the extent that employees feel they are informed, listened to, and communicated with, they are more likely to feel confidence in the fairness of the decision process. Thus, employees who feel they have been included in the change process through adequate communication and notification should have more favorable perceptions of procedural justice.

Hypothesis 3a: Employee satisfaction with managerial communication will be positively related to employees' perceptions of procedural justice.

In a merger context, perceived fairness of outcomes of decision processes are a particularly salient issue. Past studies have demonstrated that procedural justice perceptions are stronger in the early stages of a change process when specific outcomes are not yet realized (Ambrose & Schminke 2003). As the merger integration process progresses and changes are implemented, supervisors can influence distributive justice perceptions and minimize potential conflict by providing realistic previews of expected outcomes of the change process (Schweiger & Denisi, 1991). Employees who understand the basis of the distribution process and feel adequately communicated with about the potential outcomes may have more favorable perceptions of distributive justice even when the outcomes are not necessarily favorable. Because distributive justice perceptions are largely based on a comparison between expected and actual outcomes, effective communication of expected outcomes of decision processes is likely to mitigate the potential negative perceptions of unfair outcomes.

Hypothesis 3b: Employee satisfaction with managerial communication will be positively related to employees' perceptions of distributive justice.

Managerial Communication and Interactional Justice

The relationship between managerial communication and interactional justice can be seen most clearly through the influence of "social accounts," which are defined as verbal strategies used to reduce the impact of negative information (Bies, Shapiro, &

Cummings, 1988; Tyler & Bies, 1990). Past research on the effects of social accounts suggest that managers can reduce negative reactions and perceptions to the change by offering explanations of why changes must be implemented and explaining how the changes support the long-term viability of the organization (Bies & Moag, 1986; Bies et al., 1988). When the rationale behind change is clearly communicated, employees have a better understanding of why it is necessary, and thus are more likely to feel it is justified and fair (Mishra & Spreitzer, 1998).

An employee's supervisor is also a particularly important source of interpersonal treatment during a change process given the authority of the supervisor over the employee, and the frequency of interactions between an employee and his or her immediate supervisor (Masterson, Lewis, Goldman, & Taylor, 2000). The interpersonal nature of interactional justice suggests that employees who feel they are treated with respect and consideration, and are satisfied with the quality and content of communication, are more likely to view the decision-making process related to the change as fair (Bies et al., 1988; Mone, 1997). Thus, to the extent that such communication helps employees understand the changes related to the merger, and demonstrates concern and consideration for employees, perceptions of interactional justice are likely to be enhanced.

Hypothesis 3c: Employees' satisfaction with managerial communication will be positively related to employees' perceptions of interactional justice.

Managerial Communication and Affective Commitment to Change

Organizational change scholars have suggested strategies such as participation in the change process and providing quality information about the change help build employee commitment to organizational change (Conner & Patterson, 1982; Cummings & Worley, 2001). DeCotiis and Summers (1987) argued that "a communication process which keeps the individual informed with respect to valued aspects of the organization may affect felt responsibility and role involvement and therefore, commitment" (p. 457). Several past studies have also demonstrated a positive relationship between communication satisfaction and organizational commitment (Dunham, Grube, & Castaneda, 1994; Putti, Aryee, & Phua, 1990; Schweiger & Denisi, 1991; Varona, 1996).

Specifically, Putti, Ayree, and Phua (1990) examined the relationship between communication satisfaction, which they defined as the extent to which available information fulfills the individuals' requests for being informed about organizational activities, and organizational commitment. Their results indicated that employees' satisfaction with the amount of information enhanced organizational commitment by encouraging a sense of belongingness and identification with the values and objectives of the organization. Similarly, in a study of employee reactions to drug testing, Konovsky and Cropanzo (1991) found a positive relationship between affective commitment and employees' satisfaction with the amount of information they received about the new policy. Their findings were consistent with Novelli et al.'s (1995) assertion that providing employees with accurate and relevant information about how the need for change was identified, the alternatives that were considered, and the basis for the decisions, contributed to employees' respect for management's decisions and thus, increased their desire to support the change initiative.

Mediating Effects of Organizational Justice Perceptions

Several researchers have recognized the possible mediating role of justice perceptions in the relationship between communication and work-related outcomes during change processes (Daly & Geyer, 1994; Novelli et al., 1995). Following the approaches of Niehoff and Moorman (1993) and Daly and Geyer (1994), this study views justice perceptions as an underlying mechanism through which managerial communication influences employees' level of affective commitment to organizational change. This perspective suggests that managerial communications that increase employees' perceptions of fair processes and outcomes, and provide adequate explanations for decisions, may increase employees' understanding of the reasons for the change and help build support and acceptance for the change. Further, from a social exchange perspective, employees' positive perceptions of justice of the implementation and communication of change initiatives may encourage employees to reciprocate fair treatment by actively supporting the change.

Support for this view can be found in the work of Daly and Geyer (1994) who examined the effects of procedural and distributive justice perceptions in a field study of seven facilities undergoing large-scale relocation. Their model, based on Tyler and Lind's (1992) group value model, proposed that opportunities for input in the change, and adequate justification of the change, would positively influence both procedural and distributive justice perceptions, which, in turn, would influence employees' intention to remain with the organization. Their results indicated that the effects of justification were fully mediated by perceptions of procedural justice, suggesting that explanations for the change alone are not likely to be effective unless they are perceived as being sincere and adequate.

Similarly, in the context of a divestiture, Gopinath and Becker (2000) hypothesized that managerial communication, through the use of social accounts and providing adequate justifications for decisions, is likely to increase employees' perceptions of justice related to the change, and subsequently, their level of post-divestiture trust and commitment. Their results suggested that managerial communications that helped employees understand events related to the divestiture increased the perceived fairness of the divestiture, and indirectly, employees' level of commitment. Taken together, these findings suggest that in a change context, the reason managerial communications influence affective commitment and other important work outcomes, lies in employees perceptions' of the fairness of the processes, outcomes, and interpersonal treatment related to the change. Thus, high levels of satisfaction with managerial communication may influence employees' commitment to the change because the change is perceived as being fairly implemented.

Hypothesis 4: Employee satisfaction with managerial communication will be positively, but indirectly, associated with employees' affective commitment to organizational change, through perceptions of organizational justice.

Longitudinal Hypotheses

As the post-merger integration process unfolds, the importance of managerial communications on employees' justice perceptions, and of justice perceptions on employees' affective commitment to organizational change, are likely to become more important over time. Because mergers are generally implemented over a number of years, and initially focus on logistical and financial issues (Napier, 1989), the human resource implications of merger and subsequent changes may not be readily known in the early post-merger stage. Further, because the full impact of procedural decisions and their outcomes may not be fully realized in the early stages of the integration process, employees may not have formed opinions related to their satisfaction with change-related information or with the fairness of decision-making processes and outcomes.

In a longitudinal study of management professors' reactions to pay and promotional decisions, Ambrose and Schminke (2003) found that as individuals acquire information and experience procedures and outcomes over time, their perceptions of justice will change accordingly. Specifically, they found that procedural justice was a stronger predictor of work outcomes prior to and immediately following a decision. However, as employees experienced the outcomes of decisions over time, distributive justice perceptions became a stronger predictor of work outcomes. This study proposes that employee perceptions and attitudes will not only be impacted by the merger integration process, but that the strength of the hypothesized relationships will increase over time as the post-merger integration process unfolds.

Hypothesis 5: The strength of the relationships between employee satisfaction with managerial communication and perceptions of organizational justice will increase between Time 1 and Time 2.

Hypotheses 6: The strength of the relationships between perceptions of organizational justice and employees' affective commitment to organizational change will increase between Time 1 and Time 2.

Summary of Research Hypotheses

The hypotheses for this study are presented in Table 1. Hypotheses 1a – 1c concern the relationship between the mediator variables (organizational justice perceptions) and the outcome variables (commitment to organizational change). Hypothesis 2 concerns the influence of procedural justice perceptions on distributive justice. Hypotheses 3a – 3c relate to the relationships between the predictor variable (managerial communication) and perceptions of organizational justice. Hypothesis 4 tests for the mediating role of each justice dimension in the relationship between managerial communication and commitment to change. The final hypotheses concern the change in the strength of the relationship between managerial communication and justice perceptions, and between justice perceptions and commitment to change over time.

Table 1

Summary of Study Hypotheses

Hypotheses
Hypothesis 1a: Employees' perceptions of procedural justice will be positively related to their level of affective commitment to organizational change.
Hypothesis 1b: Employees' perceptions of distributive justice will be positively related to their level of affective commitment to organizational change.
Hypothesis 1c: Employees' perceptions of interactional justice will be positively related to their level of affective commitment to organizational change.
Hypothesis 2: Employees' perceptions of procedural justice will be positively related to their perceptions of distributive justice.
Hypothesis 3a: Employee satisfaction with managerial communication will be positively related to employees' perceptions of procedural justice.
Hypothesis 3b: Employee satisfaction with managerial communication will be positively related to employees' perceptions of distributive justice.
Hypothesis 3c: Employees' satisfaction with managerial communication will be positively related to employees' perceptions of interactional justice.
Hypothesis 4: Employee satisfaction with managerial communication will be positively, but indirectly, associated with employees' affective commitment to organizational change, through perceptions of organizational justice.

Table 1 Continued

Summary of Study Hypotheses

Hypotheses
Hypothesis 5: The strength of the relationships between employee satisfaction with managerial communication and perceptions of organizational justice will increase between Time 1 and Time 2.
Hypotheses 6: The strength of the relationships between perceptions of organizational justice and employees' affective commitment to organizational change will increase between Time 1 and Time 2.

Conceptual Model

A conceptual model of the proposed relationships is shown in Figure 1. The model draws on the organizational development and change literature to propose managerial communication (Paterson & Cary, 2002), and fairness perceptions (Daly & Geyer, 1994) as important factors related to employees' level of affective commitment to change following an organizational merger. Specifically, the model proposes that employees' satisfaction with managerial communication will have a direct and positive effect on employees' justice perceptions, and favorable perceptions of justice will, in turn, influence employees' level of affective commitment to organizational change. In concert with prior research examining the relationship between procedural and distributive justice (Niehoff & Moorman, 1993a), it further hypothesizes that perceptions of procedural justice will be related to employees' distributive justice perceptions.

Finally, the model proposes that managerial communication will positively affect employees' level of post-merger commitment to change, and that the relationship will be fully mediated by the perceived fairness of the changes, such that higher levels of managerial communication satisfaction are expected to foster a higher sense of fairness related to the change, which, in turn, will positively influence employees' level of affective commitment to the post-merger changes.

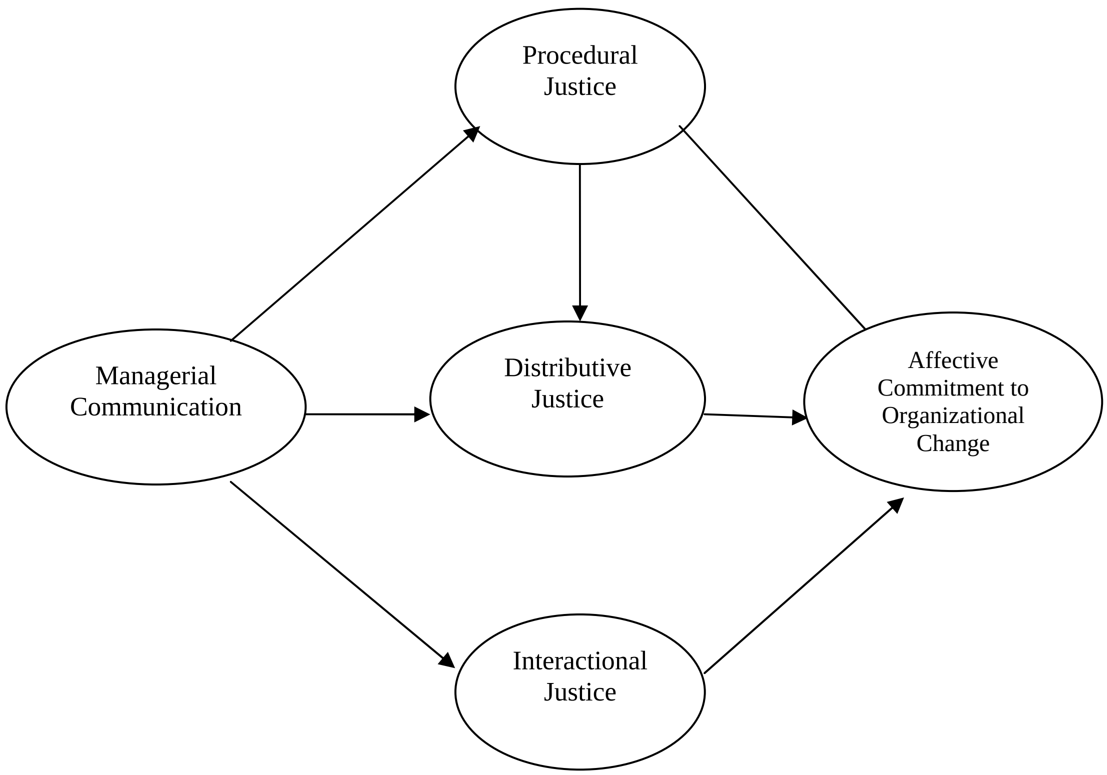

Figure 1. Conceptual model of relationships between managerial communication, organizational justice dimensions, and affective commitment to organizational change

In addition to examining the direct and indirect effects of managerial communication and justice perceptions on employees' level of affective commitment to organizational change, the relationships between the variables were examined over time. Specifically, the strength of the relationships between managerial communication, employees' perceptions of justice, and their level of affective commitment to organizational change were expected to increase between Time 1 (beginning of the post-merger integration process) and Time 2 (one-year later) as post-merger changes were implemented and allocation decisions are made, communicated, and carried out. According to Marks and Mirvis (2001), it is during this "combination" phase that changes to existing jobs, work routines, and relationships are most pronounced, as the merging organizations go through the transition from separate to integrated entities; and thus, the influence of managerial communication and fairness perceptions are likely to be strongest.

CHAPTER 3

METHOD

Overview of Research Design

This study utilizes a sequential mixed method research design (Creswell, 2003) to gather and analyze data on employee perceptions and attitudes related to an organizational merger. The use of multiple methods has been advocated by many researchers (Creswell, 2003; Jick, 1979; Langan-Fox & Tan, 1997; Tashakkori & Teddlie, 1998) who noted that the integration of multiple research methods allows for cross validation and triangulation through comparison of the data collected from each method. The combination of methodologies in studying complex phenomena, such as a merger, may also provide a better understanding of employee attitudes and perceptions by drawing on both qualitative and quantitative information to provide a more comprehensive view of the change process (Creswell, 1999; Jick, 1979).

Qualitative data obtained through content analysis of interviews and quantitative data from survey questionnaires were collected and analyzed in two phases. This type of mixed method research design is consistent with Creswell's (1995) dominant-less dominant research design whereby an exploratory qualitative component precedes a larger quantitative component, and the findings of one method are used to elaborate on and inform the findings of another method (p. 177). According to Lee (1999), the dominant-less dominant design is considered the most practical of mixed method designs in organizational research. Data gathered from the qualitative interviews developed and shaped the direction of the quantitative stage (Creswell, 1999). Figure 2 provides a visual model of the research design showing the sequence of the qualitative and quantitative stages of the study and a timeline of the research phases.

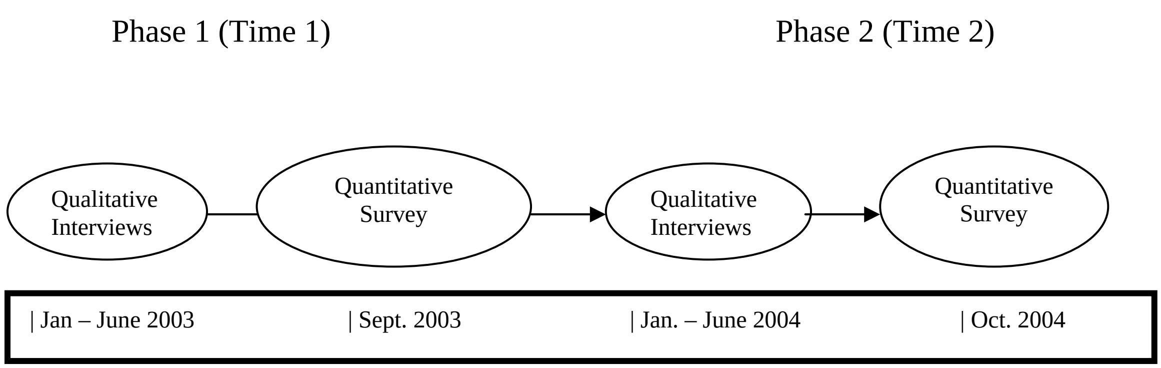

Figure 2. Model of mixed method research design and timeline of research study

Research Setting and Participants

Data for this study were collected in a public safety organization undergoing substantial change following a recent organizational merger. The new organization is the result of the consolidation of three previously autonomous organizations responsible for providing fire suppression, emergency medical services (EMS), and emergency management services, respectively, to a mid-size southeastern city.

Qualitative stage. Participants in the qualitative stages of the study consisted of a random sample of approximately 10 percent of the study population. The sample included employees from each of the merging organizations and represented all job levels and positions in the organization. A total of 38 field interviews were conducted at each time period. In addition, informational interviews were also conducted with two senior command officers for the purpose of obtaining general background information about the organization. Interviews were conducted with the same participants for each phase, with the exception of three employees who had retired or were terminated during the year. Employees with the same rank, job position, and tenure as the original participants were selected for interviews at Time 2 as replacements for these employees. Table 2 provides a demographic profile of interview participants.

Table 2

Demographic Profile of Interview Participants (Time 1 and 2)

Job Position/Rank	Number of Interviews
Firefighter/EMT	9
Fire Sergeant	8
Fire Officer	10
Firemedic	3
EMS Officer	4
Battalion Chief	4
Total Interviews	38

Note: EMT = Emergency Medical Technician

Quantitative stage. All full-time field employees of the organization were provided the opportunity to participate in the study at each time period. At Time 1, 312 were eligible to participate and at Time 2, 331 employees were eligible to participate. Field personnel are defined as employees (officer and non-officer) in sworn positions who are actively engaged in the primary activities of fire suppression, fire prevention, training and logistics, and emergency medical services. Participants included employees at all levels of the command structure up to the battalion chief level. At Time 1, 254 surveys were completed and 251 were considered usable for a response rate of 80%. Surveys excluded from the total were ones where whole pages were left incomplete or the employee did not finish the survey (e.g., left the survey site to respond to an emergency call). At Time 2, a total of 256 surveys were completed and 247 (75%) were deemed usable; however, 8 respondents did not provide demographic information. Of the 247 participants at Time 2, 213 also completed the survey at Time 1 as indicated on the survey instrument. The final sample of respondents who completed the survey at both time periods averaged 40 years of age. The average organizational tenure was 12 years at Time 1, and 13 years at Time 2. Job tenure averaged 7 years for both time periods. Table 3 provides a demographic profile of 213 respondents who completed the survey at both time periods.

Table 3

Demographic Profile of Survey Respondents (Time 1 and Time 2)

Variable	Time 1		Time 2	
	N	%	*N*	%
Age				
20 – 29 years	31	15	17	8
30 – 39 years	76	36	80	38
40 -49 years	77	36	79	37
Over 50 years	29	14	29	14
Tenure (Organization)				
1 – 5 years	65	31	52	24
6 – 10 years	40	19	37	17
11-20 years	53	25	60	28
> 20 years	55	26	56	26
Tenure (Job position)				
Less than 1 year	21	10	9	4
1 – 5 years	95	45	103	48
6 – 10 years	46	22	49	23
11-20 years	33	16	25	12
> 20 years	18	9	19	9
Job Position				
Firefighter/EMT	131	62	127	60
Fire Officer	41	19	47	22
EMS Officer	8	4	9	4
Firemedic	25	12	19	9
Fire Prevention/Training	8	4	3	1

Note: *N* = 213 at Time 1 and Time 2.

Procedure

Data for this study were collected and analyzed in separate stages over two phases (Time 1 and Time 2) with a one-year interval between phases. The distinction between a phase and a stage is made by Tashakkori and Teddlie (1998), who defined a stage as a component of a study that may include either qualitative or quantitative data collection and analysis. A phase is defined as a complete research effort that may consist of a number of stages, and the phases together are part of the overall study (Tashakkori & Teddlie, 1998). This study consists of two phases and each phase has a qualitative stage consisting of in-depth interviews, followed by a quantitative stage consisting of a survey questionnaire.

Qualitative stage. During the first stage of the research study (Time 1), initial exploratory interviews were conducted to gain a general understanding of the organization and to identify the key issues and concerns related to the organization changes as a result of the merger. Follow-up interviews were conducted with the same participants during the second phase (Time 2). The interviews were conducted at the employees' worksites using a standard protocol for each interview. Table 4 contains the questions used in the interviews.

The participants were first provided with information about the purpose of the study in general and how the information would be used. They were then asked to describe their job in general including information about how long they had worked for the organization and how long they have been in their current position. After answering the general informational questions, the focus turned to the organization in general and included open-ended questions about their positive and negative perceptions of the new combined organization in general. The interviews concluded with asking if the participants had any additional comments. Each interview lasted approximately one hour and notes were made during the interviews. After each interview the notes were transcribed and filed in a central database as the final data record for each interview. The same interview protocol and questions were used at both time periods, with the exception of the general information question which was asked at Time 1 only.

Table 4.

Interview Questions (Time 1)

General Information

1. "Please tell me about your job in the organization. How long have you been with the organization? How long have you been in your current job?"

Perceptions of the Post-Merger Organization

2. "Please describe for me your perceptions of the organization in general. What do you see as the strengths of the organization?"

3. "What do you feel are some of the weaknesses or problems areas of the organization?"

4. "Do you have an additional thoughts or about the organization in general or about the merger?"

Quantitative stage. The second stage of each phase consisted of a self-report, quantitative survey. The survey was developed based on key themes identified in the initial qualitative stage and included scales selected from the literature. Prior to administering the survey, a pilot test was conducted with a representative sample of employees from each of the merging organizations. The pilot test was designed to evaluate the length of the survey, the time to complete the survey, and to determine any potential problems with the wording or instructions. Feedback sessions were also conducted with the organization's management to ensure that relevant issues were included in the study that would provide actionable information from an operational and management perspective. The results of the pilot test indicated that most individuals required an average of twenty minutes to complete the survey. Based on feedback provided by the individuals in the pilot study minor adjustments were made to the wording of the instructions and two questions were slightly reworded for clarity appropriate to the research context, and to clarify the referent of the question.

Following the pilot test, the appropriate sample size was determined following guidelines suggested by MacCallum, Browne, and Sugawara (1996). Because the degrees of freedom was relatively large (d = 465), the sample size for the study was adequate to achieve a power of 0.80 for the purpose of testing the study hypotheses.

The survey administration process for each time period consisted of several steps. Introduction letters were first sent to all employees approximately two weeks prior to the administration of the survey. The letter explained the purpose of the survey, stated that participation was voluntary, and provided dates and times of the meetings so logistical plans could be made in advance. Participants were also informed that that their responses were anonymous, and that no member of management of the organization would have access to the surveys. A copy of the pre-survey introduction letter is included in Appendix A.

The actual data collection took place during normal work hours at centrally located fire stations for each of the three battalions in the organization. Due to the nature of the work, which requires continuous 24-hour shifts for emergency coverage, nine separate data collection meetings of approximately 30 employees each were conducted over the course of three consecutive days to accommodate all employees who chose to participate. The instructions provided to participants and the procedures followed for data collection were consistent across each of the nine data collection periods at each time period. Participants completed and returned the surveys directly to the researcher. Although all employees at each time period were offered the opportunity to participate, surveys completed by new employees at Time 2, with less than one year tenure, were not used in the study. The majority of these employees were in training classes and had little experience with the changes related to the merger.

In addition, because of limitations related to anonymity, data from the quantitative surveys was not matched by participant across time. To address this limitation and facilitate comparison of the two groups, the survey questionnaire administered at Time 2 included a question asking participants if they completed the survey at Time 1. A copy of the survey instrument administered at Time 1 is included in Appendix B.

Measures

Managerial communication. Managerial communication was measured with a subscale of the Communication Satisfaction Questionnaire (CSQ) (Downs & Hazen, 1977). The CSQ is a 40-item instrument that has demonstrated a high degree of validity and reliability across a number of organizations, and in multiple contexts (Clampitt & Downs, 2004). Although several factors are identified by Downs and Hazen (1997) as indicators of overall communication satisfaction in the workplace, the focus of this study is specifically related to the dimension that assesses employees' satisfaction with communication with their immediate supervisor or manager. Specifically, this dimension is identified as personal feedback in the original instrument. It assesses how satisfied employees are with information they receive about their job, recognition of their efforts, and how well supervisors understand problems faced by employees. A 7-cell Likert response format (ranging from 1 = very dissatisfied to 7 = very satisfied) was used to measure employees' satisfaction to the items. Previous studies that have assessed the internal consistency of the individual dimensions of the CSQ have reported coefficient alphas of 0.80 (Pincus, 1986) and 0.84 (Crino & White, 1981) for the personal feedback dimension. A more recent study examining the psychometric properties of the CSQ (Gray & Laidlaw, 2004) reported a coefficient alpha of 0.86 for the personal feedback dimension.

Organizational justice. Procedural, interactional, and distributive justice were measured using scales developed by Niehoff and Moorman (1993). The scales were designed to tap multiple dimensions of workplace justice and have been used extensively in the literature in a variety of research settings (Simons & Roberson, 2003).

The procedural justice scale consists of six items that assess employees' perception of the fairness of the processes and procedures by which decisions are made. The scale includes items that measure the degree to which job decisions are made with accurate and unbiased information, whether employees have a voice in the process, and if there is an appeals process. Previous studies using the procedural justice scale have reported coefficient alphas of 0.85 (Niehoff & Moorman, 1993b) and 0.88 (Wayne, Shore, Bonner, & Tetrick, 2002). Specifically in a downsizing context, Spreitzer and Mishra (2002) reported a coefficient alpha of 0.91.

Interactional justice was measured with nine items that assessed the degree to which employees feel their needs are taken into consideration when job decisions are made, and whether adequate explanations for decisions are provided. Previous research has reported a coefficient alpha of 0.92 for this dimension (Aryee, Budhwar, & Chen, 2002).

Distributive justice included six items that assessed employees' perceptions of the fairness of work outcomes related to the merger such as pay, workload, job responsibilities, and recognition. In the original study, Niehoff and Moorman (1993) reported a coefficient alpha of 0.74 for the distributive justice dimension. In a more recent and similar study assessing the simultaneous impact of justice perceptions, Ayree et al. (2002) reported a coefficient alpha for distributive justice of 0.95. Similarly, Mishra and Spreitzer (2002) reported a coefficient alpha of 0.86 for the interactional justice scale in a study of employees experiencing change as a result of organizational downsizing.

Affective commitment to organizational change. Affective commitment to organizational change was measured using a six-item subscale from the commitment to organizational change scale developed by Herscovitch and Meyer (2002), and based on Meyer and Herscovitch's (2001) general model of workplace commitment. A seven-cell Likert response format (1 = strongly disagree to 7 = strongly agree) was used to indicate the level of agreement with the items. Although all three dimensions of commitment to organizational change were included in the questionnaire, the focus of the present study was only on the affective commitment to change dimension. This dimension reflects an employee's commitment to organizational change based on their belief in the value of the change (Herscovitch & Meyer, 2002). In the source study for the scale, Herscovitch and Meyer (2002) reported a coefficient alpha for the affective dimension of the scale of 0.95.

Demographic variables. Several demographic variables were included in the survey questionnaire for descriptive purposes and to facilitate the process of establishing statistical equivalency between the research groups. Because participants may have been concerned with providing data that could identify them despite the anonymity of the survey, the questions, with the exception of job position, were formatted in ranges (i.e., 20 – 29 years). The four demographic questions that were included in the survey were age, organizational tenure, job tenure, and job position. Table 5 summarizes the measures that were included in the questionnaire and indicates the source and number of items.

Table 5

Summary of Measures

Measure	Source	Number of Items
Managerial Communication	Downs & Hazen (1977)	5
Organizational Justice		
Procedural Justice	Niehoff and Moorman (1993)	6
Interactional Justice	Niehoff and Moorman (1993)	9
Distributive Justice	Niehoff and Moorman (1993)	6
Commitment to Organizational Change		
Affective Commitment to Change	Herscovitch and Meyer (2002)	6
Normative Commitment to Change	Herscovitch and Meyer (2002)	6
Continuance Commitment to Change	Herscovitch and Meyer (2002)	6
Demographic Variables		4

Data Analyses

The following section discusses the analytical procedures used for the study. The first section outlines the qualitative data analysis and describes how the data was used. The second section summarizes the steps used for the quantitative analysis and includes a description of the procedures used for establishing statistical equivalency of the research groups, for evaluating the psychometric properties of the scales, and for conducting tests for measurement invariance. The section concludes with a discussion of the methods used to test the study hypotheses.

Qualitative Data Analysis

The qualitative data were used in two ways. In the first phase (Time 1), the data gathered from the interviews were analyzed to identify major themes and issues related to the merger from the employees' perspective using content analysis techniques described by Miles and Huberman (1994). This information was then used to develop the questionnaire for quantitative stage. In the second phase (Time 2), the qualitative data were used primarily as a source of additional insight into changes in employee attitudes and perceptions related to the merger integration process. The interviews were transcribed and analyzed using a content analysis procedure whereby major themes and issues were identified and categorized at each time period. The data were compared to identify changes in key issues between the time periods and the results were used to help interpret and support evidence from the quantitative stage, as well as provide a degree of triangulation for the research study in general (Jick, 1979).

Quantitative Data Analysis

This section discusses the analytical procedures used for the quantitative analysis of this research. As noted previously, the quantitative data were collected anonymously and therefore are not matched across the phases. Although limiting any inference of causality among the study variables, protecting respondents' anonymity provided benefits by potentially reducing the method bias. According to Podasakoff, MacKenzie, Lee, and Podsakoff (2003), one of most common variables assumed to cause common method variance is the tendency for participants to respond in a socially desirable manner. When anonymity is assured, respondents may have less evaluation apprehension, and are therefore less likely to edit their responses to be more socially desirable (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). This is a particularly important aspect in the present study since mergers are often characterized by high levels of distrust and uncertainty (Buono & Bowditch, 1989), which may lead to biased responses if participants believe their identity could be revealed to management. This, in turn, may result in a loss of internal validity if respondents are hesitant to provide honest responses to the survey questions for fear of repercussions (Green & Feild, 1976).

Statistical equivalency. To facilitate the comparison of the two research groups, the first step of the analysis consisted of establishing statistical equivalency between the research groups following the procedures of Armenakis and Zmud (1979). The procedure involved forming four separate groups and establishing equivalency using group *t*-tests on the mean responses to the demographic variables between the groups at each time period. In addition, tests of significance were also conducted on the factor composites between the two Time 1 groups to ensure logical equivalence between the groups (Armenakis & Zmud, 1979).

Tests for Measurement Invariance. The second step of the quantitative analysis consisted of conducting tests for measurement invariance to examine the equivalence of the scales' psychometric properties across the two groups. A confirmatory factor-analytic (CFA) framework suggested by Vandenberg and Lance (2000), and procedures for testing multigroup invariance using AMOS suggested by Byrne (2004) were used to conduct the tests for measurement invariance. The importance of testing for measurement invariance is noted by Vandenberg and Lance (2000) in their review of the measurement invariance literature where they stated, "The demonstration of acceptable traditional psychometric properties (e.g., internal consistency, predictive validity) is important but not sufficient in determining whether psychological measures function equivalently across groups” (p. 55). Williams, Edwards, and Vandenberg (2003) further contend that “any cross-group comparison, whether testing for mean differences using traditional tests (e.g. ANOVA) or for differences in structural equation modeling (SEM) parameters, *require* (i.e., demand) prerequisite assumptions of invariant measurement operations across the groups being compared” (p. 921).

The first part of the test for measurement invariance consisted of conducting separate confirmatory factor analyses (CFA) for each research group using AMOS 5 (Arbuckle, 2003) and maximum likelihood estimation. Several fit indices were evaluated to determine the adequacy of the model for each phase. Although the chi-square likelihood ratio is considered the most fundamental measure of absolute model fit, it is sensitive to sample size and thus, with larger sample sizes, can result in significant values when only small differences exist between the model and the data (Anderson & Gerbing, 1988; Hair, Anderson, Tatham, & Black, 1998). The ratio of chi-square to degrees of freedom (χ^2 /df) has been suggested as an alternative, with values of 2.0 or less indicative of acceptable fit (Kline, 2005). To evaluate model fit, two other fit indices were also selected to indicate goodness of fit. Specifically, the comparative fit index (CFI) (Bentler, 1990), and the root mean square error of approximation (RMSEA) (Browne & Cudeck, 1993) were evaluated following guidelines suggested by Kline (2005, pp. 134-144) and Hair, Anderson, Tatham, and Black (1998, pp. 653-659). The comparative fit index (CFI) is a measure of fit derived from the comparison of the hypothesized model to the independence model and adjusts for sample size. CFI values of 0.90 or greater are indicative of acceptable models (Hu & Bentler, 1999). The RMSEA is a measure of model discrepancy and takes into account the error of approximation in the population (Hu & Bentler, 1999). As a general guideline, values of .06 or less indicate good fit of the model in relation to the degrees of freedom, and values up to 0.08 indicate reasonable model fit (Browne & Cudeck, 1993).

The psychometric properties of the scales were evaluated following the assessment of the overall measurement models. The reliability of each scale was assessed by examining the coefficient alpha and composite reliability values. Convergent validity was evaluated by examining the magnitude of the standardized factor loadings and their statistical significance (Anderson & Gerbing, 1988). Discriminant validity was assessed for the three organizational justice dimensions by comparing the chi-square difference between a constrained model (correlations between the factors set to one) and a model where the constructs were allowed to covary freely for each pair of dimensions (Anderson & Gerbing, 1988). This test was performed for the organizational justice measures for each pair of dimensions at a time.

The final step of the tests for measurement invariance involved a series of sequential invariance tests following guidelines for multigroup invariance. The steps, detailed in the results section, consisted of testing increasingly restrictive models to establish the equivalence of the factor structure across the groups. The differences between the models were evaluated using by the chi-square difference test.

Hypotheses tests. Structural equation modeling was utilized to assess the hypothesized relationships shown in Figure 1. The model was examined using AMOS 5 (Arbuckle, 2003). Hypotheses 1a-c and 2, related to the relationships between organizational justice and affective commitment to organizational change, and between procedural and distributive justice, were tested by examining the significance of the path coefficients between the variables. Hypotheses 3a to 3c, related to the direct relationship between managerial communication and justice perceptions were also tested using SEM. Figure 3 illustrates the paths associated with direct hypotheses 1 a-c, 2, and 3a – c, and the expected relationships at both Time 1 and Time 2.

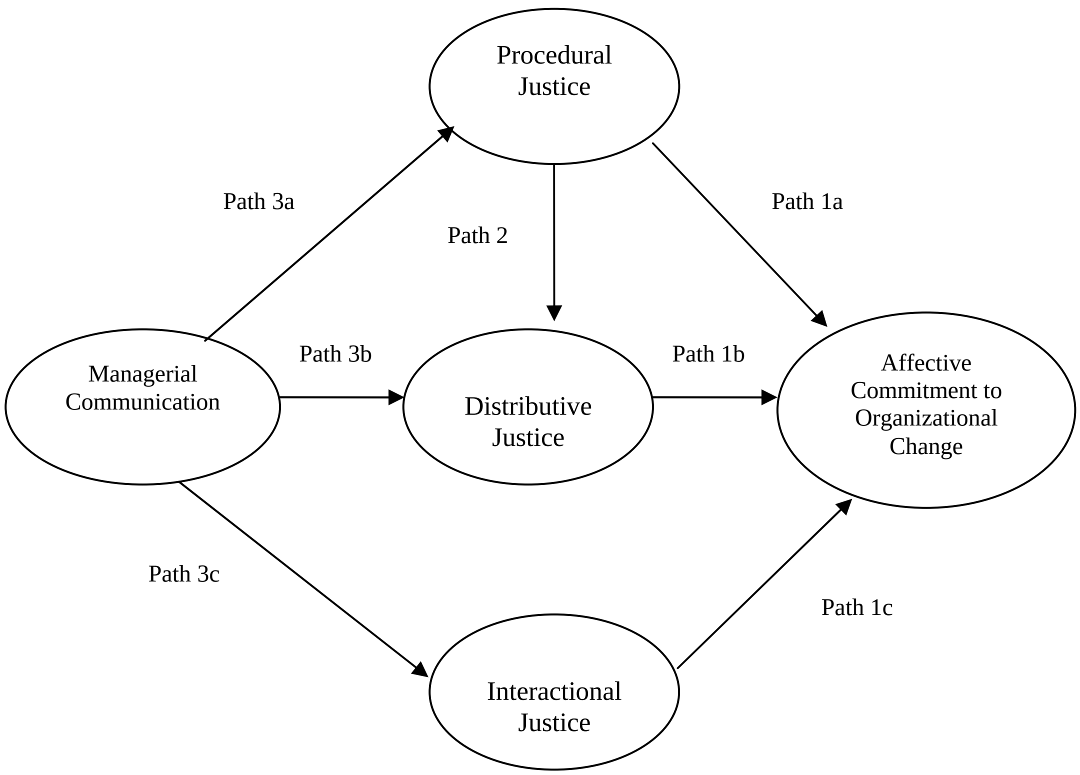

Figure 3. Summary of paths associated with study hypotheses

Hypothesis 4, related to the mediation effects of justice perceptions on the relationship between managerial communication and affective commitment to organizational change, was tested using specific mediation tests suggested by Fraser, Barron, and Tix (2004). The process for testing mediation involves first determining if the independent and dependent variables are significantly related. The second and third steps involve determining whether a significant relationship exists between the independent variable and the mediator, and between the mediator variable and the outcome variable. Lastly, it must be shown that the effect of the independent variable on the dependent variable is reduced or eliminated when the mediator is included in the model (Frazier, Barron, & Tix, 2004). To test the conditions for mediation, chi-square difference tests were used to assess the fit of the predictor-outcome model and the fit of the predictor-mediator-outcome model, as well as the predictor-mediator and mediator-outcome paths.

Hypotheses 5 and 6 concerned the changes in the strength of the relationships between the antecedents and outcome variables from Time 1 to Time 2. These hypotheses proposed that as employees experience change in the organization during the post-merger integration process, the effects of managerial communication and justice perceptions will become stronger. These hypotheses were tested using multigroup SEM. Specifically, the path coefficients between the Time 1 and Time 2 models were constrained to be equal and the chi-square difference examined to determine if the model fit deteriorates significantly. A statistically significant change in chi-square indicates a difference in the strength of the relationships between the variables from Time 1 to Time 2. Table 6 provides a summary of the study hypotheses, the statistical tests, and the associated paths for each of the hypothesized relationships.

Table 6

Summary of Hypotheses and Statistical Tests

Hypotheses	IV	DV	MV	Statistical Test/ Path
H1a: Employees' perceptions of procedural justice will be positively related to their level of affective commitment to organizational change.	PJ	ACC		SEM Path 1a: PJ → ACC (+)
H1b: Employees' perceptions of distributive justice will be positively related to their level of affective commitment to organizational change.	DJ	ACC		SEM Path 1b: DJ → ACC (+)
H1c: Employees' perceptions of interactional justice will be positively related to their level of affective commitment to organizational change.	IJ	ACC		SEM Path 1c: IJ → ACC (+)
H2: Employees' perceptions of procedural justice will be positively related to their perceptions of distributive justice.	PJ	DJ		SEM Path 2: PJ → DJ (+)
H3a: Employee satisfaction with managerial communication will be positively related to employees' perceptions of procedural justice.	MC	PJ		SEM Path 3a: MC → PJ (+)
H3b: Employee satisfaction with managerial communication will be positively related to employees' perceptions of distributive justice.	MC	DJ		SEM Path 3b: MC → DJ (+)
H3c: Employees' satisfaction with managerial communication will be positively related to employees' perceptions of interactional justice.	MC	IJ		SEM Path 3c: MC → IJ (+)

Table 6 *continued*

Summary of Hypotheses and Statistical Tests

Hypotheses	IV	DV	MV	Statistical Test/Path
H4: Employee satisfaction with managerial communication will be positively, but indirectly, associated with employees' affective commitment to organizational change, through perceptions of organizational justice.	MC MC MC	ACC ACC ACC	PJ DJ IJ	Test for Mediation (SEM). Comparison of models with and without PJ, IJ, and DJ included as a mediator variable. Path 4a: MC → PJ → ACC Path 4b: MC→ DJ → ACC Path 4c: MC → IJ → ACC
H5: The strength of the relationships between employee satisfaction with managerial communication and perceptions of organizational justice will increase between Time 1 and Time 2.	MC	PJ DJ IJ		Tests for MI using Multigroup SEM Path 3a (T2) > Path 3a (T1) (+) Path 3b (T2) > Path 3b (T1) (+) Path 3c (T2) > Path 3c (T1) (+)
H6: The strength of the relationships between perceptions of organizational justice and employees' affective commitment to organizational change will increase between Time 1 and Time 2.	PJ DJ IJ	ACC		Tests for MI using Multigroup SEM Path 1a (T2) > Path 1a (T1) (+) Path 1b (T2) > Path 1b (T1) (+) Path 1c (T2) > Path 1c (T1) (+)

Note: PJ = Procedural justice; DJ = Distributive justice; IJ = Interactional justice; MC = Managerial communication; ACC = Affective commitment to change; MI = Measurement invariance.

CHAPTER 4

RESULTS

This chapter presents the results of the qualitative and quantitative analyses of the research data and is divided into two main parts. The first part presents the qualitative results for both time periods. The second part presents the quantitative results organized in several sections. The first section presents the results of the tests for establishing statistical equivalency of the research groups, followed by a summary of the descriptive statistics for each group. The next section summarizes the findings of the tests for measurement invariance, including the results of the single-group CFA for each time period followed by the results of the sequential tests for multigroup measurement invariance. The tests for measurement invariance are a necessary prerequisite to testing hypotheses involving comparisons of the structural parameters between the two time periods (Vandenberg & Lance, 2000; Williams, Edwards, & Vandenberg, 2003). The final section presents the results of the hypotheses tests.

Qualitative Data Analysis

Data collected through interviews were first transcribed, coded, and content analyzed using guidelines for analyzing qualitative data (Miles & Huberman, 1994). Major themes were identified and an initial set of categories within each theme were developed, and then examined for consistency in meaning and content. Phrases were used as the unit of measure and each distinct phrase was assigned to only one thematic category to control for repetitiveness. Thus, statements related to the same theme in a given interview were coded only once. Measurement consisted of counting the frequency with which each category was referenced. The final set of themes represented responses participants consistently emphasized as key issues related to the merger process at each time period.

Several main themes emerged from the content analysis. Those occurring with the greatest frequency across both time periods and by the majority of respondents are identified in Table 7. At Time 1, the most prominent themes identified were centered on workplace fairness issues with respect to training (66%), promotional policies (61%), and compensation (53%). In addition, communication issues were cited by 47 percent of participants. These themes were consistent with the types of changes occurring early in the post-merger process as rank structures between the merging organizations were being integrated, and training and promotional policies were being formed and articulated. Training issues were particularly salient among EMS personnel who are required by the state to have a minimum number of hours performed firefighting duties to remain certified firefighters, and thus, be eligible for promotion in the newly combined organization.

At Time 2, fairness and communication were again prominent issues among the participants. Communication was a particularly frequent issue cited by over 50 percent of participants who stated that as the frequency of changes being made increased, they felt they were communicated with less. In addition, the lack of information about the direction of the organization was expressed frequently, and several participants expressed uncertainty about what their future held. Closely related to communication, several participants noted leadership problems as an important issue with over 61 percent stating they felt management at the command level appeared isolated and out of touch with the problems and concerns of employees in the field, or that they had no confidence or trust in leaderships' ability to execute the merger successfully. Conversely, at Time 1, statements about leadership were primarily related to the lack of top management support for the merger (32%). An important note related to these statements is that the lack of confidence and trust in leadership was directed primarily at the command or top management level. In contrast, participants were largely complimentary of the field leadership and/or their immediate supervisor.

Under the theme of workplace fairness, two new categories emerged at Time 2 that were mentioned infrequently in the Time 1 interviews. In particular, the issue of workload distribution was voiced by several participants (37%), who stated that the distribution of work between the EMS employees and firefighters was unfair. This particular issue was voiced primarily by EMS personnel and firefighter/EMTs who were assigned to "ride the ambulance" as part of their cross training. In contrast, firefighters who were not cross trained and therefore, not assigned EMT duties rarely brought up issues related to workload distribution. Closely related to the issue of workload fairness, was concern about the fairness of compensation. Although this particular issue was raised at both time periods, at Time 2, it was more closely tied to the merger with participants stating that their level of pay did not compensate for the increased job duties and responsibilities as a result of the merger. The second new category that emerged prominently at Time 2 was the lack of employee participation in the decision-making process (procedural fairness issue). Over 45 percent of participants felt they had no say in the decision-making process and that change-related decisions were made with little feedback from the affected employees.

Table 7

Comparison of Key Themes and Categories (Time 1 and 2)

	Percent of Responses	
Theme and Category	Time 1[a]	Time 2[b]
Workplace Fairness		
Training	66	26
Promotional process	61	39
Compensation	53	47
Voice in decision process	12	45
Workload Distribution	--	37
Communication	47	50
Leadership	32	61
Employee Morale	21	68

[a] n = 38, [b]n = 38.

Quantitative Data Analyses

Statistical Equivalency of Research Groups

Because the data collected from the two time periods was not matched, the first step in the quantitative analyses consisted of establishing statistical equivalency of the research groups. As noted previously, respondents at Time 2 were asked to indicate on the survey if they had completed the survey at Time 1. This allowed four separate groups of respondents to be formed: Group O_2 (n = 213) included respondents at Time 2 who indicated they had responded at Time 1; Group O_{2A} (n = 34) consisted of the remaining respondents from the Time 2 group; Group O_1 (n = 213) consisted of a random sample of Time 1 respondents equal in number to the O_2 group and Group O_{1A} (n = 36) comprised the remaining respondents from the Time 1 group.

The first part of establishing equivalency consisted of testing for the logical equivalence of the O_1 group with both the O_{1A} and O_2 groups. The two step procedure suggested by Armenakis and Zmud (1979) was used as a guideline for the tests. Statistical equivalence was first established between the Time 1 groups (O_1 and O_{1A}) based on the demographic characteristics and the mean responses to the factor composites. Results of the group *t*-tests for all demographic variables indicated nonsignificant differences between the groups, *t* (247) = ranged from -1.39 to .35, *p* = ranged from .17 to .88. In addition, there were no significant differences in the mean responses to the factors between the Time 1 groups, *t* (247) = ranged from -1.09 to 1.10, *p* = ranged from .27 to .61. Next, statistical equivalence was established between the Time 1(O_1) and Time 2 (O_2) groups based on the demographic variables included in the study. Results of the tests of significance between the O_1 and O_2 groups also revealed no significant differences between the demographic variables of Time 1 versus Time 2 respondents, *t* (416) = ranged from -1.82 to .11, *p* = ranged from .07 to .92, thereby providing support for the equivalency of the research groups.

Descriptive Statistics

Prior to examining the factor structure of the models for each group, the data were prepared and evaluated according to guidelines suggested by Tabachnick and Fidell (2001, pp. 56 - 110). An examination of the data revealed they met the assumptions of multivariate normality, and there was no evidence of unacceptable levels of kurtosis or skewness. Means, standard deviations, and intercorrelations among the study variables for Time 1 and Time 2 are reported in Tables 8 and 9, respectively. Given the proposed mediational framework, it was expected that managerial communication would be positively correlated with affective commitment to organizational change (r = .23, for both time periods). In addition, affective commitment to organizational change was positively correlated with both procedural justice and distributive justice at each time period (r = .38 and .22, for Time 1, and r = .33 and .31, for Time 2, respectively for procedural and distributive justice). However, it was not significantly correlated with interactional justice at either time period (r = .13 and .12, respectively, for Time 1 and Time 2). The relationships between managerial communication and each justice dimension were significant and in the expected direction at each time period.

Table 8

Means, Standard Deviations, and Intercorrelations (Time 1)

Variable	*M*	*SD*	1	2	3	4
1. Affective Commitment to Organizational Change	3.3	1.96				
2. Managerial Communication	3.6	1.40	.23**			
3. Procedural Justice	2.9	1.27	.38**	.56**		
4. Distributive Justice	3.4	1.63	.22**	.57**	.53**	
5. Interactional Justice	4.3	1.40	.13	.49**	.61**	.42**

Note. *N* = 213
** $p < 0.01$.

Table 9

Means, Standard Deviations, and Intercorrelations (Time 2)

Variable	*M*	*SD*	1	2	3	4
1. Affective Commitment to Organizational Change	3.3	1.62				
2. Managerial Communication	3.6	1.32	.23**			
3. Procedural Justice	2.9	1.20	.33**	.59**		
4. Distributive Justice	3.2	1.46	.31**	.57**	.60**	
5. Interactional Justice	4.7	1.47	.12	.45**	.35**	.40**

Note. *N* = 213
** $p < 0.01$.

Tests for Measurement Invariance

In the first step of the tests for measurement invariance, separate confirmatory factor analyses (CFA) were conducted to assess the psychometric properties of the constructs and to establish baseline models for each research group. The overall fit of the measurement model for each time period was assessed following guidelines suggested by Hair et al. (1998, pp. 610 -612). Prior to performing the analysis, all negatively worded items in the affective commitment to organizational change scale were reverse scored so that a higher score indicated a higher level of commitment. The scales were also standardized by setting the loading of one indicator for each factor to a fixed value of 1.0.

The goodness of fit statistics for the baseline models are shown in Table 10. At Time 1, the results indicated the model fit the data well. Although the chi-square test was statistically significant, χ^2 (446, N = 213) = 762.40, p < .01, the chi-square to degrees of freedom ratio was very favorable (χ^2/df = 1.71). Comparative fit index (CFI) and RMSEA values of .95 and .06, respectively, provided further support for the hypothesized model. The results at Time 2 also indicated that the model fit the data well (χ^2/df = 1.53, CFI = .95, and RMSEA = .05). The models included a small number of correlated error terms; however, as noted by MacCallum and Tucker (1991), when using perception-based indicators related to an employees' work environment, it is not unreasonable to expect some same-source correlated measurement error.

Table 10

Single Group Comparison of CFA Fit Indices for Time 1 and Time 2

Model	χ^2	*df*	χ^2/df	CFI	RMSEA (90% CI)
Time 1	762.40	446	1.71	.95	.058 (.051 - .065)
Time 2	683.94	446	1.53	.95	.050 (.043 - .057)

Note: *N* = 213 for Time 1 and Time 2. CI = Confidence interval.

Convergent and discriminant validity. Evidence of construct validity was provided by examining the convergent and discriminant validity of the constructs. Convergent validity represents how well the items load on their respective constructs, and is evaluated by examining the statistical significance as expressed by the *t*-value associated with each loading (Anderson & Gerbing, 1988). The standardized loadings and *t*-values for Time 1 and Time 2 are reported in Tables 11 and 12, respectively. The results indicate all items loaded reliably on their predicted factors with item to factor loadings ranging from .53 to .95 for Time 1, and .48 to .95 for Time 2, and *t*-values ranging from 6.17 to 26.05 ($p < .05$) for Time 1, and 6.34 to 22.93 ($p < .05$) for Time 2; thus, providing support for convergent validity for the constructs across both time periods. A comparison of the tables also indicates a similar magnitude of the path coefficients across the groups; however, the multigroup procedure described in the next section provides a formal test of the invariance of the parameters in each group.

Discriminant validity of the organizational justice construct was tested with a series of chi-square difference tests. This test consists of calculating the chi-square difference between a model which constrains the correlations between two constructs to unity and another model which allows the correlations between the constructs to covary. A significant chi-square difference between the constrained versus the unconstrained model indicates that the constructs are different (Anderson & Gerbing, 1988). The test was performed for each pair of justice dimensions separately for each time period. Comparisons for every two-factor combination at each time period were significant: at Time 1, the χ^2_{diff} (df_{diff} = 1, N = 213) = ranged from 234.3 to 472.2, $p < .01$, and for Time 2, the χ^2_{diff} (df_{diff} = 1, N = 213) = ranged from 182.2 to 873.7, $p < .01$, thereby providing evidence of discriminant validity and confirming the three-factor structure for organizational justice.

Reliability. Tests of internal consistency were also conducted to assess the reliability of the responses across items within each measure. Specifically, Cronbach's alpha coefficient and composite reliability indices were calculated for each factor by examining the correlations of the indicator variables measuring the factor. As shown in Tables 11 and 12, the results indicate that all five factors from each group had consistent reliability scores for both tests and values greater than .83, well above the recommended minimum threshold of 0.70 (Nunnally, 1978).

Table 11

Measurement Properties (Time 1)

Construct and Indicators	Standardized Loading*	Critical Ratio	Cronbach's Alpha	Composite Reliability
Managerial Communication			0.84	0.84
SAT13	0.54	---		
SAT10	0.70	7.20		
SAT05	0.80	7.72		
SAT04	0.82	7.79		
SAT03	0.74	7.41		
Procedural Justice			0.86	0.87
PJ1	0.56	---		
PJ2	0.79	8.07		
PJ3	0.85	8.41		
PJ4	0.75	7.91		
PJ5	0.81	8.26		
PJ6	0.52	6.17		
Interactional Justice			0.94	0.94
IJ1	0.52	8.25		
IJ2	0.57	9.33		
IJ3	0.78	4.48		
IJ4	0.76	4.01		
IJ5	0.81	5.81		
IJ6	0.90	9.73		
IJ7	0.93	26.05		
IJ8	0.89	---		
IJ9	0.87	23.39		
Distributive Justice			0.94	0.95
DJ1	0.91	---		
DJ2	0.94	24.04		
DJ3	0.93	23.33		
DJ4	0.95	24.43		
DJ5	0.88	19.67		
DJ6	0.53	8.57		

Note: *All loadings significant at $p < .05$

Table 11 (c*ontinued)*

Measurement Properties (Time 1)

Construct and Indicators	Standardized Loading*	Critical Ratio	Cronbach's Alpha	Composite Reliability
Affective Commitment to Organizational Change			0.95	0.95
ACC1	0.91	---		
ACC2	0.92	23.14		
ACC3	0.92	22.78		
ACC4	0.91	21.76		
ACC5	0.83	17.64		
ACC6	0.74	14.08		

Note: *All loadings significant at $p < .05$

Table 12

Measurement Properties (Time 2)

Construct and Indicators	Standardized Loading	Critical Ratio	Cronbach's Alpha	Composite Reliability
Managerial Communication			0.83	0.84
SAT13	0.56	---		
SAT10	0.71	7.57		
SAT05	0.77	7.92		
SAT04	0.83	8.19		
SAT03	0.68	7.36		
Procedural Justice			0.83	0.84
PJ1	0.67	---		
PJ2	0.81	9.71		
PJ3	0.70	8.59		
PJ4	0.62	7.89		
PJ5	0.78	9.60		
PJ6	0.48	6.34		
Interactional Justice			0.96	0.95
IJ1	0.72	12.61		
IJ2	0.77	13.85		
IJ3	0.72	12.43		
IJ4	0.85	16.30		
IJ5	0.92	19.10		
IJ6	0.94	19.96		
IJ7	0.90	22.93		
IJ8	0.86	---		
IJ9	0.85	16.81		
Distributive Justice			0.92	0.92
DJ1	0.82	---		
DJ2	0.78	13.43		
DJ3	0.95	18.23		
DJ4	0.95	18.16		
DJ5	0.80	13.69		
DJ6	0.55	8.57		

Note: *All loadings significant at $p < .05$

Table 12 continued

Measurement Properties (Time 2)

Construct and Indicators	Standardized Loadings*	Critical Ratio	Cronbach's Alpha	Composite Reliability
Affective Commitment to Organizational Change			0.90	0.90
ACC1	0.89	---		
ACC2	0.90	18.45		
ACC3	0.66	11.15		
ACC4	0.76	13.62		
ACC5	0.72	12.66		
ACC6	0.69		11.87	

Note: *All loadings significant at $p < .05$

Combined, the findings support the reliability and validity of the hypothesized single- group models. Because the baseline model for each group fit the data well, the next step of the measurement invariance analysis was to assess the validity of the factorial structure of the model across the two groups simultaneously (Byrne, 2004). The process of establishing multigroup invariance involves several sequential steps whereby increasingly restrictive models are compared to the fit of the previous less constrained model. The chi-square difference test is used to evaluate the fit of the more constrained model in each of the sequential chi-square tests. If the fit of the constrained model is found to be significantly worse than the fit of the previous less constrained model, the parameters being tested are not equal across the groups (Cheung and Rensvold 2002). The next section discusses each of the steps taken to establish invariance across the groups, and provides the results of each sequential test.

Multigroup Measurement Invariance Tests

The first step of the multigroup invariance analysis consisted of evaluating the goodness of fit related to the five factor model across both groups simultaneously, with no cross-group equality constraints (Byrne, 2004). In this first test of measurement invariance, the chi-square statistic is equal to the sum of the chi-square values from the single group CFAs. An acceptable fit of this model establishes configural invariance (Vandenberg & Lance, 2000), which indicates that the respondents in each group (or across each time period) related the same items with the same factors. This model is labeled Model 1 and serves as a baseline against which all subsequent models in the multigroup analysis were compared.

The results of the sequential chi-square difference tests are summarized in Table 13, and indicated the baseline multigroup model (Model 1) fit the data reasonably well. Although the chi-square test was statistically significant (χ^2 (892, N = 426) = 1446.35, p < .01), the chi-square to degrees of freedom ratio was favorable, χ^2/df = 1.62, and the CFI and RMSEA values of .95 and .04 (90% confidence interval, .035 to .042), respectively, were within the acceptable limits. Thus, the first test for configural invariance was supported.

The second step of the multigroup invariance tests consisted of testing for metric invariance. This test consists of comparing the baseline model (Model 1) to a more restricted model (Model 2) that includes an additional constraint of invariant factor loadings across like items. A nonsignificant chi-square difference between the two models confirms metric invariance and indicates the factors can be compared meaningfully across groups (Steenkamp & Baumgartner, 1998). Results of this test are reported in Table 13, and indicated a statistically significant increase in the chi-square, ($\Delta\chi^2(82) = 336.62$, $p < .05$), between Model 1 and the full metric invariance model (Model 2), which suggested one or more constructs or items were noninvariant across the groups.

Given the statistically significant finding of noninvariance at the factor level, the next step in the analysis was to identify the source of invariance by testing a series of increasingly restrictive models in which each separate construct in the model was examined separately for invariance. These tests are referred to as tests for partial invariance. According to Byrne et al. (1989), full metric invariance is not necessary for further tests of invariance and analysis to be meaningful, provided that at least one item (other than the item used to define the scale of each latent construct) is metrically invariant. In addition to testing for invariance at the construct and item level, the goodness of fit indices for the partial invariance models are also examined to assess changes in model fit as additional invariance constraints are imposed. When only small decreases in the model fit indices are found, it suggests the differences in factor loadings or structural weights are not substantial and thus, not likely to effect the interpretation of the research results (Doll, Deng, Raghunathan, Torkzadeh, & Xia, 2004).

To test for partial invariance, the chi-square difference was first evaluated at the construct level. When a significant chi-square difference was found at the construct level, the individual items were then tested until the noninvariant item(s) were identified. For all tests, equality constraints for items that were tested and found to be invariant across groups were left in place for each subsequent test. The findings from the sequential tests of invariance at the construct and item level are summarized in Table 13 (Models 2a – 3).

Several items in the interactional justice scale were found to be noninvariant across the groups; however, two of the items (items 3 and 9) were invariant, which allowed for cross-group comparisons with those items constrained equal. An examination of the final partial invariance model (Model 3) showed a good fit to the data. When compared to Model 1, the partial invariance model fit the data almost as well as the baseline model, ($\Delta\chi^2(20) = 27.72$, $p = .116$). In addition, the CFI and RMSEA values of 0.95 and .038 (90% confidence interval, .035 to .042), were almost identical to the baseline model which suggests that all scales (less the noninvariant items) represented valid measures for each group.

The final step in establishing invariance across the groups consisted of testing for the invariance of the factor variances and covariances. Testing for the invariance of the factor covariances assesses the stability of the factor relationships across groups. Likewise, testing for equality of the factor variances indicates that the range of scores on a factor do not vary for one group more than the other (Cheung & Rensvold, 1999). The results of the test for the invariance of the factor variances (Model 4) were nonsignificant, indicating the relationships between the latent factors were the same for each group ($\Delta\chi^2(5) = 7.67$, $p = .175$). In addition, the test for the invariance of the factor covariances (Model 5) was also nonsignificant ($\Delta\chi^2(9) = 9.43$, $p = .398$), with the exception of one covariance between procedural and interactional justice that was of found to be noninvariant between the groups.

Table 13

Goodness-of-fit Statistics for Tests of Measurement Invariance: A Summary

	Model Description	*Groups*	*Comparative Model*	χ^2	*df*	$\Delta\chi^2$	Δdf	*Statistical Significance*
1.	Hypothesized Model (Model 1)	Group 01, 02		1446.35	892	---		---
2.	Factor loadings, variances, and Covariances constrained equal	Group 01, 02	Model 1	1782.97	974	336.62	82	$p < .05$
3.	Factor loadings constrained equal	Group 01, 02	Model 1	1505.16	919	58.81	27	$p < .05$
4.	Factor loadings on MC constrained Equal (Model 2)	Group 01, 02	Model 1	1447.22	896	.871	4	$p = .929$
5.	Factor loadings on MC and DJ	Group 01, 02	Model 2	1463.03	901	16.68	9	$p = .054$
6.	Constrained equal (Model 2a)							
7.	Model 2a with factor loadings on PJ constrained equal (Model 2b)	Group 01, 02	Model 2a	1468.68	906	22.34	14	$p = .072$
8.	Model 2b with factor loadings on IJ constrained equal	Group 01, 02	Model 2b	1491.00	914	44.66	22	$p < .05$
9.	Model 2b with factor loadings of Items 3 and 9 constrained equal (Model 2c)	Group 01, 02	Model 2b	1469.9	908	23.55	16	$p = .10$
10.	Model 2c with factor loadings of ACC constrained equal.	Group 01, 02	Model 2c	1484.05	913	37.71	21	$p < .05$
11.	Model 2c with factor loadings of Items 2, 4, 5, and 6 constrained equal (Model 3)	Group 01,02	Model 2c	1474.07	912	27.72	20	$p = .116$
12.	Model 3 with factor variances constrained equal (Model 4)	Group 01, 02	Model 3	1481.74	917	7.673	5	$p = .175$
13.	Model 4 with factor covariances constrained equal (Model 5)	Group 01, 02	Model 4	1491.17	926	9.43	9	$p = .398$

Hypotheses Tests

Structural equation modeling (SEM) using AMOS 5 (Arbuckle, 2003) was used to test the study hypotheses. Figure 4 shows the theoretical structural model used to test the study hypotheses for Time 1 and Time 2, and the paths associated with each of the direct hypotheses tests. The tests of overall model fit, shown in Table 14, indicated the model fit the data well at both Time 1 and Time 2. Although the chi-square value of 787.69 (df = 449, $p < .001$) at Time 1, and 685.51 (df = 449, $p < .001$) at Time 2, the ratio of the chi-square to degrees of freedom was 1.75 and 1.53, respectively for Time 1 and Time 2, which is below the 2.0 recommended by Kline (2005). The CFI and RMSEA values of .95 and .06 for Time 1, and .95 and .05, for Time 2, were within the commonly accepted range for adequate model fit. At Time 1, the model explained 28 percent of variance in the outcome variable, affective commitment to organizational change, and 14% percent of the variance at Time 2, providing initial support for the contention that higher levels of satisfaction with managerial communication during large-scale change enhances perceptions of workplace fairness, which in turn, affects employees' level of affective commitment level towards the change.

Table 14

Structural Model Results (Time 1 and Time 2)

Model	χ^2	*df*	χ^2/df	CFI	RMSEA (90% CI)
Time 1	787.69	449	1.75	0.95	.06 (.053 - .066)
(N = 213)					
Time 2	685.51	449	1.53	0.95	.05 (.042 - .057)
(N = 213)					

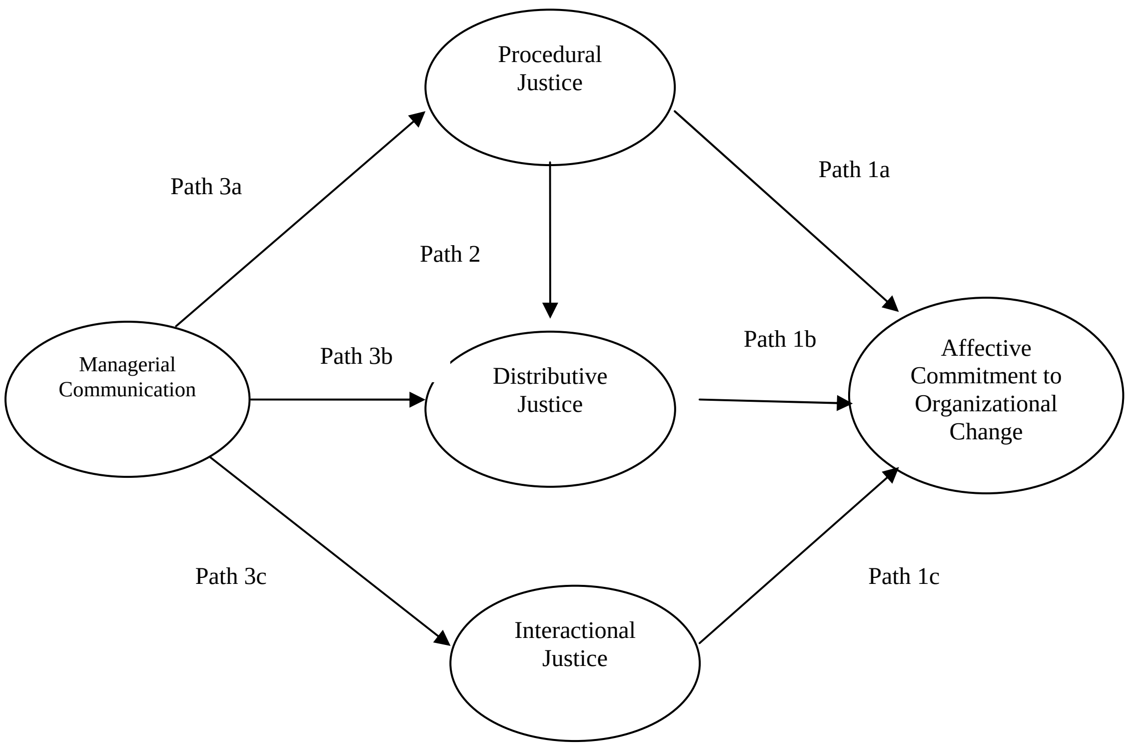

Figure 4. Paths associated with study hypotheses.

Hypotheses 1a to 1c. The first set of hypotheses, 1a to 1c, was related to the relationships between the mediator variable, organizational justice, and the outcome variable, affective commitment to organizational change. These hypotheses are represented by paths 1a, 1b, and 1c in Figure 4, and relate to the relationships between procedural, distributive, and interactional justice, respectively, and affective commitment to organizational change. Specifically, it was theorized that the more favorable employees' perceptions were of the fairness of the change-related processes and outcomes, the higher their level of affective commitment towards the change. As shown in Figure 5, the results at Time 1 indicate that procedural justice was significantly and positively related to affective commitment to organizational change (β = .55, p < .001). Contrary to the predicted relationship, interactional justice was negatively related to affective commitment to organizational change (β = -.22, p < .01), and relationship between distributive justice and affective commitment to organizational change was nonsignificant (β = .016, p = .83). Figure 6 shows the standardized path coefficients at Time 2. The only significant relationship was between procedural justice and affective commitment to organizational change (β = .28, p < .001). The relationship between interactional justice and affective commitment decreased at Time 2 and was nonsignificant (β = .02, p = .81) and the relationship between distributive justice and affective commitment to organizational change, while stronger at Time 2, also nonsignificant (β = .13, p = .20). The results of these tests indicate support for Hypothesis 1a at Time 1 and Time 2. Hypotheses 1b and 1c were not supported at either time period

Hypothesis 2. The second hypothesis predicted a direct and positive relationship between procedural and distributive justice (path 2 shown in Figure 4). The standardized path coefficients, shown in Figures 5 and 6, were significant (β = .25, and .41, $p < .01$), for Time 1 and Time 2, respectively; thus providing support for Hypothesis 2.

Hypothesis 3a to 3c. The second set of hypotheses explored the relationship between employees' satisfaction with managerial communication and their perceptions of organizational justice. It was hypothesized that the higher the level of satisfaction employees had regarding their communication with their immediate supervisor, the more favorable their perceptions would be of the change-related decisions and outcomes. As shown in Figures 5 and 6, (represented by paths 3a, 3b, and 3c in Figure 4), managerial communication was positively related to each justice dimension at Time 1, β = .65, .44, and .51, $p < .001$, for procedural, distributive, and interactional justice, respectively. Similarly, at Time 2, a significant and positive relationship was found between managerial communication and each justice dimension (β = .69, .34, and .48, $p < .001$, for procedural, distributive, and interactional justice, respectively); thus, Hypotheses 3a to 3c were supported for both time periods.

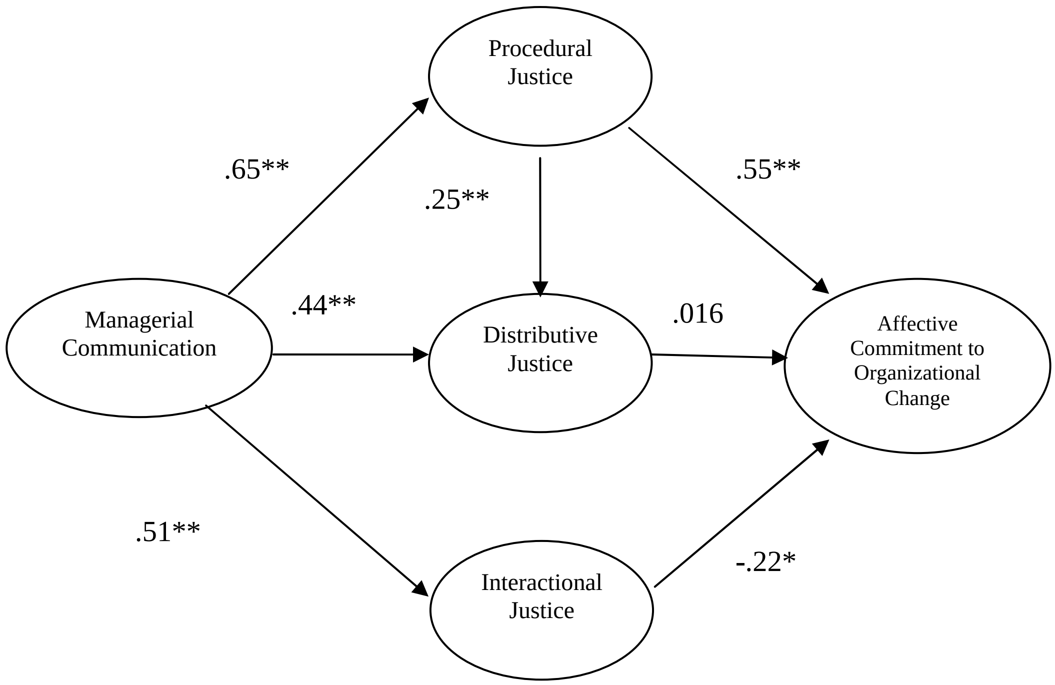

Figure 5. Path coefficients for hypothesized structural model (Time 1).
* $p < .01$
** $p < .001$

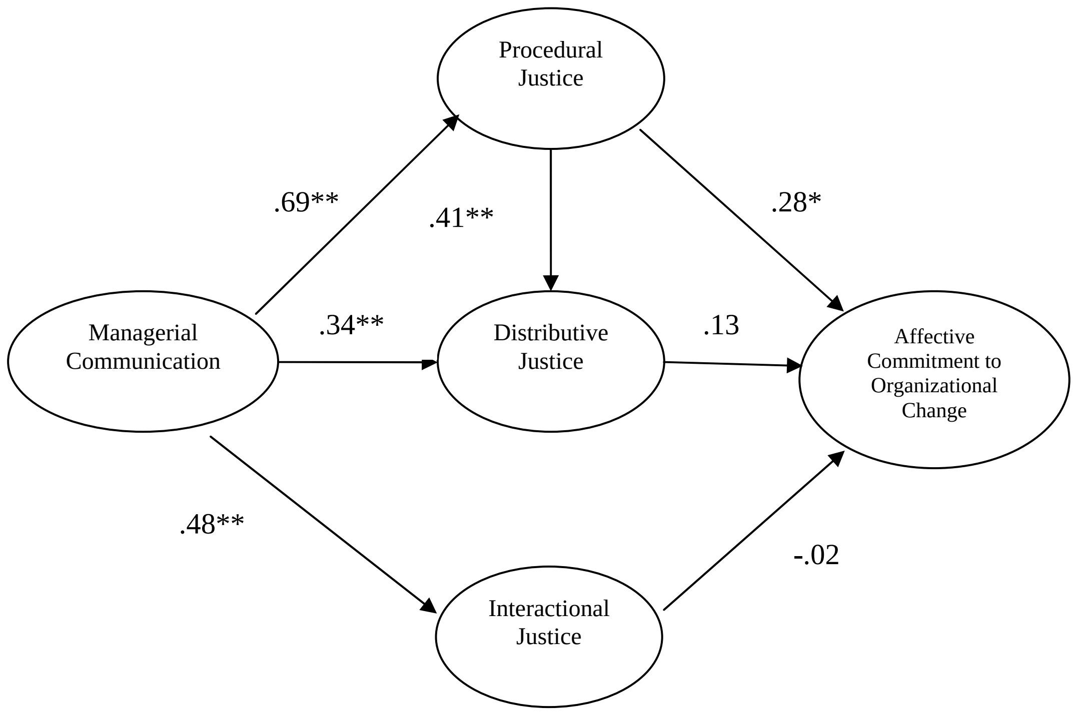

Figure 6. Path coefficients for hypothesized structural model (Time 2).
* $p < .01$
** $p < .001$

Mediation hypotheses. Hypothesis 4 predicted that the relationship between managerial communication and affective commitment to organizational change would be mediated by organizational justice. To test for the mediational effects of justice, competing models were tested and evaluated using chi-square difference tests. For these tests, the least restricted model (partial mediation model) was compared with the main theoretical model (full mediation model). In each step, the overall model fit was assessed first and then the chi-square difference test was used to compare the fit of the models. A nonsignificant change in the chi-square difference would indicate that the more restricted full mediation model (Model 2) fit the data statistically as well as the less restricted partial mediation model (Model 1). In addition to evaluating the model fit, the individual path coefficients were also examined for significance in the predicted direction to provide support for the conditions necessary to show a mediational effect (Holmbeck, 1997). Models were evaluated separately for each time period.

Prior to comparing the partial and full mediation models, the fit of the direct effect model was evaluated to estimate the path coefficient between managerial communication and affective commitment to organizational change at each time period. This initial step establishes that there is a significant relationship between the predictor and outcome variables to be mediated (Holmbeck, 1997). The results of the direct effect model show a significant and positive relationship between managerial communication and affective commitment to organizational change at Time 1 ($\beta = .25$, $p < .01$), and Time 2 ($\beta = .26$, $p < .01$), thus satisfying the first condition required for mediation.

The second and third steps required to establish mediation are to show that the predictor variable (managerial communication) is related to the mediator variable (each justice dimension), and second, that the mediator variable is related to the outcome variable (affective commitment to organizational change). The standardized paths coefficients for the predictor to mediator paths and the mediator to outcome paths were tested initially in Hypotheses 1a to 1c and 3a to 3c. The results of the hypotheses tests for each time period (shown in Figures 5 and 6) provide support for the second condition necessary for mediation; however, they do not fully support the third condition required for mediation. Specifically, at Time 1, the standardized path coefficient between distributive justice and affective commitment to organizational change was nonsignificant (β = .016, p = .83), and at Time 2, the standardized path coefficients between both distributive and interactional justice and affective commitment to organizational change were nonsignificant. (β = .13, p = .20, and β = .02, p = .81, respectively). Therefore, at Time 1, the requirements necessary to show mediation are supported for procedural and interactional justice only, and for Time 2, are supported for procedural justice only.

In the final step to assess the mediational effect of the justice dimensions, a partial mediation model (Model 1) was compared to the full mediation model (Model 2). The models for each time period are shown as Figures 7 and 8, for Time 1, and Figures 9 and 10, for Time 2. In the partial mediation models (Model 1), managerial communication is shown as having both direct effects on affective commitment to organizational change, and indirect effects through procedural and interactional justice at Time 1, and through procedural justice only at Time 2. In Model 2 for each time period, the path between managerial communication and affective commitment to organizational change is constrained to zero. This model represents the hypothesized full mediation model, in which managerial communication is related to affective commitment to organizational change only through the respective justice dimension(s).

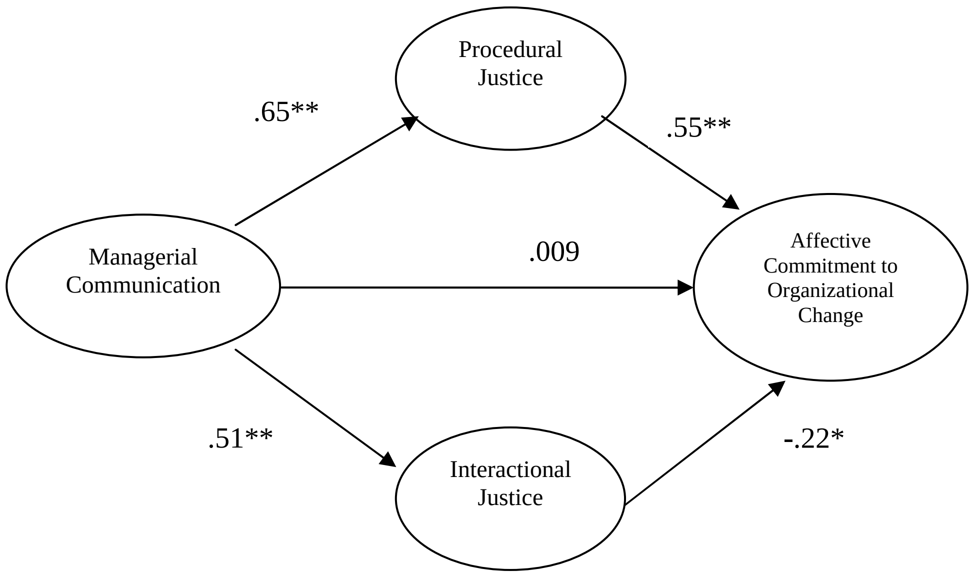

Figure 7. Path coefficients for partial mediation model for Time 1 (Model 1)
* $p < .01$
** $p < .001$

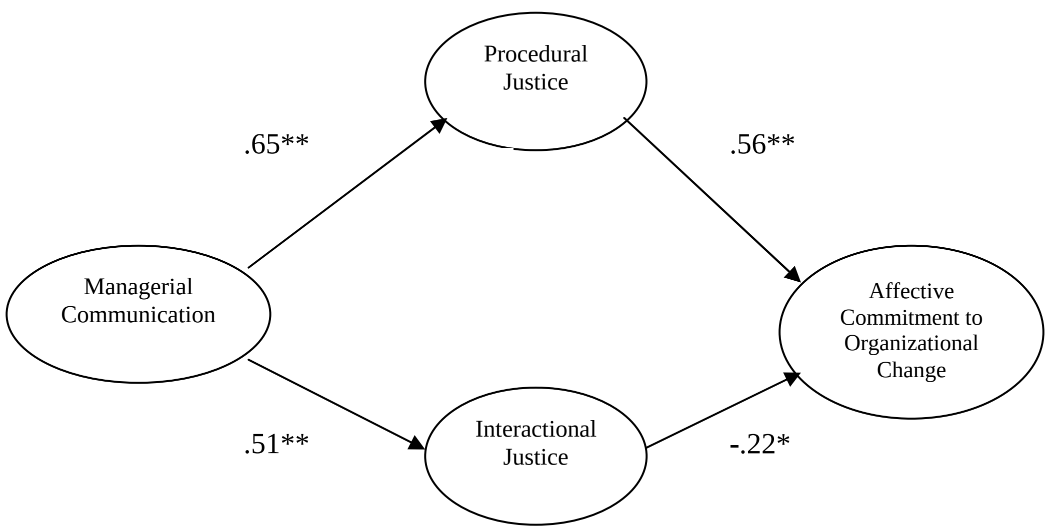

Figure 8. Path coefficients for full mediation model for Time 1 (Model 2)
* $p < .01$
** $p < .001$

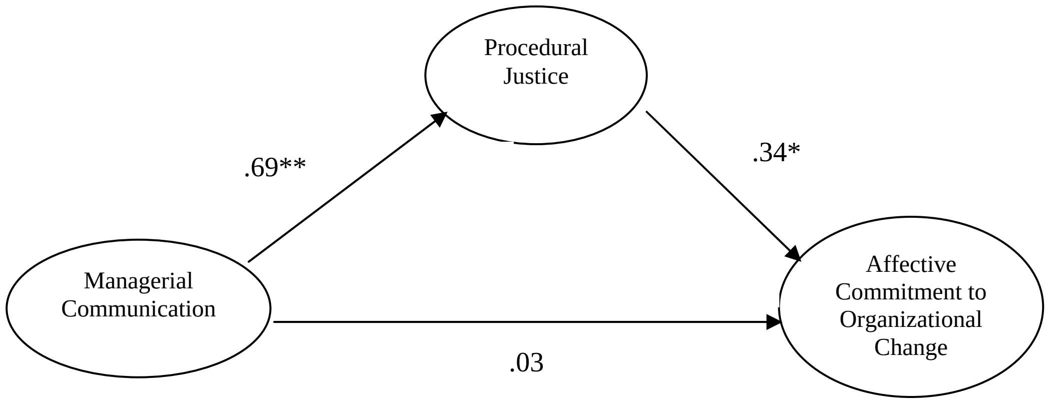

Figure 9. Path coefficients for partial mediation model for Time 2 (Model 1)
* $p < .01$
** $p < .001$

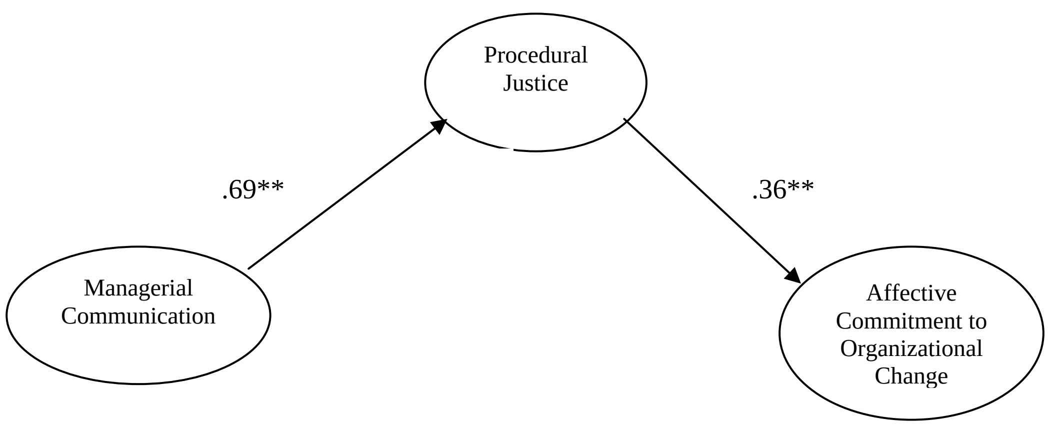

Figure 10. Path coefficients for full mediation model for Time 2 (Model 2)
* $p < .01$
** $p < .001$

The results of the model comparisons are shown in Table 15. The first model tested was the partial mediation model (Model 1) which included both direct and indirect paths between managerial communication and affective commitment to organizational change. The results indicate the model fit was adequate at Time 1, (χ^2/df = 1.95, CFI = .93, and RMSEA = .07), and Time 2, (χ^2/df = 1.87, CFI = .92, and RMSEA = .06). The second model tested was the hypothesized full mediation model (Model 2). As predicted, constraining the direct path between managerial communication and affective commitment to organizational change to zero did not result in significant model deterioration at either time period. Specifically, for Time 1, the chi-square difference between the models was reduced by only .008 (1), p = .928, and the fit statistics were virtually unchanged. For Time 2, the same pattern of results was observed with a nonsignificant chi-square difference of .07 (1), p = .79. Thus, in partial support of Hypothesis 4, the effects of managerial communication on affective commitment to organizational change were fully mediated by procedural justice at both Time 1 and Time 2. The mediational effects of interactional justice were supported at Time 1 only, and no mediation effect existed for the distributive justice dimension at either time period. In sum, the primary mediation effect was attributed to the procedural justice dimension, suggesting that the positive effects of managerial communication foster more favorable perceptions of the fairness of the process in which change-related decisions are made, which in turn, lead to higher levels of commitment towards the change.

Table 15

Model Comparison Summary of Mediation Tests (Time 1 and Time 2)

Model	χ^2 *(df)*	$\Delta\chi^2(df)$	*p*-value	CFI	RMSEA
Time 1					
Partial Mediation (Model 1)	879.45 (451)			.93	.067
Full Mediation (Model 2)	879.45 (452)	.008 (1)	.928	.93	.067
Time 2					
Partial Mediation (Model 1)	846.48 (453)			.92	.064
Full Mediation (Model 2)	846.55 (454)	.069 (1)	.793	.92	.064

Hypotheses 5 and 6. The last set of hypotheses concern the changes in the strength of the relationships between the predictor and mediator variables and between the mediator and outcome variable from Time 1 to Time 2. These hypotheses proposed that as employee experience change in the organization during the post-merger integration process, the importance of effective communication and fair processes and outcomes will become stronger. Specifically, Hypothesis 5 predicted that the relationship between managerial communication and each justice dimensions would increase between Time 1 and Time 2 (shown as path 3a, 3b and 3c in Figure 4). Hypothesis 6 predicted that the relationship between each justice dimension and the outcome variable, affective commitment to organizational change, would also become stronger between Time 1 and Time 2 (shown as paths 1a, 1b, and 1c in Figure 4). To test the hypotheses, the path coefficients associated with each hypothesis at Time 1 and Time 2 were constrained to be equal across both time periods and the chi-square difference examined to determine if the model fit changed significantly (Byrne, 2001). A statistically significant change in the chi-square statistics between the unconstrained (Model 1) and constrained model (Model 2) would indicate a difference in the strength of the relationships between the variables from Time 1 to Time 2. As shown in Table 16, the change in the model fit was nonsignificant ($\Delta\chi^2(6) = 10.19$, $p = .117$). This indicates that the strength of the relationships between the variables did not change significantly between Time 1 and Time 2. Thus, Hypotheses 5 and 6 were not supported.

Table 16

Model Comparisons for Change in Path Coefficients Between Time 1 and Time 2

Model	χ^2 (*df*)	$\Delta\chi^2$ (*df*)	*p*-value	CFI	RMSEA
Model 1: Paths 1a – 1c and 3a – 3c Unconstrained	1473.20 (898)			.95	.039
Model 2: Paths 1a – 1c and 3a – 3c Constrained to Equality (Time 1 = Time 2)	1483.39 (904)	10.19 (6)	.117	.95	.039

Summary

A summary of the results from all hypotheses tests are provided in Table 17. The findings indicate general support for the hypothesized model; however, the results showed the strongest support for the mediating role of procedural justice as the key mechanism through which managerial communication influences employees' level of commitment towards change. The results are consistent with findings from other studies that have found that process-related justice perceptions to be stronger in the early stages of organizational change processes that outcome- related justice perceptions (Ambrose & Schminke 2003). Hypotheses related to the influence of effective communication between employees and their immediate supervisors on employees' perceptions of the fairness of the change processes and outcomes were supported indicating the important role of the content and quality of change-related communication.

Table 17

Summary of Hypotheses Tests

	Hypotheses	Results
H1a	Employees' perceptions of procedural justice will be positively related to their level of affective commitment to organizational change.	Supported
H1b	Employees' perceptions of distributive justice will be positively related to their level of affective commitment to organizational change.	Not Supported
H1c	Employees' perceptions of interactional justice will be positively related to their level of affective commitment to organizational change.	Partially Supported
H2	Employees' perceptions of procedural justice will be positively related to their perceptions of distributive justice.	Supported
H3a	Employee satisfaction with managerial communication will be positively related to employees' perceptions of procedural justice.	Supported
H3b	Employee satisfaction with managerial communication will be positively related to employees' perceptions of distributive justice.	Supported
H3c	Employees' satisfaction with managerial communication will be positively related to employees' perceptions of interactional justice.	Supported
H4	Employee satisfaction with managerial communication will be positively, but indirectly, associated with employees' affective commitment to organizational change, through perceptions of organizational justice.	Partially Supported
H5	The strength of the relationships between employee satisfaction with managerial communication and perceptions of organizational justice will increase between Time 1 and Time 2.	Not Supported
H6	The strength of the relationships between perceptions of organizational justice and employees' affective commitment to organizational change will increase between Time 1 and Time 2.	Not Supported

CHAPTER 5

DISCUSSION

Research on organizational change suggests that employee commitment is a critical factor for its successful implementation and long-term sustainability (Coetsee, 1999; Herscovitch & Meyer, 2002; Kotter, 1995). This study examined predictors of employee commitment to change following an organizational merger. Specifically, a multimethod approach was used to understand factors that contribute to the development of support and commitment toward changes as a result of the merger, and to test a theoretical model that examined the role of managerial communication and employees' perceptions of fairness in change-related decisions and outcomes.

To examine the perceptions and attitudes of employees toward the changes, qualitative and quantitative data were collected over two time periods during the course of the post-merger implementation. The qualitative data revealed several key areas of employee concern related to the merger. Specifically, several themes emerged from the analysis that suggested issues related to the fairness of merger-related processes and outcomes, lack of participation in decision-making, as well as leadership and communication issues were significant areas of concern for employees. In the quantitative stage, data collected at each time period were used to test a theoretical model that proposed if managers focus on the quality of communication with employees and promote perceptions of fairness, then employees may exhibit higher levels of commitment toward the change. Overall, the results of the quantitative analysis supported the hypothesized model. However, contrary to expectations, the nature of the relationships among the variables showed only limited differences between the two time periods, particularly with respect to the outcome variable.

This chapter discusses the findings related to the specific hypotheses proposed in Chapter 2. Results of the qualitative stages were used to corroborate the quantitative findings and are discussed throughout. The implications of the study are discussed, followed by the limitations and directions for future research.

Quantitative Findings

Justice and Commitment to Organizational Change

The first set of hypotheses was related to effects of procedural, distributive, and interactional justice perceptions on employees' level of organizational commitment. Of the three justice dimensions, only procedural justice was found to have a positive and significant influence on employees' level of commitment toward the post-merger change. This finding is consistent with the prevailing literature on organization justice which has consistently found a stronger influence of procedural justice perceptions than other forms of justice on employees' attitudes toward organizations (Ambrose & Cropanzano, 2003; Folger & Konovosky, 1989; Mossholder, Bennett, & Martin, 1998). In particular, several authors have suggested that while both distributive and procedural justice should predict work-related attitudes, procedural justice perceptions are more likely to be stronger when little is known about the direct outcomes of decision-making or allocation processes (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Subsequently, as employees acquire information and experience the effects of change-related decisions and outcomes, the influence of distributive justice perceptions on attitudes toward the organization may become stronger (Ambrose & Cropanzano, 2003). Although the relationship between distributive justice and affective commitment to change was nonsignificant at each time period, the results of the study supported this pattern of relationships.

The relationship between interactional justice and affective commitment to organizational change was also not supported. It was predicted that when employees are treated with consideration when decisions are communicated, and are provided with adequate explanations of why decisions were made and how they will be affected, they should in turn, feel more respected and valued by the organization, and therefore more likely to identify with and support the goals and values of the organization. However, the findings in this study appear to support past research that suggested interactional justice perceptions tend to be more predictive of personal level outcomes, such as job satisfaction, as opposed to organizational level outcomes (Cohen-Charash & Spector, 2001). Moreover, as noted by Mishra and Spreitzer (1998), a key aspect of interactional justice is related to explanations regarding the rationale for change-related decisions. In the context of substantial change such as a merger, employees may not consider the rationale for the change as an important factor in their level of commitment towards it (Mishra & Spreitzer, 1998). This may be particularly true in the context of the present study where the change was externally mandated and supervisors had only a limited role in communicating change-related decisions.

Another view that may account for the lack of a positive relationship between interactional justice and affective commitment to change at both time periods, is the view that interactional justice is simply a facet or subset of procedural justice and therefore, should not be considered a separate dimension (Cropanzano, 2001). Further, in this study, in tests for metric invariance across time periods, interactional justice was found only partially invariant which suggests that any comparisons between the two groups should interpreted with caution.

Relationship between Procedural and Distributive Justice

Support was found for Hypothesis 2 which predicted that procedural justice would be positively associated with distributive justice perceptions. Similar to the discussion regarding Hypothesis 1a, this finding is consistent with situations where ambiguity exists regarding the direct outcomes of change-related decisions. During the interval between survey administrations, the frequency and magnitude of changes related to the merger increased. However, because the implementation of changes was scheduled to occur over the course of several years, the actual outcomes of the change-related decisions were relatively unknown. Thus, employees were more likely to base distributive justice evaluations on the perceived fairness of the decision-making process, as opposed to the actual outcomes (Kees van den Bos & Wilke, 1997). These findings are consistent with the theory of the fair process effect which suggests that, in the absence of information regarding the outcome of the decisions, employees are more likely to place greater emphasis on the procedural aspects of the change process (Kees van den Bos & Wilke, 1997).

Managerial Communication and Organizational Justice

The second set of hypotheses, which predicted positive relationships between managerial communication and employees' perceptions of procedural, distributive, and interactional justice were supported. These findings are consistent with prior research that has also found support for the positive influence of effective communication and feedback on employees' perceptions of the fairness of change initiatives (Daly & Geyer, 1994; Kernan & Hanges, 2002; Thornhill & Saunders, 2003). In the present study, managerial communication was found to have the strongest influence on perceptions of procedural justice. This finding is important because procedural justice is argued to be the mechanism through which employees view information about how change-related decisions will affect them, and provides the basis for understanding and accepting the change (Sousa & Vala, 2002).

In addition, the finding that managerial communication also strongly influenced interactional justice perceptions indicates that perceptions about the decision-making process are different than perceptions about how the decisions are applied in practice. Specifically, when supervisors provide justification and explanations for decisions, as well as information about how the decision will affect them in the future, employees are more likely to accept the decision and be supportive even when outcomes are unfavorable.

The finding that managerial communication also influences employees' distributive justice perceptions is particularly important in a change context. In the early stages of the change process, distributive justice perceptions are likely to be based more on employees' evaluation of how they are treated in comparison to others as opposed to the actual outcomes of the change process (Thornhill & Saunders, 2003). This suggests that supervisors can mitigate the negative consequences of change related decisions by ensuring that resources and outcomes of the change are perceived as being allocated fairly and do not favor one particular group over another.

Mediating Role of Organizational Justice

The third set of hypotheses proposed a mediating role between managerial communication and affective commitment to change for each justice dimension. Communication satisfaction was found to be significantly related to affective commitment to change at each time period, thus satisfying the first condition of mediation. Although few empirical studies have focused directly on the relationship between these two variables, this finding is consistent with previous studies of communication and organizational commitment that found that communications seen by employees as timely and helpful are predictive of their level of commitment (Gopinath & Becker, 2000; Putti et al., 1990; Varona, 1996). Specifically, in a merger context, Schweiger and DeNisi (1991) found that communication in the form of realistic job previews increased employees' level of organizational commitment by reducing their uncertainty associated with the merger.

Role of the supervisor. In the present study, communication satisfaction was measured in terms of employees' satisfaction with communication with their direct supervisor. The finding that managerial communication was directly and indirectly related to perceptions of both justice and commitment to change is consistent with the view of several researchers who espouse the role of the supervisor as the most important factor in facilitating the change process (Larkin & Larkin, 1994; Marshak, 1993; Mossholder, Bennett, Kemery, & Wesolowski, 1998; Neubert & Cady, 2001). The results of both the qualitative and quantitative analyses support the view that it is the supervisor and the quality of communication and feedback that helps build support for a change effort. Moreover, as noted by Zorn et al (2000), the day-to-day communicative experiences in the organization are a critical factor in helping create acceptance and identification with the goals of the change. Larkin and Larkin (1994) argued that the role of the supervisor is the most important communication relationship in facilitating employees' acceptance and support for change initiatives. Contrary to conventional thinking on the importance of communicating a vision for change at the top management level, they suggested that "above everything else, communication should be about changing employees. And senior executive communication doesn't do that-only communication between a supervisor and employees has the power to change the way employees act" (p. 87).

The finding that communication quality was a significant predictor of affective commitment to the organization also lends further support to a broader view of communication in the context of changes such as mergers and consolidations. In their study of survivor reactions to reorganization, Kernan and Hanges (2002) found that employees value information that extends beyond the initial justifications and explanations about the reorganization. Because most mergers unfold over an extended period of time, the role of communication throughout the integration process is an important factor in ensuring that employees remain committed throughout the change effort and thus, increase the probability of the long-term success of a merger.

Mediating role of justice. Of the three variables hypothesized as mediators in the relationship between managerial communication and affective commitment to change, the strongest evidence for mediation was obtained for procedural justice. Although partial evidence was found for interactional justice at Time 2, the lack of full invariance of this construct across time periods limits any conclusions about its role as a mediator. However, the fact that the relationships between managerial communication and affective commitment to change at each time period were fully mediated by procedural justice suggests that procedural justice is an important factor in shaping employees' perceptions of support for, and ultimately their commitment toward, the change. Although few studies have tested a similar model, a study by Gopinath and Becker (2000) found that managerial communication had both direct and indirect effects on commitment through perceptions of procedural justice. In addition, the test of a partial mediation model showed that this alternative model was not plausible, as the direct path from managerial communication to commitment was not significant.

Where the majority of past studies have examined the direct effects of justice perceptions on work outcomes, this study advances the current literature on change that has found support for the pivotal role of procedural justice in linking managerial processes with important work outcomes. Employees, regardless of the organizational context, generally expect to be treated fairly and have respect shown for their rights as individuals (Mossholder, Bennett, Kemery et al., 1998). Consequently, as the results indicate, organizations stand much to gain by creating an environment where employees' views are taken into consideration and decision-making is seen as being even-handed and applied consistently across individuals, and throughout the change process (Greenberg, 1990).

Longitudinal Hypotheses

The last set of hypotheses predicted that the effects of managerial communication on justice dimensions, and justice perceptions on affective commitment to change would increase over time. It was expected that as the merger-related changes are implemented, employees' perceptions of the fairness of the changes and the quality of communication about the changes, would be increasingly more important to their level of commitment toward the change. The findings did not support the hypotheses that significant changes in the strength of the variables would occur between Time 1 and Time 2. However, as shown in Figures 5 and 6, the standardized path coefficients between distributive justice and affective commitment to change increased from Time 1 to Time 2. A similar decrease was noted in the effects of procedural justice perceptions on affective commitment to change between Time 1 and Time 2. The shift in the relative influence of the justice variables is consistent with prior studies that have found that while the effects of perceptions of procedural justice are strongest immediately after decisions are made, and the effects of distributive justice perceptions continue to influence organizational attitudes after resource allocation decisions are made and outcomes are known (Ambrose & Cropanzano, 2003).

Implications

The findings from this study suggest key implications for supervisors and leaders involved in large-scale change initiatives. In particular, this study contributes to the understanding of the role of communication and justice perceptions in the context of an organizational merger. Specifically, the finding that managerial communications enhance justice perceptions and employees' commitment toward change is important because they represent variables over which organizations, and particularly supervisors, have direct control. Indeed, one of the key findings was the importance of an employees' direct supervisor as the most influential person in influencing employees' attitudinal and behavioral support for organizational change initiatives. This finding was consistent with the views of many researchers, including Larkin and Larkin (1994), who contend the role of the supervisor in organizational settings is the most influential factor in shaping employees' interpretations of change initiatives and their willingness to accept and support the change.

Findings from the qualitative data further supported this view as indicated in frequent statements by participants that top management efforts to communicate directly with employees were ineffective and seldom had the desired effect. In interviews with supervisory level employees, dissatisfaction with top management communication was also found. Several stated they often learned of important events or decisions at the same time their employees did, leaving them feeling "out of the loop" and unable to adequately address employee questions and concerns about the information.

Employee attitudes such as job involvement and commitment are said to be the most difficult to recover following a large-scale change such as a merger, restructuring, or downsizing (Buono & Bowditch, 1989; Cartwright & Cooper, 1993). The findings from this study suggest that supervisors should focus their attention on interventions that help build employees' support through participation and involvement in the change process. In addition, attention to procedural justice appears to be particularly important in a change context as well as a key consideration for managers in facilitating employees' psychological commitment to organizational change. Several researchers have demonstrated the functional role of justice for organizational change and argue that the complexities of change processes often create environments characterized by ambiguity, loss, and adversity (Cobb et al., 1995; Novelli et al., 1995). To mitigate problems that may be experienced in a change process and reduce the adverse effects of negative reactions and attitudes toward change efforts, organizations should focus on creating a change environment seen as fair by all employees.

The importance of understanding how change affects the individual perceptions and behavior of the employees affected is an important consideration in managing the post-merger integration process and ensuring the long-term success of a merger. By recognizing that employees' commitment to the change depends largely on their buying into its purpose, it is vital to ensure that employees are able to see their role in the new organization and feel that their contributions are valued and important (Buono & Bowditch, 1989). As past research has found, when employees feel they have been communicated with about the merger, and understand the rationale and purpose for it, as well as feel they have a voice in the decision-making process, they are more likely to be motivated to help the merger succeed (Gopinath & Becker, 2000; Schweiger & Denisi, 1991).

In addition to the practical relevance, the results of this study build on the existing organizational justice and commitment literature within the context of organizational change. In addition to providing empirical support for Herscovitch and Meyer's (2002) newly developed scale, the findings from this study expand the existing understanding of factors that help explain how individuals can become committed to a particular course of action. To date, there are few studies that have examined commitment to change in the dynamic and complex environment that characterizes many merger integration efforts. In addition, there were no empirical studies found that focused specifically on human resource factors as a result of a merger in the public sector. The public sector is a relatively new entrant to the world of mergers. Although there are many similarities to private sector mergers, the environmental differences between the sectors are relevant in the study of the organizational impact of this type of change on employees. From a theoretical perspective, this study suggests that even in an environment where a merger does not result in downsizing or loss of jobs, gaining employee support is still a necessary and important element in achieving the commitment necessary for the success of the change effort. Moreover, as noted by Perry (2004), organizational commitment has historically been a key factor in ensuring employee productivity and competitiveness in the public sector. Therefore, understanding factors that influence its development, particularly in an environment of change, is an important research topic.

Limitations

The findings and contributions of the current study must be evaluated taking into account the limitations of the research design. First, because of the timing of the merger, a pre-post study design was not feasible. Past studies on mergers and acquisitions have noted this limitation, particularly in the private sector where announcements of mergers are generally confidential for financial reasons and pre-merger data collection is rarely possible (Cornett-DeVito & Friedman, 1995; Greenwood et al., 1994; Harwood & Ashleigh, 2005).

In this study, the first phase of data collection began shortly after the beginning of the post-merger integration period, but prior to the implementation of major organizational changes. The second phase began one year later following the implementation of several post-merger integration changes. Despite the limitation of the design, the mixed method research design, while not ideal and subject to threats of internal validity, did allow for a more in-depth assessment of changes in employees' attitudes and perceptions as a result of the post-merger integration changes. Further, as noted by Jick (1979), the use of mixed methods may lead to more valid findings as a result of using complementary methods and allow the researcher to "capture a more complete, holistic, and contextual portrayal of the unit(s) under study" (p. 603).

A second limitation of the study was the use of same source data which raised concerns with common-method bias. The literature suggests that even though there is an inherent weakness in cross-sectional, self-report studies, the design can still be valuable in assessing how people feel and view their work environment (Spector, 1994). Therefore, despite the potential of common method bias, it was determined that using real employees undergoing an actual merger process would more likely capture employees' own perceptions and reactions to the changes as well as provide a more realistic portrayal of the human resource issues as a result of the merger process. Moreover, because the surveys in this study were anonymous, the likelihood that participants edited their responses to be more socially desirable or consistent with how they felt the organization or researcher wanted them to respond, was likely reduced (Podsakoff et al., 2003). In addition to using multiple methods to reduce common-method bias (Creswell, 2003), it has also been suggested that using scales with high reliability and demonstrated validity may serve to offset the limitation of self-report measures (Spector, 1994). The scales used in this study all demonstrated acceptable levels of reliability and validity, thereby further mitigating the problems associated with common-method variance.

The third limitation of the study is that the generalizability of the results is limited due to the focus on a single occupational group within the public sector. Although many of the issues included in the present study are commonly reported among employees experiencing change as a result of a merger (Marks & Mirvis, 2001), the findings from this specific occupational group may not apply to mergers in the private sector or other less bureaucratic and mission-driven organizations. Further, mergers can vary significantly along several dimensions (e.g., level and pace of integration) making it difficult to generalize findings broadly across merger initiatives (Cornett-DeVito & Friedman, 1995; Napier, Simmons, & Stratton, 1989). Wanberg and Banas (2000) also noted that the nature of the type of change being investigated may limit the generalizability of a research study. In particular, they argue that single, discrete changes may have different predictors and outcomes in comparison to complex change of a continuous nature. However, the literature has acknowledged the role of employee commitment as an important factor in any successful change effort, regardless of the organization, sector, or type of change (Conner & Patterson, 1982). Findings from this study, therefore, may be generalizable when abstracted to large-scale change in general, and not specific to a particular sector or a single organization.

The final limitation of the study is related to the assumption of independence when using multigroup SEM. In this study, the assumption of independence was violated by the use of dependent samples at Time 1 and Time 2. Violating the independence assumption in multigroup SEM may lead to biased test statistics and reduce the ability to detect true invariance due to reduced power (Curran, 2003). However, the consequences of violating the independence assumption in multigroup SEM have not been explored in the literature and thus, may be a topic for future research.

In spite of these limitations, it is important to note the strengths of the study. First, data were collected from employees in an actual merger context across two time periods and using multiple methods of data collection and analysis. By capturing the narrative responses of employees undergoing substantial change in their work environment, the study allowed for a more complete understanding of the merger process and the effects of changes on the employees. Although the goal of the research was not to investigate change in the outcome variable, the longitudinal nature of the research design offered valuable insight into the nature of changes in employees attitudes and perceptions as the post-merger integration process unfolded. Second, although the qualitative methods in this study were used primarily to help interpret and triangulate the quantitative findings, the findings produced largely consistent results between methods and across both time periods, thereby providing a level of convergence particularly appropriate in studies where situational characteristics play a significant role (Jick, 1979).

Future Research

The findings of this study provide valuable insight into the complex and often difficult process of post-merger integration; however, there are a number of areas where future research would be beneficial. In spite of the overall support for the hypothesized model, the lack of a relationship among some variables combined with the relatively low level of variance explained in the outcome variable, particularly at Time 2, suggests that other variables may also contribute to the development of affective commitment to change. While this study focused primarily on process-oriented variables related to the development of commitment to change, it is likely that employee commitment to change is a function of both individual and process-oriented variables. For example, past research has identified a number of individual and role-related factors (Fairfield-Sonn et al., 2002; Herscovitch & Meyer, 2002) that may potentially influence employees' commitment to organizational change initiatives. In particular, researchers have found certain role-related variables (e.g., role ambiguity and role conflict) as likely to increase stress and uncertainty among employees (Fairfield-Sonn et al., 2002; Schweiger & Denisi, 1991). In turn, these variables have been found to predict employees' reactions to the change, and their subsequent level of support and commitment. Future studies that incorporate a wider range of variables in addition to other process-oriented variables may further the understanding of areas organizations should focus their efforts on to ensure the success of mergers and other types of large-scale change initiatives.

A second area where future research would be beneficial is examining how employee reactions and attitudes change over time, particularly in the context of large-scale change efforts where changes may be implemented over the course of several years. Longitudinal research designs that include pre- and post-merger measures of employee perceptions and attitudes may provide valuable insight into how commitment to change is developed, as well as how it can be sustained over the later stages of a change process as employees become assimilated into new work routines and relationships. Because the process of developing commitment to change is dynamic, it may require a combination of strategies depending on the phase of the change initiative (Conner & Patterson, 1982). Thus, understanding factors appropriate to each phase may help facilitate the design of effective interventions that contribute to employees developing a positive attitude and behavioral support toward the change.

Finally, additional research is needed to explore the relationship between commitment to change and actual change related behavior. Herscovitch and Meyer's (2002) study found that even uncommitted employees were willing to comply with the requirements of the change. Further, they suggested that depending on the situation, managers may want to foster different types of commitment. This process may be particularly important in large-scale change efforts such as a merger or restructuring where substantial changes in structure or personnel are required over a relatively short period of time. In these instances, they suggested strategies designed to reward compliance with the required changes (continuance commitment) such as monetary incentives may be more effective early in the change process with the hope that affective commitment to change develops over time.

Conclusion

This study investigated factors that contribute to gaining employee acceptance and commitment toward change in the context of an organizational merger. The theoretical model developed and tested for this study examined the mediating role of organizational justice in linking managerial communication and employees' level of commitment to change. The findings suggest that the quality of communication between a subordinate and supervisor have significant effects on employees' perceptions and attitudes related to the change, and further, that the effects are significant beyond the initial reactions or attitudes related to the change. The results also provide considerable insight into the perceptions that promote employees' affective responses, and reveal the importance of creating a climate of fairness in the implementation of change. These findings are important because they offer tangible evidence of managerial actions and strategies that may potentially influence the successful outcome of organizational change initiatives.

There are few organizational change efforts that are as challenging or comprehensive as a merger. Given the continued growth of mergers and other forms of large-scale restructuring in both the private and public sectors, understanding employee reactions and attitudes toward the change and how to mitigate their negative consequences will be increasingly important to the success of such ventures. The findings of this study should advance our understanding of the complex dynamics inherent in a merger integration process, as well as individuals' reactions to organizational change.

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APPENDICES

APPENDIX A

INFORMATION LETTER

Auburn University

Auburn University, Alabama 36849-5241

INFORMATION SHEET

Department of Management
415 W. Magnolia, Suite 401
Lowder Business Building

Telephone: (334) 844-4071

Columbus Fire and EMS Department
Employee Opinion Survey

You are invited to participate in a research study of employee perceptions and attitudes related to the merger of the Columbus Fire and Emergency Medical Services. This study is being conducted by Jennifer Pitts, Department of Management Ph.D. student at Auburn University under the supervision of Dr. R. Kelly Rainer. I hope to learn how your opinions and perceptions of the merger integration process affect your level of commitment to the change. You were selected as a participant because you are a full-time employee of the Columbus Fire and EMS department.

If you decide to participate, I will administer a survey questionnaire during your normal work shift that should take approximately 30 minutes to complete.

Any information obtained in connection with this study will remain anonymous. Information regarding responses from specific individuals will not be shared with the organization or with any employee's supervisor. A summary of this information will be presented to management within your organization and may be published in an academic journal article. A summary of results will also be shared with all participants. You may withdraw from participation at any time, without penalty, however, after you have provided anonymous information, I will be unable to withdraw your data since there will be no way to identify individual surveys.

Participation in the survey is strictly voluntary and there are no direct benefits to employees' who choose to participate. The primary benefit of the survey is that it may help identify important employee issues and problems that could potentially affect the level of service provided by the Columbus Fire and EMS Department to the community they serve. Your responses to the survey questions and/or your decision whether or not to participate will not jeopardize your future relations and/or employment with Auburn University or with the Columbus Fire and EMS Department.

If you have any questions, I invite you to ask them now. If you have questions later, I can be reached at (334) 844-6524 (pittsjp@auburn.edu), or you may contact my faculty advisor, Dr. R. Kelly Rainer at (334) 844-6527 (rainer@business.auburn.edu).

For more information regarding your rights as a research participant you may contact the Office of Human Subjects Research by phone or e-mail. The people to contact there are Executive Director E.N. "Chip" Burson (334) 844-5966 (bursoen@auburn.edu) or IRB Chair Dr. Peter Grandjean at (334) 844-1462 (grandpw@auburn.edu).

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

HUMAN SUBJECTS
OFFICE OF RESEARCH
PROJECT # 03-160 MR 0310
APPROVED 10-10-03 TO 10-9-05

Jennifer P. Pitts Date

A LAND-GRANT UNIVERSITY

APPENDIX B

SURVEY INSTRUMENT

2004 Employee Opinion Survey

General Information

This survey contains several questions intended to assess your perceptions and opinions about the merger of Columbus Fire and EMS, and about your job and the organization in general. The goal of this research is to gain a better understanding some of the key organizational issues related to both the merger and the organization overall from the employees' perspective. Your answers will be very important in achieving this goal.

Confidentiality

Your responses to the questionnaire will be completely anonymous and confidential. **Please do not write your name on the survey form.** Your answers will be combined with those of other employees and a summary report will be presented to the management of your organization. The survey results will also be shared with all participants and may be published in an academic journal article. It should take approximately 30 – 45 minutes to complete the survey. Please respond to all questions.

Voluntary

Your opinions are very valuable and I hope you will answer the questionnaire. However, participation is **<u>VOLUNTARY</u>.** You may withdraw or refuse to participate at any time, and any information you have provided will be withdrawn from the study as long as the data can be identified with you.

Instructions

Please read the instructions at the beginning of each section and circle the number next to each statement that most closely matches how you feel. When you finish, please return the survey booklet to the return box. If you have any questions, please do not hesitate to ask.

Thank you for your help!

Section I Satisfaction with Communication

A. Listed below are several kinds of information often associated with a person's job. Please indicate how satisfied or dissatisfied you are with the **amount** and/or **quality** of each kind of information by circling the appropriate number to the right of each statement.
Use the following scale: from 1 = Very Dissatisfied to 7 = Very satisfied.

Statement	Very Dissatisfied	Dissatisfied	Slightly Dissatisfied	Neither satisfied nor dissatisfied	Slightly satisfied	Satisfied	Very satisfied
Information about my progress in my job.	1	2	3	4	5	6	7
Information about organizational policies and goals.	1	2	3	4	5	6	7
Information about how my job compares with others.	1	2	3	4	5	6	7
Information about how I am being judged.	1	2	3	4	5	6	7
Recognition of my efforts.	1	2	3	4	5	6	7
Information about departmental policies and goals.	1	2	3	4	5	6	7
Information about the requirements of my job.	1	2	3	4	5	6	7
Information about government action affecting my organization.	1	2	3	4	5	6	7
Information about changes in our organization.	1	2	3	4	5	6	7
Reports on how problems in my job are being handled.	1	2	3	4	5	6	7
Information about our organization's financial standing.	1	2	3	4	5	6	7
Information about accomplishments and/or failures of the organization.	1	2	3	4	5	6	7

B. Please indicate how satisfied you are with each of the following (circle the appropriate number at the right).

Statement	Very Dissatisfied	Dissatisfied	Slightly Dissatisfied	Neither satisfied nor dissatisfied	Slightly satisfied	Satisfied	Very satisfied
Extent to which my superiors know and understand the problems faced by subordinates.	1	2	3	4	5	6	7
Extent to which the organization's communication motivates and stimulates an enthusiasm for meetings its goals.	1	2	3	4	5	6	7
Extent to which my supervisor listens and pays attention to me.	1	2	3	4	5	6	7
Extent to which the people in my organization have great ability as communicators.	1	2	3	4	5	6	7
Extent to which my supervisor offers guidance for solving job related problems.	1	2	3	4	5	6	7
Extent to which the organization's communications are interesting and helpful.	1	2	3	4	5	6	7
Extent to which my supervisor trusts me.	1	2	3	4	5	6	7
Extent to which I receive, in time, the information needed to do my job.	1	2	3	4	5	6	7
Extent to which conflicts are handled appropriately through proper communication channels.	1	2	3	4	5	6	7
Extent to which the grapevine is active in our organization.	1	2	3	4	5	6	7
Extent to which my supervisor is open to ideas.	1	2	3	4	5	6	7
Extent to which horizontal communication with other employees is accurate and free flowing.	1	2	3	4	5	6	7
Extent to which communication practices are adaptable to emergencies.	1	2	3	4	5	6	7
Extent to which my work group is compatible.	1	2	3	4	5	6	7
Extent to which our meetings are well organized.	1	2	3	4	5	6	7

Statement	Very Dissatisfied	Dissatisfied	Slightly Dissatisfied	Neither satisfied nor dissatisfied	Slightly satisfied	Satisfied	Very satisfied
Extent to which the amount of supervision given me is about right.	1	2	3	4	5	6	7
Extent to which written directives and reports are clear and concise.	1	2	3	4	5	6	7
Extent to which the attitudes toward communication in the organization are basically healthy.	1	2	3	4	5	6	7
Extent to which informal communication is active and accurate.	1	2	3	4	5	6	7
Extent to which the amount of communication in the organization is about right.	1	2	3	4	5	6	7

Answer the following five questions* only if you have employees who report to you. *If not, please go to Section II on the next page.

Please indicate your level of satisfaction with each of the following statements by circling the appropriate number at the right.

Statement	Very Dissatisfied	Dissatisfied	Slightly Dissatisfied	Neither satisfied nor dissatisfied	Slightly satisfied	Satisfied	Very satisfied
Extent to which my subordinates are responsive to downward direction (orders).	1	2	3	4	5	6	7
Extent to which my subordinates anticipate my needs for information.	1	2	3	4	5	6	7
Extent to which I *do not* have a communication overload.	1	2	3	4	5	6	7
Extent to which my subordinates are receptive to evaluation, suggestions, and criticism.	1	2	3	4	5	6	7
Extent to which my subordinates feel responsible for initiating accurate upward communication.	1	2	3	4	5	6	7

Section II Perceptions and Opinions about the Merger

The following statements are related to your perceptions and feelings about the merger. Please circle the number to the right of each statement that corresponds with your **level of agreement or disagreement** *with each statement.*

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
I believe in the value of this merger.	1	2	3	4	5	6	7
This merger is a good strategy for this organization.	1	2	3	4	5	6	7
I think that management is making a mistake by implementing this merger.	1	2	3	4	5	6	7
This merger serves an important purpose.	1	2	3	4	5	6	7
Things would be better without this merger.	1	2	3	4	5	6	7
This merger is not necessary.	1	2	3	4	5	6	7
I have no choice but to go along with this merger.	1	2	3	4	5	6	7
I feel pressure to go along with the merger.	1	2	3	4	5	6	7
I have too much at stake to resist this merger.	1	2	3	4	5	6	7
It would be too costly for me to resist this merger.	1	2	3	4	5	6	7
It would be risky for me to speak out against this merger.	1	2	3	4	5	6	7
Resisting this merger is not a viable option for me.	1	2	3	4	5	6	7
I feel a sense of duty to work toward this merger.	1	2	3	4	5	6	7
I do not think it would be right of me to oppose this merger.	1	2	3	4	5	6	7
I would not feel badly about opposing this merger.	1	2	3	4	5	6	7
It would be irresponsible of me to resist this merger.	1	2	3	4	5	6	7
I would feel guilty about opposing this merger.	1	2	3	4	5	6	7
I do not feel any obligation to support this merger.	1	2	3	4	5	6	7

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
My superiors are committed to this merger.	1	2	3	4	5	6	7
My superiors have stressed the importance of this merger.	1	2	3	4	5	6	7
My superiors have put all their support behind this merger.	1	2	3	4	5	6	7
My superiors have served as role models for this change.	1	2	3	4	5	6	7
Our organization's leadership has encouraged all of us to embrace this change.	1	2	3	4	5	6	7

Section III Perceptions and Opinions about your Job and the Organization in General

The following statements are related to your feelings about your job and the organization in general. Please <u>*circle*</u> *the number to the right of each statement that corresponds with your* level of agreement or disagreement *with each statement.*

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
Considering the responsibilities of my job, I am fairly rewarded.	1	2	3	4	5	6	7
In view of the amount of experience I have, I am fairly rewarded.	1	2	3	4	5	6	7
I am fairly rewarded for the amount of effort I put forth.	1	2	3	4	5	6	7
I am fairly rewarded for the work I have done well.	1	2	3	4	5	6	7
I am fairly rewarded for the stresses and strains of my job.	1	2	3	4	5	6	7
I consider my workload to be fair.	1	2	3	4	5	6	7
My organization makes job decisions in an unbiased manner.	1	2	3	4	5	6	7

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
My organization makes sure that all employee concerns are heard before job decisions are made.	1	2	3	4	5	6	7
To make job decisions, my organization collects accurate and complete information.	1	2	3	4	5	6	7
My organization clarifies decisions and provides additional information when requested by employees.	1	2	3	4	5	6	7
All job decisions are applied consistently across all affected employees.	1	2	3	4	5	6	7
Employees are allowed to challenge or appeal job decisions made by this organization.	1	2	3	4	5	6	7
When decisions are made about my job, I am treated with kindness and consideration.	1	2	3	4	5	6	7
When decisions are made about my job, I am treated with dignity and respect.	1	2	3	4	5	6	7
When decisions are made about my job, my supervisor is sensitive to my personal needs.	1	2	3	4	5	6	7
When decisions are made about my job, my supervisor deals with me in a truthful manner.	1	2	3	4	5	6	7
When decisions are made about my job, my supervisor shows concern for my rights as an employee.	1	2	3	4	5	6	7
Concerning decisions made about my job, my supervisor discusses the implications of the decisions with me.	1	2	3	4	5	6	7
My supervisor offers adequate justification for decisions made about my job.	1	2	3	4	5	6	7
When making decisions about my job, my supervisor offers explanations that make sense to me.	1	2	3	4	5	6	7
My supervisor explains very clearly any decision made about my job.	1	2	3	4	5	6	7

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
All in all, I am satisfied with my job.	1	2	3	4	5	6	7
In general, I don't like my job.	1	2	3	4	5	6	7
In general, I like working here.	1	2	3	4	5	6	7
I intend to stay in this job for the foreseeable future.	1	2	3	4	5	6	7
I will probably look for a new job within the next year.	1	2	3	4	5	6	7
I do not intend to pursue alternate employment in the foreseeable future.	1	2	3	4	5	6	7
Changes in this organization are usually implemented well.	1	2	3	4	5	6	7
I feel that most of the changes made in this organization will help the organization improve.	1	2	3	4	5	6	7
This organization makes too many changes.	1	2	3	4	5	6	7
My organization does a good job keeping me informed about future plans.	1	2	3	4	5	6	7
My organization does a good job communicating with me about changes.	1	2	3	4	5	6	7
I trust the leadership of this organization.	1	2	3	4	5	6	7
This organization is sincere in its efforts to communicate with employees.	1	2	3	4	5	6	7
The leadership of this organization listens to employees' concerns.	1	2	3	4	5	6	7
The leadership of this organization keeps its commitments to employees.	1	2	3	4	5	6	7
The leadership of this organization is concerned about employees' well being.	1	2	3	4	5	6	7
Those in leadership of this organization keep their word to employees.	1	2	3	4	5	6	7

Section IV Demographic Information

The following is general demographic information that will be used to analyze survey responses at the group level. Please check the appropriate box for each question.

What is your age?
- ☐ under 20 years
- ☐ 20 –29 years
- ☐ 30 – 39 years
- ☐ 40 – 49 years
- ☐ Over 50 years

How long have you been employed with the City of Columbus in Public Safety?
- ☐ Less than a year
- ☐ 1 – 5 years
- ☐ 6 – 10 years
- ☐ 11- 20 years
- ☐ over 20 years

How long have you been in your current position?
- ☐ Less than a year
- ☐ 1 – 5 years
- ☐ 6 – 10 years
- ☐ 11- 20 years
- ☐ over 20 years

Please indicate your primary job in the organization.

☐ Firefighter	☐Firefighter/EMT
☐ Fire Sergeant	☐ Fire Lieutenant
☐ Fire Captain	☐ Battalion Chief
☐ Firemedic	☐ EMS Officer
☐ Fire Prevention; Logistics; Training	

Thank you for completing the questionnaire!