CHAPTER ONE

1.0 Introduction

A common theme in the various definitions of leadership is that of ‘social influence’ which one person—known as the leader, vested with power, authority or control—exercises on another person(s) known as the follower(s) [Nahavandi, 2000]. This suggests that a follower is subordinated to the leader’s influence. It also suggests that a leader, being human with unique attributes (style, preferences, values, and temperaments), would bring these attributes to bear on influencing the followers. Since individuals spend most of their waking life in the workplace (Oguntuashe, 2009), leaders and followers have to work together, with followers also, sometimes, influencing their leaders (Porter, Allen, and Angle, 1981). However, followers are relatively more susceptible to the social influence, as well as, the personal attributes of the leader. Leaders’ styles or manners of exercising social influence on followers do not just happen. They are impacted by the leaders’ personal attributes. Consequently, followers may sometimes find their leaders’ social influence in the workplace unpleasant and thus perceive varying levels of leadership-induced stress. Leadership-induced stress can be defined as an unpleasant job-related challenge which subordinate employees perceive they are experiencing as a result of the behavior of, or the treatment they are getting from their immediate superior at work; a situation the subordinates also judge as one they cannot cope with.

Whether followers would perceive leadership-induced stress in the workplace may
depend on psychosocial factors. According to Wikipedia (2010), psychosocial factors can be defined as important human attributes which can be influenced by the social environment. In this study, these would include marital status, sex, age, job cadre, and job tenure. Taking a cue from this definition, workplace psychosocial factors can be defined as work-related psychological phenomena which can be found in an individual worker as a result of the worker’s interactions with his/her social work environment. Quite crucial to workers’ wellbeing in the workplace are four such factors:

**Interactional Justice.** This refers to the degree to which a superior treats subordinates politely and with respect (Byrne, Rupp, and Eurich, 2003). Based on fairness perceptions, interactional justice would appear to require that the relationship between a boss and a subordinate is good for the subordinate to enjoy interactional justice.

**Affective Trust.** This is defined as a subordinate’s belief that his/her superior will act in a manner that intends to do good with regard to the subordinate, will make sacrifices for the subordinate, and will demonstrate concern about the subordinate’s welfare (Dirks & Ferrin, 2002). Thus, affective trust reflects a special relationship between a subordinate and his/her superior which may cause the superior to demonstrate concern about the subordinate’s welfare (McAllister, 1995), and which makes the subordinate trust the superior regardless of whether the superior has integrity, is reliable, is consistent, is honest, is fair, or is predictable.

**Leader-follower Relationship.** This is the nature and quality of the dyadic (one-on-one) relationship existing between a subordinate and his/her immediate superior in the workplace (Graen & Uhl-Bien, 1995; Harris and Kacmar, 2006). Leader-follower
relationship may be of a high-quality or a low-quality meaning that it may be good or bad. Where it is good, subordinates who are involved enjoy lots of favours from their superiors; but where it is bad subordinates who are involved may be denied of such favours (Harris and Kacmar, 2006).

**Co-worker Support.** This is defined as an employee’s perception of the extent to which his/her co-workers at work are concerned about his/her wellbeing and how much of such care, emotional involvement, solidarity, and instrumental assistance from the co-workers s/he can count or draw on in the event of challenges (Wilcox & Vernberg, 1985; Lieberman, Solomon, and Ginzburg, 2005). It also more specifically refers to the degree of emotional involvement, care, solidarity, and instrumental assistance an employee can expect, and the number and network of coworkers from whom to expect them (Karasek, Brisson, Kawakami, Houtman, Bongers, and Amick, 1998).

Other workplace psychosocial factors which may also be capable of predicting leadership-induced stress, owing to their relevance to the workplace psychosocial factors already mentioned, include the following:

**Procedural justice:** This refers to employees’ judgments of the fairness of the procedures employed in making a decision or in allocating resources and job benefits (Folger & Greenberg, 1985). Procedural justice is much related to interactional justice in that perceived procedural unfairness is believed to be mitigated by good interactional justice (Nicholson, 2000).

**Distributive justice:** This refers to employees’ perceptions of the fairness of their own
share of their organizations’ resources relative to their inputs as well as to the share of their colleagues with the same inputs (Adams, 1965). The importance of distributive justice and its relevance to interactional justice lies in part on the fact that people feel unhappy when they do not get what they believe is due to them and are likely to attribute their unhappy feelings to their not being in good leader-follower relationship with the superior who allocates the resources (Nicholson, 2000).

*Cognitive trust:* This is defined as a subordinate’s belief or expectation that the superior is reliable, has integrity, is predictable, will tell the truth, and will act in a fair or just manner, which are not conditional upon the kind of relationship the subordinate has with the superior (Dirks & Ferrin, 2002). Essentially, cognitive trust derives from objective reasons bothering on personal characteristics such as ability, fairness, and consistency of the trustee (Yang, 2005) on the basis of which the subordinate is willing to be vulnerable to the superior.

While all employees—including those who do not deserve it—desire to be in good leader-follower relationships with their superiors (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995) owing to the inherent advantages, not all employees can possibly be in such relationships. Some employees, by their own attributes and work behaviour would always be in the bad book of their boss. While it is likely for employees who are not in good relationship with their superior to also report low interactional justice and low affective trust, such employees may be susceptible to leadership-induced stress. To this extent, the psychosocial factors of interactional justice and affective trust may predict leadership-induced stress independently, or may predict leadership-induced stress
depending on whether the employees involved are in good leader-follower relationship and whether such employees can count on the good support of their coworkers.

1.1 Background to the Study

A popular understanding from organizational leadership issues is that the distinguishing factor between superiors and their subordinates in organizations is power differentials. On the basis of power differentials, superiors, who are vested with more powers than their subordinates, may exercise authority, influence, and control over the subordinates. By virtue of this asymmetry of power between superiors and subordinates, subordinates must defer to superiors in their inevitable work-related interactions as specified in most organizations’ structures (Nahavandi, 2000). Depending on the status of an employee in an organization, there may be more than one superior to defer to; it is common knowledge though that, generally, employees occupying the middle and lower hierarchies of their organizations usually have several superiors to defer to. For such employees, however, deference to their immediate superior, that is, the person to whom they report, is top priority since such a superior is in many ways instrumental to the kind and degree of outcomes the employees derive for their inputs as well as the employees’ overall wellbeing in their organizations (Van Knippenberg, and Hogg, 2005). Although the plight of the subordinate here may be understood to be a product of the superior’s styles, the subordinate’s behavior, and the situational context, power asymmetry would always put the subordinate at the receiving end (French and Raven, 1960; Pfeffer, 1981, 1982), especially if the superior’s styles, are unpleasant such as if the superior is unjust, irritable, bias, corrupt, manipulative, discriminatory, unreliable, inconsiderate, and
untrustworthy. Such superiors may, by virtue of these styles—advertently or inadvertently, be inducing stress in their subordinates in the workplace.

The accounts rendered by three different people, among several others, of their experience with their former or present bosses underscore the point that the existence of organizational leaders with the aforementioned attributes in many Nigerian public and private organizations cannot be denied. One such account is that of the researcher and author of this thesis who once worked as a Client Service Manager in a small-scale organization in Lagos Nigeria where he reported directly to the Managing Director (MD) of the organization. Among several other complaints, the managing director reneged on his promise of a company car and an offsite company-sponsored training; deliberately owed staff arrears of salaries, reacting fiercely each time he was reminded about this or his other promises; was discriminatory, manipulative, hostile and irritable; and frequently threatened staff with sack. While still with the company, the researcher frequently woke up early in the morning feeling very unsettled at the anticipation of his encounters with this MD and pondering how to avoid these. He also became preoccupied with the thoughts of his job being threatened as members of his client service team began to resign one after the other, either out of unpaid salary arrears or inability to cope with the harassment, insensitivity, profligacy and high-handedness of the MD. The author eventually resigned from the company.

Another account is that of an individual who radiated a lot of promise and enthusiasm when joining a large-scale organization in Ikeja, Lagos as a Management Trainee in 1995 but had to resume his religious monitoring of the job advertisements placed in the
Guardian Newspaper every Tuesday some two months after assuming duties because the manager he directly worked under was treating him like a houseboy. According to his story, apart from always talking to him in a disrespectful manner, his manager also ensured that he routinely ran errands for him which were alien to his job description such as picking the manager’s children from school and driving them home though the manager had a driver who could do this, and dispatching letters and documents—a job of the company’s office assistants. He went further to say that anytime he showed a sign of protest, the manager threatened him with queries which would render his appointment unsuitable for confirmation; and that most of his colleagues who were under different managers were not going through the same ordeal. Moreover, he said he, consequently, began to find excuses to be absent from his cherished job so as to avoid the manager; and that it always took his wife’s persuasion and encouragements to get him to comply with his company’s corporate dress codes as he, at the time, felt that there was no need for this given the kind of jobs his boss was giving him to do. He also said he was already planning to resign his job with the organization to join another one when his manager was transferred out of Lagos paving the way for his assignment to a new manager whom he described as humane, fair, considerate, and respectful. He spent seven more years with the organization rising to the position of a relationship manager and receiving several awards for good performance before he eventually quit for another company where he later became the Sales Director.

A third account is that of a young, married lady who had resumed work as the Administrative Secretary of a services company but was later redeployed to another
company to combine the duties of the Administrative Secretary with those of the Personal Assistant to the Chairman who owned the conglomerate to which the two organizations belonged. According to her story, within a short time of resuming in her new office, she started getting her own share of what this chairman was notorious for: shouting on employees either on phone or physically; verbally assaulting employees by using foul, downgrading and dehumanizing languages; creating role conflicts by insisting that they did whatever he had asked them to do and not do whatever he had asked them not to do no matter their job description; and often bullying, abusing, and insulting them for doing things he himself had inadvertently told them to do or for not doing things he himself had warned them not to do without his directive—most employees reporting to him directly found him unapproachable and worth avoiding. She went further to say that her real ordeal started when the Chairman started sexually harassing her by summoning her to his office and commenting on the increasing sizes of sensitive parts of her body and asking her questions bothering on her sexuality. As she further stated, her consistently rebuffing these only resulted—for her—in the extremes of the above-stated unpleasant experiences as a good part of her salary was deducted in a particular month while she was asked to proceed on a one-week suspension without pay the following month both on the strength of queries issued to her by the chairman who simply claimed “she was not doing her job well”. Moreover, she said she had always earnestly hoped that the chairman travelled or was absent from work as he had sometimes done because this was the only guarantee that she would not have any physical encounter with him. She also said that she was always striving to avoid the
chairman; that this desperation and the aggregate of her unpleasant experiences with him were stressful; and that these had culminated in her miscarriage of her 11-week old pregnancy. The lady was already searching for another job and strongly considering quitting her present job at the time she related this story.

Organizational psychology articles and texts appear to agree that organizational leadership effectiveness comprises several facets and that two of them may serve as rallying point for others: organizational justice—employees’ perceptions of the extent to which their organizational leaders are treating them fairly; and organizational trust—the extent to which employees are willing to be vulnerable in their organization by presuming that their organizational leaders will behave responsibly towards them (e.g., Cropanzano and Greenberg, 1997; Clark & Payne, 1997; Fox, Spector, and Miles, 2001; Dirks & Ferrin, 2002; Yang, 2005; Conchie, Donald, and Taylor, 2006; Bligh, Kohles, Pearce, Justin, and Stovall, 2007). One impetus to this claim is that no matter how difficult an organizational leader is or is perceived to be, s/he is not likely to negatively impact on all his subordinates if s/he is fair, in terms of interactional, procedural, or distributive justices, and indeed perceived as such by subordinates. Another is that if subordinates trust their organizational leader for any reasons, i.e., if subordinates trust them cognitively or affectively, or both, the subordinates are not likely to perceive them as unpleasant in those aspects unless their trusts in the leader have been violated. Taken together, these make it likely that some knowledge about the impact of other facets of organizational leadership on subordinates’ behavior and wellbeing can be gleaned from the knowledge of the impact of perceived organizational justice and organizational trust
on subordinates’ behavior and wellbeing. This reasoning finds support in Baron and Kalsher’s (2002) assertion that employees tend to report low stress if they perceive their leaders’ actions and treatments towards them as fair, and high stress if they perceive these to be unfair; and in Dirks and Ferrin’s (2002) assertion that having a low level of trust in a leader is likely to be psychologically distressing for the subordinate. These are indicative of the likelihood that the psychological distress which employees may experience when influenced by unfair and distrusted superiors can be attributed to these same superiors as the superiors can be easily fingered as having precipitated the stress-inducing situations.

Nevertheless, whether or how a subordinate would react under stress would depend on the nature of the leader-follower relationship existing between the superior and the subordinate. Although leader-follower relationship is a foreign coinage, it is a common reality across Nigerian organizations where Nigeria’s strong orientation towards collectivism imposes much more meaning on leader-follower relationship than its foreign proponents probably intended. As Triandis (1993) suggests, leadership processes may differ in individualist and collectivist cultures in that for collectivist cultures, successful leaders are expected to be supportive and paternalistic (i.e., maintaining the harmony of the workgroup and solving workers’ personal problems). Thus, if Hofstede’s (1980) characterization of Nigeria as a collectivist society is anything to go by, an organizational leader in Nigeria would be expected to initiate and maintain cordial and good leader-follower relationship with all his/her subordinates. Collectivist cultures are also characterized by high power distance and high uncertainty avoidance. In cultures
characterized by high power distance, subordinates expect superiors to act decisively and, perhaps, in an autocratic manner (Kanungo and Mendonca, 1994); whereas being in a high uncertainty avoidance culture predisposes subordinates to feel threatened by and try to avoid uncertain and ambiguous situations—i.e., avoid embarking on actions whose outcomes may have grave consequences of a yet unknown degree—such as trying to dare or question the authority of the leader (Hofstede, 1980; 2001). This would imply that due to collectivism, paternalism, high power distance, and high uncertainty avoidance, being in good leader-follower relationship should presumably be highly valued by Nigerian employees. Therefore, the level of leadership-induced stress perceived by such employees would depend on whether the employee is in a good or a bad relationship with the leader.

The situation of the Nigerian subordinate employee who is not in a good leader-follower relationship may become more precarious due to the multi-ethnic nature, the dialectal differences, the kinship system, and the large social networks of relationships which are highly valued in Nigeria; and have predisposed many people, especially in the workplace, to stereotypes, prejudice, nepotism, and discrimination in favour of juniors, seniors, and coworkers they consider their ‘own’. A look at certain typical employee expectations from their organizational leaders indicate that employees who are victims of these would be deprived of their superior’s fairness, trustworthiness, and consistency; and of career and skill development opportunities, recognition, and security of their employment. These, according to Fagbohungbe (2009), would be contrary to employees’ expectations contained in the subordinate-superior or employee-employer
psychological contract.

In a typical Nigerian workplace with the major ethnic groups represented, leaders who are ethnocentric may be more inclined to engage only followers from their own clan, kinship, tribal or ethnic groups in intimate, trusting relationships irrespective of the followers’ conduct, competence, or trustworthiness. The leaders may ensure that such followers receive priority information, opportunities, favours, and support. Another leader may prefer to trust and favour the relations and wards of his/her intimate friends and colleagues over all others under his/her leadership irrespective of their ethnic backgrounds, conduct, competence, or trustworthiness. Yet another leader may preferably extend his/her own favour and trust to his/her romantic partners among his/her followership irrespective of the followers’ ethnic extraction, behaviour, competence, and trustworthiness. Whereas, another leader may pitch his/her tent with the most intelligent, resourceful, hardworking, reliable and competent among his/her followers, leaving all others to the mercy of the organization’s formal procedures.

The implication of these is that, irrespective of the criterion or the style employed by a leader, once s/he chooses whom to engage in high-quality relationships among his/her followers (as this is usually the case), bias has been introduced to the general handling of followers, and all followers can no longer be treated equitably or equally. Subordinates in good relationships with the leader would tend to get his/her priority attention, consideration, and favour at the expense of others, and in the reckoning of these others, this may amount to stereotyping, prejudice, nepotism, or discrimination which may manifest in forms which local parlance define as “godfatherism,
godmotherism, man-know-man, bottom power”, etc. Irrespective of why they are not in good relationships with their leader, followers in poor leader-follower relationships would feel rejected, alienated, deprived, and thus, stressed, especially when they compare their plights with their counterparts’ (who are in good leader-follower relationships). And, the chances are quite good that such followers would attribute their stress to whoever, among their leaders, can be blamed for depriving them the privilege of good leader-follower relationships.

As already implied, provision of social support, usually referred to as perceived organizational support, is one function of a good organizational leader. Perceived organizational support involves the belief, held by an employee that the organization has his or her best interests at heart, which the organization demonstrates to its employees through its agents, the organizational leaders (Adams, 2003). As such, employees expect to and should normally receive social support from their organizations through the organizations’ leaders, especially the employees’ immediate superiors. But since some employees may not receive this social support from their immediate superior, especially if they are not in good leader-member relationship with him/her, this study explores the possibility that such employees may seek and receive social support from their coworkers. Where this is the case, the extent to which subordinates that distrust and perceive their superior as unfair would experience leadership-induced stress should also depend on the level of coworker support the subordinates receive.

The stress response which is ‘wired’ into the brain begins with the encountering of an event which is interpreted as threatening or dangerous, triggering the "fight or flight"
response—the automatic, inborn response that prepares the body to "fight" or "flee" from perceived attack, harm or threat to survival (Cannon, 1929; Selye, 1956; StressStop.com, 2008; Neimark, 2009; Plotnik, 2002). The fight or flight response is marked by physiological changes beginning with the hypothalamus releasing a hormone (the cortisol-releasing factor) which prompts the pituitary gland to release another hormone, adrenocorticotropic - (ACTH). This hormone is carried in the bloodstream to the adrenal glands where it triggers the production of the true stress hormones—dopamine, epinephrine (also known as adrenaline), norepinephrine (also known as noradrenalin), and, cortisol. (StressStop.com, 2008; Plotnik, 2002). These changes are characterized by a surge in blood sugar, heart rate, and blood pressure—everything the body needs to flee or confront the imminent danger (Neimark, 2009). To further facilitate either fighting or fleeing from the stressor, the body undergoes a series of very dramatic changes: body temperature and respiratory rate also increase; blood is shunted away from the digestive tract and directed into the muscles and limbs, which require extra energy and fuel for running or fighting; the pupils of the eyes dilate; awareness intensifies; sight sharpens; impulses quicken; perception of pain diminishes; and, the immune system mobilizes with increased activation (StressStop.com, 2008).

The fight or flight response is, by itself, normal, healthy, and adaptive; and according to Neimark (2009), it is when it occurs too frequently or is greatly prolonged in individuals that such individuals begin to experience the negative effects of stress. But the fact that stress has become so endemic suggests that the fight or flight response not only occurs frequently, it is also usually prolonged (StressStop.com, 2008; Neimark, 2009; Plotnik,
As frequently as this happens, toxic stress hormones flow into the body even for events that pose no real threat to physical survival. This suggests that as frequently as a subordinate encounters a stress-inducing superior, the same hormones are let loose. The crux of the matter is that even when an individual’s perception of stress remains unchanged in that s/he knows that what s/he is encountering is a normal, everyday episode, his/her brain is instructing his/her body to respond as if s/he is about to experience a catastrophe (StressStop.com, 2008; Neimark, 2009). For example, the individual may not think s/he is getting worked up by an irritable boss, but his/her brain may be treating the situation as such.

This, sometimes, indirect influence of a boss may be better understood in the light of the important roles a work life and the workplace play in the overall being of an employee. According to Oguntuashe (2009), organizations can be said to envelope their members, directing their perceptual processes to valuable objects and events in their lives without these members being conscious of it. Thus, the influence of an organizational leader may represent everything about an organization to the employee under the direct or indirect influence of that leader. While this influence may be about the management style of the organizational leader, e.g., the supervisor, Oguntuashe (2007) reckons it could provoke stress in the subordinate. Drawing on Bateson’s (1972) double-bind hypothesis, Oguntuashe (2007) specifically identifies the style of an organizational leader, who makes it extremely difficult to predict his mood in any way, as stressful. Since it may be typical of such a leader to be grouchy when greeted and angered if ignored, his/her subordinate will usually be caught between “the devil and the deep blue
sea” (Oguntuashe, 2007), a state of extreme uncertainty and stress.

1.2 Statement of Problem

The implication of unpleasant leadership or of unpleasant relationship with an immediate superior for subordinates’ wellbeing can be better appreciated when placed in the context of the “fight or flight” response which enabled the ‘early men’ to escape the occasional threats that the predators of their time (e.g., saber-tooth tigers) posed to their existence. Just like those beasts triggered in them the release of stress hormones which facilitated their escape (flight), today’s major workplace stressors similarly activate the release of stress hormones in today’s workers.

Research evidence suggests that, for most employees, an unpleasant immediate boss or an unpleasant relationship with an immediate boss is the worst of the most stressful aspects of their jobs (Hogan, Raskin, and Fazzini, 1990); an important source of discontent with their organization (Hausknecht, Trevor, & Howard, 2008); and the major reason they (employees) leave their organizations (Warneka, 2006). It can thus be inferred that organizational leadership-related factors and leader-follower relationships in organizations can and do induce perceived leadership-induced stress in employees.

Despite this indictment of organizational leaders for inducing stress in their subordinates (e.g., Hausknecht, Trevor, & Howard, 2008), there seems to be no known inventory, in Nigeria, for assessing subordinates’ perceived stress which they (subordinates) judge as being specifically induced by the behaviour of, or the treatment they are getting from, their immediate superior at work. There is also no documentation on the prediction of
this type of perceived stress by leadership-related and organizational factors. The motivation for this study is, therefore, to develop an inventory that can be used to measure the stress induced in subordinate employees by their immediate superior in the workplace, and to predict this stress with relevant leadership-related and organizational factors. Unless these are done, the current trend in which employee stress continues to increase—despite huge resources and efforts being expended towards stemming it—may prevail indefinitely, with assessment and rehabilitation of employee stress continuing to be explored from perspectives which have never yielded lasting solutions.

1.3 **Objectives of the Study**

This study has the following objectives:

1. To develop, and to establish reliability and validity coefficients for an instrument for measuring leadership-induced stress as perceived by subordinate employees.

2. To assess the extent to which leadership-induced stress can be independently predicted by each one of interactional justice, affective trust, and marital status.

3. To determine the extent to which leader-follower relationship and co-worker support will moderate the relationship between interactional justice and leadership-induced stress.

4. To determine the extent to which leader-follower relationship and co-worker support will moderate the relationship between affective trust and leadership-induced stress.

5. To determine the interaction and independent influences of employees’ sex and job cadre on their perceived leadership-induced stress.
1.4 Research Questions

1. Will the developed Leadership-Induced Stress Inventory (LISI) be reliable and valid?

2. Will leadership-induced stress be predicted by each of interactional justice, affective trust, and marital status?

3. Will leader-follower relationship and coworker support moderate the relationship between interactional justice and leadership-induced stress?

4. Will leader-follower relationship and coworker support moderate the relationship between affective trust and leadership-induced stress?

5. Will male junior employees report more leadership-induced stress compared to female junior employees?

1.5 Hypotheses

1. The developed Leadership-Induced Stress Inventory (LISI) will have high reliability and validity coefficients.

2. Leadership-induced stress will reduce as interactional justice and affective trust increase; and among married employees when compared to single employees.

3. Employees who perceive high interactional justice and enjoy high leader-follower relationship and coworker support will report less leadership-induced stress than employees who perceive low interactional justice and enjoy high leader-follower relationship and coworker support.

4. Employees who perceive high affective trust and enjoy high leader-follower relationship and coworker support will report less leadership-induced stress than
employees who perceive low affective trust and enjoy high leader-follower relationship and high coworker support.

5. Male, junior employees will report higher leadership-induced stress compared to female, junior employees.

1.6 Significance of the Study

Although knowing whether employees are stressed is important, accurately identifying the exact source of their major stress is crucial to rehabilitation. This study set out to find whether a kind of stress that employees perceived as induced by their immediate organizational leaders existed, and to determine whether some known sources of workplace stress could predict this leadership-induced stress. The reasoning behind these was that if these were successfully established, it would follow that the impacts and magnitudes of certain inevitable organizational factors, which might constitute workplace stressors, could be predicted from knowledge of leadership-induced stress, and that efforts at eradicating leadership-induced stress should also automatically work to ameliorate these organizational factors.

It was also reasoned that whatever the outcomes of this research would reeducate human resource administrators on an alternative way of looking at the sources of stress reported by employees, and on charting a new course for solving the problem. The outcomes of the study was also expected to stimulate further organizational psychology research into the interface between organizational leadership and employees’ stress while also forming a basis for the revision, expansion, and development of leadership training programmes, not only for organizational leaders, but also for leaders at all levels in the
larger society.

As virtually all members of most organizations – including those in the management cadres – have seniors to whom they are subordinated, the outcomes of this study was targeted at educating them on whether and why they need to conduct themselves in manners that would make them worthy of being in good interpersonal relationships with their superiors at work. The study was also expected to help them to know the impacts which perceived unpleasant leadership behaviours had on their overall perception of stress and on their physical and psychological wellbeing.

Also informing the interest in stress research was the popular belief that such an interest made financial sense if only for the huge financial and manpower costs incurred by organizations across the world with estimates suggesting that stress-related costs arising from absenteeism, inefficiency, and demands on healthcare, were enormous and were on the increase (Shain, 2000). As stressed by Van Knippenberg and Hogg (2005), part of this cost arises from the fact that employers can nowadays be held liable not only for physical, but also for mental injuries to employees, and be forced to pay huge compensations, if found negligent. Available statistics reveal that there was an upsurge in stress-related cases within three years (2003-2006) in Nigeria (Fagbohungbe, 2009). Therefore, two key reasons employers were expected to, and should continue to be interested and keen to sponsor research in this area were to demonstrate sensitivity to the issues, and to provide answers to critical organizational questions which included, but were not limited to, those of whether employees attributed some of their stress to their organizational leaders merely on account of the leaders’ actions or inactions. Audits
suggest that psychological work to tackle problems of workplace stress saves about five times as much as it costs (Shain, 2000), which is one reason answering this and related questions were deemed financially as well as psychologically rewarding.

1.7 Scope and Delimitation of the Study

This study was an investigation of the stress induced in employees by organizational leaders, particularly the employees’ immediate leaders, and the prediction of such stress. For a number of reasons, this investigation was limited to subordinate employees in the junior and middle cadres in public and private, manufacturing and service organizations. First, it is common knowledge that a leader is not just what s/he perceives himself/herself to be, but—for the most part—what he/she is perceived to be by his/her followers. Second, no suggestion as to followers inducing stress in their leaders was found in the literatures on leadership, leader-follower relations, or organizational stress which the researcher is acquainted with. Rather, the literature on these concepts are full of the accounts of how leaders’ actions and inactions can directly or indirectly induce stress in followers. Besides, since it is leaders who exercise control over followers and not the other way round, it was considered necessary to look at the prediction of the stress that leaders likely induce in their followers from the point of view of the followers. Third, apart from the fact that junior and middle cadre employees form the vast majority of employees in all organizations, studies reveal that junior employees generally suffer more from stress than senior employees, and this has been attributed largely to their low status (Nicholson, 2000).

Fourth, employee stress is now endemic, and organizational leadership is usually blamed
for this. Thus, whatever useful contribution can be made to improving organizational leadership and reduce employees’ stress (such as knowing whether employees attribute their stress to their organizational leaders) can be applied to solving a substantial part of these problems. It is thus expedient to explore the possibility that employees identify their organizational leadership, especially their immediate superior, as one of the major sources of their overall work-related stress. Subsequent studies may then look at the other possibilities within this research area.

1.8 Operational Definitions of Terms

Leadership-induced Stress
Leadership-induced Stress is defined in this study as an unpleasant job-related challenge which subordinate employees perceive they are experiencing as a result of the behavior of, or the treatment they are getting from their immediate superior at work; a situation the subordinates also judge as one they cannot cope with.

Leader-follower Relationship
Leader-follower Relationship which is usually referred to as leader-member exchange is defined in this study as a junior or middle-cadre employee’s perceptions of the quality of the interpersonal relationship existing between himself/herself and his/her immediate superior (e.g., a supervisor or a manager) in the workplace.

Distributive Justice
Distributive Justice is defined in this study as the extent to which a junior or middle-cadre employee perceives his/her job outcomes (e.g., pay and promotion) to be fair when s/he considers his/her effort, qualification, and skills to the organization.
Procedural Justice

Procedural Justice is defined in this study as the extent to which a junior or middle-cadre employee perceives the procedures which are followed in making policies and decisions in his/her organization to be consistent, unbiased, ethical, and allow for inputs from him/her and other employees.

Interactional Justice

Interactional justice, also referred to as relational justice or interpersonal justice is defined in this study as junior or middle-cadre employees’ perceptions of the degree of consideration, respect, and empathy with which his/her immediate superior generally treats him/her, especially during the implementations of organizational procedures.

Cognitive Trust

Cognitive trust is defined in this study as the extent to which a junior or a middle-cadre employee is willing to be vulnerable to his/her immediate superior in the workplace because the junior or middle-cadre employee knows/believes that the superior possesses certain desirable qualities such as competence, integrity, consistency, and fairness, which s/he (i.e., the junior or middle-cadre employee) can count on.

Affective Trust

Affective trust is defined in this study as the extent to which a junior or a middle-cadre employee is willing to be vulnerable to his/her immediate superior in the workplace on account of his/her perception that the superior will be good to him/her and will be concerned for his/her welfare owing to the cordial relationship between them.
Coworker Support

Coworker support is defined in this study as a junior or a middle-cadre employee’s perception of the degree of emotional involvement, care, solidarity, and instrumental assistance which s/he perceives s/he is receiving/can receive from fellow employees s/he is working with in his/her organization.

1.9 Conceptual Framework

The conceptual model in figure 1 was developed by the researcher to depict how leadership-induced stress may develop from psychosocial factors, and how the various levels of the psychosocial factors may lead to either high or low leadership-induced stress. As can be seen in figure 1, the basic attributes of a hypothetical junior or middle-cadre employee in a workplace include age, sex, marital status, job cadre, and job tenure, among others. Since these attributes can be found in all employees (junior employees, middle cadre employees, and even their superiors), they are basic attributes and can thus be referred to as primary psychosocial factors. As focus in this study is on junior and middle-cadre employees, the model concentrates on what becomes of these primary psychosocial factors among these employees, hence the denoting of this portion of the model as ‘1’.
However, since these primary psychosocial factors, being basic, have to be carried into subordinate-superior interactions in the subordinate-superior interface in the organization, the primary psychosocial factors may trigger another set of psychosocial factors. Informed by empirical literatures, the model views a subordinate employee, who inherently possesses the primary psychosocial factors as inevitably interacting with his/her immediate superior, and responding to the superior’s influence with workplace or secondary psychosocial factors. These secondary psychosocial factors, denoted by ‘2’ in the model, include perceived affective trust, cognitive trust, distributive justice, interactional justice, procedural justice, leader-follower relationship (LMX), and coworker support; and may be either pleasant (or high) or unpleasant (or low). Since subordinates’ experience of these secondary psychosocial factors in pleasant or high proportions are assumed to be facilitated or determined by their immediate superiors, perceiving the unpleasant or low degrees of the same factors are also attributed to, and blamed on, the same immediate superiors. The pleasant (or high) and unpleasant (or low) perceptions of the secondary psychosocial factors trigger pleasant and unpleasant psychological states, respectively. These pleasant and unpleasant psychological states can be, respectively, understood as low leadership-induced stress and high leadership-induced stress.

Considered alone, the primary psychosocial factors of age, sex, marital status, job cadre, and job tenure can primarily determine whether the employee experiences high or low leadership-induced stress. For example, job cadre may account for differences in
perceptions of leadership-induced stress in that, according to Harkness, Long, Bermbach, Patterson, Jordan, & Kahn (2005), being a junior employee (3a, i.e., a primary psychosocial factor that favours leadership-induced stress, and thus tagged a Pro-LIS Primary Psychosocial Factor), may render an individual to higher perceptions of leadership-induced stress compared to being a middle cadre employee (3b, i.e., a primary psychosocial factor that does not favour leadership-induced stress, and thus tagged, an anti-LIS Primary Psychosocial Factor). The fact that literature favours no differences between age groups or sexes in the evaluation of procedural justice (e.g., Elovainio, Kivimaki, and Vahtera, 2002) may tempt one to think that age and sex would also make no difference on leadership-induced stress, which is a likely consequence of procedural justice. However, the fact that low procedural justice was associated with a much higher risk of psychiatric disorders among men, compared to women in the same study (Elovainio et al, 2002) underscores the likelihood that men would be more prone to leadership-induced stress than women. More studies seem to suggest that women generally report more stress than men (e.g., Mclean, Strongman, and Neha, 2007; Misra, McKean, West, and Russo, 2000; Day and Livingstone, 2003). Nevertheless, the reverse of this would be expected owing to an additional finding by Elovainio et al (2002), that interactional justice was a stronger predictor of sickness absence for men than for women. Apart from pointing to why interactional and procedural justices should negatively predict leadership-induced stress, the study of Elovainio et al (2002) underscores the possibility that men may actually be more susceptible to leadership-induced stress than women, especially where leader-related psychosocial factors are
involved as intervening variables. These imply that, on their own, the basic psychosocial factors of age, sex, marital status, job cadre, and job tenure can determine whether an employee experiences high or low leadership-induced stress. Therefore, the primary route to leadership-induced stress is through these primary psychosocial factors (i.e., from ‘1’ through ‘3a’ or ‘3b’ to LIS).

If available empirical evidence on the relationships between the secondary psychosocial factors and wellbeing indices are anything to go by, it would be expected—as the conceptual model depicts—that high levels of these factors will be negatively related to leadership-induced stress. For example, Fondacaro, Dunkle, and Pathak’s (1998) finding that interactional justice evaluations are positively associated with health-related factors such as psychological wellbeing; and negatively related to psychological distress, is a pointer to the likelihood that interactional justice will be negatively related to leadership-induced stress. Corroborating this is Baron and Kalsher’s (2002) assertion that organizational justice is negatively related to stress. But a major impetus to the likelihood of a negative relationship between leadership-induced stress and interactional justice, as well as procedural or distributive justice would be from Nicholson’s (2000) assertion. This suggests that perceived violations of sense of interactional justice triggers the deepest negative reactions followed by that of procedural justice, and then that of distributive justice. Therefore, perceptions of unpleasant or low interactional justice (3a, i.e., a secondary psychosocial factor that favours leadership-induced stress, and thus tagged a Pro-LIS Secondary Psychosocial Factor), may predispose an employee to reporting high leadership-induced stress compared to perceptions of pleasant or high
interactional justice. This is because perceptions of pleasant or high interactional justice (3b i.e., it does not favour leadership-induced stress; and thus tagged is an anti-LIS Secondary Psychosocial Factor). Also, given the assertion of Dirks and Ferrin (2002) that perceived trust for a superior at work is negatively related to stress, affective and cognitive trusts would likely take the same routes to leadership-induced stress, i.e., they both would negatively influence leadership-induced stress.

LMX and coworker support, which are being proposed as moderators in this study, have been as designated owing to their important relationships to wellbeing as portrayed by some literature. One example of this is the finding that very high LMX may likely result in work-related stress (Harris and Kacmar, 2006). Since the reason advanced for this is that too cordial LMX would tend to continually load a subordinate with the work of a superior to the point that an overload results which exceeds the coping capacity of the employee, it may follow that low or lack of LMX would also result in distress for the subordinate if only for a fact that LMX is a guarantee for social support, among other several benefits. And that social support itself is crucial to wellbeing can be drawn from Luszczynsca and Cieslak’s (2005) study which found social support to protect from stress by buffering the negative effect of stress on an individual. Therefore, the secondary route to leadership-induced stress is through these secondary psychosocial factors (i.e., from ‘2’ through ‘3a’ or ‘3b’ to LIS).

Since leader-follower relationship is indicative of the employee’s perception of the quality (whether good or poor) of the relationship between him/her and his/her superior, it would also influence the extent to which the employee perceives leadership-induced
stress that is triggered by high or low levels of interactional justice and affective trust. Also since coworker support is the subordinate’s perception of the degree of instrumental assistance and emotional relations s/he receives from his/her coworkers, coworker support would also influence the extent to which the employee, who is already under the influence of high/low interactional justice or affective trust, experiences leadership-induced stress. For example, leadership-induced stress will be low where interactional justice, leader-follower relationship, and coworker support are all high (4b). Contrariwise, leadership-induced stress will be high where these three factors are all low (4a). Leadership-induced stress will also be low where affective trust, leaderfollower relationship, and coworker support are simultaneously high (4b) as against when the trio are low (4a)—giving rise to high leadership-induced stress. For these reasons, both leader-follower relationship and coworker support are moderators of the relationships between interactional justice and leadership-induced stress and between affective trust and leadership-induced stress.

A similar pattern can also be seen with the primary psychosocial factors, which, in addition to being part of the primary route to leadership-induced stress, can also interact to influence leadership-induced stress. For example, being male and junior (4a) may predispose the subordinate to higher perceived leadership-induced stress compared to being female and in the middle cadre (4b). Therefore, the tertiary (or third) route to leadership-induced stress would be through the interaction among interactional justice, leader-follower relationship, and coworker support; the interaction among affective trust, leader-follower relationship, and coworker support; and the interaction between
sex and job cadre (i.e., 4a and 4b).

As can be seen in the model in figure 1 and with close reference to the KEY, all primary and secondary psychosocial factors in 4a that may interact with one another are pro-LIS psychosocial factors (i.e., they all have a propensity to favour or increase leadership-induced stress). Contrariwise, all primary and secondary psychosocial factors in 4b that may interact with one another are anti-LIS psychosocial factors (i.e., they all have a propensity not to favour or to decrease leadership-induced stress). It is also possible to have pro-LIS and anti-LIS, primary and secondary psychosocial factors interacting with one another which may result in various degrees of high or low leadership-induced stress.

1.9.1 Theoretical Framework for this Study

The psychological contract theory (Rousseau, 1989, 1990) explains how unfulfilled and unmet expectations can trigger a complex web of unpleasant responses, especially in organizational settings. According to the theory, the psychological contract comprises of two aspects: the transactional and the relational contracts. The relational contact is of interest in this framework since it is premised on the existence of long-term relationships, understanding, or assumptions among leaders and followers. Relational contract expectations predispose followers to expect too much from their leaders. Since in the course of their relationships, followers are usually encouraged by leaders to believe that these expectations and assumptions are stable and immutable, the followers would tend to enlarge their expectations repertoire with ideas and assumptions which would make violations of the expectations and informal agreements more unpleasant.
Important among such issues that followers typically incorporate in the assumed agreements is justice or fairness, whose violations may trigger thoughts that every other perceived agreement in the contract may have already been violated. This reasoning is supported by the hope theory (Snyder, Irving, and Anderson, 1991) which defines hope as a positive motivational state that is based on an interactively derived sense of successful (a) agency (i.e., goal-directed energy), and (b) pathways (i.e., planning to meet goals). Being a positive motivational state, hope can be understood as contributing to leaders and followers expending the requisite energy necessary to pursue and attain organizational goals. In a manner that focuses attention on how strong emotions and cognitions either sustain or shape the consequences of the psychological contract, especially for followers, hope theory explicitly acknowledges the presence and impact of emotions on agency and pathways thinking. For example, while optimism or hopeful thinking typifies followers’ expectations in a given psychological contract, even where violations by leaders are imminent, the emotions associated with these violations are usually deep and negative because the main component that is violated in the expectations is “hope”. Perceived organizational injustice is one such blend of emotions and cognitions, and can be a trigger or a consequence of perceived psychological contract violation. Due to their uniquely different characteristics, the three major types of organizational justice: distributive, procedural, and interactional justices would differently impact or be impacted by psychological contract violations. Interactional justice, which derives from leader-follower relationships, generates more emotions than either procedural justice or distributive justice. Specifically, where followers perceive
their interactional justice to have been violated, the likelihood that the psychological contract would be violated or would be perceived as having been violated will be very high. Thus, organizational justice perceptions which precede or result from psychological contract violations are, typically, negative and deep. Employees may hold different parties responsible for unfair treatment; but typically, the boss who can be blamed for the consequent psychological contract violation is held responsible.

Irrespective of where perceived organizational justice occurs in the equation, erosion of trust in leaders—which may also result from, or be triggered by perceived organizational injustice—is a popular consequence of a violated psychological contract. Since hope, which is an important component of a psychological contract, is the basis for subordinates’ wanting to accept vulnerability, violations of such a hope—through psychological contract violation—imply erosion of trust in the superior to whom such a violation can be attributed. And because affective trust, apart from being an emotional entity, is also relationship-based, it would likely be a stronger and more obvious consequence of violated psychological contract, compared to cognitive trust. For the same reason, affective trust would likely be more strongly influenced by interactional justice.

In the light of the psychological contract theory, the emotions and cognitions associated with a poor relationship with one’s boss, perceived organizational injustice, and perceived organizational distrust, would largely be negative. The theory also points directly to the likelihood that such negative emotions are blamed on the leaders, especially the leader to whom the employee looks up for a high-quality relationship, fair
treatment and fair allocation of benefits and resources. These negative emotions resulting from a violation of positive emotions and cognitions inherent in hopeful expectations, would translate to negative feelings, thoughts, and actions towards the superior.
CHAPTER TWO

2.0 Literature Review

2.1 Theoretical Background

The Transactional Model of Stress

Proposed by Lazarus & Folkman (1984), a fundamental proposition of the transactional model is that stress results from the interaction of the person and his/her environment (Lazarus, 1968; Lazarus & Folkman, 1984; Perrewe & Zellars, 1999). Two appraisals, primary and secondary, are central to Lazarus’ transactional model of stress. Primary appraisal involves evaluation of the significance of an event or situation for the individual’s wellbeing. The primary appraisal is understood to be characterized by three types of evaluation: the situation may be construed by the individual as (i) irrelevant, (ii) benign, or (iii) harmful for the self (Lazarus and Folkman, 1984). An irrelevant encounter is one that has no personal significance for the individual and is ignored. A benign encounter is one that is considered beneficial and/or desirable. And, a stressful encounter is one that is considered to be harmful, threatening, or challenging (Lazarus, 1991a, 1991b, 1991c).

In the event that primary appraisal leads to a situation being seen as harmful or threatening, secondary appraisal sets in, which involves the individual making an assessment of the coping resources that s/he has available to deal with the threat. In other words, if individuals determine that they have a stake in the encounter, the transactional model proposes that they will engage in a secondary appraisal in order to change conditions perceived to be undesirable. Secondary appraisal is a complex
evaluative process that draws on beliefs about the self, the environment, and the availability of resources. It includes assessment of the available coping options (such as avoidance), the likelihood that a given coping strategy will be effective, and confidence that one can apply the strategy confidently (Lazarus & Folkman, 1984). The transactional model depicts coping as a choice that is affected by the primary and secondary appraisals. Coping is expected to be consistent with a determination of whether anything can be done to change the situation (Lazarus & Folkman, 1984). Ultimately, the individual’s choice of a coping strategy is determined by his/her perceptions of personal control over the stressful situation. Personal control reflects an individual’s belief, at a given point in time, in his/her ability to effect change in a desired direction on the environment (Greenberger & Strasser, 1986).

**Hofstede’s Cultural Theory**

Hofstede’s cultural theory conceptualizes cultural differences as differences in shared values and as broad tendencies to prefer certain states of affairs over others (Hofstede, 1998). Defining culture as the collective mental programming of the people in an environment, Hofstede (1980) claimed that cultural values have the greatest impact on organizational behavior. Hofstede’s (1980, 1984, 2001) cultural theory contains four important cultural dimensions each of which explain the differences found in the beliefs and behaviours of peoples of different societies and nations around the world. These are Individualism/Collectivism, Power Distance, Masculinity/Femininity, and Uncertainty Avoidance.
**Individualism/Collectivism (I/C)** describes the relationship between the individual and the group, and the degree to which a society encourages and rewards collective action. **Individualism** represents the subordination of group goals to personal goals, a sense of independence and lack of concern for people other than one’s immediate family. **Collectivism** reflects the subordination of personal goals to group goals, a sense of harmony and interdependence, and concern for others (Triandis, 1989).

**Power Distance (PD)** is related to social inequality and the amount of authority of one person over others. It refers to the extent to which the less powerful members accept the fact that power is distributed unequally. In low **PD** cultures, people do not accept unequally distributed power, and consultation and participation are preferred. In high **PD** cultures, low power groups accept unequally distributed power, and people in authority are highly respected and obeyed.

**Masculinity/Femininity** concerns the emphasis on achievement and ambition versus nurturance and well-being. It focuses on the extent to which members of a society value competitive success, confrontational social relationships, and limited emotional involvement with others. Members from masculine cultures value wealth, independence, recognition, and careers. They also emphasize earnings, advancement, and ambition at work. On the other hand, members of feminine cultures value “nurturance, affiliation, helpfulness, and humility” (Hofstede, 1984). They also emphasize social networks and participation at work. For them, achievement in life is related to one’s work and living environment, and the quality of interpersonal relationships.
Uncertainty Avoidance (UA) focuses on individuals’ feeling of an uncertain environment. It refers to the extent to which individuals feel threatened by, and try to avoid, uncertain and ambiguous situations. People in low UA cultures value change, risk taking, and adventure. People in high UA cultures are traditional and resistant to change. They prefer high security and have less tolerance of uncertainty.

A fifth dimension, Long Term Orientation, was later added to Hofstede’s cultural theory through the works of Bond (1988) and Schwartz (1994). According to Pellegrini and Scandura (2008), this dimension refers to the fostering of values oriented toward future rewards, perseverance and thrift in particular. Its opposite pole, short-term orientation, refers to values related to the past and present, specifically respect for tradition and the fulfillment of social obligations (Hofstede, 2001).

And finally, a sixth dimension added to Hofstede’s cultural theory is known as Paternalism. In paternalistic cultures, people in authority, e.g., organizational leaders assume the role of parents and consider it an obligation to provide protection to others under their care. Subordinates, in turn, reciprocate such care and protection of the paternal authority by showing loyalty, deference and compliance. In a paternalistic relationship, the follower voluntarily depends on the leader (Pellegrini and Scandura, 2008).

Theory of Organizational Justice
Organizational justice can be understood from two perspectives: Organizational Injustice and Organizational Justice.

Organizational Injustice: Organizational Injustice Perspective (Zohar, 1995; Spector,
1998) concentrates on the consequences of organizational injustice as a whole on an employee and thus conceives of organizational injustice as situations at work in which employees perceive unfair treatment which they define as job stressors on account of its potentials for eliciting negative emotional reactions (Spector, 1998). And because it typically elicits both negative emotions and strain responses in the job stress process, organizational injustice is also regarded as a role stressor (Zohar, 1995). Core to the organizational injustice perspective is the comparative potency of three major types of organizational injustice: distributive, procedural, and interactional injustices. Accordingly, while subordinates are typically unhappy about perceived distributive injustice, they get much more upset about procedural injustice, and react to relational (or interpersonal) injustice evaluations with more disturbing consequences (Nicholson, 2000).

Organizational Justice: The second perspective concentrates on the development of organizational justice and views the phenomenon from the “principles” angle with focus on three major principles: Equity, Voice, and Interactional Justice. Based on Adam’s (1965) equity theory, the Equity Principle simply holds that ‘people should get what they deserve’ for their contributions to their organization (Greenberg & Lind, 2000). Equity theory states that people are motivated by fairness in social exchanges, and that employees weigh what they put into a job situation (inputs) against what they get from it (outcomes) and compare this ratio with the input-output ratio of a referent individual or some referent individuals (Adams 1965). According to Bartol & Durham (2000), if the comparison ratios are equal, the situation is judged to be equitable and the individual
attains a state of equity in which s/he simply maintains current level of effort. If, on the other hand, inequity is perceived (e.g., where they judge their rewards to either be inadequate relative to their inputs), individuals feel a degree of tension which they will be motivated to reduce (Bartol & Durham, 2000). A possible reaction to inequity, according to Adams (1965), is reducing one’s participation in the employment relationship. Thus, according to the theory, it is not inequity but perceived inequity that motivates; and, although the theory suggests that positive outcomes are possible when the perceived inequity favours the individual (e.g., in the case of overpayment inequity), most of the predicted consequences of perceived inequity are negative (Bartol & Durham, 2000), especially when the inequity does not favour the individual.

The Voice Principle assumes that much of one’s sense of fair treatment on the job comes from the procedures one encounters and the extent to which one is given the opportunity to voice one’s concerns, facts, needs, and options about a decision that will affect one (Thibaut & Walker, 1975). This is referred to as ‘voice effect’ (Folger, 1977; Greenberg & Folger, 1983). The granting of voice is not the only way to promote perceptions of procedural justice in the workplace. Leventhal, Karuza, and Fry (1980) identify other criteria whose importance to promoting procedural justice has been established. These include: (1) the consistency rule (behaving consistently toward people); (2) the bias suppression rule (following procedures that are free of self-interest); (3) the accuracy rule (basing decisions on accurate information); (4) the correctability rule (allowing for decisions to be corrected); (5) the representativeness rule (incorporating the interests of all concerned parties); and (6) the ethicality rule (following prevailing moral and ethical
standards).

The *Interactional Justice Principle* refers to the degree to which a superior treats subordinates politely and with respect (Byrne, Rupp, and Eurich, 2003). Typically, it is fostered when decision makers treat people with respect and sensitivity and explain the rationale for decisions thoroughly (Colquitt, 2001). The interactional justice principle is premised on the assumption that respectful treatment has an enormous effect on overall perceptions of fairness (Brockner & Wiesenfeld, 1994). This effect, according to Greenberg (1994a), involves two key elements: the amount of information presented about an organizational process; and the amount of social sensitivity conveyed about the potentially harmful effects of its outcome.

**Hope Theory**

Hope theory was proposed by Snyder, Irving & Anderson (1991) who define hope as a positive motivational state associated with a sense of successful agency which results from feedback derived from interpersonal interactions, and informs individual plans and efforts to meet goals. Hope is also identified as an activating force that enables people, even when faced with the most overwhelming obstacles, to envision a promising future and to set and pursue goals (Snyder, et al. 1991). The basic premise of hope theory is that hope is comprised of not only emotions, but thoughts as well, and that, indeed, thinking is at the core of hope (Snyder et al. 1991; Snyder 2002). In other words hope is not just an emotion, it is a dynamic, powerful, and pervasive cognitive process that is observable across numerous contexts. Reactions to violated psychological contracts can be so unpleasant because the feelings such violations engender is that of dejection; and
the reasons employees who are violated may feel this way can be understood in the context of hope theory.

**Leader-member Exchange Theory**
The Leader-member exchange (LMX) theory which can be credited to a number of scholars (e.g., Graen & Uhl-Bien, 1995; Schriesheim, Castro, & Cogliser, 1999; Sparrowe & Liden, 1997) holds that the quality of the relationships between an organizational leader and each of his/her subordinates can vary widely, ranging from high to low. High quality leader-follower relationships are characterized by mutual trust and affection such that subordinates are favoured by the leader and thus receive many valued resources. Here, leader-follower relationship goes beyond the formal employment contract, with superiors showing influence and support, and giving the subordinate greater autonomy and responsibility (Kozlowski and Doherty 1989; Krone 1991; Graen and Uhl-Bien 1995; Deluga 1994; Liden and Maslyn 1998). On the other hand, subordinates in low-quality LMX relationships have exchanges with their supervisors that reflect low levels of trust and emotional support and few, if any, benefits outside of the formal employment contract (Dienesch & Liden, 1986). In other words, leader-follower relationship is reduced to adherence to the terms of the employment contract, with little attempt by the superior to develop or motivate the subordinate.

Being a dyadic theory with roots in the role theory (Dienesch & Liden, 1986; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) and social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005), LMX is premised on notions of role making (Graen,
social exchange, reciprocity, and equity (Deluga, 1994). Among others, the concept of social exchange is so crucial to the LMX theory that the other key concepts like reciprocity and equity become crucial to LMX only in the context of social exchange. According to the social exchange theory (Blau, 1964; Homans, 1958), any social exchange between two people entails obligations, whether they be explicitly stated or just understood. As Gouldner (1960) more specifically stated, when one person does something (e.g., a favour) for another person, there is an expectation of a future return, though what the return will be and when it will occur are often not clear. Gouldner (1960) referred to this concept of returning favors as the norm of reciprocity, stressing that individuals feel bound to help those who have helped them.

LMX theory emphasizes that superiors are largely responsible for the development of their superior-subordinate exchange relationships (Danserau, Graen, & Haga, 1975; Danserau & Markham, 1987; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). This emphasis is partly reflected in the theory’s account that LMX develops through three sequential stages, “stranger,” “acquaintance,” and “partner”. It begins with the “stranger” stage—an initial interaction between the leader and subordinates, and culminates in the “partner” stage.

The Psychological Contract Theory
Psychological contract is concerned with perceptions about how far promises, obligations, and expectations have been met, whether their implementations are perceived to be fair, and whether there is trust that they will continue to be met (Rousseau, 1989, 1990; Guest, 1998; Guest and Conway, 1997, 2002a, 2002b, 2002c).
According to the psychological contract theory, two basic types of psychological contract are known to underpin different forms of employment relationship: the transactional and the relational contracts (MacNeil, 1985). Transactional contracts refer to specific, often monetizable exchanges (e.g. pay for particular skills) which serve short-term employer needs, and are, therefore, typified by temporary or contract employments (Rousseau, 1990). In contrast, relational contracts are characterized by open-ended, more generalized agreements which seek to create and sustain a long-term relationship involving both monetizable and non-monetizable exchanges (e.g. hard work, security, commitment). The relational psychological contracts are socio-emotional in nature, and are concerned with loyalty and discretionary behaviour in exchange for job security, financial rewards and training and development. Under this form of contract, employees are encouraged to believe that they will be treated fairly and that they will be supported by their organization (D'annunzio-Green & Francis, 2005).

According to Rousseau (1995), a number of putative features of relational agreements render them prone to violation. Crucial among these is the tendency for employees to come to believe in the stability of their obligations. Thus, while both parties' mutual obligations are assumed to evolve and change over time, employees with long-standing relational agreements typically expect fewer changes to their contractual responsibilities. Employees also typically incorporate more socio-emotional and personalized obligations into the agreement with the passage of time. The tendency for the contract to be perceived as enduring and immutable, therefore, stems from the employee's inclusion of more and more relational employer obligations such as loyalty, consideration, support
and fairness. For the employee, acceptable change to contractual terms requires that the employer honours these relational obligations by emphasizing negotiation, mutual consent, and reciprocity.

One of the issues in exploring notions of reciprocity and contract violations is the problem of who speaks for the organization (D'annunzio-Green & Francis, 2005). Kotter’s (1973) idea of anthropomorphizing of organization—i.e., attributing human tendencies to the organization—throws more light on how strongly employees base their expectations on the norm of reciprocity, and why perceived violations of such expectations may be visited on their organization’s leaders who, according to Herriot, Manning, and Kidd (1997), are the only organizational representatives tasked with the responsibilities of communicating messages regarding expectations and obligations to subordinate employees. To corroborate this assertion is a finding from the survey of Guest and Conway (2002b) which stresses that workers’ sense of violation is greatest when they feel that managers were to blame for violations of their expectations arising from their relational contracts, either as a result of deliberate actions or through incompetence.

Morrison and Robinson (1997) describe such a violation as a breach and a breach as a failure on the part of the organization to meet perceived obligations. This identification of unmet obligations may be relatively short-term (thereby allowing employees to return to their relatively stable psychological contract state) or alternatively it may develop into a full violation that creates a deep emotional and affective state involving a wide range of responses (Pate, Martin, and McGoldrick, 2003).
Theoretical Perspectives on Trust in Leadership

In examining the theoretical underpinnings of the leadership-trust process, Dirks and Ferrin (2002) distinguish between two different theoretical perspectives of trust in leadership. One is a relationship-based perspective which conceives of trust as a social exchange process whereby followers see the relationship with their leader as beyond the standard economic contract such that the parties operate on the basis of goodwill and perception of mutual obligations (Blau, 1964). This implies that individuals who feel that their leader has, or will demonstrate care and consideration will reciprocate this sentiment in the form of desired behaviors. The second perspective is a character-based perspective which focuses on the perception of the leader’s character and how it influences a follower’s sense of vulnerability in a leader-follower relationship (Mayer, Davis, & Schoorman, 1995).

Another, dual, theoretical perspective of trust in leadership is the typology of McAllister (1995), which categorizes trust into two different dimensions: affective and cognitive. Cognitive forms of trust reflect issues such as the reliability, integrity, honesty, and fairness of a trustee; while affective forms of trust reflect a special relationship with the trustee that may cause the trustee to demonstrate concern about the trustor’s welfare. As a theoretical coincidence, cognitive and affective trusts logically and conceptually overlap with the character-based and the relationship-based perspectives, respectively.

Managerial Trustworthy Behavior Model

Whitener, Brodt, Korsgaard, and Werner (1998) present a model of trust in which managerial actions form the basis of trust. They label these actions as managerial
trustworthy behaviour arguing that managers are responsible for initiating trusting relationships. The model incorporates concepts from social exchange theory which, among other things, depicts social exchange as entailing trusting that the other party will fulfill their obligations (Blau, 1964). The model also draws on the agency theory (Whitener et al., 1998) which is about an economic relationship between a principal and an agent. Applied to this model, agency theory identifies managers as the principals and employees as the agents with managers delegating tasks to the agents in exchange for compensation.

According to Whitener et al. (1998), managerial trustworthy behavior consists of five dimensions: a) behavioural consistency; b) behavioural integrity; c) sharing and delegation of control; d) communication; and e) demonstration of concern. The theory also identifies three sets of variables—organizational variables, relational variables, and individual variables—as antecedents of managerial trustworthy behavior.
2.2 Review of Empirical Studies

Several studies have been conducted by different researchers which are relevant to this study. A few of them have been reviewed and summaries of their reviews presented according to their relevance as follows:

Leadership Behaviour and Employees’ Responses; Organizational Justice, and Trust

The effect of the stress induced by the Nigerian state military leadership on industrial performance was investigated by Eze (1999). In this study, Eze (1999) conceptualized leadership stress as the stressful and burnout behaviours of followers which radiate from the personality styles, attitudes, habits, expressions and practices of the leaders. The study, which took place in two phases, sampled two different groups of workers. The first sample comprising 150 management personnel identified factors contributing to the poor performances of companies in Nigeria. The second sample comprising 185 middle and senior managers responded to a 64-item, Likert-styled questionnaire to indicate how far they agreed that each of the items contributed to Nigerian companies’ poor performance in terms of closures and low capacity utilization. A principal component analysis and a hierarchical regression analysis, which were employed to analyze the data from the two samples, respectively, revealed that Coercive State Leadership Stress (CSLS), which is radiated by the state military leaders, leads to Distressed Management Leadership (DML), Situational Unfavourability (SU), Distressed Followership (DF), Subordinate Non-Commitment (SNC), and Socio-Economic Stress (SES). And as corroborated by a model which was supported by the data of the study, these six factors, in turn, lead to Poor Industrial Performance (PIP) [Eze, 1999].
Among others, Eze’s (1999) finding that leadership at the national level does radiate stress on both organizational leadership and followership is of crucial relevance to the present study. However, the present study finds the direct impact of organizational leadership on stress reported by organizational followership more important, especially the stress reported as being induced by the immediate superior in the workplace. This is one area Eze’s (1999) study did not cover. Besides, Nigeria is now in a democracy where Coercive (or military) State Leadership (CSL) or Coercive State Leadership Stress (CSLS) can no longer be said to be in existence. Even, employees in much older democracies continue to report stress and to indict their organizational leaders, especially their immediate superiors, for their stress (Hogan, Raskin, and Fazzini, 1990; Hausknecht, Trevor, & Howard, 2008).

Different organizational leaders handle employees differently not only because they (the leaders) differ in styles, personality, and behaviours, but also because some leaders are actually irresponsible and abusive. The implications of these for their subordinates’ behaviours are widespread. In an investigation of the implication of leaders’ behaviours for employees’ turnover, Hausknecht et al (2008) surveyed 2,500 hospitality employees, including hourly salaried and managerial staff, to look for answers to the question of ‘why good employees quit their organizations and what could be done to stop them from quitting. The researchers found that high performing employees had more (different) reasons for quitting than low performers. Low performers were generally discontented with the job—typically the hours, the work load, and absenteeism policies—while high performers were attracted to opportunities elsewhere, both for advancement and the
higher pay it brought them, and to better use their skills. Higher pay was important for all employees, but it was more important to the high performers, who were more likely to expect to be rewarded well for their good work.

One surprising finding, however, was that the supervisor was a major motivator for leaving, for both low- and high-performing employees. The researchers thought that high performers would be insulated from problems with a supervisor, but this effect was much weaker than expected. It was, indeed, the most important source of discontent for low performers. According to Hausknecht et al (2008), low employee performance apparently is not the only reason for conflict with a supervisor, the supervisors themselves—on account of being insensitive, incompetent, or just incompatible—can be the problem. Analysis, in fact, reveals that the supervisor rank just below insufficient pay, advancement opportunities, and skill utilization as the reason high achievers leave. One implication of the study for HR managers is that an investment in salary, advancement opportunities, and utilization of skills is an important area to emphasize in targeting retention efforts for the highest achieving employees. But across the board, better training for supervisors is key. This is because the supervisors are responsible for so much of the immediate work environment for all employees that their relationship with the staff is a major driver of whether they stay or go.

In another study, Zellars, Tepper, & Duffy (2002) administered two surveys to 373 Air National Guard members and their military supervisors. The first survey was distributed to rank-and-file guard members and asked questions dealing with abusive supervision, discretionary work-related issues and procedural justice. The second survey was
distributed to guard leaders who had supervisory responsibilities and contained questions about subordinates' organizational behaviors.

The study found that supervisors who were abusive to subordinates by engaging in sustained displays of hostile verbal or non-verbal abuse (including yelling or screaming at someone for disagreeing, using derogatory names, aggressive eye contact, intimidating by use of threats of job loss or humiliating someone in front of others) had employees who engaged in fewer discretionary or extra-role (i.e., not part of the requirements of the job) behaviours that promote organizational effectiveness, such as helping coworkers, not complaining about trivial problems and speaking approvingly about the organization to outsiders. Nevertheless, the results also revealed that some abused subordinates continued to perform the discretionary actions because they believed such behavior was a requirement of the job.

Apart from suggesting that the subordinates of non-abusive supervisors performed more of these discretionary or extra-role behaviours, the results also revealed that the effect of abusive supervision was more pronounced among subordinates who defined these behaviors as extra-role behavior, which, the researchers claimed, enabled the abused subordinates to achieve what the study referred to as a low-intensity type of revenge. While admitting their choice of sample as an issue that might limit the generalization of their findings, Zellars et al (2002) stressed that the findings had implications for non-military work settings.
In a bid to gain a better understanding of the extent to which supervisor behaviour is related to employees’ psychological well-being, Gilbreath & Benson (2004) sampled 167 men and women working in a variety of organizations, occupations, and industries in the USA. Measures to which the participants responded included a 10-item measure of subjective stress (Motowidlo, Packard, & Manning, 1986), a 63-item measure of supervisor behaviour (Gilbreath & Benson, 2004), a Social Support Scale (Caplan, Cobb, French, Van Harrison, and Pinneau, 1975), a scale of stressful life events (Cochrane and Robertson, 1973), the Organizational Readjustment Rating Scale which measures stressful work events (Naismith, 1975), a Physical and Psychosocial Life Scale which assesses health practices (Donaldson, 1993), and the 28-item version of the General Health Questionnaire (GHQ) [Goldberg & Williams, 1991].

Data analysis—using hierarchical regression analysis—concentrated on determining the extent to which supervisor behaviours could explain variance in GHQ scores beyond that explained by all the other (non-supervisor) independent variables. To achieve this, the researchers entered all the non-supervisor variables in the first step of the regression analysis before entering the supervisor behaviours in the second step.

Results revealed that the measure of positive supervisor behaviour was negatively correlated with employees’ reported psychiatric disturbance. The results of the hierarchical regression analysis also supported the hypothesis that supervisor behaviour made a significant incremental contribution to the prediction of employee well-being beyond that explained by other influential variables. Supervisor behaviour made a
statistically significant contribution to the prediction of GHQ scores beyond the contributions of the previously entered variables, including age, health practices, support from other people at work, support from home, stressful life events, and stressful work events (gender was not included because its correlation with psychiatric disturbance was not statistically significant). The researchers concluded that supervisors could have a significant effect on employees’ psychological well-being (Gilbreath, 2004).

In another survey relating the antecedents of managers to contexts of trust in the managers, Sherwood & DePaolo (2005) surveyed 345 part- and full-time workers who indicated their perceptions of their manager’s competence, consistency and motivational intention, as well as their extent of task and relationship-oriented trust in the managers. They found strong evidence that antecedents do explain differential levels of variation in trust depending upon the dimension/orientation being considered. First, they found that competence was more strongly related to task-oriented than to relationship-oriented trust. If a worker perceived the manager to be competent, the worker was more likely to trust the manager within a task context than in a relationship context. Second, they also found support for consistency being more strongly related to task-oriented trust than to relationship-oriented trust. If the worker’s perception was that the manager acted in a consistent manner, the worker was more likely to be willing to rely upon the manager in the task context than in the relationship context. Here, again, a well-known antecedent to trust was found to differ in its explanatory ability depending upon the dimension of trust being examined. Third, they found that motivational intention was more strongly related to relationship-oriented trust than to task-oriented trust. These imply that a worker will
be more willing to rely upon his/her manager in the relational environment if the worker holds positive perceptions of the manager’s motivational intention.

In another study, De Cremer (2006) examined the relationships among procedural justice, transformational leadership style, and followers’ affective responses. He administered, on 257 employees, the 7-item justice scale of Colquitt (2001), the Dutch version of the Multifactor leadership questionnaire developed by Bass (Bass & Avolio, 1989), and the organization-based self-esteem (OBSE) scale developed by Pierce, Gardner, Cummings, & Dunham (1989) to measure their perceptions of their supervisor’s procedural justice, transformational leadership style, and affective responses, respectively.

He found OBSE to be positively related to procedural justice and to transformational leadership. Furthermore, the interaction between procedural justice and transformational leadership was significant. When transformational leadership was high procedural justice was significantly and positively related to OBSE indicating that high perceptions of procedural justice were associated with high OBSE. However, when transformational leadership was low procedural justice was not significantly related to OBSE. According to De Cremer (2006), OBSE was affected by procedural justice only when the leader was high in transformational leadership style, a finding, he stressed, was consistent with Burns’ (1978) argument that transformational leadership directs people’s attention more to justice issues, thereby implying that under such circumstances, people become more responsive toward information about justice. Other studies which De Cremer (2006) drew on to support the validity of the interaction between transformational leadership
and procedural justice included those of Kark, Shamir, & Chen (2003) and Tyler (1999) which, respectively, found that transformational leaders installed a collective identity and that this type of identity formed an important moderator of procedural justice effects.

In a study relating transformational leadership with organizational justice and job motivation, Adebayo (2005) randomly sampled a total of 184 rank and file police personnel comprising of 42 constables, 46 corporals, 60 sergeants, and 36 inspectors across the divisional police offices in two police command areas in Ibadan, Oyo state. The sample responded to a comprehensive survey comprising of an instrument assessing participant’s feelings concerning certain prevailing situations in their various workplaces and scales measuring work motivation (Bagozzi, 1980; Hart, Williams, & Parasuraman, 1989), perceived workplace fairness (Van Yperen, 1998), and perceived transformational leadership behaviour (Chen, 2002).

Correlation analysis revealed that perceived workplace fairness and transformational leadership behaviour were positively related to participants’ work motivation. Also, a 2X2 ANOVA performed to examine the interaction effect of perceived workplace fairness and transformational leadership behaviour on participants’ level of motivation revealed that the main effects of each of perceived workplace fairness and transformational leadership, as well as their interaction effect, were significant on level of motivation. According to Adebayo (2005), these suggested that the rank and file of the Nigerian police with high perceived workplace fairness were more motivated than those with low perceived workplace fairness, and that the rank and file of the Nigeria
police with high perceived transformational leadership behaviour were more motivated than those with low perceived transformational leadership behaviour.

A post hoc analysis, which was used to examine the direction of the difference in means, showed a significant difference in participants’ motivation between those who had a favourable perception of workplace fairness and those who had an unfavourable perception of workplace fairness and those with low perceived transformational leadership (Adebayo, 2005). Furthermore, those with low perceived transformational leadership were clearly different in their level of motivation from those with high perceived transformational leadership and those with unfavourable perception of workplace fairness (Adebayo, 2005). The interaction graph demonstrated that participants with favourable perception of workplace fairness were likely to be more motivated than those with unfavourable perception of workplace fairness, especially when such participants perceived their leaders as displaying high rather than low transformational leadership behaviour (Adebayo, 2005).

In their own series of studies, De Cremer, Knippenberg, Knippenberg, Mullenders, & Stinglhamber (2005) examined the main and interactive effects of procedural fairness and rewarding leadership style on employee self-esteem. In a version of this study, seventy (70) Dutch undergraduate students (47 women and 23 men), who volunteered to participate in the scenario experiment, were randomly assigned to a 2X2 between subjects design whereby reward leadership and procedure were varied as high Vs low and voice Vs no voice, respectively. The participants were seated at a table and were given materials in which they read about a scenario, and were asked to imagine that they
had recently experienced the situation described in the scenario. Specifically, the participants imagined themselves as subordinates in a situation where they were to judge whether their supervisor was motivating them to reward themselves or not, and whether their voice was allowed or not in decision procedures followed by their supervisor in their work group. After these, participants completed 7-point Likert Scales which tapped their responses on the extent to which they were “encouraged” and “given compliments” by their supervisor, the extent to which they received voice from their supervisor, and the extent they felt “positive”, “proud of themselves”, and “competent” (i.e., their self-esteem).

A 2X2 ANOVA (on the average rewarding leadership scores) revealed a significant main effect of rewarding leadership, showing that participants in the high-rewarding behaviour condition felt more encouraged and complimented by their supervisor than those in the low-rewarding behaviour condition. Also, a significant main effect of procedure was found, indicating that participants in the voice condition felt more encouraged and complimented than those in the no voice condition. No significant interaction was found. Another 2X2 ANOVA (on the voice question) revealed a significant main effect of procedure, showing that participants in the voice question reported having more voice than those in the no-voice condition. Also, a significant main effect of rewarding leadership was found, indicating that participants in the high-rewarding behaviour condition reported having more voice than those in the low-rewarding behaviour condition. Again, no significant interaction was found.

Yet another 2X2 ANOVA (on the average self-esteem scores) revealed first, a
significant main effect of procedure, showing that participants in the voice condition reported higher self-esteem than those in the no-voice condition. Also, a significant main effect of rewarding leadership was found, indicating that participants in the high-rewarding behaviour condition reported higher self-esteem than those in the low-rewarding behaviour condition. The significant interaction which eventually emerged, here, revealed that the voice effect was significant in the high-rewarding behaviour conditions, but not in the low-rewarding behaviour conditions. Furthermore, the effect of rewarding leadership was significant within the voice conditions, but not within the no-voice conditions. Reported self-esteem was found to be highest in the high-rewarding behaviour/voice condition.

In another version of the study, one hundred and twenty five (125) employees (85 men and 40 women) from different organizations in the Netherlands responded to Colquitt’s (2001) Procedural Justice Scale, Pearce & Sims’ (2002) measure of rewarding leadership, and Pierce, Gardner, Cummings, & Dunham’s (1989) Organization-Based Self-Esteem (OBSE) Scale. The hierarchical regression analysis performed revealed significant prediction of, and positive contribution to, self-esteem by each of rewarding leadership and procedural fairness (in the first step), and by the interaction of the duo. Analysis of the significant interaction further revealed that when rewarding behaviour was high, procedural fairness was significantly related to self-esteem, but not when rewarding behaviour was low. Furthermore, when procedural fairness was high, rewarding leadership was significantly related to self-esteem, but not when procedural fairness was low.
According to De Cremer et al (2005), the core finding emerging from both versions of the study concerned the interaction between procedural fairness and rewarding leadership. This finding provides evidence that rewarding leadership can indeed be seen as a moderator of procedural fairness when self-esteem is the dependent variable of interest (De Cremer et al, 2005).

**Leader-follower Relationship, Important Outcomes, and Stressful Consequences**

A look at studies which have examined the nature of the relationships between Leader-follower relationship (LMX) and some other important job outcomes offers more insight into the intervening roles LMX can play in the hypothesized relationships between leadership-related factors and leadership-induced stress. Stringer (2006) evaluated the Leader–Member Exchange Theory (LMX Theory) among 57 randomly selected firefighters, who had been employed with a large fire department in the USA for an average of 12.58 years. The sample included 61.4% first level firefighters, 26.3% supervisors/managers/administrators, and 12.3% who were all working in the Department’s Operations Section.

Results of correlation analyses indicated a significant positive correlation between high quality LMX and job satisfaction; a non significant correlation between low quality LMX and job satisfaction, a significant positive correlation between high quality LMX and extrinsic job satisfaction, a significant negative correlation between low quality LMX and extrinsic job satisfaction, a significant positive correlation between high quality LMX and intrinsic job satisfaction, and a significant negative correlation between low quality LMX and intrinsic job satisfaction. According to Stringer (2006),
these results support the proposition that high-quality LMX are positively correlated with employee job satisfaction. He stressed further that when employees have a high quality relationship with their supervisor they get to enjoy the benefits of favours such as mutual trust and support from the supervisor, effective communication, consideration, and esteem, and consequently, they more likely will be satisfied with their job, accomplish more, and help their organization to prosper. As the LMX quality improves, the extrinsic needs of the employee are more likely to be fulfilled, thereby removing barriers to employee job satisfaction (Stringer, 2006). Additionally, as the LMX quality increases, the intrinsic needs of employees are also more likely to be fulfilled; thereby increasing the likelihood that those employees will be satisfied with their job (Stringer, 2006).

In a study, Bakar & Mustaffa (2007) examined superior-subordinate communication as a mediator of the relationship between leader-follower relationship, also known as leader-member exchange (LMX), and group commitment. Respondents in the study included 14 unit managers, 25 senior executives, and 42 executives who were all working with a corporation involved in aviation activities in Malaysia. The participants responded to a number of measures including the Liden and Maslyn’s (1998) LMX scale; four separate dimensions of superior-subordinate communication behaviours: positive relationship communication, upward openness communication, negative relationship communication and job-relevant communication (Miles, Patrick, & King, 1996); and a three-component organizational commitment scale (Allen, 1996; Allen & Meyer, 1990). Mediation was determined through three simple and one multiple regression analyses as prescribed by
Baron and Kenny (1986). Results indicate that superior-subordinate communication mediated the relationship between superior-subordinate relationships quality and group commitment. That is, superior-subordinate communication indeed influenced the relationships between LMX quality and group commitment.

Although this study was largely limited by its small sample size, its finding lends support to the importance of LMX to subordinate work outcomes on one hand, and subordinate wellbeing on the other. Drawing on the LMX theory, in Bakar & Mustaffa’s (2007) study, only the subordinates in high-quality LMX with their superiors were likely to have found communications with their superior beneficial. Their low-quality LMX counterparts may have reported low commitment because they were likely to have also been unfavoured by interactional injustice, whose major component is cordial and respectful superior-subordinate communication, as suggested by the principle of interactional justice.

In their own study, Asgari, Silong, Ahmad, & Samah (2008) examined the impacts of four behaviours—LMX, organizational inflexibility, perceived organizational support, and interactional justice—on organizational citizenship behaviour (OCB) among 220 respondents in Iran. They administered a structured questionnaire containing standard scales of transformational leadership behaviours, LMX, and organizational citizenship behaviours on the respondents. In the first part of their analysis, OCB was regressed on LMX, organizational inflexibility, perceived organizational support, and interactional justice. The four variables jointly and significantly predicted OCB. Although each of the
four variables was significantly and positively related to OCB, interactional justice had the strongest relationship to OCB—followed by LMX, then organizational inflexibility, and then perceived organizational support.

With these results, Asgari et al (2008) confirmed—as does ample empirical evidence (e.g., Wayne, Shore, Bommer, & Tetrick (2002)—that as the quality of the LMX relationship increases, OCB also increases, which implies that the LMX behaviour has a positive and direct effect on OCB. Asgari et al. (2008) also corroborated their results with extant empirical evidence (e.g., Organ, 1990; Niehoff & Moorman, 1993; Konovsky & Pugh, 1994; Moorman, Blakely, & Niehoff, 1998) to confirm not only that fairness perceptions play an important role in promoting OCB, but also that organizational justice is a key determinant of work outcomes such as OCB.

The study of Asgari et al (2008) reveals the importance of LMX in determining subordinates’ job outcomes. Since LMX contributed positively to the joint prediction of OCB, it follows that high-quality LMX brought about high OCB. Another variable of interest which contributed positively to the joint prediction of OCB in that study is perceived organizational support. This indicates that high perceived organizational support guarantees high OCB, and that LMX and perceived organizational support are both positively related to OCB. More importantly, interactional justice not only contributed positively to the joint prediction of OCB, it made the highest contribution to OCB, compared to LMX, organizational inflexibility, and perceived organizational support. This shows that, in the prediction of subordinates’ important job outcomes, interactional justice is more important than LMX, and that the influence of LMX on
important outcomes may be, to a large extent, a function of interactional justice, and to some extent a function of perceived organizational support. It is thus instructive to—as will be done in the present study—investigate the extent to which the prediction of leadership-induced stress by LMX will be moderated by interactional justice and organizational support.

In their own study, Van Dam, Oreg, & Schyns (2008) investigated the role of LMX, development climate, and organizational change process characteristics on daily work contexts and resistance to organizational change. Participants included 235 (127 males and 108 females) employees of a large housing corporation in the Netherlands, who at the time of the study, were experiencing several organizational changes, including a drastically altered working procedures and management practices, a different organizational culture, and an overall sense of uncertainty as a result of a merger between their own and another housing corporation. These participants responded to the Leader–Member Exchange (LMX7) Scale (Graen & Uhl-Bien, 1995; Scandura & Graen, 1984); Bezuijen’s (2005) 11-item Perceived Development Climate Scale; Oreg’s (2006) measures for change process Characteristics; Openness to Job Changes Scale (Van Dam, 2005); Parker’s (1998) Role Breadth Self-Efficacy Scale; and Oreg’s (2006) Resistance to Change Scale.

Analysis with structural equation modeling revealed that LMX was significantly related to the three change process characteristics: information, participation, and trust in management. Similarly, development climate showed significant relationships with information, participation, and trust in management. In turn, these change process
characteristics showed significant relationships with resistance to change. However, role breadth self-efficacy was not significantly related to resistance to change. And together, the model variables explained 39.4 per cent of the variance in resistance to change.

The results further reveal that LMX has a consistently positive relationship with important desirable organizational characteristics including employee trust in management. They also show that a development organizational climate encourages employees to trust their organizational leaders. What these seem to suggest is that a good LMX and an organizational climate that guarantees development and progress help facilitate employees’ trust in their organizational leaders. It is thus unlikely that employees will trust organizational leaders where they cannot perceive the organizational leaders, and by extension their organization, as being humane and impartial in relating with them, and as providing an enabling organizational environment for personal development.

Nevertheless, high-quality LMX may ultimately result in stress for a subordinate in high-quality LMX. This possibility was demonstrated by Harris & Kacmar (2006) who sought to know whether leader-follower relationship could become so cordial as to cause stress for the follower. Specifically, Harris & Kacmar set out to know whether the quality of the relationships between leaders and their followers could become so high that the obligations of the subordinates towards their superiors could increase without limit, and to a point that stress would set in. In other words, they investigated the possibility that the relationship between perceived LMX and perceived stress can be
curvilinear rather than linear. Two samples were surveyed: sample 1 comprised of 120 participants (65 male and 55 female company employees); and, sample 2 comprised of 402 participants (232 male and 170 female employees). Measures included the seven-item, Likert-type LMX scale (Scandura, Graen, & Novak, 1986) which measures the quality of the employees’ relationships with their supervisors, and the seven-item Likert-type job-induced tension scale (House & Rizzo, 1972) which taps how stressed employees feel trying to fulfill the requirements of their jobs. Gender and tenure of employees at work were used as control variables in the study because both had been identified as individual variables that have significant impacts on LMX and stress (Bauer & Green, 1996; Duchon, Green, & Taber, 1986; Pretty, McCarthy, & Catano, 1992). While gender was coded as 1 for men and 2 for women, tenure was measured in blocks of years. Job satisfaction was also controlled for because theory and empirical research indicate its importance to LMX and stress—it was measured with a three-item Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, and Klesh, 1979).

The hierarchical regression analyses performed on the data revealed that tenure was positively and significantly related to stress in both samples, indicating that employees with higher tenure had higher levels of stress. Gender was positively and significantly related to stress in Sample 1, indicating that women reported higher levels of stress than did men. However, gender was not significantly related to stress in Sample 2. Job satisfaction was negatively and significantly related to stress in both samples, indicating that those with higher levels of stress had lower levels of job satisfaction.
Furthermore and more importantly, results of the hierarchical regression analysis revealed, in that study, that the relationship between LMX and stress was best characterized as curvilinear. Specifically, individuals who enjoyed high-quality LMX relationships with their supervisors experienced more stress than did their counterparts in moderate-quality LMX relationships. More specifically, the results from both samples provided evidence that LMX had a curvilinear relationship with levels of stress.

As pointed out above, too high LMX can lead to stress for the subordinate employee in the LMX. This may seem a bit surprising but explanations for it can be found in the LMX theory which suggests that subordinates in high-quality LMX are likely to be overburdened by work assignments and responsibilities because they would always feel obliged to take up and accomplish (in addition to their own) as much work assignments as may be given them by the boss with whom they are in high-quality LMX. This, however, appears to be the only external condition in which a subordinate involved in a high-quality LMX may report being stressed. Essentially, as suggested by the LMX theory, the advantages and benefits inherent in high-quality LMX ought to counteract the unpleasant effect of work overload, but the work load may become so high as to exceed the capacity of the subordinate to cope, especially if it continues to increase as the LMX quality increases.

**Organizational Justice, Trust, and Support; and Work-related Variables and Outcomes**

The links among employees’ perceptions of justice, trust, and support have to do with the fact that without organizational leaders who dispense justice on employees on behalf
of the organizations, there may be no basis for employees to perceive their organizations as fair or unfair. Also, whether they trust their organizations would not be an issue if they cannot attribute their experience in the organization to the organizational leadership. Furthermore, as organizational leaders are supposedly the conveyers of organizational support whether employees perceive superiors’ support or not would also not be issues if they (employees) do not, by default, expect organizational support through their superiors. Thus, the styles, behaviours, preferences, and values of the organizational leaders may go a long way to determine the extent to which they can be objective and impartial in their handling of employees, the type of trust the employees would want to develop for them, the extent to which the employees would want to give that trust, and the extent to which the employees would perceive them as supportive.

The next set of reviewed studies lays less emphasis on leadership, but more emphasis on the various leadership-related issues which directly or indirectly influence subordinates perceptions of justice, trust, and support, as well as other important work-related variables.

In a study relating justice principles with human values and justice perceptions, Fischer & Smith (2004) surveyed subordinates’ reactions to reward-allocation decisions made by their managers, which were based either on work performance or on seniority, among 184 full-time employees in former East Germany and 150 of their counterparts in the UK. While 130 of the UK respondents were British nationals, the remaining 20, who were non-British nationals, were dropped from the final analysis; however, almost all respondents from Germany (95.7%) were Germans. About 51% of the participants in
both samples were female, and there were no differences in occupational status among the entire participants, but there were differences due to employee age, employee tenure, and ownership of their organizations. They responded to a Reward Allocation Survey (Fischer & Smith, 2004); a 9-item perceived justice scale developed from Niehoff & Moorman’s (1993), 6-item, Procedural Justice Scale and a 3-item general perceptions of organizational justice (Colquitt, Conlon, Wesson, Porter, and Ng, 2001; Tyler & Lind, 1992); a 44-item version of the Schwartz value survey (Schwartz, 1992), which measures openness to change (e.g., pleasure, exciting life, and freedom), conservation (e.g., respect for tradition, obedient, and family security), self-transcendence (e.g., social justice, equality, and honesty), and self-enhancement (successful, ambitious, and social power).

The moderated multiple regression analysis employed revealed that, in the step 1 of the analysis, only occupational status significantly predicted perceived justice; other demographic predictors (gender, type of sector, and sample/nationality) did not. In step 2, allocation principle and values were entered as main effects. The result of this revealed that allocations based on work performance and seniority were both seen as fair, with work performance and seniority accounting for 11% and 7% of the variance in justice perceptions, respectively. Next (in step 3), the interaction effects between sample and the value dimension, and between sample and the allocation principle were entered into the analysis. But the interaction effects were insignificant. In step 4, the interaction of allocation principle and values (as moderator) was entered. Results revealed that self-enhancement did strengthen the link between work performance and justice such that
individuals who valued self-enhancement over self-transcendence (i.e., were categorized as ‘high’ on the values score) reported higher fairness scores if their organization allocated rewards according to work performance. In contrast, fairness scores were lower when their organization did not reward work performance. Individuals who valued self-transcendence over self-enhancement (i.e., were categorized as ‘low’ on the values score) were less strongly influenced in their justice perceptions by the use of work performance as an allocation criterion. Their perceptions of performance-based allocation were associated with perceived fairness but to a lesser extent than for those with more self-enhancing values. Furthermore, individuals endorsing self-enhancement see it as fairer than those valuing self-transcendence. Specifically, individuals who valued self-enhancement over self-transcendence (categorized as ‘high’ on the values score) reported greater fairness perceptions when their organization used seniority, but reported the least fairness when their organization did not consider seniority. Those valuing self-transcendence were not strongly influenced by their organization’s consideration of seniority in their perception of justice. Step 5 of the analysis involved the interaction effects among sample (or nationality), justice principle, and value. Here, when the interaction effects between seniority, self-enhancement, and transcendence, and between work performance, self-enhancement, and self-transcendence were both entered into the analysis, after adjusting for demographics, main effects, and mean differences (as was done in the previous steps), only the interaction involving seniority remained significant; the interaction involving consideration of work performance was no longer significant, whereas main effects for both consideration of work performance
and seniority remained significant.

In another study based on the same sample, Fischer & Smith (2006) examined whether values moderated the relationship between procedural justice perceptions and work outcome variables. Participants included full-time employees in Germany (184) and the UK (150), who responded to a procedural justice perceptions survey developed by Fischer (2004), a 44-item version of the Schwartz value survey (Schwartz, 1992), which measures openness to change and conservation, the affective commitment subscale of Allen and Meyer’s (1990) organizational commitment measure, and an Extra-Role Behaviour (ERB) scale (Fischer & Smith, 2006), which measures two types of extra-role behaviours—compliant and proactive behaviours. Data were analyzed using moderated multiple regressions. Separate analyses were conducted for each outcome variable. After controlling for demographic differences (sector, age, tenure) and country differences in the first two steps, the main effects of justice perceptions and of values were entered in Step 3. In Step 4, the interactions for country by justice and country by values were entered. In step 5, the justice by values interaction were included; and in step 6, the three-way interaction among openness to change (or conservation), country, and justice were entered.

Results indicated that in step 3, procedural justice significantly predicted commitment and both types of extra-role behaviour. Justice was also found to predict either ERB less well than it predicted commitment. Values also predicted some variance in outcome variables: openness to change was negatively associated with compliant ERB and conservation was positively associated with compliant ERB, whereas openness to
change related positively to proactive ERB.

The predicted moderation effects for organizational commitment and compliant ERB were both significant, but no effect for proactive ERB was found. Individuals endorsing openness to change reported higher levels of commitment when they perceived their organization to be procedurally fair, whereas they reported lower levels of commitment when they perceived their organization to have used unfair procedures. Those who did not endorse openness to change values did not differ in their reported levels of compliant ERB if they perceived that their organization used unfair procedures. However, those who valued openness to change reported much lower compliant ERB when they thought that their organization was using unfair procedures.

Among the three-way interactions, the interaction between openness to change, procedural justice, and sample (or country) was significant on compliant ERB. Specifically, the interaction between openness to change and procedural justice was not significant in the German sample, whereas the effect was significant in the British sample. Furthermore, the three-way interaction between conservation, justice, and country was significant on commitment. However, separate analyses in the two samples showed that the moderation effect of conservation was significant in the German sample, but not in the British sample.

By implication, according to Fischer & Smith (2006), individuals who were more focused on preserving traditions and adhering to role constraints were less likely to consider justice when reporting their commitment to their organization compared to those who were more open to change and less focused on values associated with
obedience and traditional norms. Similarly, British employees, in particular those with more open values, reported compliant behaviour that went beyond formal role descriptions, but only if they perceived their organization as using fair procedures (Fischer & Smith, 2006). Those who were less open to change and endorsing more conservation values did not report lower levels of compliant ERB when they felt there was less justice in their workplace. Turning to specific effects of values in context, Fischer & Smith (2006) found a stronger moderation effect of openness to change values in the British sample for compliant ERB than in the German sample and a moderation effect of conservation values for commitment in the German, but not in the British sample. Therefore, they concluded, in part, that when taking into account the overall importance given to both values, openness to change was significantly more important for British participants, and conservation was more important for German participants.

In yet another study, which featured perceived organizational support—alongside organizational justice—and also had an extra-role behaviour (OCB) as an outcome variable, Ehigie & Otukoya (2005) examined the generalizability of perceived organizational support (POS) and perceived fair interpersonal treatment (PFIT) as positive correlates of organizational citizenship behaviour (OCB) in Nigeria. Participants were 207 (182 males and 25 females) lower management employees (aged between 20 and 55 years) of the National Electric Power Authority (NEPA), a government-owned enterprise that holds the sole franchise of generating and distributing electricity in Nigeria.

The instruments used for this research were two forms. Form 1 had two scales:
Perceived Organizational Support (POS) Scale (Eisenberger, Jim, Stephen, and Patrick, 1997) and Perceived Fair Interpersonal Treatment (PFIT) Scale (Michelle, Fritz, and Liberty, 1998) and was administered to the subordinates; Form 2 was given to their respective bosses to rate their subordinates on an Organizational Citizenship Behaviour (OCB) Scale (Allen & Rush, 1998).

Correlation analysis yielded positive relationship between POS and OCB, between POS and helping behaviour, civic virtues, and sportsmanship, and between PFIT and OCB as a whole, helping behaviour, civic virtues, and sportsmanship. The prediction of joint association of POS and PFIT with OCB and its dimensions, which was examined with hierarchical regression analyses, revealed that the demographic variables of age, tenure, and gender—which were entered first—accounted for 21% of the variance in OCB, with only age and tenure contributing significantly. However, the inclusion of the antecedents (POS and PFIT) resulted in 53% variation in OCB with the duo contributing significantly. The inclusion of the antecedents resulted in 32% change in variance in OCB. On helping behaviour, the control variables accounted for 29% variance, with age and tenure contributing significantly. The inclusion of the antecedents yielded 58% variation (change of 39%), with only POS and tenure contributing significantly. For civic virtue, the 10% variance accounted by the control variables was not significant but the inclusion of the antecedents resulted in a significant 36% variance; only POS and PFIT contributed significantly. Finally, the inclusion of the control variables in the regression on sportsmanship yielded no significant variance but the introduction of the antecedents resulted in a significant variance of 44% in which only POS and PFIT
contributed significantly.

While all analyses in the study revealed that POS was positively associated with PFIT, inter-correlations among OCB dimensions showed that OCB was positively related to helping behaviour, civic virtue, and sportsmanship. Helping behaviour was positively related to civic virtue and sportsmanship, while civic virtue was positively related to sportsmanship.

Very similar—in terms of the variables studied—to the study of Ehigie & Otukoya (2005) is the study of Peelle (2007) which investigated the interrelationships among organizational justice constructs, organizational citizenship behaviour (OCB), and perceived organizational support (POS); the possible mediation of the relationships between perceived organizational justice and OCB; and the extent to which organizational justice constructs may predict POS. He administered a single survey containing items/questions concerning OCB intentions directed at peers, OCB intentions directed at the organization, perceptions of distributive, procedural, and interactional justice, and perceptions of perceived organizational support (POS) on 102 employees including 58 factory workers and 44 sales, technical, and administrative personnel of an organization. Correlation analyses revealed a significant positive relationship between the level of POS and employee self-reported intentions to enact OCB directed at the organization, between OCB intentions directed at the organization and OCB intentions directed at peers, between POS and distributive justice, between POS and interactional justice, and between POS and procedural justice. Some correlation analyses revealed
significant but weak relationships between OCB intentions directed at the organization and interactive justice, and between OCB intentions directed at the organization and procedural justice. Others revealed significant relationships between POS and OCB intentions directed at peers, between distributive justice and OCB intentions directed at the organization, and between OCB intentions directed at peers and POS, distributive, procedural, or interactional justice.

The simple and multiple regression analyses carried out in the study reveal that POS fully mediated the relationships between procedural justice and OCB intentions directed at the organization, and the relationships between interactional justice and OCB intentions directed at the organization. In the first hierarchical regression analysis conducted in the study, interactional justice explained 54% of the variation in POS while the incremental/additive effect of distributive justice explained less than 2% of the variance in POS scores. In the second hierarchical regression analysis, procedural justice explained 45% of the variation in POS, while distributive justice explained an additional 3.2% of the variance in POS. Peelle (2007) stressed that while the three-way correlation between distributive, procedural, and interactional justice was consistent with previous studies (e.g., Colquitt et al., 2001), the findings indicated that POS fully mediated the relationship between procedural and distributive justice, between interactional and distributive justice, and partially mediated the relationship between procedural and interactional justice.

Harris, Winskowski, & Engdahl (2007) explored the relative contributions of different
types of social support to job satisfaction as well as the relationship between social support and job tenure among 122 female and 57 male full-time paid employees in two training hospitals in the southwestern part of the USA. These participants were made to complete a demographic questionnaire that elicited data on their age, gender, ethnicity, education level, job tenure, job type and job description, salary, relationship status, and number of children; the Job in General scale—a global index of job satisfaction; and the Mentoring and Communication Support Scale—a 15-item measure that yields subscale scores for Career Mentoring, Coaching, Collegial Social Support, and Task Support. Results indicated no gender differences in age, number of children, education, job tenure, income, job satisfaction, or social support in the workplace. Career Mentoring, Coaching, and Task Support all had significant positive relationships with job satisfaction. Coaching and job tenure were negatively correlated, whereas Task Support and job tenure were positively correlated. Furthermore, simultaneous multiple regression analysis—using the four types of social support to predict job satisfaction—indicated that these combined types of social support were significant predictors of job satisfaction, although only the unique contributions of Career Mentoring and Task Support were significant in the overall prediction of job satisfaction by the combination of the four types of social support. Also, another simultaneous regression analysis using the four types of social support to predict job tenure indicated that these combined types of social support were significant predictors of job tenure. But here, only the unique contributions of Coaching and Task Support were significant in the overall prediction of job tenure by the four types of social support.
Another study, which explored the relationship of organizational justice to job performance, was conducted by Ismail & Junoh (2006). They sampled 334 employees from seven Malaysian private institutions of higher learning, most of who were academics and were less than 35 years old. These participants responded to a research questionnaire comprising of four sections: a 5-item measure of perceptions of communication about pay systems; a 4-item measure of procedural justice; a 4-item measure of job performance. Results of correlation analysis revealed that communication about pay systems was positively related to procedural justice but insignificantly related to job performance. Furthermore, hierarchical regression analysis revealed that type of service—used as a control variable in the study—contributed significantly and positively to job performance, indicating that different types of service (e.g., probation, contract, permanent, and temporary status) may have different types, level, and/or amount of pay, which have differentially motivated improvement in different employees’ job performance. It further revealed that communication about pay systems contributed insignificantly to job performance, which indicated that openly communicating pay messages to employees did not impact job performance. The hierarchical regression analysis also revealed that the interaction of communication about pay systems and procedural justice made an incremental contribution to job performance, which suggests that procedural justice had played an important moderator role in the relationship between communication about pay systems and job performance. The direct effects of organizational justice on physical and psychological wellbeing have also received good research attention. Elovainio, Kivimäki, & Vahtera (2002) sampled
4076 employees (506 men and 3570 women), who comprised doctors, nurses, and other hospital staffs across Finland’s seven major hospitals. These participants responded to scales of procedural justice and of relational justice measuring the independent variables, and the outcome variables were self-rated health, minor psychiatric morbidity, and recorded absence due to sickness (sickness absence). While health was indicated by health ratings less than good, minor psychiatric morbidity was assessed with the 12-item version of the General Health Questionnaire. To complement these, the researchers also obtained from the employers, participants’ 1997 and 1998 records of self-certified and medically certified sick leaves. While the self-certified sickness absences were 3 days or less, medically certified absences, for which a physician’s examination and a medical certificate were always required, were more than 3 days. Information were also obtained on age, sex, income, smoking status, alcohol consumption, sedentary lifestyle, body mass index, psychosocial factors (including were workload, job control, and social support). In the statistical analyses, associations of justice variables with self-rated health and minor psychiatric morbidity were determined by logistic regression analysis while those of justice variables with sickness absences was carried out with Poisson regression and rate ratios. Results revealed that there were no differences between age groups or sexes in the evaluation of procedural justice, and that employees with high income perceived significantly lower levels of procedural justice than other employees. Moreover, among men, low procedural justice was associated with a 2-fold risk of poor self-rated health and an almost 4-fold risk of minor psychiatric disorders, but the associations were not significant after adjustment for other psychosocial factors. Among
women, associations between procedural justice, self-rated health, and minor psychiatric disorders were significant irrespective of adjustments. Furthermore, low relational justice was associated with about a 2-fold risk of poor self-rated health and minor psychiatric disorders. Procedural justice and relational justice were significantly associated with self-certified and medically certified sickness absence. The association of relational justice with medically certified sickness absence was significantly stronger among men than among women. There were no interactions between sex and procedural justice. Eloainio et al (2002) stressed that organizational justice was associated with health among both men and women across most of the health outcomes studied; this was true not only for those in the medical professions but also for those with administrative and maintenance jobs, after adjustment for other psychosocial factors. Interactional justice was a stronger predictor of sickness absence for men than for women. This difference, however, might reflect not only a difference between the sexes but also the fact that hospital occupations are gender related. For example, over 50% of the physicians were men, whereas over 93% of the nurses were women. Organizational justice may have different meanings for members of highly ranked occupations related to management than for shop-floor employees. The size differences between the male and female samples may also have affected the detected differences in significance between sexes. To a large extent, these findings are reflective of the general understanding that interactional justice evaluations are positively associated with health-related factors such as psychological wellbeing, and negatively associated with psychological distress, among other important work-related factors (Fondacaro, Dunkle,

In their own study, Hopkins & Weathington (2006) examined the relationships among perceptions of distributive justice, procedural justice, trust, organizational commitment, organizational satisfaction, and turnover intentions among the survivors of a recently completed downsizing in an organization. In the study, 184 employees responded to six different measures—each corresponding to one of the variables in the study—whose response formats had all been modified to conform with a 7-point Likert scaling system. Their preliminary findings reveal, among other things, strong positive relationships between organizational satisfaction and trust; between organizational satisfaction and affective commitment, and between trust and distributive justice. Strong negative relationships were also reported between trust and turnover intentions, while moderate but positive relationships were found to exist between distributive justice and affective commitment, distributive justice and organizational satisfaction, procedural justice and organizational satisfaction; and moderate but negative relationship between distributive justice and turnover intentions.

When they controlled for trust, they found that the hitherto significant relationship between distributive justice and organizational satisfaction had disappeared (which the researchers claimed indicated that trust mediated the relationship between distributive justice and organizational satisfaction. They further reported that trust also mediated the relationships between distributive justice and affective commitment and between procedural justice and turnover intentions). They interpreted these important aspects of their findings as demonstrating the importance of trust for organizations, the need for
employees to feel that their organization values them and is concerned about their interests, and the importance of conducting downsizing in a fair and unbiased manner.

The equity sensitivity concept (defined as the unique sensitivity of individuals to fair and unfair situations which subsequently influences their attitudes and reactions, either positively or negatively) has been researched vis-à-vis perceived trust and organizational justice. The study of Kickul, Gundry, & Posig (2005) sought to understand whether employees’ equity sensitivity affected their perceptions of the trust that organizations demonstrate for their employees, and whether those perceptions of trust influenced employees’ perceptions of organizational justice. Specifically, Kickul et al (2005) examined the relationship between equity sensitivity and perceived organizational trust on employees’ perceptions of procedural and interactional justice among 246 full-time employees who on the average had spent 4.22 years with their organization, and were from a variety of occupational fields including: finance and banking, sales and marketing, computer science, human resources and staffing, accounting, engineering, health care, and organizational consulting. Results revealed that equity sensitivity has an indirect effect on perceived organizational justice. More specifically, it was found that perceived organizational trust mediated the relationship between an employee’s equity sensitivity and their perceptions of procedural and interactional justice.

Ruder (2003) investigated the extent to which organizational justice and organizational trust impacted, or contributed to, the enhancement (in the workplace) of a proactive behaviour known as the role breadth self-efficacy (RBSE)—what people feel they can do rather than on what they do (Parker 1998). A sample of 226 professionals comprising
of subordinates, supervisors, and middle level managers who were all engaged in administrative, business management, computer specialties, engineering, human resources, information technology, project management, or other professional or white-collar work participated in the study. The sample, which was drawn from small organizations in the USA, responded to a comprehensive questionnaire containing measures of organizational justice (in three dimensions of distributive justice, procedural justice, and interactional justice); organizational trust (in four dimensions of trust in immediate supervisor, trust in peer group/work unit, trust in top management, and trust in the organization’s management development consultant)—only the trust in supervisor dimension was used in the study; and a 10-item one-dimensional scale of RBSE. Demographic data were also tapped including gender, occupation, experience in current position, length of time served with immediate supervisor, and level of education.

A correlation analysis was used to examine the relationships between distributive justice, procedural justice, interactional justice, trust in organization, trust in supervisor, and RBSE, while a path analysis and a hierarchical regression analysis were employed to assess the fit of the research data on a hypothesized model and how much organizational justice and trust contributed to RBSE, respectively. Specifically, the hypothesized model assumed that procedural justice had a direct effect on trust in organization, that trust in organization had a direct effect on RBSE, and that procedural justice had an indirect effect on RBSE through trust in organization. A number of One-way ANOVAs were also performed to compare respondents’ differences on RBSE on
the bases of their varying demographic characteristics.

Path analyses revealed weak relationships between justice and RBSE, and between trust and RBSE, through both direct and indirect paths. Specifically, path coefficients indicated weak relationships between procedural justice and RBSE, between trust in organization and RBSE, between interactional justice and trust in supervisor, and between trust in supervisor and RBSE. Results of the hierarchical regression analysis indicated that procedural justice did have a statistically significant relationship with trust in organization, that interactional justice did have a statistically significant relationship with trust in supervisor, and that trust in supervisor had a weak relationship to RBSE. The path analysis statistics basically duplicated the regression analysis statistics, especially in the cases of the statistically significant relationships between procedural justice and trust in organization and between interactional justice and trust in supervisor. One-Way ANOVA indicated that people with a graduate degree had the highest level of RBSE in this study, followed by people with a Bachelor’s degree, and then those with less than a college degree.

Ruder (2003) stressed that the statistically significant relationship between procedural justice and trust in organization was anticipated because similar results were found in other empirical research. However, he admitted that the lack of a statistically significant mediated relationship between procedural justice, trust in organization, and RBSE and between interactional justice, trust in supervisor, and RBSE were unexpected.

Luszcynska and Cieslak (2005) investigated the effects of perceived social support such as (a) protection from stress, (b) promotion of wellbeing, and (c) buffering negative
effects of stress on wellbeing among 152 male managers who were recruited from
among the personnel of 16 companies (representing different branches of industry or
services, such as telecommunication, oil industry, and transportation) located in cities
and towns in Southern, Central, and Eastern Poland. Work stress was assessed with the
Perceived Organizational Stress Questionnaire; Perceived Social Support (PSS) was
measured with the Social Support Scale; Hardiness (a personality variable) was
measured by means of a shortened version of the Dispositional Resiliency Scale;
Emotional Reactivity (another personality variable) was measured with the Formal
Characteristics of Behaviour-Temperament Inventory; while Positive and Negative
Emotions were assessed with the State Personality Inventory.

The protective role of support from different sources was tested with the hierarchical
regression approach. The baseline (work stress at Time 1) was entered in step 1. In step
2, a specific index of social support (i.e., support from supervisors, coworkers, friends or
family) and a personality factor (hardiness or reactivity) were entered into the equation.
In step 3 (the last step), the interaction term (Social Support*Personality) was entered.
This step was added to test whether the protective effect of social support was
moderated by personality. Results showed significant effects for baseline measurement
of stress entered in step 1. This effect was found for all equations. Regarding the
protective effect, only support from supervisors was related to lower perceived work
stress. None of the interactions between social support and personality was significant.

To test the promotive role of social support, a hierarchical approach with a similar
Procedure was used. In step 1, the initial value of the dependent variable (wellbeing at
Time 1) was entered into the equation to partial out the influence of the previous wellbeing. In step 2, social support and personality were entered into the equation. In the last step, the interaction term (Social Support*Personality) was entered. The third step was added to test whether the promotive effect of social support was moderated by personality. The results of these analyses yielded significant effects of wellbeing baseline measures entered in step 1. Regarding the promotive effect, none of social support indices predicted anxiety, curiosity or work satisfaction. Regarding interaction between personality variables and support from supervisors, no significant increments of $R^2$ were found. Regarding support from coworkers, one interaction with hardiness and one with emotional reactivity (for curiosity as a dependent variable) resulted in a significant increase of $R^2$. Regarding effects of interaction between social support from friends and personality, a significant interaction was found for hardiness with curiosity as a dependent variable. For social support from family one interaction (with hardiness) was found to determine a significant increase of $R^2$ on curiosity. A Post hoc analysis—using interaction graphs (which were performed to know whether social support was related to higher or lower levels of wellbeing when a moderating role of personality is considered), revealed (concerning hardiness) that, managers with low hardiness benefited more from high social support, than managers with high hardiness. For example, among participants with low hardiness, those who perceived more support from family reported higher curiosity than those who perceived less support. Similar effects were found for support from other sources. For example for managers who were high on hardiness, high social support from coworkers, friends or family was related to
low curiosity, compared to low hardiness managers who perceived low support.

Regarding the moderating role of emotional reactivity, results supporting the promotion hypothesis were found only for persons with high reactivity. In highly reactive persons, the higher the support from coworkers, the higher the curiosity. Persons with low emotional reactivity reported the same curiosity regardless of the level of support.

To also test the buffering effect of social support, analyzed in the context of personality, another hierarchical regression analysis was employed. In step 1, the respective index of wellbeing (measured at Time 1) was entered into the equation to partial out earlier effect of wellbeing status. In step 2, social support, stress, and personality were entered into equation. In the third step, the interaction term (Social Support*Stress) was entered, as a test of the buffering effect of social support. Other two-way interactions (Support*Personality or Stress*Personality) were also entered in step 3. Finally, in step 4, the three-way interaction term (Social Support*Stress*Personality) was added to examine whether the buffering effect was moderated by personality. Results yielded significant effects of baseline wellbeing measures entered in step 1. Social support, personality and stress, included into the equation in step 2, produced main effects of these variables. The third step, in which the interaction between perceived support and work stress was entered to assess the buffering effects, produced a significant interaction between stress and support which generated significant increments of R² only for support from supervisors and curiosity. As post hoc further revealed, interaction demonstrated that managers with high support from supervisors and high work stress had higher level of curiosity than individuals with low support and high work stress.
This interaction effect added a significant portion of variance in regression equations, in which either emotional reactivity or hardiness was entered in second step.

To further examine whether social support buffered the effects of work stress on wellbeing, a moderating role of personality was considered. In four out of 24 cases, entering interaction terms resulted in significant increments of $R^2$. Among managers with low hardiness, those who perceived high levels of social support from coworkers had similar levels of curiosity under higher and lower work stress. Among managers with low hardiness and low support from coworkers, curiosity was lower in a group with high work stress, compared to a group with low work stress.

A reverse pattern was found for the hardy managers. Those managers who perceived low levels of social support from coworkers had similar levels of curiosity under high and low work stress. Among managers who reported high support from coworkers, those who were under high work stress perceived lower curiosity, compared to those who were under low work stress. This pattern, different in hardy managers and in managers with low hardiness, was found in all interactions for hardiness that resulted in interpretable increments of $R^2$. Similar patterns of interactions were found for emotional reactivity. Results supporting the buffering hypothesis were found for managers with high reactivity. In managers with high emotional reactivity who perceived high support from coworkers or family, levels of curiosity remained the same in individuals who reported high work stress and individuals who reported low work stress. Post hoc analysis regarding managers with low reactivity and high levels of social support revealed that those individuals who were under high work stress reported a lower level
of curiosity compared to those who were under low work stress.

Summarizing the results, support from supervisors had a protective and a buffering effect while support from coworkers had a promotive effect. The protective effect was found in 25% of analyses. Personality did not moderate the protective effect of social support. The promotive effect was found only if moderating role of personality was considered. Personality moderated the promotive effect in 16% of analyses. The buffering effect was found in 8% of analyses. When personality was entered into equation, the number of analyses supporting the buffering effect increased. Personality moderated the buffering effect in 16% of analyses. Results also revealed that wellbeing indices, such as anxiety, curiosity, and work satisfaction were more strongly related to support from supervisors than to support from the other sources.

**Brain studies on trust**

Research into the neurological basis of trust and what goes on in the brain when an individual trusts or is contemplating trusting another individual is relatively new, but it has rechanneled the thinking of neuroscientists and psychologists on why and how trust may be given even in circumstances where it may be most unexpected. In a study that demonstrates how the brain builds trust, Miller (2005) reports that the brains of two people were scanned simultaneously during a social interaction. Specifically, two volunteers played a trust game from inside functional magnetic resonance imaging scanners, one at the California Institute of Technology in Pasadena and the other at Baylor College of Medicine in Houston, Texas. Results revealed that the activity in a brain region called the caudate nucleus reflects one person’s intention to trust another
with a sum of money. The results also suggest that trust is not purely a product of a noble propensity to be willing to be vulnerable, but may stem from a cold calculation of expected rewards.

In another comprehensive study, McCabe, Houser, Ryan, Smith, and Trouard (2001) had subjects play a binary-choice version of the trust game inside a magnetic resonance imaging (MRI) scanner. McCabe et al (2001) measured blood flow changes in the brain, an indirect measure of neural activity, when subjects interacted with another human or with a computer that moved with stated probabilities. These researchers focused on an area in the medial prefrontal cortex (BA10) shown in previous studies to be associated with “theory of mind.” Theory of mind is the ability that most humans older than four years old have that allows them to anticipate what others will do by putting themselves in someone else’s situation. Small children as well as most autistics are unable to do this and have associated deficits in social interactions. In the trust game, using theory of mind, a participant referred to as Decision Maker 1 (DM1) could probabilistically forecast what another participant, referred to as Decision Maker 2 (DM2) would do. Comparing regional neural activity for DM1s and DM2s who choose to trust/be trustworthy to analogous choices when subjects were told they were playing against a computer, McCabe and colleagues found greater neural activity in BA10. They also found greater neural activity in BA10 when a subject played against another human and cooperated vs. did not cooperate. The interpretation of these findings is that greater prefrontal activity is needed to forecast what another person will do and trust them compared to taking the sure payoff or when interacting with a computer that plays using
known probabilities. This theory of mind activation is a neural substrate associated with calculative trust. A similar study was published by Rilling, Gutman, Zeh, Pagnoni, Berns, and Kilts (2002). Rilling’s group studied neural activity using functional MRI in 36 women playing the trust game. Contrasting play against a human to play with a computer, they found greater neural activation in dopamine-innervated midbrain regions, frontal regions associated with attention and error monitoring, as well as frontal regions that process emotions. Midbrain regions rich in dopamine receptors are the primary areas active during rewarding behaviors. These authors concluded that among the women studied, cooperation itself is rewarding, but requires the mediation of the conflicting concerns of making more money but behaving in socially less acceptable ways. The findings of Rilling and colleagues are consistent with a central nervous system role for the hormone oxytocin (OT)—popularly reckoned as a major trust hormone—during decisions to be trustworthy. OT facilitates the release of dopamine during maternal to infant bonding.

The effect of exogenous OT infusion on human trusting behaviors was studied by Kosfeld, Heinrichs, Zak, Fischbacher, and Fehr, (2005). The researchers ran a trust game in which DM1s could transfer 0, 4, 8 or 12 monetary units; each monetary unit was worth .40 Swiss Francs. One hundred and twenty eight (128) men received either 24IU of intranasal oxytocin, or placebo in a double-blind design. After waiting 50 minutes for the drug to load, subjects played four rounds of the trust game, being rematched with a different player in each round. It was found that DM1s who received exogenous OT were significantly more trusting than those on placebo. For example, in
the placebo group, 21% chose to trust maximally (transferring 12 MUs), while 45% in
the OT group exhibited maximal trust. On average, DM1 trust was 17% higher in the
OT group than the placebo group. This exogenous manipulation demonstrated causally
that OT can induce DM1s to be more trusting. This appears to occur by reducing the
anxiety associated with placing trust in a stranger. Consistent with the findings of Zak,
Kurzban, and Matzner (2005), exogenous OT infusion had no effect on DM2
trustworthiness. Why? The majority of DM2s received a signal of trust and had
endogenous OT release. OT receptors were therefore mostly bound up with OT, and
additional exogenous OT would therefore have no physiologic effect.

**Stressful Events; Influences of/on Stress; and Consequences of Stress**

Driskell, Salas, & Johnston (1999) investigated whether stress may interfere with
individual employee’s desire to be a team player, or why groups of employees tend to
function less effectively under stress. They sampled 95 U.S. Navy technical school
personnel who volunteered to take part in a study of decision making. Each participant
was assigned to a three-person group, which was given a computer simulation of a naval
decision-making task. The task required that participants monitor a radar screen that
contained their own ship at the center and numerous unidentified contacts positioned at
concentric rings away from the ship. The objective was to identify and label each
contact according to three classifications: type of craft (aircraft, surface craft, or
subsurface), its status (civilian or military), and intentions of the craft (hostile or
peaceful). Participants performed the task in either a normal stress or high-stress
environment. As expected, the results of the experiment showed that participants
operating under high stress performed worse than those operating under normal stress conditions. However, what was less expected was the way in which stress interfered with team performance. Results indicated that stress led to a narrowing of team perspective. That is, under stress, team members' focus of attention shifted from group goals to a more narrow or individualistic perspective. Moreover, this loss of team perspective resulted in a breakdown in team performance.

Driskell et al (1999) concluded that although the general effects of stress on performance are well known, the way in which stress disrupts team performance has been poorly understood. However, the results of this study showed that one way in which stress disrupts team performance is by narrowing or weakening the broad team perspective required for effective team behavior.

In another study, Probst & Brubaker (2001) surveyed workers at two plants of a large U.S. food processing company which had recently undergone major organizational changes affecting the job security of the company's employees. In the first plant, an entire shift of workers was laid off in preparation for what was rumoured to be the eventual shut down of the entire plant. At the other plant, the swing shift was being eliminated in favour of a night shift. Those employees who could not work the night shift, like single-parent employees with no day-care alternatives, were expected to lose their jobs. Employees at both plants were asked to take part in the study at two time periods, immediately after the shift changes were announced, and six months following the organizational restructuring. The researchers found that the threat of lay-offs could
put workers at risk for workplace injuries and accidents. In this study of 237 food-processing plant employees, employees who feared they might be laid off showed decreased safety motivation and compliance, which were related to higher levels of workplace injuries and accidents. The results suggested that organizations not only need to consider the effects that employee job insecurity has on the job satisfaction, health and turnover intentions of employees, but also need to consider the possibility that job insecurity can have potentially dangerous implications for employee safety attitudes and behaviors.

Tzschatzsch (2008) examined the relationships between perceived job support, perceived job stress and job attitudes. The target job attitudes were job satisfaction (JS) and organizational commitment (OC), and the types of support were perceived organizational support (POS), perceived supervisor support (PSS) and perceived coworker support (PCS). A total of 276 employed upper-division business students (Female = 146; Males = 129) participated in this study. Participants reported a wide range of work experience, tenure and salary, and worked in a variety of industries. Results showed that higher perceived job stress predicted lower JS and OC. Above and beyond negativity affectivity, salary and work status, higher perceived job support significantly predicted lower job stress and higher job attitudes. Among types of support, POS was the most strongly, and PCS was the least strongly, correlated with job attitudes.
In yet another study examining what happens to people’s immune systems during ongoing stressful situations, Miller, Cohen, & Ritchey (2002) compared 25 healthy parents with children undergoing treatment for pediatric cancer with 25 healthy parents with healthy children on measures of mental health, effects of social support and certain immune system responses. All the parents had their blood samples drawn at the initial session and their salivary cortisol samples taken at intermittent times over two days.

Parents of cancer patients reported more psychological distress than parents with healthy children, according to the study. The parents of cancer patients also were found to have diminished glucocorticoid sensitivity compared to parents of medically healthy children (the hormone ‘glucocorticoid’ is responsible for turning off the in vitro production of the pro-inflammatory cytokines interleukin-1B, interleukin-6 and tumor necrosis factor). However, social support was found to lessen the immunologic consequences of caring for a child with cancer, perhaps by helping the parents deal with the economic, work and family disruptions caused by the disease and its treatment. According to Greg Miller—the lead researcher, although the cancer patients’ parents reported more depressive symptoms, depression did not appear to be a mediator in the process, and that anxiety, intrusive thoughts, feelings of helplessness or lack of sleep may have influenced the stress-related reductions in glucocorticoid sensitivity. These findings suggest a novel mechanism through which psychological stress could influence the onset and/or progression of conditions that involve excessive inflammation, like allergic, autoimmune, cardiovascular, infectious and rheumatologic illnesses (Miller et al, 2002).
Other Studies on Stress

In a study investigating the prediction of psychological distress and coping by gender, Mclean, Strongman, and Neha (2007) tested the hypothesis that ‘women report more distress than men do’ They administered, on a sample of 99 men and 90 women, a questionnaire measuring psychological distress and coping mechanisms. Providing support for the hypothesis, they found that when faced with an identical stressor like exam failure, women experienced more distress than men. This result which was said to be consistent with previous research was explained in terms of social support being more salient factor for females than for males in perceptions of distress (Sherman & Walls, 1995). This is in part due to gender-role stereotypes of men and women which are understood to accentuate difference in distress and social support (e.g., Greenhaus & Parasuraman, 1999) and see women seeking social support to a greater extent than men do (Day & Livingstone, 2003; Nolen Hoeksema & Rusting, 1999; Ptacek, Smith, & Zanas, 1992; Wohlgemuth & Betz, 1991). These traditional gender-role stereotypes of men and women situate women as being socialised to be emotionally expressive and interdependent, whereas men are socialised to be independent (Stokes & Wilson, 1984). And because the traditional male gender-role expectations require men to solve their problems independently, men may be less inclined to turn to others for help (Stokes & Wilson, 1984). By contrast, women are encouraged to be expressive and interdependent, hence utilising social support more effectively and to a greater degree than men (Stokes & Wilson, 1984).

Findings from previous research somewhat corroborate the finding of Mclean et al.
(2007). For example Misra, McKeen, West, & Russo (2000) found—in their own study—that women reported a greater number of academic stressors than men did. They concluded that men tended to perceive life events as less stressful and reacted more positively to academic stressors. Day and Livingstone (2003) also found that women perceived school, friend, and work scenarios to be more distressing than men did; and that women reported that they would seek support from their friends and family members to a greater degree than did men in order to cope with distressing situations.

The foregoing makes it evident that social explanations, compared to any other explanation, account for greater variance in responsiveness to, and coping with stress as influenced by gender. It would, however, be expedient not to ignore the argument by scholars in the biological school of thought that the aforementioned gender differences are partly biologically determined (e.g., Campbell, 2002). Although biological evidence is scant for explaining gender differences, males and females are understood to differ significantly in physiology and hormone composition (Teague, 2001) which also make them differ in terms of how they respond to social cues, and may explain why they interpret and respond to environmental stressors differently, and would respond to particular organizational practices differently.

Ettner, & Grzywacz, (2001) questioned 2,048 workers, from across the USA, about the impact of their job on their physical and mental health. They found that, generally, serious on-going work stress and job pressure or working long hours and more shift work resulted in more negative reported effects of work on physical and mental health. Specifically, they found that those who worked at nights or more than 45 hours per week
(compared with 35 - 45 hours per week) were more likely to report that their job undermined their health. Individual personality characteristics were also related to workers' perceptions of how their jobs affected their health. Those workers with higher levels of neuroticism (emotionally unstable traits such as anxiousness, nervousness and sadness) and a lower level of extraversion were more likely to believe their job had a negative effect on their health. The researchers concluded that policies related to job design may be undermining the health and wellbeing of workers.

Ofoegbu & Nwadiani (2006) explored the empirical evidence on the level of stress among lecturers in Nigerian universities. They administered the stress assessment questionnaire on a sample of 228 (123 male and 105 female) lecturers across eight (five federal and three state) universities in the southern part of Nigeria. Analysis of Variance revealed that the level of stress among lecturers differed significantly based on age and work experience of the lecturer; that Nigerian university lecturers were equally stressed irrespective of the differences in the ownership of their universities, areas of specialization, sex, marital status, place of residence (whether on campus or outside) and administrative responsibilities; and that the factors that had the highest influence of academic stress on the lecturers were 'strikes and interruptions in academic work, delayed and irregular payment of salaries, lack of teaching/instructional facilities, invigilation of examinations, preparations of students’ results, campus militancy, high cost of living, poor states of office accommodations, lack of facilities for research, huge workload, lack of annual leave/holiday, and governments’ underfunding of university education.
In another study, Harkness, Long, Bermbach, Patterson, Jordan, & Kahn (2005) carried out a qualitative analysis of the attributions made by junior (clerical staff) employees who had reported to have been stressed out of the challenges they experienced. Results obtained from different focus group discussions revealed that most participants attributed their stress to poor management practice rather than to their own inability to cope with their workplace challenges. They also reported feeling powerless, helpless, hopeless, and not in control of what was happening because the managers who ought to inspire them as well as give them a sense of control were either incompetent or lacking in the necessary skills to do these. The participants also identified respect, respectful communication, and good relationship with their immediate manager or supervisor as greatly and positively influencing the quality of their working experiences. For several of them, relationship (or a good rapport), especially with the supervisor, is the most important thing at work.

Work-related stress is, however, not limited in origin to interpersonal relationship at work, justice, trust, leadership, or support. It may result from the very nature of the work being done. For example, the influential and causative roles played by the demands of jobs on stress reactions have been researched (e.g., Spector, 1998; Karasek, Brisson, Kawakami, Houtman, Bongers, and Amick, 1998; Osa-Afiana, 2010). In his own study, Osa-Afiana, (2010) carried out an assessment and management of stress among the Nigerian military personnel. After constructing and validating a Military Stress Inventory (MSI), he administered it, alongside with four other scales (measuring obsessive-compulsive, somatization, hostility, anxiety, interpersonal sensitivity, and
depressive disorders) on 450 military personnel and 150 civilians (the civilians were the control group). With the aid of multiple regression analysis, he found obsessive-compulsive disorder to be the best and hostility to be lowest positive predictors of military stress with somatization and hostility falling in-between. He also found death anxiety to be the best negative predictor of military stress while interpersonal sensitivity was the lowest predictor.

Although Osa-Afiana’s study was carried out mainly among the military who are known to exhibit such psychological disorders as Osa-Afiana had employed as independent variables in his study owing to the physical and psychological demands of their job, the findings are a pointer to the fact that the predictors of work-related stress—irrespective of the type of stress in question—may be inexhaustible. It would have been more instructive if Osa-Afiana’s study had included some psychosocial factors, like organizational justice and leader-follower relationship—as is being done in the present study—as predictors of military stress, if only for some literature’s suggestion that these psychosocial factors may be negatively related to stress (Baron and Kalsher, 2002; Dirks and Ferrin, 2002; Harris and Kacmar, 2006).

As a general overview, the review of theoretical literature showcases that not everybody who encounters a stressor may respond with stress; that people in collectivist societies—largely because of their cultural orientation—differ in beliefs and behaviours from people in individualistic societies, especially in that the former place more value on their relationships with their superiors; and that employees react most negatively to interactional injustice followed by procedural injustice, and then distributive injustice.
Furthermore, the theoretical review showcases that when employees’ expectations are violated, such as when they are unfairly treated, the consequences may be grave not only for the organization, but also and more dangerously for the employees’ physical and psychological wellbeing; and this is because what is actually violated in employees’ expectations is the hope that their organization-through their superior-will treat them fairly. Moreover, the theoretical reviews showcases that subordinates are in either high or low-quality relationship with their superiors, that all employees prefer to be in high-quality relationship due to its inherent advantages and benefits which are beyond those specified in their employment contracts, and that employees who are not in high-quality relationships may react with stress. The theoretical review also showcases trust to be of two basic types: character-based or cognitive trust in which subordinates trust their superiors for certain desirable qualities (e.g., competence, reliability) that s/he possesses, and relationship-based or affective trust in which the subordinate trusts the superior only on the strength of his/her cordial relationship with that superior. Finally, the theoretical review showcases superiors as responsible for initiating trusting relationships, and that the superiors’ actions and behaviours form the basis of trust.

The reviewed empirical literature reveals that stress radiating from national leadership can lead to distressed followership; that the main reason employees quit their job revolves around their supervisor or immediate boss; that employees who are abused by their boss engage less in workplace pro-social behaviours; and that supervisor’ positive behaviours help increase subordinates’ wellbeing. Furthermore, the review reveals that employees trust their bosses much more for the bosses’ characters, specifically
competences and consistencies (i.e., cognitive trust); that a good sense of workplace fairness and transformational leadership result in high motivational states for employees; that interactional justice usually makes the highest contribution to important job outcomes, e.g., organizational citizenship behaviours (or OCB); that leader-follower relationship is significantly related to employees’ trust in their organizational leaders; and that too cordial leader-follower relationship can result in job stress for the subordinate in the relationship. Moreover, the review reveals that men who are unfairly treated, especially with respect to procedural and interactional justices may come down with more physical and psychological health problems than their female counterparts; that once employees enjoy coworker support, those who perceive stress can cope so effectively as to respond the same way as their counterparts who do not perceive stress; that trust is not purely a product of a noble propensity to be willing to be vulnerable, but may stem from a cold calculation of expected rewards; and that when employees working as team members are stressed, they become more individualistic, losing their group-centred dispositions. Finally the empirical review further shows that women experienced more distress than men, especially when they (both men and women) are faced with identical stressors; and that most junior employees suffer stress and usually attribute their stress to poor management practice rather than to their own inability to cope with their workplace challenges.

These emphasis on stress prevalence can be corroborated by other empirical accounts such as that 80% of workers feel stress on their jobs (Warneka, 2006); and that stress is estimated to play between 50 to 70 percent contributory role to physical illness including
some of the most serious and life-threatening ailments known to medical science, e.g., heart disease, high blood pressure, and diabetes (Baron & Kalsher, 2002). Therefore, the cost of employee stress is enormous all over the world. In the US alone, employee stress costs businesses $3,000 billion per year in form of absenteeism, health costs, and programmes to reduce stress (Warneka, 2006). Although no reliable statistics about the prevalence, consequences, and cost of work-related stress exist in Nigeria, these would likely be relatively more enormous and alarming.
CHAPTER THREE

3.0 Method

Three major activities were carried out in the course of this research. These are the pilot study/development of the leadership-induced stress scale, the validation of the leadership-induced stress scale, and identification of factors predicting leadership-induced stress. The report of the pilot study leading to the development of the leadership-induced stress scale will be presented first and separately because it was the first activity to be carried out, and all the undertakings in it may be better understood if summarized as a whole. This will be followed by the reports of the activities carried out in the first phase (i.e., phase 1) of the main study, which focused on the validation of the leadership-induced stress scale; and the activities carried out in the second phase (i.e., phase 2) of the main study, which focused on the prediction of leadership-induced stress was predicted by relevant psychosocial factors. To avoid duplication of methodical subtopics, the reports of phases 1 and 2 will both be presented under the subheading of each research activity carried out.

3.1 Development of the Leadership-induced Stress Scale

The pilot study was carried out in Lagos and among ninety three (93) participants who were M.Sc. (part time) students: 49 from the University of Lagos, Akoka; and 44 from Lagos State University, Ojo. Procedures involved the use of the convenient sampling technique, but it was ensured that only those who were on full time paid employment
were selected for participation in the study (class representatives assisted with identifying such people).

Furthermore, the selected participants were met one-after-the-other, in their lecture rooms prior to their lectures and were given A4 papers on which to describe the discomforting, unsettling, threatening, or pleasant thoughts, anticipations, imaginations, feelings, and overt behaviours they were experiencing or had recently experienced about their immediate superior at work. Most of the participants responded by writing down different statements. The researcher and his supervisor carefully compared the statements and dropped several of them which were judged to be too irrelevant to the leadership-induced stress construct. This exercise resulted in a comprehensive set of 91 statements which were later pruned down to 51 statements with inputs and guidance of experts in the field of psychology. The 51 statements were then restructured into item formats and assigned a four-point Likert response format [ranging from ‘Strongly Disagree (1)’ to ‘Strongly Agree (4)’]. This resulted into the Leadership-Induced Stress Scale. A list of these 51 items can be found in appendix 1.

3.2 Validation of the Leadership-Induced Stress Scale (Phase 1) and Prediction of Leadership-induced Stress (Phase 2)

3.2.1 Study Location

Phase 1: The study was carried out in Lagos at the University of Lagos MBA Centre and the Isolo Campus of the Lagos State University.

Phase 2: The Study took place in some middle/small and large scale organizations
which were either privately or government-owned and located in the Lagos Island and in Ikeja areas of Lagos State. The large-scale private organizations are Cadbury Plc (Ikeja) and the West Africa Milk Company (WAMCO) [Ogba]; while the large-scale public organizations are Lagos State’s Ministries of Education, Transportation, and Information and Strategy (Alausa, Ikeja); and Federal Ministries of Finance and Works (Lagos Island). The medium/small scale private organizations are Reals Pharmaceuticals Ltd (Ikeja), Bank PHB (Ikeja and Lagos Island), Union Bank (Ikeja and Lagos Island), WEMA Bank (Ikeja and Lagos Island), Intercontinental Bank (Ikeja and Lagos Island), United Bank of Africa (UBA) (Oregun-Ikeja and Lagos Island), First Bank Plc (Ikeja and Lagos Island), Reals Specialties Ltd (Ikeja), First Foundation (Ikeja), Lodabs Creations and Allied Services (Lagos Island), Anchoria Investment and Securities (Lagos Island), and Ijewere and Companies (Lagos Island).

3.2.2 Sample

**Phase 1:** The sample comprised 155 MBA (part time) students: 73 from the University of Lagos’s MBA Centre; and 82 from Lagos State University (Isolo Campus). This sample also comprised 97 (62.60%) men and 58 (37.40%) women who were aged between 24 and 51 years with a mean age of 27 years (S.D = 6.26). While 83 (53.50%) of them were married, 66 (42.60%) were single, five (3.20%) were divorced/separated, and one (0.60%) was widowed. Regarding their highest educational qualification, 61 (39.40%) possessed HNDs, 63 (40.60%) had Bachelor’s degrees, while 31 (20%) already had Master’s degrees or PGDs. Their job tenures ranged between one (1) and 21 years with a mean tenure of 4.63 years (S.D = 4.32). Seventy seven (77, i.e., 49.70%) of
them were employed in private organizations, while 78 (50.30%) were working in
public organizations. Fifty (50, i.e., 32.30%) of them were engaged in production (or
manufacturing) jobs; 66 (42.60%) were in banking, and 39 (25.20%) were in other
services.

Phase 2: A total of 622 employees whose ages ranged between 20 and 58 years with an
average age of 32.78 years (SD = 7.32), and whose job tenures ranged between one (1)
and 34 years with average tenure of 6.01 (SD = 6.37) years participated in the study.
They comprised 317 (51.00%) males and 305 females (49.00%); and 407 (65.40%)
junior cadre and 215 (34.60%) middle-cadre employees. While 289 (46.50%) of these
participants were employed in large-scale organizations, 333 (53.50%) were found in
medium/small-scale organizations. Also, while 442 (71.10%) of them were employed in
private organizations, 180 (28.90%) were employed in public organizations. Regarding
their marital statuses, 314 (50.48%) were single; 286 (45.98%) were married; 16
(2.57%) were divorced or separated; and, 6 (0.96%) were widowed. They were also
differentiated by the types of jobs they were doing in that 167 (26.80%) were found in
Banking; 137 (22.00%) in consulting/marketing; 141 (22.70%) in core public/civil
services; and 177 (28.50%) in Production—e.g., Engineering and related operations.
They varied more in terms of highest educational qualifications in that 41 (6.60%) of
them had secondary school or technical college certificates; 162 (26.00%) held Ordinary
National Diploma (OND) or National Certificate of Education (NCE); 33 (5.30%) had
attained some professional or chartered statuses; 97 (15.60% ) held Higher Diplomas;
241 (38.70%) held Bachelor’s degrees; 46 (7.40%) held Master’s Degrees; and, 2
(0.30%) held Doctorate Degrees.

### 3.2.3 Research Design

The survey design was employed in both phases 1 and 2.

### 3.2.4 Instruments

**Phase 1:** The research instrument was a single questionnaire which comprised of: (1) The 51-item developed measure of leadership-induced stress. (2) The scales later used for data collection in the phase 2 of the study which were all adopted for the purpose of using them to measure the relevant variables in the study. These are the 12-item Measure of Organizational Trust (comprising the Affective and Cognitive Trust Scales), the 15-item Measure of Organizational Justice (comprising the Distributive, Procedural, and Interactional Justice Scales), the six-item Perceived Coworker Support Scale, and the 7-item Perceived Leader-Member Exchange (LMX-7) Scale. (3) The relevant scales used to validate (1) and (2) above. The relevant scales used in validating (1) and (2) above are the short version of the Perceived Organizational Support Scale, the Perceived Workplace Fairness Scale, the Positive and Negative Affect Schedule, and the Satisfaction with Life Scale. They are described as follows:

The short version of the *Perceived Organizational Support Scale (see appendix 16)* was developed by Eisenberger, Fasolo, and Davis-LaMastro (1990). It is an eight-item, one-dimensional measure of participants’ evaluation of organization actions that affect their well-being. The scale has a coefficient alpha of 0.90 and above (Eisenbeger, Jim, Stephen, & Patrick, 1997). Respondents rate items on a 5-point Likert-format ranging from strongly Disagree (1) to Strongly Agree (5). Adebayo (2005) obtained a coefficient
alpha of 0.8 for the scale in his study of ethical attitudes and prosocial behaviour in the Nigerian police.

**Perceived Workplace Fairness Scale (see appendix 9)** is a six-item, measure of employees’ perceptions of the overall fairness of the treatments they are receiving in their workplaces. It was developed by Van Yperen (1998). While using it in two studies on the Nigerian Police, Adebayo (2005) reported internal consistency reliabilities (i.e., Coefficient Alpha) of 0.73 and 0.82, respectively. For its use in Nigeria, Adebayo (2005) presented the items to expert judges (lecturers) who scrutinized and adjudged them relevant measure of the construct (fairness). The expert panel also recommended that the response format be modified to a five-point Likert-type (strongly agree to strongly disagree) such that ‘strongly disagree =1 and ‘strongly agree’ =5. According to Adebayo (2005), the panel of experts also provided ample assurance that the scale had high content validity in accord with Nunnally (1978). Examples of the items on the fairness scale include “I give a great deal of time and attention to the organization but get very little appreciation’; “I feel unfairly treated in my job.” All the items were negatively worded. Items were scored in a manner that higher scores indicated more perceived workplace fairness and lower scores reflected low perceived workplace fairness.

**The Positive and Negative Affect Schedule (PANAS) [see appendix 6]** was used to measure affective wellbeing. Developed by Watson, Clark, and Tellegen (1988), the scale comprises two independent components (positive affect and negative affect) of 10 items each with the entire scale consisting of 20 words which describe different
emotions respondents have experienced during the past one month. The 10 words in the positive affect component depict pleasant emotions while the ten 10 words in the negative affect component depict unpleasant emotions. Responses to the items in each component are based on a five-point Likert format ranging from ‘Very Slightly or Not At all (1)’ to ‘Extremely (5)’. Opayemi (2008) obtained a Cronbach Alpha of 0.87 from using the scale on a Nigerian sample.

**The Satisfaction with Life Scale (SWLS)** [see appendix 5] was used to measure satisfaction with life of the participants. It is a 5-item scale developed by Diener, Emmons, Larsen, & Griffin (1985) after a seven-point Likert format ranging from “Strongly Disagree (1)” to “Strongly Agree (7)”. High scores in the scale indicate high life satisfaction while low scores indicate low life satisfaction. Opayemi (2008) obtained a Cronbach Alpha of 0.73 for the scale while researching the mediating role of goal management on the impact of personality factors on subjective wellbeing of university lecturers in South-West Nigeria.

**Phase 2:** The scales used for data collection in this part of the study were combined into a comprehensive questionnaire. The first section of the questionnaire was a demographic data form which was used to obtain information on the participants’ sex, age, marital status, educational qualifications, type of organization, type of job, status at work, and tenure at work. The other sections of the questionnaire comprised the newly developed and validated Leadership-Induced Stress Inventory (LISI); the Leader-Member Exchange (LMX-7) Scale; the Measure of Organizational Justice (comprising the Distributive, Procedural, and Interactional Justice Scales); the Measure of
Organizational Trust (comprising the Affective and the Cognitive Trust Scales); and the Coworker Support Scale. These scales are described as follows:

The *Leadership-Induced Stress Inventory (LISI)* [see appendix 2] is a multidimensional, 33-item measure of subordinates’ perception of the extent to which their immediate boss in their workplace induces stress in them. The LISI requires respondents to rate the extent to which they agree with each of 33 items’ description of the unpleasant thoughts, feelings, or reactions their immediate boss induce in them. The responses are given on a four-point Likert Scale ranging from 1: Strongly Disagree to 4: Strongly Agree. As all the 33 items are scored directly, the higher an employee’s score on the scale, the more leadership-induced stress s/he perceives. The LISI possesses very good reliability as evidenced by its high reliability coefficients: Cronbach’s Alpha = 0.95, Split-half = 0.89. It also has a significant convergent validity of 0.43 with the Negative Affect Sub-Scale of the PANAS, and significant discriminant validities of -0.72 and -0.58 with the Positive Affect Sub-Scale of the PANAS and the Life Satisfaction Scale, respectively.

The measure of organizational justice [see appendices 12 to 15], developed by Colquitt (2001), is a comprehensive measure of employees’ perceptions of fairness in their organizations. It comprises four different scales each of which measures a specific and distinct type of organizational justice, three of which were used in this study: Distributive, Procedural, and Interactional Justice Scales. The Distributive Justice Scale consists of four-items developed by Leventhal (1976) and measures employees’ perceived fairness of outcomes received from their organization. The Interpersonal
Justice Scale consists of four items developed by Bies & Moag (1986) and measures employees’ perceived fairness of treatment received from their immediate bosses (or supervisors). The Procedural Justice Scale consists of seven items—two developed by Thibaut & Walker (1975) and five developed by Leventhal (1980) and measures employees’ perceived fairness of the procedures employed in allocating outcomes in their organization. Response to each scale is based on a five-point Likert format ranging from “1: To a Small Extent” to “5: To a Large Extent”.

In his studies which examined the dimensionality of the Measure of Organizational Justice, Colquitt (2001) reported good reliabilities and validities for the measures. Specifically, he found high Cronbach Alphas of 0.93, 0.92, 0.90, and 0.93 for the procedural, interactional, informational, and distributive justice scales, respectively. His proposed four-factor model also provided a good fit for the data as evident by the significant Incremental Fit Index (IFI) of 0.91 and the significant Comparative Fit Index (CFI) of 0.91. This good fit of the four-factor structure coupled with the weak intercorrelations among the four scales are indicative of adequate discriminant validities of the scales (Colquitt, 2001).

The Leader-Member Exchange Scale [see appendix 7] popularly known in literature as LMX-7 was used to measure Perceived leader-follower relationship. The LMX-7 is a seven-item, unidimensional scale which measures the quality of the relationship between a subordinate and his/her immediate superior at work as perceived by the subordinate. As designed by Scandura & Graen (1984) who developed the scale, the subordinate evaluates his/her relationship with his/her supervisor on a 5-point Likert scale ranging
from 1: Strongly Disagree to 5: Strongly Agree such that the higher the score of a respondent on the scale the better his/her perceived leader-follower relationship. The LMX–7 was standardized and validated by Scandura and Graen in a field experiment whereby organizational leadership intervention treatments yielded Cronbach’s Alphas of 0.86 and 0.84 for pre and post intervention treatments, respectively (Scandura and Graen, 1984).

The *measure of organizational trust* [see appendices 10 and 11] was used to measure subordinate employees’ affective and cognitive trusts in their immediate superiors at work. Developed by Yang (2005), the measure of organizational trust comprises two scales each of which comprise six items, the Affective Trust Scale and the Cognitive Trust Scale measuring affective and cognitive trusts respectively. Both scales were developed by Yang (2005). The Affective Trust Scale measures an employee’s trust in his/her immediate organizational leader which is grounded in the employee’s relationship with the organizational leader. The Cognitive Trust Scale measures an employee’s trust in his/her immediate organizational leader which is based on the leader’s prior behavior regarding attributes such as consistency, predictability, reliability, truthfulness, and fairness. Responses to both scales are made and scored on a 5-point Likert format ranging from “1: Strongly Disagree” to “5 : Strongly Agree”. Yang (2005) established the reliability of the two scales. In his study, the Affective and Cognitive Trusts in Organizational Leaders yielded Cronbach’s Alphas of 0.94 and 0.95, respectively. Yang (2005) also reported that the items relevant to each of affective and cognitive trust scales loaded distinctly and significantly on their respective dimensions.
The Perceived Coworker Support Scale [see appendix 8] is one of the numerous scales of the Job Content Questionnaire (JCQ) developed by Karasek, Brisson, Kawakami, Houtman, Bongers, and Amick (1998). The Coworker Support Scale is a six-item measure of the extent to which employees perceive their colleagues (except their immediate superior) as empathizing, thoughtful, supportive, and concerned about the employee’s welfare. In a study focused on the reliability and validity of the JCQ Scales, Karasek, et al (1998) found the internal consistency of the scales to be similar across populations and between men and women with the overall Cronbach’s alpha coefficients for men and women being 0.74 and 0.73 respectively. They also reported the items of the Co-worker Support Scale loading distinctly on this single factor in confirmatory factor analyses conducted in Canada, the Netherlands, China, and Japan.

3.2.5 Procedures
Sampling and Data Collection

Phase 1: With the aid of the purposive sampling technique, it was ensured that only those who were on full time paid employment and were not on leave from their organizations were selected for participation in the study (class representatives assisted with identifying such people). The participants were met at their lecture venues: Isolo campus (for LASU MBA students); and the UNILAG MBA centre in Yaba Lagos, where the questionnaires comprising all the scales described above were administered on them. The exercise, which was facilitated by some lecturers in both campuses, spanned nine weeks, producing 155 completed and usable questionnaires.
**Phase 2:** A combination of purposive and simple random sampling was employed. Purposive sampling was used to select the locations of the study which were Ikeja/Ogba axis and Lagos Island/Victoria Island axis, and to select the private and public organizations sampled in these locations. Simple random sampling was employed to select the employees who participated in the study from their respective organizations. The number of employees selected from each organization depended on the number of junior and middle-cadre employees found in the organization. That is, in every organization that was sampled, the number of employees who were selected for participation was determined with the aid of the knowledge of the actual number or estimates (in some cases) of junior and middle-level employees who were found there.

The questionnaires were administered on the participants at their various places of work after the permission to do so had been sought and obtained from their organizations. In keeping with the sampling procedures adopted, the researcher selected participants from Ikeja and Lagos Island areas out of the need to ensure that the variables of type and location of organization are taken care of so that these would not constitute extraneous variables in the study.

Data collection spanned more than three months with six undergraduate (B.Sc. Psychology) students of the Olabisi Onabanjo University, Ago-Iwoye assisting—the students were trained for this purpose. While the questionnaires were administered on the participants in their various workplaces by the researcher himself, the students assisted with following up on the participants and retrieving completed questionnaires from them and delivering these to the researcher.
Data Coding and Analysis

Phase 1: Responses to the instrument were entered into the Statistical Package for the Social Sciences (SPSS) software on a personal computer. These were appropriately coded, and analyzed with the Principal Component Analysis (PCA), an SPSS data reduction tool. With the aid of the PCA, hypothesis 1 was tested.

Phase 2: Data analysis was carried out with the aid of the SPSS 15. But in addition to the SPSS, the Worksheet for Three-way Interactions was also used which served three purposes: identifying and categorizing the (eight) groups of employees to be compared in the significant three-way interaction; generating mean scores for these groups of employees; and plotting the three-way interaction graph and bar chart of the interaction. Responses to the questionnaires were entered into SPSS and the resulting data were appropriately coded. Descriptive statistics was used to compute mean and standard deviation scores of the predictors on leadership-induced stress, while the Pearson’s Product Moment Correlation was employed in computing the bivariate correlations between all pairs of variables. Also, the researcher had to recode the categorical variable of marital status as specified in SPSS to make it suitable for inclusion in the moderated regression analysis that was later carried out. Here, marital status was recoded into married, divorced/separated, and widowed. In line with the instructions for the SPSS dummy coding; only three out of the four original categories of marital status were included in the moderated regression analysis. The fourth category of marital status (i.e., single) was not represented because there can only be $g - 1$ (groups minus 1) categories in dummy coding—the omitted group serving as the standard for the comparison and
interpretation of the influence of the others on the dependent variable. As also understood from dummy coding, the fourth category (i.e., single) had not disappeared at all and was the one category assigned 0 on all the other (three) dummy variables so that the influence of each of the three variables on leadership-induced stress could be clearly understood. Also, to create the interaction terms needed to test for moderation, each of the predictors was centred at its mean after which participants’ scores on the independent variable was multiplied with their scores on the moderator. All these were carried out as specified for moderated regression in the SPSS and as suggested by Aiken, & West (1991); Jose (2003, 2008a, 2008b); Luis (2009); and Field (2009). The predictors were then fed into the regression analysis.

In the data analysis, hypothesis 1 was tested with a Principal Component Analysis; the Cronbach’s Alpha and Split-Half Reliability Analyses; and the Pearson’s Product-Moment Correlation. Hypotheses 2, 3, and 4 were tested with a Moderated Regression Analysis and the Worksheet for plotting three-way interaction graphs (Dawson and Richter, 2006). Hypothesis 5 was tested with a 2X2 Analysis of Variance.
CHAPTER FOUR

4.0 Results

The statistical analysis methods mentioned in the previous page were employed in analyzing the two sets of data the two phases of this research produced. The results obtained from such analyses are presented as follows:

Phase 1 (Validation of the Measure of Leadership-induced Stress):

Principal Component Analysis method was used to identify the principal factors in the constructed 51-item proposed measure of Leadership-Induced Stress, as well as the items that were most significantly related to them. The rule of thumb employed for determining the items to retain was that of a minimum total item correlation (or communality) of 0.50 (approximately). On the basis of this, the 51 items were pruned down to 33 during the first part of the principal component analysis, as 18 items whose communalities were less than 0.50 (approximately) were dropped. The rest of the principal component analysis was thus based on the remaining 33 items.

A bivariate correlation analysis was carried out to obtain the inter-item correlation scores of the 33 leadership-induced stress items. Eight components (or factors) whose Eigenvalues were greater than 1.0 were extracted from the 33 items during principal component analysis.

Varimax rotation was carried out which helped to maximize the chances that each of the 33 items would load most significantly on one of the eight components to which they were most relevant. Following the varimax rotation, items which loaded best on each of the eight factors were identified. All the 33 items of the measure of leadership-induced
stress loaded significantly and distinctly on their respective components after varimax rotation. The resulting 33-item measure of leadership-induced stress—now named the Leadership-Induced Stress Inventory (LISI)—can be found in appendix 2; while the naming of the components and their relative contributions to leadership-induced stress are, respectively, presented in appendices 3 and 4. The total rotation sums of squared loadings in LISI explained by the eight components are indicative of the relative contributions of these components and their constituent items to the LISI. Therefore, as can be gleaned from appendix 4, 48.37%, 29.45% and 22.18% of the LISI can be said to measure cognitive leadership-induced stress, affective leadership-induced stress, and conative leadership-induced stress, respectively.

To evaluate the adequacy of the data used, and the appropriateness and accuracy of the entire exercise, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and the Bartlett’s Test of Sphericity were computed. While the KMO test yielded a KMO = 0.88, the Bartlett’s Test of Sphericity yielded an approximate Chi-Square [$\chi^2 = 2799.287$, df = 528, $P<0.0001$]. Both were adjudged significant.

**Reliability of the LISI:** To establish the reliability of the newly developed leadership-induced stress inventory, two methods were employed: (i) the Cronbach Alpha and (ii) the Split-half methods. The data obtained from the responses of the participants to the scale were subjected to these methods of reliability analyses. As can be seen in tables 1a and 1b below, the analyses resulted in Cronbach Alpha and Split-half’s reliability coefficients of 0.95 and 0.90, respectively, for the LISI. Being either greater than or equal to 0.90, the Cronbach Alpha and Split-half reliability coefficients were
adjudged excellent.

TABLE 1(a): Summary of Cronbach’s Alpha Reliability on LISI

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Based on Standardized Items</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.948</td>
<td>.948</td>
<td>33</td>
</tr>
</tbody>
</table>

TABLE 1(b): Summary of Split-half Reliability on LISI

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Part 1</th>
<th>Value</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.918</td>
<td>17(a)</td>
</tr>
<tr>
<td></td>
<td>Part 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value</td>
<td>.895</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of Items</td>
<td>16(b)</td>
</tr>
</tbody>
</table>

| Correlation Between Forms | .814 |
| Total Number of Items     | 33   |
| Spearman-Brown Coefficient |       |
| Equal Length              | .897  |
| Unequal Length            | .898  |
| Guttman Split-Half Coefficient | .895 |

**Validity of the LISI:** After the principal factors and the items making up the LISI had been identified, and Internal Consistency and Split-Half reliabilities established, bivariate correlations were computed between the LISI and each of the two other scales (PANAS and Satisfaction with Life Scale) with the aid of the Pearson’s Product Moment Correlation. This analysis was aimed at estimating the convergent and discriminant validities of the LISI. That is, it was aimed at determining whether participants’ scores on the LISI would converge on their scores on the Negative Affect Sub-Scale of the PANAS and discriminate against their scores on both the Positive Affect Sub-Scale of the PANAS and the Satisfaction with Life Scale (the Satisfaction with Life Scale measures Cognitive Wellbeing). The results are displayed in table 2 (a) below.
** Correlation is significant at the 0.01 level (2-tailed).

As shown in table 2(a) above, the Leadership-Induced Stress Inventory (LISI) exhibited a significant convergent validity with the Negative Affect Sub-Scale of the PANAS (r = 0.43, df = 153, P<0.01), and significant discriminant validities with the Positive Affect Sub-Scale of the PANAS (r = -0.72, df = 153, P<0.01); and with the Satisfaction with Life Scale (r = -0.58, df = 153, P<0.01).

Apart from the 33 items loading significantly on their respective components, the entire scale proved very useful in terms of its reliability and validity. It’s Cronbach Alpha and Split-half reliability coefficients were both very high (tables 1a and 1b). Its construct validity was also good as indicated by its convergent and discriminant validities which were either moderate or high. To a large extent, these results support the assumption contained in hypothesis one that the newly constructed measure of Leadership-Induced Stress will have high reliability and validity coefficients.

**Establishment of Reliabilities and Validities for other Measures used in the Study**

The seven scales which were employed—alongside the LISI—for data collection (i.e.,

---

**Table 2(a): Correlation Matrix of Leadership-induced Stress, Positive Affect, Negative Affect, and Life Satisfaction.**

<table>
<thead>
<tr>
<th></th>
<th>LISI</th>
<th>Positive Affect</th>
<th>Negative Affect</th>
<th>Cog. Wellb</th>
<th>Cronbach Alpha</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>LISI</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0.95</td>
<td>57.69</td>
<td>15.06</td>
<td>155</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>-.72**</td>
<td>1</td>
<td></td>
<td></td>
<td>0.73</td>
<td>32.83</td>
<td>6.51</td>
<td>155</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>.43**</td>
<td>-.45**</td>
<td>1</td>
<td></td>
<td>0.80</td>
<td>21.26</td>
<td>6.93</td>
<td>155</td>
</tr>
<tr>
<td>Cog. Wellbeing</td>
<td>-.58**</td>
<td>.42**</td>
<td>-.29**</td>
<td>1</td>
<td>0.77</td>
<td>18.18</td>
<td>7.53</td>
<td>155</td>
</tr>
</tbody>
</table>

---

**Correlation is significant at the 0.01 level (2-tailed).**
the LMX Scale, the Distributive, Procedural, and Interactional Justices Scales, the Affective and Cognitive Trusts Scales, and the Coworker Support Scale) were also standardized in this phase 1 of the study before their use in phase 2 of the study. To establish their convergent validities, Pearson’s Product Moment Correlation analyses were performed in which the measures of distributive, procedural, and interactional justices were correlated with the perceived fairness in interpersonal treatment scale; while the measures of leader-follower relationship, affective trust, cognitive trust, and co-worker support were correlated with the perceived organizational support scale. To assess their reliabilities, seven separate internal consistency (Cronbach’s Alpha) reliability analyses were performed. The results of these analyses can be found in table 2(b) below.

Table 2 (b): Reliabilities and Validities of the other Measures Used for data Collection in the Study

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cronb. Alpha</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX-7</td>
<td>0.78</td>
<td>21.35</td>
<td>6.25</td>
<td>155</td>
</tr>
<tr>
<td>Coworker Support</td>
<td>0.73</td>
<td>18.77</td>
<td>2.57</td>
<td>155</td>
</tr>
<tr>
<td>Distributive Justice</td>
<td>0.87</td>
<td>13.00</td>
<td>4.38</td>
<td>155</td>
</tr>
<tr>
<td>Procedural Justice</td>
<td>0.82</td>
<td>25.88</td>
<td>7.08</td>
<td>155</td>
</tr>
<tr>
<td>Interactional Justice</td>
<td>0.83</td>
<td>14.01</td>
<td>3.99</td>
<td>155</td>
</tr>
<tr>
<td>Affective Trust</td>
<td>0.88</td>
<td>20.38</td>
<td>5.28</td>
<td>155</td>
</tr>
<tr>
<td>Cognitive Trust</td>
<td>0.84</td>
<td>21.17</td>
<td>4.76</td>
<td>155</td>
</tr>
<tr>
<td>Organizational Support</td>
<td>0.89</td>
<td>27.57</td>
<td>7.01</td>
<td>155</td>
</tr>
<tr>
<td>Workplace Fairness</td>
<td>0.78</td>
<td>21.06</td>
<td>5.16</td>
<td>155</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**
*Correlation is significant at the 0.05 level (2-tailed).

**Phase 2 (Identification of Factors Predicting Leadership-induced Stress)**

**Descriptive Statistics**

The mean and standard deviation scores for each of the eight subscales (or components)
of leadership-Induced Stress Inventory (LISI) were computed for males and females and for junior and middle cadre employees who participated in the study. This resulted in norms on the LISI for this Nigerian sample. The norms generated from the exercise are presented in tables 3 and 4 below.

Table 3: Leadership-induced Stress Inventory Scores for Male and Female Participants in the Study.

<table>
<thead>
<tr>
<th>COMPONENT NUMBER</th>
<th>NAME OF COMPONENT</th>
<th>GENDER</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Excessive Fear of Boss</td>
<td>MALE</td>
<td>13.62</td>
<td>4.02</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>12.95</td>
<td>4.10</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>13.29</td>
<td>4.07</td>
<td>622</td>
</tr>
<tr>
<td>2</td>
<td>Negative Memories and Expectations about Boss</td>
<td>MALE</td>
<td>10.80</td>
<td>3.60</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>10.40</td>
<td>3.54</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>10.60</td>
<td>3.57</td>
<td>622</td>
</tr>
<tr>
<td>3</td>
<td>Loss of Concentration Due to Boss’ Presence</td>
<td>MALE</td>
<td>9.00</td>
<td>2.95</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>8.66</td>
<td>2.79</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>8.83</td>
<td>2.88</td>
<td>622</td>
</tr>
<tr>
<td>4</td>
<td>Boss-induced Inability to Think</td>
<td>MALE</td>
<td>8.22</td>
<td>2.30</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>8.04</td>
<td>2.36</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>8.13</td>
<td>2.33</td>
<td>622</td>
</tr>
<tr>
<td>5</td>
<td>Perception of Boss as a Threat to Job and Wellbeing</td>
<td>MALE</td>
<td>8.14</td>
<td>2.41</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>7.94</td>
<td>2.36</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>8.04</td>
<td>2.39</td>
<td>622</td>
</tr>
<tr>
<td>6</td>
<td>Obsession with the Need to Avoid Boss</td>
<td>MALE</td>
<td>3.71</td>
<td>1.42</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>3.52</td>
<td>1.41</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>3.62</td>
<td>1.42</td>
<td>622</td>
</tr>
<tr>
<td>7</td>
<td>Boss-induced Uncertainty and Guilt Feelings</td>
<td>MALE</td>
<td>3.80</td>
<td>1.50</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>3.76</td>
<td>1.36</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>3.78</td>
<td>1.44</td>
<td>622</td>
</tr>
<tr>
<td>8</td>
<td>“On Edge” Feelings at Boss’ Physical or Imagined Presence</td>
<td>MALE</td>
<td>6.37</td>
<td>2.12</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>5.84</td>
<td>1.99</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>6.11</td>
<td>2.07</td>
<td>622</td>
</tr>
<tr>
<td></td>
<td>Leadership-Induced Stress Inventory (LISI)</td>
<td>MALE</td>
<td>63.67</td>
<td>17.08</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEMALE</td>
<td>61.11</td>
<td>16.60</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
</tbody>
</table>
As can be seen in table 3 above, the mean scores of males were consistently greater than the mean scores of females across the eight subscales of the LISI and on the entire LISI scale. This suggests that Nigerian male employees may be more susceptible to leadership-induced stress than their female counterparts. As can also be seen in table 4, the mean scores of junior employees were consistently higher than mean scores for
middle-cadre employees across the eight subscales of LISI, as well as on the entire LISI scale. This also suggests that Nigerian junior employees may perceive more leadership-induced stress than Nigerian middle-cadre employees.

Mean LISI scores were also computed for the various levels or categories of the predictors in this study. These means and their standard deviations are shown in Table 5.

Table 5: Leadership-induced Stress Scores for the Various Levels of the Predictors

<table>
<thead>
<tr>
<th>PREDICTOR</th>
<th>LEVEL</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERACTIONAL JUSTICE</td>
<td>LOW</td>
<td>68.28</td>
<td>16.16</td>
<td>271</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>57.88</td>
<td>16.04</td>
<td>351</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>AFFECTIVE TRUST</td>
<td>LOW</td>
<td>67.98</td>
<td>16.82</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>58.33</td>
<td>15.74</td>
<td>359</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>LEADER-FOLLOWER RELATIONSHIP (LMX)</td>
<td>LOW</td>
<td>68.76</td>
<td>17.36</td>
<td>294</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>56.72</td>
<td>14.23</td>
<td>328</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>COWORKER SUPPORT</td>
<td>LOW</td>
<td>65.56</td>
<td>16.75</td>
<td>368</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>57.85</td>
<td>16.05</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>PROCEDURAL JUSTICE</td>
<td>LOW</td>
<td>61.99</td>
<td>16.88</td>
<td>292</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>62.78</td>
<td>16.90</td>
<td>330</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>DISTRIBUTIVE JUSTICE</td>
<td>LOW</td>
<td>63.06</td>
<td>15.98</td>
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</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>61.94</td>
<td>17.52</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>COGNITIVE TRUST</td>
<td>LOW</td>
<td>68.18</td>
<td>17.16</td>
<td>282</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>57.63</td>
<td>15.08</td>
<td>340</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>JOB TENURE</td>
<td>SHORTER</td>
<td>63.50</td>
<td>17.21</td>
<td>450</td>
</tr>
<tr>
<td></td>
<td>LONGER</td>
<td>59.58</td>
<td>15.70</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>AGE</td>
<td>YOUNGER</td>
<td>64.51</td>
<td>16.66</td>
<td>358</td>
</tr>
<tr>
<td></td>
<td>OLDER</td>
<td>59.57</td>
<td>16.80</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
<tr>
<td>MARITAL STATUS</td>
<td>SINGLE</td>
<td>64.42</td>
<td>16.56</td>
<td>314</td>
</tr>
<tr>
<td></td>
<td>MARRIED</td>
<td>60.42</td>
<td>17.18</td>
<td>286</td>
</tr>
<tr>
<td></td>
<td>DIV/SEP</td>
<td>57.69</td>
<td>14.49</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>WIDOWED</td>
<td>64.67</td>
<td>15.00</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
</tbody>
</table>
The correlation coefficients between each and all other variables of the study were also computed. These, supplemented with the mean and standard deviation scores of these variables, are presented in table 6 below.

**Correlation is significant at the 0.01 level (2-tailed).**

The moderated regression carried out to test hypotheses 2, 3, and 4, had six models as shown in tables 7(a) and 7(b) below. The first model tested the influence of marital status (a categorical variable) on leadership-induced stress. While the categorical variables to which marital status had been recoded, together, contributed a significant 1.6% of the variance in leadership-induced stress \[R^2 \text{ Change} = 0.016, F (3, 618) = 3.30, \text{P}<0.05\], only the ‘married’ category had a significant, unique influence on leadership-induced stress \[\beta= -0.12, \text{P}<0.05\). Importantly, married employees reported less leadership-induced stress than single employees (Mean Difference = 4.00; or B= -4.00, p<0.05). The regression coefficient of married employees, being negative, indicates that the mean leadership-induced stress score of married employees was less than that of single employees and that married employees were less susceptible to leadership-

**Table 6: Correlation Matrix for Variables in the Study.**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>LISI  1</td>
<td>1</td>
<td>.45**</td>
<td>1</td>
<td>.28**</td>
<td>.30**</td>
<td>1</td>
<td>.07</td>
<td>.20**</td>
<td>.21**</td>
<td>1</td>
<td>15.93</td>
<td>4.77</td>
<td>622</td>
</tr>
<tr>
<td>LMX  2</td>
<td></td>
<td>-.45**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>18.18</td>
<td>2.75</td>
<td>622</td>
</tr>
<tr>
<td>Coworker Sp. 3</td>
<td>-.28**</td>
<td>.30**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>11.93</td>
<td>4.77</td>
<td>622</td>
</tr>
<tr>
<td>Distributive Js. 4</td>
<td></td>
<td></td>
<td>.07</td>
<td>.20**</td>
<td>.21**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>18.57</td>
<td>6.58</td>
<td>622</td>
</tr>
<tr>
<td>Procedural Js. 5</td>
<td></td>
<td></td>
<td></td>
<td>.00</td>
<td>.17**</td>
<td>.18**</td>
<td>.44**</td>
<td>1</td>
<td></td>
<td>1</td>
<td>13.89</td>
<td>4.16</td>
<td>622</td>
</tr>
<tr>
<td>Interactional Js. 6</td>
<td></td>
<td></td>
<td>.36**</td>
<td>.47**</td>
<td>.29**</td>
<td>.29**</td>
<td>.34**</td>
<td>1</td>
<td></td>
<td>1</td>
<td>20.55</td>
<td>5.31</td>
<td>622</td>
</tr>
<tr>
<td>Affective Trust 7</td>
<td></td>
<td>.32**</td>
<td>.50**</td>
<td>.33**</td>
<td>.18**</td>
<td>.27**</td>
<td>.45**</td>
<td>1</td>
<td></td>
<td>1</td>
<td>21.19</td>
<td>5.03</td>
<td>622</td>
</tr>
<tr>
<td>Cognitive Trust 8</td>
<td>-.35**</td>
<td>.46**</td>
<td>.35**</td>
<td>.14**</td>
<td>.20**</td>
<td>.38**</td>
<td>.64**</td>
<td>1</td>
<td></td>
<td>1</td>
<td>32.78</td>
<td>7.32</td>
<td>622</td>
</tr>
<tr>
<td>Age 9</td>
<td>-.14**</td>
<td>.00</td>
<td>.01</td>
<td>.02</td>
<td>-.06</td>
<td>-.01</td>
<td>.03</td>
<td>.01</td>
<td>1</td>
<td>1</td>
<td>6.01</td>
<td>6.37</td>
<td>622</td>
</tr>
<tr>
<td>Job Tenure 10</td>
<td>-.11**</td>
<td>.04</td>
<td>-.01</td>
<td>.04</td>
<td>-.02</td>
<td>-.00</td>
<td>.05</td>
<td>.02</td>
<td>.76**</td>
<td>1</td>
<td>6.62</td>
<td>6.37</td>
<td>622</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**
induced stress compared to single employees. This finding supports the part of hypothesis two of this study which assumes that ‘leadership-induced stress will reduce when the employees in focus are married compared to when they are single’. As can be seen in table 5 above, the mean difference (MD = 4) obtained when the mean leadership-induced stress of single employees ($\bar{x} = 64.42$) was subtracted from that of married employees ($\bar{x} = 60.42$) is equivalent to the regression coefficient ($B = -4.00$) for the married group of employees that was generated in the moderated regression analysis shown in table 7(a). This also suggests that the constant or intercept of the model was equivalent to the mean leadership-induced stress score of the omitted ‘single’ employees’ group ($\bar{x} = 64.42$). The insignificant beta coefficients of the influence of (being) divorced/separated ($\beta = -0.06$, $P>0.05$) or of (being) widowed ($\beta = -0.00$, $P>0.05$) on leadership-induced stress indicate that the influence of each of these two variables on leadership-induced stress was actually insignificant when compared to the influence of being single.

Two more control (but still demographic) variables, age and job tenure, were introduced in model 2. But their joint contribution of 0.8% to the variance in leadership-induced stress—after controlling for the joint contribution of the marital statuses—was not significant [$R^2\text{ Change} = 0.008$, $F (2, 616) = 2.43$, $P>0.05$]. The unique influence of either age or job tenure was also not significant on leadership-induced stress [$Age, \beta = -0.09$, $P>0.05$; Job Tenure, $\beta = -0.03$, $P>0.05$].

Three other variables, cognitive trust, procedural justice, and distributive justice, which were included in the analysis because of their theoretical relevance to the independent
variables—interactional justice and affective trust—were, together, entered in model 3 of the regression analysis. Their joint contribution of 12.8% to the variance in leadership induced stress—when the contributions of all previously entered variables were controlled for—was significant \[ R^2 \text{ Change } = 0.128, F (3, 613) = 30.89, P<0.01 \]. Distributive justice did not have a significant unique influence on leadership-induced stress \( (\beta = -0.06, P>0.05) \). But the unique influences of cognitive trust and procedural justice on leadership-induced stress were both significant, with the unique influence of cognitive trust \( (\beta = -0.36, P<0.01) \) being negative and higher compared to that of procedural justice \( (\beta = 0.09, P<0.05) \) which was positive.

The two independent variables, interactional justice and affective trust, which were entered into the regression in model 4, jointly accounted for a significant 8.0% of the variance in leadership-induced stress \[ R^2 \text{ change } = 0.080, F (2, 611) = 31.70, P<0.01 \] beyond those accounted for by all the previously entered variables. But while the unique influence of interactional justice on leadership-induced stress was significant and negative \( (\beta = -0.30, P<0.01) \), that of affective trust was not significant \( (\beta = -0.09, P>0.05) \).

This result suggests that leadership-induced stress will reduce as interactional justice increases supports the part of hypothesis 2 which assumes that leadership-induced stress will reduce as interactional justice increases. And by also suggesting that affective trust does not have any meaningful influence on leadership-induced stress, the result does not support the part of hypothesis 2 which assumes that leadership-induced stress will reduce as affective trust increases.
TABLE 7(a)
Table 7(b)
The hierarchical regression analysis proceeded with the entering—in model 5—of two more variables: leader-follower relationship and coworker support, which were employed as moderator variables in this study. Their joint contribution of 7.4% to the variance in leadership-induced stress was significant \[R^2 \text{ Change} = 0.074, F (2, 609) = 32.22, P<0.01\] despite controlling for the influence of all the variables entered in all the previous models. Furthermore, the unique influence of either of the two moderators to the overall variance in leadership-induced stress was significant but negative [leader-follower relationship, \(\beta = -0.30, P<0.01\); coworker support, \(\beta = -0.12, P<0.05\)]. Leader-follower relationship made leadership-induced stress to reduce by 0.30 units when it (i.e., leader-follower relationship) increased by one (1) unit. Furthermore, by increasing by just one (1) unit, co-worker support also made leadership-induced stress to reduce by 0.12 units.

Model 6, which was the last in the hierarchical regression analysis, featured the entry of eight interaction terms into the analysis. These interaction terms were affective trust*leader-follower relationship, affective trust*coworker support, interactional justice*leader-follower relationship, interactional justice*coworker support, leader-follower relationship*coworker support, affective trust*interactional justice, affective trust*leader-follower relationship*coworker support, and interactional justice*leader-follower relationship*coworker support. After controlling for the influences of all the variables entered in models 1 to 5, the eight interaction terms jointly contributed a significant 2.4% to the variance in leadership-induced stress \[R^2 \text{ Change} = 0.024, F (8, 601) = 2.65, P<0.01\]. However, the unique influences of only two of the eight
interaction terms on leadership-induced stress were significant. Specifically, the interaction among interactional justice, leader-follower relationship, and coworker support significantly influenced leadership-induced stress ($\beta = -0.12, P<0.01$). This particular result supports hypothesis 3 which states that ‘employees who perceive high interactional justice and enjoy high leader-follower relationship and coworker support will report less leadership-induced stress than employees who perceive low interactional justice and enjoy high leader-follower relationship and coworker support’.

Given the significance of the 3-way interaction among interactional justice, leader-follower relationship, and co-worker support, a post hoc analysis was carried out by plotting the graph and the bar chart of the interaction using Dawson’s Slopes, a three-way interaction/moderation analysis software. The resulting graph and bar chart, as well as the mean leadership-induced stress scores of the eight different groups of employees involved in the interaction are presented in figures 2 and 3 and table 8 below.
Table 8: Mean Leadership-induced Stress Scores of the Eight Groups of Employees Involved in the Three-way Interaction

<table>
<thead>
<tr>
<th></th>
<th>LOW INTERPERSONAL JUSTICE</th>
<th>HIGH INTERPERSONAL JUSTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH LMX, HIGH COWORKER SUPPORT</td>
<td>63.03</td>
<td>51.78</td>
</tr>
<tr>
<td>HIGH LMX, LOW COWORKER SUPPORT</td>
<td>59.52</td>
<td>59.47</td>
</tr>
<tr>
<td>LOW LMX, HIGH COWORKER SUPPORT</td>
<td>68.70</td>
<td>62.89</td>
</tr>
<tr>
<td>LOW LMX, LOW COWORKER SUPPORT</td>
<td>72.80</td>
<td>67.32</td>
</tr>
</tbody>
</table>

As shown in figures 2 and 3 and table 8 above, the mean leadership-induced stress score for employees who perceived high interactional justice, high leader-follower relationship, and high co-worker support ($\bar{x} = 51.78$) was the least of the eight group means. Invariably it is lower than the mean leadership-induced stress scores reported by employees who perceived the following: low interactional justice; high leader-follower relationship; and high co-worker support ($\bar{x} = 63.03$); low interactional justice; low coworker support; and high leader-follower relationship ($\bar{x} = 59.52$); low interactional justice; low leader-follower relationship; and high coworker support ($\bar{x} = 68.70$); and low interactional justice, low leader-follower relationship, and low coworker support ($\bar{x} = 72.80$).

Another look at the pattern of the interaction in figures 2 and 3 made the interaction more instructive than merely providing support for hypothesis 3. As these figures reveal, among all the employees who perceived high interactional justice, those who
experienced high co-worker support generally reported less leadership-induced stress than those who experienced low co-worker support, but the levels of reported leadership-induced stress was much less if employees were also in high-quality leader-follower relationship compared to if they were in low-quality leader-follower relationship. Those who experienced high coworker support, despite being in low-quality leader-follower relationship, also reported less leadership-induced stress compared to those for whom both leader-follower relationship and coworker support were low.

This pattern did not hold for employees who perceived low interactional justice. When such employees were in high-quality leader-follower relationship, those of them who experienced low co-worker support reported less leadership-induced stress compared to those who experienced high co-worker support. But when the employees were in low-quality leader-follower relationship, those of them who experienced high coworker support reported less leadership-induced stress compared to those who experienced low coworker support.

The other significant interaction term was that of affective trust and interactional justice whose interaction influence on leadership-induced stress was to the tune of 0.16 (β = 0.16, P< 0.01). But as these two variables in interaction were the independent variables in the hierarchical regression analysis, their significant interaction would not be explored beyond this point.

The influences, on leadership-induced stress, of the six remaining interaction terms were not significant. These included the interactions between interactional justice and leader-
follower relationship ($\beta = -0.00$, $P>0.05$), between interactional justice and coworker support ($\beta = -0.09$, $P>0.05$), between affective trust and leader-follower relationship ($\beta = -0.06$, $P>0.05$), between affective trust and coworker support ($\beta = 0.02$, $P>0.05$), between leader-follower relationship and coworker support ($\beta = 0.04$, $P>0.05$), and among affective trust, leader-follower relationship, and coworker support ($\beta = 0.05$, $P>0.05$).

Since the 3-way interaction involving affective trust, leader-follower relationship, and coworker support did not significantly influence leadership-induced stress, there is no support for hypothesis 4 which states that ‘employees who perceive high affective trust and enjoy high leader-follower relationship and coworker support will report less leadership-induced stress than employees who perceive low affective trust and enjoy high leader-follower relationship and high coworker support’. This suggests that both leader-follower relationship and coworker support could neither enhance the presumed good influence of high affective trust nor buffer the presumed unpleasant influence of low affective trust on leadership-induced stress.

Finally, irrespective of the models in which they were introduced to the regression analysis all the variables and interaction terms in the study, accounted for 32.9% ($R^2 = 0.329$) of the overall variance in leadership-induced stress in the study.

In another analysis, the main and interaction influences of employees’ sex and job cadre were also investigated with a 2X2 Analysis of Variance (ANOVA) in which job cadre was varied at two levels: junior employee and middle cadre employee. The result of this is presented in tables 9 and 10.
Table 9: Mean Leadership-induced Stress Scores Under the Influences of Sex and Job Cadre

<table>
<thead>
<tr>
<th>Job Cadre</th>
<th>Sex</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Cadre</td>
<td>Male</td>
<td>64.35</td>
<td>17.18</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>62.41</td>
<td>16.42</td>
<td>207</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>63.36</td>
<td>16.80</td>
<td>407</td>
</tr>
<tr>
<td>Middle Cadre</td>
<td>Male</td>
<td>62.50</td>
<td>16.92</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>58.36</td>
<td>16.74</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>60.61</td>
<td>16.93</td>
<td>215</td>
</tr>
<tr>
<td>Total</td>
<td>Male</td>
<td>63.67</td>
<td>17.08</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>61.11</td>
<td>16.60</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>62.41</td>
<td>16.88</td>
<td>622</td>
</tr>
</tbody>
</table>

As shown in Table 10 below, the main influence of job cadre on leadership-induced stress was significant \( F (1, 618) = 4.30, P<0.05 \). And comparing the means displayed in Table 9 above, leadership-induced stress was higher among junior employees \( \bar{x} = 63.36, \text{S.D} = 16.80 \) than among middle cadre employees \( \bar{x} = 60.61, \text{S.D} = 16.93 \). The main influence of sex on leadership-induced stress was also significant \( F (1, 618) = 4.58, P<0.05 \) such that leadership-induced stress was higher among male employees \( \bar{x} = 63.66, \text{S.D} = 17.03 \) than among female employees \( \bar{x} = 61.11, \text{S.D} = 16.60 \). The interaction between job cadre and sex was, however, not significant \( F (1, 618) = 0.61, P>0.05 \). This non-significant interaction between sex and job cadre does not support hypothesis 5 which states thus: ‘Male, junior employees will report higher leadership-induced stress compared to female, junior employees’.
Table 10: Table of the Influences of Sex and Job Cadre on Leadership-induced Stress

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>2359.60</td>
<td>3</td>
<td>786.53</td>
<td>2.78</td>
<td>.04</td>
</tr>
<tr>
<td>Intercept</td>
<td>2145202.69</td>
<td>1</td>
<td>2145202.69</td>
<td>7591.03</td>
<td>.00</td>
</tr>
<tr>
<td>Job Cadre</td>
<td>1215.51</td>
<td>1</td>
<td>1215.51</td>
<td>4.30</td>
<td>.04</td>
</tr>
<tr>
<td>Sex</td>
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<td>1</td>
<td>1293.98</td>
<td>4.58</td>
<td>.03</td>
</tr>
<tr>
<td>Job Cadre*Sex</td>
<td>171.31</td>
<td>1</td>
<td>171.31</td>
<td>.61</td>
<td>.44</td>
</tr>
<tr>
<td>Error</td>
<td>174645.04</td>
<td>618</td>
<td>282.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2599822.00</td>
<td>622</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>177004.64</td>
<td>621</td>
<td></td>
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</tr>
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</table>
4.1 Summary of Findings

1. The newly developed Leadership-Induced Stress Inventory is reliable and valid. The finding supports hypothesis 1 which states that ‘the developed leadership-Induced Stress Inventory (LISI) will have high reliability and validity coefficients’. In terms of the rotation sums of square loadings shown in the table in appendix 4, the inventory can be depicted as measuring 48.37% cognitive leadership-induced stress, 29.45% affective leadership-induced stress and 22.18% conative leadership-induced stress.

2. Interactional justice predicted leadership-induced stress at the rate of one (1) unit increase in interactional justice to 0.30 units decrease in leadership-induced stress which supports a part of hypothesis 2 which suggests that leadership-induced stress will reduce as interactional justice increases. Furthermore, married employees perceived less leadership-induced stress than single employees which supports another part of hypothesis 2 which suggests that leadership-induced stress will reduce among married employees when compared to single employees. Moreover, affective trust did not have a meaningful predictive power on leadership-induced stress. This does not support the part of hypothesis 2 that suggests that leadership-induced stress will reduce as affective trust increases.

3. Leadership-induced stress was highest among employees who perceived low interactional justice, LMX, and coworker support, and was lowest among employees who perceived high interactional justice, LMX, and coworker support. This supports hypothesis 3 which states that ‘employees who perceive high interactional justice and enjoy high leader-follower relationship and coworker support will report less leadership-
induced stress than employees who perceive low interactional justice and enjoy high leader-follower relationship and coworker support'. However, if employees who perceived low interactional justice and low coworker support enjoyed high LMX, they reported less leadership-induced stress than their counterparts who perceived low interactional justice, high LMX, and high coworker support.

4. LMX and coworker support did not moderate the influence of affective trust on leadership-induced stress no matter the levels of affective trust, LMX, and coworker support being considered. This finding does not support hypothesis 4 which states that ‘employees who perceive high affective trust and enjoy high leader-follower relationship and coworker support will report less leadership-induced stress than employees who perceive low affective trust and enjoy high leader-follower relationship and high coworker support’.

5. Junior employees generally reported a higher leadership-induced stress than middle-cadre employees; male employees also reported more leadership-induced stress than female employees. However, gender did not have anything to do with the difference in perceived leadership-induced stress between junior and middle-cadre employees, neither did job cadre have anything to do with the difference in perceived leadership-induced stress between male and female employees. This finding does not support hypothesis 5 which states that ‘male, junior employees will report higher leadership-induced stress compared to female, junior employees’.
CHAPTER FIVE

5.0 Discussion

The 33-item LISI, which resulted from the principal component analysis conducted in phase 1 of this study, comprise eight (extracted) components or dimensions which were named as follows: Component 1: ‘Excessive Fear of Boss’; Component 2: ‘Negative Memories and Expectations about Boss’; Component 3: ‘Loss of Concentration Due to Boss’ Presence’; Component 4: ‘Boss-induced Inability to Think’; Component 5: ‘Perception of Boss as a Threat to Job and Wellbeing’; Component 6: ‘Obsession with Need to Avoid Boss’; Component 7: ‘Boss-induced Uncertainty and Guilt Feelings’; and Component 8: ‘On Edge’ Feelings at Boss’ Physical or Imagined Presence’.

The statements describing the eight components deserve a closer examination due to the insight their distinctiveness and overlaps can generate on the antecedents and consequences of leadership-induced stress. First, the eight components can be subsumed into three major aspects of human behaviour: cognition, affect, and conation. The cognitive component consists of ‘Negative Memories and Expectations about Boss’ (Component 2); ‘Boss-induced Inability to Think’ (Component 4); ‘Perception of Boss as a Threat to Job and Wellbeing’ (Component 5); and ‘Boss-induced Uncertainty and Guilt Feelings’ (Component 7). The components which appear to fit into the affective component are ‘Excessive Fear of Boss’ (Component 1) and ‘Obsession with Need to Avoid Boss’ (Component 6). While conation explains how knowledge and emotion are translated into behavior in human beings (Bagozzi, 1992; Huitt, 1999), the conative
component comprises the plans to avoid boss, as well as plans to compulsively embark on already imagined actions in reaction to boss’ inevitable physical or imagined presence. These comprise ‘Loss of Concentration Due to Boss’ Presence’ (Component 3) and “On Edge” Feelings at Boss’ Physical or Imagined Presence’ (Component 8). The cognitive component therefore appears to be the largest in the LISL, followed by the affective component, and then the conative component. The total rotation sum of squared loading on the LISI by each of the eight components is suggestive of this; and going by the additions of these loadings for conceptually similar components, the cognition-, affect-, and conation-related items appear to explain 48.37%, 29.45%, and 22.18% of LISI, respectively. It can thus be inferred that: (i) Cognitive leadership-induced stress, which makes up about 48.37% of the LISI, comprises of anticipatory, speculative, ruminative unpleasant thoughts, knowledge, memory, beliefs, imaginations, and attributions of employees which are related to their inevitable interactions with their immediate boss at work, and which the employees report are induced by the boss. (ii) Affective leadership-induced stress, which makes up about 29.45% of LISI, consists of unpleasant feelings or emotions (e.g., fear and dislike) which employees harbour about their immediate boss which results from the fact that employees must inevitably interact with the immediate boss, and which the employees indeed attribute to the immediate boss. (iii) Conative leadership-induced stress, which makes up about 22.18% of the LISI, constitutes the impulse, urge, desire, readiness, and likelihood of employees to react or respond to their immediate boss in an overt manner which the employees report are activated by their knowledge or remembrance (cognitions) of, and feelings
(emotions) about, their inevitable interactions with the boss.

The implication of these is that the predictors of leadership-induced stress would trigger more of the cognitive aspects of leadership-induced stress in employees than either the affective or the conative components. Another implication is that of the tendency of the cognition-relevant predictors to cause more variation in leadership-induced stress, among all manners of employees, compared to affect-related or conation-related predictors. That this is plausible can be corroborated by the result of the moderated regression analysis [tables 7(a) and 7(b)] which placed cognitive trust above all other predictors in the study in terms of the variation caused in leadership-induced stress.

Phase 2 of the study featured the testing of four hypotheses. To start with, the finding that married employees reported less leadership-induced stress than single employees is definitely not new neither is it strange given the enormity of stress literature which favour married people with experiencing and reporting less stress than single workers.

Since interactional justice is about a subordinate’s perception of the extent of fairness of the treatment received from boss, it really was expected that the more interactional justice an employee reported, the less leadership-induced stress the employee would experience. One reason for this is that low interactional justice is a potent indicator that the employee at the receiving end is also bereft of perceived organizational support, especially the all-important supervisor support. This assertion is largely corroborated by the LMX theory (Dienesch & Liden, 1986; Graen & Scandura, 1987). According to the theory, subordinates in good leader-follower relationships enjoy a lot of social support which their counterparts in poor leader-follower relationships do not enjoy. As part of
the social support enjoyed by employees in good LMX, superiors ensure that such employees are treated favourably, sometimes preferentially, when it comes to access to priority information and emotional support. This underscores the point that interactional justice would already be jeopardized where the boss who ought to dispense the justice does not relate with the subordinate in question favourably. This explanation is corroborated by the studies of Ehigie & Otukoya (2005) where all analyses revealed that perceived organizational support (POS) was positively associated with perceived fair interpersonal treatment (PFIT) and of Peele (2007) in which interactional justice (or PFIT) explained 54% of the variation in POS.

The possible lack of supervisor support among employees who experience low interactional justice is unpleasant enough to wreck havoc on the employees’ wellbeing as evidenced by the reviewed literature. For example, interactional justice evaluations are understood to be positively associated with health-related factors such as psychological wellbeing and negatively associated with psychological distress, among other important work-related factors (Fondacaro et al, 1998). More support can be gleaned from the study of Eloainio et al (2002) who found interactional justice to be a stronger predictor of absence from work due to sickness although this was more for men than for women. The same study found that low interactional justice was associated with about a 2-fold risk of poor self-rated health and minor psychiatric disorders. Given these empirical evidences, that interactional justice had an incremental influence on leadership-induced stress as found in the present study was not unexpected.

Another important finding in the present study is the insignificant unique influence of
affective trust on leadership-induced stress which somewhat runs contrary to existing theoretical and empirical accounts about the features, antecedents, and consequences of affective trust. According to Dirks & Ferrin’s (2002) typology, affective trust is a belief held by subordinates that the superior has a special or unique relationship with them, which is reflected in a perception that the superior will act in manners that intends to treat them (i.e., the subordinates) well, that intends to make sacrifices for the subordinates, and that intends to demonstrate concern about the subordinates’ welfare – particularly because of the unique relationship. Therefore, bosses whom employees cannot give their affective trust would likely induce stress in the employees because the employees cannot count on such bosses for acting in these manners. The LMX theory (Dienesch & Liden, 1986; Graen & Scandura, 1987) provides further insight into why affective trust ought not only to significantly but also negatively influence leadership-induced stress. Accordingly, high quality LMX are characterized by mutual trust and affection between subordinates and their leaders such that subordinates are favoured by the leader and thus receive many valued resources; while subordinates in low-quality leader-follower relationships have exchanges with their leaders that reflect low levels of trust and emotional support, and few, if any, benefits outside of the formal employment contract (Dienesch & Liden, 1986).

However, the model of managerial trustworthy behaviour (Whitener et al., 1998) appears to provide a more pragmatic explanation which may help to view employees’ trust in their organizational leaders as more objective or realistic than emotional. According to the model, managerial trustworthy behaviour consists of five dimensions
(behavioural consistency, behavioural integrity, sharing and delegation of control, communication, and demonstration of concern) all of which—if exhibited by a superior—would engender the trust of any subordinate. They also seem to overlap substantially with the character-based perspective’s conception of employees’ trust for their organizational leaders which also begets cognitive trust. The rallying point of these views is that employees’ perception of their superiors as trustworthy—which is usually anchored on the superior’s competence, integrity, fairness, and consideration—is precursory to the employees’ actually trusting the superiors.

Findings from brain studies on trust, especially those which were based on the ‘theory of mind’ (the ability to imagine or anticipate what other people with whom one is interacting would do by putting oneself in their position), also appear to corroborate this point. Specifically, in investigations of interpersonal transactions which require trusting another person, greater brain activity is needed to forecast what that other person will do before trusting them (Miller, 2005) compared to when transacting with a non-human object (e.g., a computer) with predictable degree of responses. This tends to suggest that trust is much less a product of a noble propensity to be willing to be vulnerable, and much more a product of a cold calculation of expected rewards. That is, trust may be much less emotional or affective and much more pragmatic or cognitive.

The significant, negative unique influence of cognitive trust on leadership-induced stress lends a lot more credence to the foregoing assertion. Apart from having a significant influence on leadership-induced stress where affective trust has none, cognitive trust has the greatest influence on leadership-induced stress. That is, experience based trust—
rather than relationship based trust—is the one employees indeed count on in relating with their bosses which is why it is the trust that can trigger stress in employees which they would attribute to their boss especially if they do not trust the bosses or find them trustworthy.

This particular result suggests that employees are more prone to leadership-induced stress when they perceive their immediate leaders as unreliable, inconsistent, unfair, incompetent, dishonest, etc. Dirk & Ferrin’s (2002) typology of trust lends impetus to this. Accordingly, cognitive trust derives from objective reasons bothering on personal characteristics such as ability, fairness, and consistency of the trustee (Yang, 2005).

With the finding in this study that cognitive trust has a strong and negative influence on leadership-induced stress, lack of the characteristics (described above) in employees’ immediate organizational leaders would suggest that the employees’ report of high levels of leadership-induced stress can be attributed to their perceptions of low or lack of cognitive trust for their leaders.

Some empirical studies do suggest strong relationships between trust and some important outcomes. For example, Hopkins & Weathington (2006), who studied the interrelationships among some key variables including organizational trust, found strong positive relationship between organizational satisfaction and trust; and strong negative relationship between trust and turnover intentions. Furthermore, Ruder (2003) who investigated the extent to which organizational justice and organizational trust impacted, or contributed to, the enhancement of role breadth self-efficacy (RBSE)—i.e., what people feel they can do rather than what they do, found a weak relationship between
trust in supervisor (or immediate boss) and RBSE, and a strong relationship between interactional justice and trust in supervisor. As these studies did not specify whether trust was conceived as a whole construct or (if not) the form of trust employed in their studies, it may be impossible to infer in favour of either affective or cognitive trust. However, it would be instructive to reason that employees are not likely to be dissatisfied, to perceive interactional injustice, or to be willing to quit their organization; nor would they exhibit unappreciable degree of self-efficacy if they are under the direct influence of an organizational leader who is reliable, trustworthy, competent, and honest. It may also be agreed that an affective trust for a leader who lacks these attributes, but with whom an employee is in a cordial relationship, may not last for too long as the employee would eventually become frustrated no matter how favourably s/he is treated by the leader.

Furthermore, that affective trust did not impact leadership-induced stress whereas cognitive trust did may simply indicate that Nigerian employees engage in selective behaviour when it comes to trusting their organizational leaders. The collectivist and high power distance cultures as well as paternalism prevailing in Nigeria, which gives rise to nepotism, godfatherism, godmotherism, and man-know-man, are enough to predispose subordinates to developing affective trust for superiors whom they are either close to or who would recklessly favour them. Nevertheless, the realities of executive insincerity, mass sack of employees, and closing down of organizations due to irresponsible leadership, as well as threats to job security may have made it imperative for employees to prefer to trust their bosses only when the bosses are honest, sincere,
fair, and competent regardless of their interpersonal relationships with the bosses. If the findings from brain studies on trust (Miller, 2005; McCabe et al. 2001) are anything to go by, it may be that only when trust is based on the already known, desirable attributes of the trustee—which enables the trustor to forecast his/her rewards for trusting (i.e., when trust is cognitive)—that such trust can be meaningful enough to a trustor as to trigger unpleasant reactions when violated. As such, employees may have cognitive trust for their bosses who are competent, honest, fair, sincere, and considerate because the employees know that these attributes would make the bosses treat them with consideration, fairness, sincerity, as well as handle them competently and honestly. To such employees, giving cognitive trust to such bosses would be tantamount to taking their destinies into their hands, whereas giving affective trust may be simply precarious. Given this premise, coupled with common knowledge that bosses are more powerful than their subordinates, it may be instructive to acknowledge that violation of cognitive trust may be capable of triggering a high degree of leadership-induced stress among subordinate employees, as has been found in the present study.

The significant but negative influence of leader-follower relationship on leadership-induced stress was also very important. Although this finding was not anchored on any hypothesis, it is largely supported by the LMX theory and empirical literatures relating leader-follower relationship with other relevant variables. For employees who enjoy good relationships with their bosses, leader-follower relationship goes beyond the formal employment contract, with the bosses showing influence and support, and giving the subordinate greater autonomy and responsibility (Kozlowski and Doherty 1989;
Krone 1991; Graen and Uhl-Bien 1995; Deluga 1998; Liden and Maslyn 1998), among other benefits; whereas for employees in poor relationships with their bosses, leader-follower relationship is reduced to adherence to the terms of the employment contract, with little attempt by the superior to develop or motivate the subordinate.

Another unique, significant, and negative influence on leadership-induced stress is that of co-worker support. Support for this finding can be found in Luszczynska and Cieslak’s (2005) investigation of the effects of perceived social support on wellbeing which revealed that support from supervisors had a protective and a buffering effect on wellbeing; that support from coworkers had a promotive effect on wellbeing; and that wellbeing indices, such as anxiety, curiosity, and work satisfaction were more strongly related to support from supervisors than to support from the other sources. Further support can be gleaned from Tzschatzsch’s (2008) study of the relationships between perceived social support, perceived job stress and job attitudes in which high social support significantly predicted lower job stress and higher job attitudes above and beyond negative affectivity, salary and work status. Among types of social support, perceived organizational support (POS) was the most, while perceived co-worker support (PCS) was the least, strongly correlated with target job attitudes which included job satisfaction and organizational commitment.

The positive, significant, unique influence of procedural justice suggests something different about the relationship between organizational justice and leadership-induced stress. Being positive, the influence of procedural justice on leadership-induced stress was a direct one. Being direct, the relationship suggests that high procedural justice
scores would lead to high leadership-induced stress while low procedural justice would lead to low leadership-induced stress. One implication of this is that it is actually when employees perceive that the organizational policies, processes, and procedures, on which resource allocation decisions are based, are fair that they (employees) report high leadership-induced stress. While this was unexpected, it was also a departure from what theoretical and empirical literatures hold about procedural justice. For example, the organizational injustice perspective of the theory of organizational justice situates procedural injustice as a potent trigger for unpleasant reactions among employees, although it is not known to be as upsetting as interactional injustice. Also, in a study of the direct effects of organizational justice on physical and psychological wellbeing, Eloainio et al (2002) found that low procedural justice was associated with a 2-fold risk of poor self-rated health and an almost 4-fold risk of minor psychiatric disorders. A seeming exception to these, however, is the study of De Cremer (2006) which investigated the relationship among procedural justice, transformational leadership and organization-based self-esteem (OBSE) and found that procedural justice was significantly and positively related to OBSE when transformational leadership was high but that it was unrelated to OBSE when transformational leadership was low. Since transformational leadership cannot possibly be high in the reckoning of employees who perceive leadership-induced stress, it may be plausible to consider the likelihood that such employees become overly pessimistic about fairness of procedures, decisions, and policies, and unmotivated to be part of such processes in their organization. One possible reason for this is that, due to no faith in their leaders, employees may also lose
faith in the organizational procedures that are attributable to those leaders to the point that even procedures which are usually perceived as fair may not necessarily bear upon their impression of their leaders whom they may have already perceived as stress-inducing. That these may well be the case can be further corroborated by the study of Kark et al (2003) and Tyler (1999) which, respectively, found that transformational leaders install a collective identity and that this type of identity forms an important moderator of procedural justice effects. Besides, transformational leadership is understood to direct people’s attention more to justice issues, thereby implying that under such circumstances, people become more responsive toward information about justice (Burns, 1978).

The non influence of distributive justice on leadership-induced stress was also contrary to what was expected as it appeared to negate theoretical positions on the relationship between distributive justice and other important work outcomes. While the organizational injustice perspective (Zohar, 1995; Spector, 1998) of the theory of organizational justice asserts that employees are typically unhappy about distributive injustice, the equity theory (Adams, 1965) says that perceived inequity triggers, in affected employees, unpleasant feelings which they are highly motivated to overcome. The result also runs contrary to empirical accounts on the relationship between distributive justice and the correlates of organizational leadership. For example, Peele (2007) found—in a study investigating the interrelationships among organizational justice constructs, organizational citizenship behaviour (OCB), and perceived organizational support (POS)—a significant positive relationship between POS and
distributive justice. As suggested in the case of procedural justice above, a positive relationship between any organizational justice construct, including distributive justice, and POS is indicative of the impact—on subordinates—of organizational leaders who are fair and whom subordinates would, to a large extent, find supportive. Such employees cannot possibly perceive the same organizational leaders as stressful or stress-inducing. That is, a boss who is perceived by subordinates as fair is also likely to be seen as supportive, and unlikely to be perceived as radiating or inducing stress. Therefore, as can be drawn from the Psychological Contract theory (Rousseau, 1990), employees are likely to blame the violation of their sense of equity or distributive justice on their organizational leaders who are charged with administering or allocating the outcomes, resources, or rewards in question.

Further findings by Peele (2007), however, provides an insight into why and how perceived distributive justice may not have a significant influence on leadership-induced stress as has been found in the current study. In the two hierarchical regression analyses carried out in that study (i.e., Peele, 2007), distributive justice contributed very little, 2% and 3.2% respectively, relative to interactional justice which contributed 54% and procedural justice which contributed 45% of the variance in POS. It is thus possible for the influence of distributive justice on organizational outcomes, involving organizational leadership, to be characteristically low or insignificant.

Although not hypothesized, it was expected that the negative influence of interactional justice on leadership-induced stress would be greater than that of procedural justice while that of procedural justice would be greater than that of distributive justice. This
expectation was premised firstly on the organizational injustice perspective of the theory of organizational justice which summarizes the comparison of the consequences of the three types of organizational justice. Accordingly, subordinates are typically unhappy about perceived distributive injustice, they get much more upset about procedural injustice, and react to relational (or interactional) injustice evaluations with more disturbing consequences (Nicholson, 2000). Secondly, the conceptual meanings and practical implications of the three organizational justice constructs for employees appear to justify their relative importance. Being relationship dependent, coupled with the fact that Nigeria is a collectivist society in which interactional relationship is highly valued, interactional justice should be important to Nigerian workers than other justice types, and its denial to any worker should expectedly engender unpleasant reactions which would be attributed to and blamed on bosses who are looked up to for interactional justice. One good reason for this is that in collectivist societies like Nigeria, power distance—the belief in the existence of wide power differentials between leaders and followers which predisposes followers to assume being at the mercy of their leaders (Kanungo & Mendonca, 1994)—is very high. Employees—on the strength of this belief—place very high value on their relationships with their bosses and would feel highly disadvantaged if they—for any reason—are unable to forge a good relationship with the bosses. According to Triandis (1993), successful leaders in collectivist cultures should be supportive, maintain harmony of their workgroup, solve workers’ personal problems, generally helpful, and considerate. But since it often takes organizational leaders to choose the subordinates they want to engage in cordial relationship, not all
employees under a particular boss can possibly enjoy good relationships with the boss. And since bosses in collectivist cultures would readily favour subordinates with whom they are in cordial relationships over others, subordinates who do not enjoy cordial relationships with their boss would likely feel unpleasantly or unfairly treated and would attribute this to the boss in question. While this unpleasant feeling may qualify as perceived interactional justice, the reactions that follow which are also usually attributed to the bosses can be described as leadership-induced stress.

Since bosses are also usually perceived as being part of the enactment (at least the implementation) of organizational policies and procedures, they are blamed when these are unfair. Subordinates who perceive unfair interactional justice on account of a poor relationship with their bosses are also likely to perceive procedural justice since they are not likely to be favoured by the implementation of the policies relative to their counterparts in good relationship with the bosses. Also, since distributive justice is about fairness of the allocation of organizational outcomes, benefits, privileges, and resources by the bosses, employees who are in poor relationships would still be at a disadvantage in that their counterparts in good relationships with the bosses would receive favourable or preferential treatments in such allocations. For these reasons procedural justice could be taken as being dependent on interactional justice while distributive justice can be seen as being to a large extent dependent on procedural justice. Therefore, interactional injustice was expected to trigger more leadership-induced stress than procedural injustice while procedural injustice was expected to trigger more leadership-induced stress than distributive justice.
But the results did not exactly confirm this expectation. Although interactional justice had a strong negative influence on leadership-induced stress, and had the strongest influence on leadership-induced stress among the three as expected; the influence of procedural justice which followed it was unexpectedly negative though significant, while the influence of distributive justice on leadership-induced stress was not significant at all.

The non-significant influence—on leadership-induced stress—of the interaction among affective trust, LMX, and coworker support was also unexpected—the non-significant unique influence of affective trust on leadership-induced stress notwithstanding. LMX on one hand, and coworker support on another, were expected to moderate the influence of affective trust on leadership-induced stress. This is because employees’ relationships with their bosses (especially when good) ought to at least buffer (or mitigate) the unpleasant influence of low affective trust, or to even enhance the pleasant influence of affective trust on leadership-induced stress.

The three-way interaction in which leader-follower relationship and co-worker support significantly moderated the influence of interactional justice on leadership-induced stress generated very important body of knowledge in the present study. This finding enables the situating of leader-follower relationship and co-worker support as the determinants of how much of leadership-induced stress can be triggered by various magnitudes of perceived interactional justice. The first of the eight groups of employees in the study comprised (i) the employees who perceived high interactional justice, high
leader-follower relationship, and high co-worker support who reported the least leadership-induced stress. In other words, this group of employees reported less leadership-induced stress than every other group of employees involved in the three-way interaction. The remaining seven groups of employees—presented in the order that they increased in leadership-induced stress—included (ii) employees who perceived high interactional justice, high leader-follower relationship, and low co-worker support; (iii) employees who perceived low interactional justice, high leader-follower relationship, and low co-worker support; (iv) employees who perceived high interactional justice, low leader-follower relationship, and high co-worker support; (v) employees who perceived low interactional justice, high leader-follower relationship, and high co-worker support; (vi) employees who perceived high interactional justice, low leader-follower relationship, and low coworker support; (vii) employees who perceived low interpersonal justice, low leader-follower relationship, and high co-worker support; and (viii) employees who perceived low interactional justice, low leader-follower relationship, and low coworker support. This suggests that while employees who were high on the three variables perceived the least leadership-induced stress, their counterparts who were low on these same variables perceived the highest leadership-induced stress. It also suggests that simultaneously high and low levels of the three variables can, respectively, bring about non-experience or experience of leadership-induced stress and its consequences among employees.

This assertion is not farfetched in that, as stated earlier, most Nigerian employees would place a high value on their relationship with their bosses, especially their immediate
bosses, due not only to the fact that Nigeria is a collectivist and high power distance culture (Kanungo and Mendonca, 1994), but also to the prevailing job insecurity, and limited opportunities for personal growth and advancement in Nigerian organizations. While employees who are in good (or high) leader-follower relationships with their boss can be rest assured that their boss would favour them and protect their interests, those who are not would feel disadvantaged and dejected; and would attribute their unpleasant feelings to the boss whom they may also likely perceive as unfair in the kind of interaction, respect, consideration, and interpersonal treatment (i.e., interactional justice) they get from the boss. In addition to the quality of leader-follower relationship received, employees also value their co-workers’ support. Apart from this having to do with Nigeria’s collectivist culture, humans—regardless of cultural background—generally seek solace among their similar or significant others, especially in difficult situations; and those who are unable to get this kind of support may be grossly disadvantaged compared to those who can count on the support. Therefore, as found in this study, whether employees enjoyed his/her co-workers’ support further determined the magnitude of leadership-induced stress which would be triggered by the combinations of different levels of interactional justice and leader-follower relationship.

As depicted by the interactions, the relative strengths of the two moderators (leader-follower relationship and coworker support) have implications for the varying levels of leadership-induced stress reported by the eight different groups of employees, with leader-follower relationship appearing to be a stronger moderator than co-worker support. As the bar in figure 3 shows, among all the employees who perceived high
interactional justice, those who experienced high leader-follower relationship generally reported less leadership-induced stress than those who experienced low leader-follower relationship, but the reported level of leadership-induced stress was still lower if employees also enjoyed high coworker support compared to if they did not.

The same pattern did not exactly hold for the employees who perceived low interactional justice. Among such employees, those who experienced high leader-follower relationship generally reported less leadership-induced stress compared to those who experienced low leader-follower relationship, but the reported level of leadership-induced stress was lower if employees received low co-worker support compared to when they enjoyed high coworker support.

The grand (or joint) prediction of all the predictors (except the interaction terms) on leadership-induced stress is also very important in this study if only for the fact that it is indicative of the amount (in percentage) of leadership-induced stress which can be predicted by the concerted influence of the predictors. Accordingly, and as shown in table 7(b), all the predictors involved in the moderation regression conducted in the study jointly predicted 30.5% \( (R^2 = 0.305) \) of leadership-induced stress reported in the study [this would be 32.9% \( (R^2 = 0.329) \) if the interaction terms are included in the joint prediction]. This suggests that 30.5% of leadership-induced stress can be expected to be reported among employees who exhibit these predictors in the relative proportions they were exhibited in this study.

Finally, the non-significant interaction influence of sex and job cadre of employees on leadership-induced stress is highly instructive. Apart from suggesting that the main
influence of sex on leadership-induced stress was not dependent on whether employees were in junior or middle cadre; or that the main influence of job cadre on leadership-induced stress did not have to do with whether employees in question were male or female, the fact that either sex or job cadre significantly influenced leadership-induced stress underscores the independent influence of either variable on leadership-induced stress.

Although, the finding that male employees generally reported higher leadership-induced stress than female employees seems highly justified, especially in the Nigerian context, it is not supported by the reviewed literature. To start with, males and females differ significantly in physiology and hormone composition suggesting that they also differ in terms of how they respond to social cues. They interpret and respond to environmental stressors differently, and would thus respond to particular organizational practices differently. Nevertheless, if the studies of Misra et al (2000), Day and Livingstone (2003), and Mclean et al (2007) are anything to go by, females would have been expected to report a higher leadership-induced stress than males.

Although gender role stereotypes are gradually giving way to male-female competition in the Nigerian society, this is happening only at a very slow rate. Women are still very dependent, especially on men, for their upkeep. And—as expected by the gender role stereotypes—they are likely to socialize and express themselves more. They are also expected to—more than their male counterparts—exploit the emotional support and solidarity offered not only by their spouses, parents and other family members in the home front, but also by co-workers in their workplaces, so as to cope with the
unpleasantness associated with perceived leadership-induced stress. Thus, male employees might have experienced more leadership-induced stress than their female counterparts as has been found in this study possibly because they resorted less to social support compared to female employees so as to comply with societal expectations concerning their gender.

Also, since Nigerian employees are collectivistic in cultural orientation (Kanungo and Mendonca, 1994), Nigerian female employees would be more given to collectivism and thus be higher in power distance beliefs compared to their male counterparts. These would make it easier for them to maintain better leader-follower relationships with their bosses at work compared to their male counterparts, which should rub off in terms of higher perceived interactional justice and lower perceived leadership-induced stress.

Besides, such female employees, compared to their male counterparts, would be more inclined and better able to network among co-workers and family members for social and emotional support in the event that they encounter leadership-related stressor or leadership-induced stress.

Also important is junior employees’ report of more leadership-induced stress than middle cadre employees. Although empirical studies supporting this finding are scant, it is intuitively appealing that if only for power and hierarchy differentials, the middle cadre employees might have been less susceptible to the influence of their immediate boss than the junior cadre employees. Recalling the study of Harkness et al, (2005), one set of reasons junior employees tend to be more susceptible to work-related stress than their seniors is that, in the reckoning of junior employees—especially the very junior
ones like clerical staff—the more junior they are, the more undervalued, unappreciated, powerless, helpless, hopeless, disrespected, excommunicated, and replaceable; and the less in control of what happens to them in their organization. Besides, and perhaps more problematic, is the fact that when they compare their experiences with those of their seniors, junior employees usually have to hide their emotions no matter how unpleasant or how strong is the urge to express them, especially when relating with their bosses who can freely express theirs. While having to hide emotions could be stressful, the boss who triggers the need to hide emotions cannot but be seen as the trigger of the stress resulting from the demands for hiding emotions.

If the power distance dimension of Hofstede’s cultural theory is again brought into focus, junior employees in the present study would report more leadership-induced stress than middle-cadre employees because junior employees would perceive their superiors as much more powerful than themselves compared to middle-cadre employees. This is because, in terms of span of control, the junior employees in this study had more superiors to report to, albeit indirectly, compared to the middle-cadre employees. In other words, one important reason junior employees in this study reported more leadership-induced stress than middle-cadre employees is that most of the junior employees may even have middle-cadre employees—who might have also been experiencing leadership-induced stress from their own superiors—as their immediate boss, which could have further worsened the plight of the junior employees.
5.1 Conclusion

Five major objectives guided this study in a bid to construct and standardize a new measure of stress experienced by subordinate employees which they perceived as induced by their immediate boss in their workplace; and to explore how and the extent to which relevant work-related variables could predict such a stress. Following a pilot study and a principal component analysis, the new measure, named the Leadership-Induced Stress Inventory (LISI), emerged comprising eight dimensions which were made up of 33 items from an original 91. The 33-item LISI, when subjected to reliability and validity analyses, also yielded excellent and good reliability and validity coefficients, respectively. Together, these take care of the first objective of the study which was that of developing the LISI, and establishing reliability and validity coefficients for it.

The second objective of this study was to know the extent to which leadership-induced stress could be predicted by each of interactional justice, affective trust, and marital status. As found through a moderated regression analysis, one unit increase in interactional justice produced about 0.30 decrease in leadership-induced stress, meaning that given any known value of interactional justice in similar samples of employees, leadership-induced stress would reduce at the rate of 0.30 of the known value. The analysis also situated being married as reducing leadership-induced stress relative to being single meaning that married employees were better able to cope with leadership-induced stress than single employees. It was also discovered in the analysis that affective trust did not have a meaningful predictive power on leadership-induced stress,
and that cognitive trust not only predicted leadership-induced stress, it had the strongest predictive power on leadership-induced stress when compared with all other predictors in the study. The implication of this is that in determining employees’ wellbeing with respect to leadership-induced stress, consideration for the extent to which they are willing to be vulnerable to their immediate organizational leader with respect to his/her competence, fairness, or honesty is more important to them than whether they are in a cordial relationship or are treated with respect and consideration.

The third objective focused on understanding the extent to which leader-follower relationship and co-worker support would moderate the relationship between interactional justice and leadership-induced stress. The moderated regression analysis resulted in the finding that both leader-follower relationship and coworker support did moderate the relationship between interactional justice and leadership-induced stress such that the leadership-induced stress scores of employees with high perceptions of interactional justice was the lowest in the study provided that these same employees’ also perceived high leader-follower relationship and high coworker support.

The fourth objective of the study centred on understanding the extent to which leader-follower relationship and co-worker support would moderate the relationship between affective trust and leadership-induced stress. Going by the results of the moderated regression analysis, this objective was not achieved at all as leader-follower relationship and coworker support did not moderate this relationship.

The fifth and last objective of the study revolved around the need to know whether sex and job status (or cadre) of employees would interact to influence leadership-induced
stress. Relevant analysis with a 2X2 ANOVA generated results which constituted enough grounds for concluding that this objective was not achieved. Nevertheless, being male or female, and being junior or middle cadre employees made significant differences on leadership-induced stress as male employees generally reported more leadership-induced stress than female employees while junior employees also generally reported more leadership-induced stress than middle-cadre employees.

5.2 Recommendations
The following recommendations, among others, were made on the basis of the findings of the study.

1. Human-resource practitioners in Nigeria need to encourage organizations’ stakeholders to undertake a comprehensive overhaul of the existing stress management strategies in their organizations with a view to reviewing the involvement of organizational leaders including themselves. There is a strong need to include, in the process, a more reliable and comprehensive stress assessment method so as not only to incorporate the assessment of leadership-induced stress, but also to identify leaders whom subordinates may indict for such a stress.

2. There is a need to conduct a general survey of the prevalence of leadership-induced stress among Nigerian employees. To achieve this, the new leadership-induced stress inventory can be administered on subordinate employees across Nigerian organizations by experts who undertake research on behalf of these organizations.
3. The outcome of the second recommendation above will help inform human-resource experts and health care providers on the possible havoc that leadership-induced stress may have been wrecking on the health and wellbeing of Nigerian employees with a view to stemming the trend.

5.3 Contributions to Knowledge

1. The development and validation of a new scale (LISI) for measuring employees’ perceptions of stress induced in them by their immediate superior in the workplace.

2. The finding that the developed LISI is made up of 48.37% cognition, 29.45% affect, and 22.18% conation.

3. The finding that leadership-induced stress is real and in existence in Nigerian organizations.

4. The finding, contrary to what was expected, that Nigerian employees’ affective trust in their immediate superior neither predicts leadership-induced stress independently nor meaningfully interacts with LMX or/and coworker support to influence leadership-induced stress.

5. The finding that simultaneously high perceptions of interactional justice, LMX, and coworker support lead to the least reported level of leadership-induced stress while simultaneously low perceptions of interactional justice, LMX, and coworker support lead to the highest reported level of leadership-induced stress.

6. The finding that low coworker support can ‘buffer’ or reduce the unpleasant influence of low interactional justice on leadership-induced stress better than
high coworker support provided that employees are in high LMX.

7. The finding that high coworker support, compared to low coworker support, is more effective in increasing the potency of high interactional justice to reduce leadership-induced stress among employees in high LMX than among employees in low LMX; and that the effectiveness of high coworker support, compared to low coworker support, to do this is stronger where employees in focus are all in high LMX.

8. The finding that each of interactional justice, leader-follower relationship, coworker support, and cognitive trust negatively predicts leadership-induced stress whereby cognitive trust has the highest predictive power, followed by interactional justice and LMX, both of which have the same predictive power, then coworker support which has the least predictive power.
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