A Multilevel Investigation of the Mediating Role of Trust in the Relationships

Between Leadership and Follower Outcomes

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October 29th, 2009

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Acknowledgements

Finally I want to thank all those friends who have constantly referred to me as the "eternal student." You have inspired me even further to quickly complete this doctorate.

Abstract

The following research project investigated the mediating effects of individual trust in the relationships between eight leadership dimensions and follower motivation and efficacy. The research comprised of a total of three studies of which two are individual level analyses investigating the above relationship for individual followers, while the final study established the relationship between the eight dimensions and collective efficacy and group cohesion. A new measure of trust – collective vertical trust – was developed and tested and formed the mediator for the final study. The findings showed that leadership is indeed mediated through trust on both individual and collective level in the majority of relationships. In addition it was shown that individual and collective vertical trust are significantly related. Finally, the final study showed an absence of a significant relationship between trust on both the individual and collective level and organizational performance. The findings contributed to existing research in various ways: 1) the mediating effect of individual trust was established for eight separate leadership dimensions; 2) the studies established that while the indirect effects of leadership on follower motivation are similar amongst all age groups and levels of work experience, more work experienced individuals draw their beliefs in their abilities (i.e., self-efficacy) from alternative sources than leadership or trust in the leader; 3) a new measure of collective trust – collective vertical trust was established; 4) the mediating effect of collective trust was shown to be crucial in leadership effects on collective efficacy and group cohesion; and finally 5) a leadership measure initially designed for executive leaders was refined and tested for non-executive leaders.

Executive Summary

Leadership, while a rather recent area for research, has been researched extensively. A great number of questions still remain, however. This is not surprising considering the variety leaders from political to business, from sports captains and managers to generals in the army, public and private, and low, middle, and executive level leaders. In addition there is a great range of factors that may affect what leader is required and the extent the leader is able to effectively transform, maintain, and influence others, corporations, and nations. Throughout history there have been extraordinary people who emerged as leaders, some have changed the way people live such as Martin Luther King and Nelson Mandela, some transformed the ways we work such as Bill Gates and Microsoft. However, just as there have been leaders who have added some value to society, others have brought down nations and companies as with such prominent examples as Hitler, the leaders at Enron, Lehman Brothers, and General Motors. There is therefore still a large scope of research opportunities and the need to dig deeper into how to prevent leaders from acting in aversive ways and how to make use of leadership behaviors to instill positive feelings amongst followers and effect desired outcomes both on an individual, group, and organizational level.

The following review and research will focus on direct leaders and their effect on follower outcomes. With close and distant leadership having varying effects on followers requiring different types of leadership, the following thesis will contribute to the knowledge of direct leadership effects. This, however, does not imply that the findings may not be useful for gaining a better understanding of the effects distant leaders such as CEOs or in virtual teams may have on followers, but they do have their limitations in generalizing over an infinite range of leader-follower relationships, organizations, or situations.

The following sections will first look at the wide variety of leadership definitions underlining the difficulty in pinpointing a general concept of an effective leader. Chapter 1 will describe the journey of leadership research and its etymological meaning including a selection of definitions ranging from strategic leadership to definitions that are most relevant to the current research, namely definitions focusing on the interpersonal and social aspects of leadership. This first part will attempt to find a consensus of what an effective leader is and does.

The second part of Chapter 1 will give an overview of some of the most prominent leadership theories to date starting with one of the earliest theories the Great Man Theory opening the scene for personality theories of leadership. It will then continue to outline the importance of contextual factors affecting leadership effectiveness describing contingency theories such as Hersey and Blanchard's (1977) model, Fiedler's LPC (1967, 1978), and the Vroom and Yetton (1973) normative decision model, which attempted to offer assistance regarding the appropriate level of participative decision making. The chapter continues with an overview of behavioral and perceptual theories of leadership leading the discussion into the direction of the current research, which is primarily concerned with the behavioral aspects of leadership measured through the use of follower evaluations. In order to understand leadership, it is crucial to understand what types of power are available to leaders concluding with the distinction between personalists and situationists.

The third part of Chapter 1 looks at the importance of those working in an organization, the human capital. It outlines the impact a leader can have on organizational outcomes through using the human capital and the recent change in the perception of those leaders making success possible and keeping the system alive and the wheel spinning. In order to understand the process through which the leader taps into the potential associated with the human capital, one inevitably needs to look at the close-knit ties between leader and follower(s) and the psychological underlyings making it possible for the leader to greatly affect followers. Considering the magnitude of the leadership role, drawing the distinction between ethical and unethical leadership is crucial. The drawbacks and risks of unethical leadership are outlined and the positive effects of ethical leadership are highlighted.

This builds the basis for understanding the processes involved in transformational and charismatic leadership and the repeatedly established positive effects on both people and organization. Chapter 2 therefore looks at the development of the currently most prominent theory, transformational leadership and outlines and discusses its components. Commencing with charisma, its historical origin and development, this section then looks at the elements making it extraordinary, its <u>almost</u> universality, and its distinction from other theories, namely the psychological components in the leader-follower relationship and the proposed role crisis plays for charisma. The section of charismatic leadership emphasizes the importance of language, vision, emotions, and many other tools and techniques applied by the charismatic leader to achieve extraordinary effects.

The section on transformational leadership is then concluded with the elements of leadership that has received rather negative press due to its lack of leadership potential.

Therefore, the elements of transactional leadership are discussed and the shift in perception of contingent rewards from transactional to transformational leadership.

The research, however, does not investigate transformational leadership per se, it looks at leadership behaviors that have evolved from the concept of psychodynamic leadership, a style even more associated with the importance of psychological factors for leadership effectiveness. In order to arrive at the concept of psychodynamic leadership and its elements, transformational, servant, and psychodynamic leadership are compared and their similarities emphasized. The leader-follower relationship is compared to the relationship between a parent and the child. The importance of the emotions involved in this professional relationship is argued to be similar to what children experience when with their parents. For instance, the potential feeling of safety that the leader is able to create and the ability to reward followers as a means of appreciation and reinforcement are all evaluated from a psychological perspective.

Chapter 2 further argues for the importance of follower perception. With the research being exclusively conducted on the basis of follower evaluations regarding the leader's style and their levels of trust, efficacy, and motivation, it is crucial to why this approach is chosen and where theories stand on the leader-follower relationship. The section is concluded with the prototypes people hold of leaders, what they classify as effective and how it affects the relationship between leader and follower, followed by a long-fought debate on the realistic influence of the leader on followers, organization, and performance. The latter two parts highlight the importance of investigating leadership from the follower perspective. As mentioned earlier, leadership effectiveness depends on contextual aspects. Context is viewed from micro and macro economic angles including crisis versus non-crisis leadership and the role gender and age play for leadership effectiveness.

Given that leadership effectiveness is dependent on a great range of different factors, some dependent others independent from the leader, the final section of Chapter 3 attempts to capture a picture of the potential effects of leadership behaviors. Commencing with the effect on efficacy, this part moves on to discuss leadership effects on motivation, trust, and performance. These are the four outcomes investigated in the current research. It is important to mention that the earlier three are explored on an individual and collective follower level.

Chapter 3 develops a model based on the variables briefly discussed in the final part of Chapter 2. In order to understand leadership effectiveness, it is crucial to be aware of the role trust plays in the leader-follower relationship. Although trust may be a bi-directional

phenomenon with the follower perceiving the leader trustworthy and vice versa, the current research focuses exclusively on the earlier. Starting with a rather general overview of the importance of trust, offering a range of definitions to build the basis for later chapters, the model and hypotheses are introduced and individual trust in the leader discussed in detail. Individual trust is discussed in terms of the leader's ability to affect this personal phenomenon. Due to the importance of trust in the leader-follower relationship, this section not only discusses the direct effects of leadership on trust but also the indirect effect on other variables such as motivation through individual trust in the leader.

With self-efficacy and motivation being an important part of follower success, the third part of Chapter 3 discusses the influence individual trust in the leader has on the relationship between leadership and follower efficacy and motivation. It is argued that the effects of leadership on followers is greater when leaders act in ways that raise the beliefs amongst followers that their relationship is an end-in-itself rather than a means to achieving other outcomes. In other words, is the core reason for the leader's behaviors the relationship with the follower or is the latter merely used to achieve other goals. For instance, it is argued that a leader viewing the relationship as the crucial final element rather than instilling feelings of using the individual and the team to achieve greater successes and maybe experience greater personal gains emerges as the more successful leader in achieving both, interpersonal benefits and results such as motivation that may traditionally be associated with organizational success.

As mentioned earlier, there is still a lot of scope for research in the area of group phenomena and leadership. With the increasing importance of team work various new issues for leaders arise. Is leadership similarly effective on a group level as it is on an individual level? How are the individual phenomena related to their collective counterparts? These two questions sum up the final parts of Chapter 3. Firstly, the research attempts to develop a new measure of collective vertical trust. Although collective trust is not a new concept, research to date has not attempted to capture the phenomenon of a group-shared perception of trust in the leader. The focus of collective trust has been on what is referred to here as horizontal collective trust, that is, a perception of the trustworthiness of another team member shared amongst the group. With leadership being at the focus of the research and being such a substantial part of group phenomena and success, it is important to specifically define collective trust as a group perception of trust in the leader. In other words, collective vertical trust is the level of trust in the leader group members share and as a group possess. It is therefore argued in this section of Chapter 3 that the collective perception of the

trustworthiness of the leader shall be a related, yet unique concept, of collective trust. Namely collective vertical trust is a concept describing an upwards trust relationship rather than a trust relationship between same level peers. The relationships between individual trust in the leader and collective vertical trust (CVT) are examined and the importance of the latter for leadership effectiveness explored. It is argued that CVT and individual trust are strongly related and CVT playing a role in the relationship between leadership and collective efficacy and group cohesion, two constructs related to collective motivation. The concept of CVT is paralleled with previous research on the relationship between individual and collective variables. Finally, the importance of CVT for performance is discussed and its standing regarding its impact on group performance contrasted with its individual counterpart, individual trust in the leader.

Chapter 4 discusses the importance of including psychological components in leadership research and details the refinement of the Global Leadership Life Inventory for a non-executive audience. It also gives an outline over the three studies of which two are individual level based including a student and an employee sample and one is a group based student sample.

Chapter 5 is the first part of the methodology section analyzing and discussing the development of the current version of the Global Leadership Life Inventory including exploratory factor analysis, various confirmatory factor analyses for the leadership and variable measures. The findings from the various analyses support an 8-factor model of leadership and show good reliabilities and fit indices for all variables. It is important to mention that a first-order and a second-order latent model were tested in order to establish the best fit for the leadership construct and to develop an overall leadership measure.

Chapter 6 and 7 investigated the individual level relationships and found support for the majority of hypotheses. One of the main findings regarding a lack of support for the importance of leadership and trust in the individual student study was the absence of an effect for the majority of leadership styles on follower self-efficacy, while the proposed relationships between leadership, trust and three types of motivation were generally well supported. The findings were similar for the individual employee study, although the proposed relationships for work effort were largely not supported.

The final section of Chapter 7 incorporated a control part testing a possible time effect on trust. The results showed that the level of trust in the leader appears to be independent of the time spent with the leader, while the length spent working in the same department does have a slight positive Effective Leadership effect on trust. The final part of Chapter 10 is a

discussion of the two individual studies evaluating potential factors that may explain differences between the samples. Two main points made are the level of work experience and the times of data collection. The evaluation provides further insight into the importance of macro-economic factors with one sample collected before and one during the biggest financial crisis since World War II. The crucial role of trust in the leader in the relationship between leadership styles and follower outcomes is emphasized. The two individual studies further underline the importance of the psychological components involved in effective leadership. Results from both studies showed that leadership styles based on the psychodynamics in the dyad relationship between leader and follower are the most effective ones at instilling great levels of trust and various types of motivation amongst followers. It also emerged that younger employees are more likely to change their beliefs in their abilities under certain leadership styles, while older employees appeared to be unaffected.

The final study of the set of three is explained and discussed in Chapter 8. The purpose of the third study was to test a new concept of collective vertical trust and the relationships between individual and collective phenomena and leadership. Finally, this study underlined the importance of collective vertical trust as a mediator in the leadership-follower outcome relationships. Multilevel testing gave further insight into cross-level effects between collective and individual variables. The concept of CVT was established and its relationship with individual level trust examined. Finally, the findings regarding the influence of leadership on performance added further insight to the controversial debate. It is possible that the absence of a significant relationship between individual trust in the leader and CVT and financial organizational performance measures may be explained by effects beyond the scope of the current research. However, although there is no direct relationship between trust and organizational performance, it is argued that this may not tell the entire story and that trust acts through other ways and may indeed have indirect effects on organizational performance.

The final part of the thesis discusses the findings from all three studies, the relationship between individual and collective level phenomena and limitation of the current research and proposes possible future research issues.

Chapter 1: Introduction

1.1 Background

Leadership has been an important concept throughout the history of humanity. It is and has been a crucial part in society's functioning and development. In some cases leaders have been the saviours as with Robert Noyce, founder of INTEL and later CEO of SEMATECH, who led an entire industry to success against strong Asian competitors (see Beyer & Browning, 1999 for a review); in other cases the causes for downfall of a group, a corporation, and even countries such as Hitler leading Germany into World War II with disastrous consequences and more recently the case of Enron. The question remains what makes some people effective leaders whilst others' effect on followers is averse, limited or only short lasting.

Leadership research, although leadership per se having been an important aspect of humanity (Bass, 1990) and nature such as the alpha male since the beginning of dawn, has not entered the focus of social scientific study until the early 1930s (House & Aditya, 1997). Despite or even because of its crucial importance, even considered the most important area of organizational behavior (Rahim, 1981), the study of leadership remains an area of controversy and discussion. Its sheer magnitude of interest indicates its importance for any group's functioning; as Bennis (1959, p.259) points out, "probably more has been written and less known about leadership than any other topic in the behavioral sciences." It has been one of the most extensively studied aspects of human behavior (Kets De Vries, 1993; Goffee & Jones, 2000), yet, the concept leaves the layman guessing and researchers debate its various facets. Stogdill (1974, p.vii) underlines its complexity, "it is difficult to know what, if anything, has been convincingly demonstrated by replicated research. The endless accumulation of empirical data has not produced an integrated understanding of leadership." In trying to understand leadership it needs to be said that we know so much about what it encompasses and what leaders need to do, yet there are still so many areas, processes, and levels of functioning to be explored. Borrowing the words of Sokrates (470 - 399 B.C.) and Albert Einstein to round up how far we have come in understanding leadership: the more we know, the more we come to realize that we do not know much. Despite all the difficulties, the importance of leadership cannot be denied and the following section will show some definitions, controversies, and consensus.

The following section will give a more general outline of leadership definitions, theories, and research to build the basis for the final part exploring the psychological components

suggested to play a crucial role in leadership effectiveness. In order to understand the psychology of leadership and follower relationships, it is important to have a comprehension of where previous theories and findings see the roots of leadership effectiveness both from a leader perspective (e.g., leader characteristics and behaviors) and follower as well as context factors.

1.2 Definitions, Controversies, and Consensus

Kets de Vries, Vrignaud, and Florent-Treacy (2004) emphasize one important underlying aspect of leadership that can be found in the gross of definitions. They point toward the etymological origin of *leader* coming from *lœd* meaning 'path' and with the verb being *lœden* meaning 'to travel'; a leader is essentially a person walking in front of his or her people and showing them the way. However, the previous part has already briefly touched on the complexities surrounding the concept leadership and as a consequence researchers have defined leadership in numerous ways ranging from interpersonal approaches to strategic ones:

> House and Aditya (1997) define *strategic leadership* as a purpose, meaning, and guidance giving style accomplished through inspiring organization members through a vision. It incorporates decision-making, selection and recruitment of key executives, the correct allocation of company resources, setting goals, and guiding and directing the organization and its members.

The focus of supervisory leadership lies with the individual leadership of organizational members including guidance and the support of the individual, and providing feedback to followers on, for instance, their performance. In contrast to strategic leadership, supervisory leadership is therefore task- and person-oriented rather than organization-oriented.

> The European Foundation for Quality Management (1999) defines *leadership* as "how leaders develop and facilitate the achievement of the mission and vision, develop values required for long-term success and implement these via appropriate actions and behaviors, and are personally involved in ensuring that the organization's management system is developed and implemented."

> "Leadership is about articulating visions, embodying values, and creating the environment within which things can be accomplished" (Richards & Engle, 1986, p.206).

"Leadership is a process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose" (Jacobs & Jacques, 1990, p.281).

Leadership "is the ability to step outside the culture … to start evolutionary change processes that are more adaptive" (Schein, 1992, p.2).

House, Hanges, Javidan, Dorfman, Gupta, & associates (2004, p.15) define leadership as "the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organizations of which they are members".

"Leadership is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (Yukl, 2006, p.8).

Lord & Maher (1993, p.4) "conceptualize leadership as resulting from a social-perceptual process – the essence of leadership is being seen as a leader by others."

"Leadership involves an "influence increment" that goes beyond mechanically complying with one's role in an organization and routinely applying rewards or coercive power" (Katz & Kahn, 1978, p.528).

"A shared group-level climate variable that reflects group members' perceptions of the extent to which the leaders of their group provide task-related direction as well as socioemotional support to subordinates" (Chen & Bliese, 2000, p.549).

"Leadership is a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse, 1998, p.3).

These are only a small sample of the many definitions of leadership, yet there are a few commonalities among all these definitions. Most definitions emphasize a leader's ability to instill vision and motivate followers to work towards goals by focusing on interpersonal aspects. Consensually leadership may therefore be considered a tool in achieving goals (Bass, 1990a) comprising of the three elements influence, goal, and group (Bryman, 1996).

To add further to the ambiguity of leadership, it has been argued that leadership should 1) not be confused with management; and 2) not be considered a one-person show but rather a social phenomenon. Similar Cox and Fox (2005) argue for leadership as a social interaction phenomenon. Barker (1997) conceptualizes management in terms of tasks the individual performs such as goal setting and strategic planning, allocating resources – summing it up as a mechanic function using rational methods to keep the organizational wheels spinning. In contrast, Barker (1997) claims leadership is a function to create change. Kotter (1990)

supports this view arguing that managers need to provide consistency, while leaders need to instill visions, change, and movement to keep the organization going forward. This view is consistent with the linguistic origin of the word manager. Hofstede (1993) lists two different historical meanings that further help to understand the difference between the terms manager and leader: the latin word *manus* meaning hand and extends his explanation with the Italian *maneggiare* which, in a figurative sense, reflects well what managers have to do in organizations today, train horses in the *manege* and be generally able to skillfully handle things. Hofstede goes on by also referring to the French word *ménage*, which is nothing else than to run a household. In our discussion, we would refer to it as 'keep the organization on track or keep the wheels spinning'. So from a pure meaning point of view, the distinction is relatively clear, but it becomes a lot more complex when looking at the real life manifestations of leadership and management. Dwight Eisenhower (see Popper & Zakkai, 1994) emphasizes the impact leaders have on their followers, making them do and perform with the motivation and commitment as if the tasks and goals had purely been chosen by themselves. Although most people would argue for a one-person or a distinguished number of people (such as company boards) leadership concept, some argue for leadership to be a collective process with every member involved and being a potential leader (Heifetz, 1994). In shared leadership situations all members are fully engaged in the leadership of the group and should theoretically all feel free to contribute and decide equally to the team effort. Functions may be assigned to those most qualified putting individuals in charge in the area of their expertise. Yet every individual remains an equal member of the group. This type of leadership is often found in self-managed teams (Yukl, 2006).

Returning to the discussion on the differences between leaders and managers, it is useful to further investigate the criteria qualifying a person to either be a leader or a manager. As mentioned before, a manager has been argued to be the one keeping the entire system running, whilst a leader will lead the path to new horizons. Neelankavil, Mathur, and Zhang (2000) argue for five key performance factors for managers: problem solving ability, able to work under pressure, integrity, able to organize, and plan. They further list the following factors, which are very closely related to what is claimed to be the essence of leadership, as a crucial part of the management role: decision-making ability, educational achievements, charisma and confidence and being able to lead others. This overlap is in line with some arguing that trying to establish a clear-cut differentiation between the two concepts degrades management to a mundane activity, while leadership is a heroic act (Hay & Hodgkinson, 2006; Mangham & Pye, 1991). As Joyce, Nohria, and Roberson (2003) argue, a good leader

is also a good manager and a good manager is also able to lead. Hogan, Curphy, and Hogan (1994) conclude that the one thing that really differentiates one from the other is the fact that, in similar vein to Eisenhower, a leader is able to persuade others to work towards a common goal. As Yukl (2006, p.5-6) points out, "the definitions of leaders and managers assume they have incompatible values and different personalities [...] associating leading and managing with different types of people is not supported by empirical research; people do not sort neatly into these two extreme stereotypes. Moreover, the stereotypes imply that most managers are ineffective. The term *manager* is an occupational title for a large number of people, and it is insensitive to denigrate them with a negative stereotype." The author fully agrees with Yukl's statement and those of Joyce and colleagues that these two cannot be neatly separated and that no matter what the person is called, in order to be effective, a manger as well as a leader need to display particular behaviors and possess a distinct skills set.

Leadership, however, does not only cause debate amongst researchers. Barker (1997) asked a number of 110 professionals, including managers, to define leadership. More than half of the respondents argued it is a skill or ability, while 12 per cent stated that leadership is manifested in an action. Only 6 per cent considered leadership to be determined by role or position, while 13 per cent could not pinpoint what leadership essentially is. A small, yet interesting 5 per cent of respondents even saw something dangerous in leadership considering it a weapon. A similar picture emerged amongst students with half of the respondents defining leadership as an ability, while 18 per cent said they are unable to specifically conceptualize leadership. It needs to be mentioned at this point that the latter point, in particular, may differ greatly among cultures. For instance, a leader in German-speaking cultures, in particular Germany, has a negative connotation due to Hitler's sobriquet "Der Führer" (Dorfman & House, 2004).

Despite all these controversies and limitations of theories and conceptualizations, leadership plays an important role in society's functioning. It is a universal phenomenon and there is hardly any society where leadership is completely absent and existing in some form or another (Murdock, 1967). With leadership and leaders having such great influence on others, groups, organizations, societies, and even nations, it is crucial to determine what type of leadership has positive effects and which lead to negative outcomes such as in the case of neurotic leaders (Kets de Vries, Florent-Treacy, Vrignaud, & Korotov, 2007). Finally, on the basis of the existing definitions and for the purpose of the current studies, the following definition of leadership incorporating a variety of aspects pointed out in previous definitions will be adopted:

Leadership is the ability of one group member to be perceived as behaving and possessing outstanding qualities that both ensure effective working for the individual and the group, being a mentor to others, and possessing the tangible and psychological techniques to influence others.

1.3 A General Overview of Leadership Theories

Just as there are many definitions of leadership, the multitude of different leadership theories is also considerable, with most theories of leadership being prevailing 98 per cent American in character (House & Aditya, 1997):

"individualistic rather than collectivistic, stressing follower responsibilities rather than rights, assuming hedonism rather than commitment to duty or altruistic motivation, assuming centrality of work and democratic value orientation, and emphasizing assumptions of rationality rather than asceticism, religion, or superstition" (House & Aditya, 1997, p.409-410).

Personality Theories of Leadership

Theories have been proposed ranging from situation-specific to context-specific and some theories place more emphasis on the interpersonal aspects of leadership. Theories were also derived from the two different assumptions on whether a leader is born or made. One thing all theories have in common is that they describe a person and a process that differ greatly from the norm, or as Kirkpatrick and Locke (1991, p.59) put it "Regardless of whether leaders are born or made or some combination of both, it is unequivocally clear that *leaders are not like other people*". One of the earliest theories claimed that leaders are exceptional people, born with innate qualities, destined to lead, the idea of a successful leader possessing certain traits. The move away from this so-called Great Man Theory, led to a similar thought school focusing on leader related aspects, namely the Trait Theories. The Trait Approach claimed that leaders possess certain traits that make them successful. This proved to be problematic as the number of traits identified rose with the number of studies undertaken (Bolden, Gosling, Marturano, & Dennison, 2003). Stogdill (1948, 1974) concluded, after reviewing 124 traits studies conducted between 1904 and 1948, that it is not the traits

themselves that make a leader a good, effective leader, but it is the fit between leader and follower characteristics a leader's traits and the situation, that is, the follower activities and goals. He later reported that although particular characteristics are more dominant in leaders, such as technical skills, group supportiveness, motivation, no trait could universally and generally be considered the "leadership trait." One facet, however, was amongst the most prevailing ones, charisma (Stogdill, 1974). This is an important finding for the current discussion and the charismatic aspect of leadership will be explored in more depth in a later section. Later research showed similar conclusions with regard to particular traits indicating the greatest correlations with leadership; yet again this should not be taken as the only truth. One of the most plausible ones, due to the general character and tasks of a leader (e.g., being the center of attention, the center of the information flow) is the finding by Judge, Bono, Illies, and Gerhardt (2002) testing the relationship between the Big Five Personality traits with leadership. Extraversion showed the strongest correlation with leadership, which makes sense when regarding the finding in the light of the "center stage" taken by most official leaders. This may not apply to silent leaders leading a group or an organization from the background, but it logically applies to most public leaders. In recent times, we have seen the phenomenon of Barack Obama, the American president. His expressive, extroverted way of communicating has left people attributing him charismatic, effective leadership qualities (see Cronin, 2008 for a review). Judge et al. (2002) further report that leadership was positively related to conscientiousness and openness to experience, which from a motivational point of view appears a likely finding. This is also supported by Mann (1959) finding that conservatism, the tendency to stick to the status quo, is negatively related to leadership. Neuroticism was shown to be negatively correlated with leadership, which, when looking at historical figures is perspicuous. Howard Hughes, the American billionaire, for instance, was more worried about possible conspiracies than to focus entirely on his business subsequently leading to him losing power over his own empire. In a further meta-analysis, Bono and Judge (2004) supported their previous findings with regard to the transformational leadership; a cousin of charismatic leadership which will be discussed in further detail at a later point. Interesting insight into leader personalities also comes from findings suggesting that internally focused leaders tend to show greater entrepreneurial qualities (Shapero, 1975) and are therefore more likely to focus on innovation and product changes. Miller, Kets de Vries, and Toulouse (1982) assume this to be due to their greater beliefs in their own capabilities. In their study, Miller and associates also showed that while internals prefer dynamic, competitive

environments, executives with an external focus tend to be risk-averse and prefer to not challenge the status quo (Allen, Weeks, & Moffitt, 2005; Miller et al., 1982).

Another trait theory was proposed by McClelland (1975) who based his conceptualization on the assumptions that effective leadership is dependent on achievement motivation, that is, a non-conscious concern for striving to success by applying individual efforts (McClelland, Atkinson, Clark, & Lowell, 1958). Achievement motivation is thought to be an important aspect in effective entrepreneurship (McClelland, 1985) and effective leadership in small task-oriented groups (House, Spangler, & Woycke, 1991). McClelland (1975) therefore developed the Leader Motive Profile (LMP) arguing that high power motivation, a nonconscious drive for status and influencing others, teamed with a high concern for the moral exercise of power – the assumption that those with a high concern use their power in an altruistic way serving the collective – and an affiliative motivation that is less than the power motivation would be crucial ingredients for effective leadership. McClelland (1985) suggested that affiliative motivation is simply the nonconscious concern to establish, maintain, and restore close personal relationships. His arguments for the above combination were that a leader with a high power motive stays clear of dysfunctional behaviors associated with high affiliative motivation such as submissiveness, reluctant to monitor, and to favor particular individuals yet failing to discipline subordinates.

Contingency Theories of Leadership

Amongst the other theories are the situational and contingency theories of leadership. Hersey and Blanchard (1977) argued that the effectiveness of leadership depends on the ability and motivation of the follower and that the style should be adjusted accordingly. They regarded the maturity of the follower as the decisive factor in which style should be used by the leader to achieve the best outcomes. They argued that inexperienced staff or staff that performed basic and repetitive tasks should be told what to do, or as Hersey and Blanchard (1977) put it, the leader should apply a *Telling* style. They further argue that when followers are motivated but not experienced enough, the leader should use a *Selling* approach, whilst using a *Participating* style would be most effective with able and inexperienced followers. When dealing with competent followers, the leader achieves the most optimal results by using a *Delegating* style. Hersey and Blanchard's (1977) model has received little to no empirical support, yet is widely used in commercial management trainings (House & Aditya, 1997).

Fiedler (1967, 1978) proposed the least-preferred coworker score defines a leader's motives. The score is derived from ratings of a person the leader would least well work with

and rate this person on a bipolar scale. A high LPC leader, according to Fiedler (1967, 1978) is motivated by interpersonal relationships and leads supportively and considerate towards the followers. In contrast, a low LPC leader is proposed to be leading task-driven and will only use interpersonal styles if followers are performing well and the success of the task is at no risk. The effectiveness of the leader is classified by eight octants that represent three situational aspects that affect the most effective leadership style: leader-follower relations, task structure, and position power. Various weaknesses have been associated with the LPC score. Ashour (1973) criticized its nature as a theory due to its lack to explain how the leader LPC score affects group performance, while its octants are only partially supported (Strube & Garcia, 1981).

In 1973 Vroom and Yetton developed the Normative Decision Model intended to enable leaders to examine a situation and determine which style or level of involvement to engage. This model identifies five styles along a continuum ranging from autocratic to consultative to group-based. The theory is a prescriptive model in the form of a decision tree and by asking oneself a series of seven questions about the nature of the problem, decision, and consequences, the leader can decide just how much involvement others should have in the decision. The model was later reformulated to correct some of the weaknesses of the original model such as the lack of consideration of time constraints and subordinate knowledge and geographical dispersion. The more recent model also includes facets on subordinate development and allows it to be more applicable to situations in the form of different versions (Vroom & Jago, 1988). Vroom and Jago (1988) found evidence that organizations applying the Vroom-Yetton model had a 62 percent rate of successful decisions, whilst those organizations not applying the model only had a 37 percent rate of successful decisions. Support also came from other studies showing that organizations applying the model were more profitable and employees reported higher levels of satisfaction (Margerison & Glube, 1979). Despite the successes of the Vroom-Yetton model, Field and House (1982) and Heilman, Hornstein, Cage, and Herschlag (1984) identified discrepancies between the validity for the effectiveness of the model. Whilst managers confirmed its value, data obtained from employees did not confirm the model. These shortcomings, realized by Vroom and Jago (1988), led to the reformulated theory.

Behavioral and Perceptual Theories of Leadership

House (1971) argued for a behavioral approach to understanding effective leadership. He based his assumptions on Vroom's (1964) expectancy theory, which will be explored

further at a later point and presents a dyadic theory of supervision concerned with the relationship between the supervisor and the follower(s) on a day-to-day basis. The essence of the theory is that leaders who strive for effectiveness need to "engage in behaviors that complement subordinate's environments and abilities in a manner that compensates for deficiencies and is instrumental to subordinate satisfaction and individual and work unit performance" (House, 1996, p.323). According to House (1971) the motivational function of a leader is to increase the follower benefits associated with goal attainment, and smoothing the way by clarifying the goal, and ensuring effective operations and processes (by, e.g., providing the appropriate resources, equipping people with the right skills, etc.), and increasing the opportunities for follower satisfaction among the way. As House and Dessler (1974) note, it is crucial that followers view the leader's behavior as acceptable as either an immediate source of satisfaction, or alternatively as instrumental to future satisfaction. House (1977) argues that the path-goal theory was the basis for the development of the charismatic leadership concept. The path-goal theory has received a great amount of support and is an important theory in explaining work motivation (Wright, 2004). Due to its importance, goal theory and goals will form an important part of later sections.

Awamleh and Gardner (1999) write that the last two decades of leadership research have pointed towards the importance of perceptual aspects in leadership effectiveness, or in other words, the significance of understanding implicit leadership theories, the mental models individuals hold of an effective leader (Lord & Maher, 1993). For instance, Gardner and Avolio (1998) assume that leader charisma is a construct of impression management on part of the leader and impression formation processes on part of the followers. This was later supported by Gray and Densten (2007) who found that business leaders use impression management to create charisma like leadership. Similarly, the element of charismatic leadership, vision, is asserted to be a mental image evoked by the leader (Conger, 1998). Strange and Mumford (2005) found support for this showing that leaders create vision through abstraction and reflection on past experiences and possible implementation procedures. Lord and Maher (1993) argue for two models of cognitive processes taking place in forming leadership perceptions on the basis of human information processing theory. The first model is a top-down process of matching existing schemas and prototypes of leadership qualities that they perceive as important or effective. If the leader fits the schema, he or she is then attributed the title leader and perceived and treated accordingly, enabling him or her to effectively "manipulate" follower behavior. This model is hence named "recognition" model. The second model, "inferential," is in principle a context model, that is, it is not the leader as

such who infers leadership but knowledge of organizational events and outcomes. Followers will, depending on particular measures and indicators such as organizational performance, attribute leadership qualities to the individual in charge in spite of whether these outcomes are in reality due to his behavior or qualities. This is what Meindl (1990) named the "romance of leadership." Leaders, as he argues, are attributed qualities that they might not necessarily possess, purely on the basis of positive performance outcomes.

The Importance of Power in Leadership

Finally we shall focus our attention on how a leader is actually able to influence followers. Influence requires power, the capacity of one person (agent) to influence a second individual (or individuals) (target) to do something the latter would not otherwise do (Yukl, 2006). Power may come from different sources, yet in itself is not sufficient enough to influence others. A leader needs to be perceived as possessing any type of power linking the previous theories on perception and situation to the present paragraph. Depending on the situation and the "audience" different types of power may have different effects. In other words, power is a dynamic variable whose potential to achieve results through influence implies a dependency relationship between two parties with the receiving party, the target, having discretion over his or her own behavior (Yukl, 2006). Before understanding the possible impacts each may have, it is crucial to first explore the various types of powers. The most influential taxonomy was developed by French and Raven (1959) who categorized five different sources of power that can also be dichotomized into position and personal power (Bass, 1960; Etzioni, 1961). Position power is based on the individual's position in the hierarchy whether the person is able to reward, punish, the person's status, or to what extent the individual is in control of information (Bass, 1960; Etzioni, 1961). According to this dichotomy, personal power is based on personal characteristics such as getting results through the use of empathic skills or task expertise. Although the powers do show some overlap, they are principally different (Yukl & Falbe, 1991). Position powers include *legitimate power, reward power, coercive power, information and ecological power.* The first five were suggested by French and Raven (1959) including legitimate power describing power enabling target compliance due to perception of agent status and authority. They defined reward power as the target's compliance to the agent's orders in order to obtain rewards believed to be controlled by agent. Coercive power can be defined as target compliance in order to avoid punishments controlled by agent, whilst information power originates in the agent's control over information both regarding access and distribution of information (Pettigrew, 1972).

Finally, ecological power has been suggested to develop through the control over the physical environment, technology, and organization of work (Cartwright, 1965) such as designing subordinate jobs with the focus on motivation increases (Oldham, 1976). French and Raven (1959) suggested two more power sources, personal powers. One way the agent is able to influence the target is through expert power, which is the target's belief that the agent has special knowledge or expertise and therefore complies with orders given by the agent. A leader, however, is also able to influence through admiration, loyalty, and the target's identification with agent and desire for the leader's approval. The target uses the leader as a type of reference point, which led French and Raven to name this second personal source referent power. Powers tend to have different effects on people and are at the essence of the theories discussed here and many more. Power is the necessary tool to influence others, leading to commitment, satisfaction, and motivation (e.g., Cropanzano, James, & Citera, 1993; Deci, 1971; Elangovan & Xie, 2000). The following sections will discuss the impact different leadership behaviors, and therefore influence techniques, have on followers.

This section concludes with the comparison of Kets de Vries, Vrignaud, and Florent-Treacy (2004) who note that the different perceptions of the sources of leadership effectiveness can be described as on a spectrum from 'personalists' to 'situationists'. Personalists are leadership scholars who assume leadership effectiveness to be dependent on the leader's personality variables such as empathic skills, communication skills, to name just a few. These theorists see leaders as heroic helmsmen who are always on top of the situation. Situationists, in contrast, place importance on situational and environmental variables and conceive personality traits as negligible, and as such view leaders as no more than puppets of context variables.

The following sections discuss the most relevant theories in more detail with respect to the current research project. Section 1.4 examines the good and bad of leadership; that is, how leaders can use their skills for the good of others instead of exclusively using their superiority for their own advantage. Sections 2, 2.1, 2.2, 2.3, 2.3.1, and 2.3.2 will look at the specifics of some of the leadership theories relevant for the current research and outline and develop comparisons between the theories to understand the pervading underlying similarities.

1. 4 The good and the bad of leadership

The Importance of Human Capital

Apart from external, macroeconomic factors, an organization's performance depends heavily on effective leadership. Among these, the management and leadership of the most important asset of any company, the human capital, is crucial (e.g., Almeida & Carneiro, 2008; Bayo-Moriones & Merino-Diaz de Cerio, 2002; Cartwright & Cooper, 1996; Ciavarella, 2003; Greer, 2003). Effective leadership allows for greater productivity and innovation through higher levels of motivation, identification with the organization, and commitment among the workforce (e.g., Brotheridge, 2003; Feldheim & Liou, 1999; Kaufman, 2003; Pfau, & Cohen, 2003; Schneider, Hanges, Smith, & Salvaggio, 2003; Tsai, Chen, & Cheng, 2009). Schneider et al. (2003), for instance, argue that management strategies allowing for higher levels of employee participation in decision-making processes will lead to greater financial performance. For instance, Lieberson and O'Connor (1972), in one of the earliest studies on the influence of leadership on performance, found that leadership explains 27.3 per cent of variance in profit margin, while Thomas (1988), after re-analyzing Lieberson and O'Connor's (1972) data, claimed that leadership accounted for 71.5 per cent of the variance in sales and 62.8 per cent of that in profits. Leaders, however, do not achieve this on their own; they achieve these great results through those working with and along them. In contrast, more recent studies found that leader charisma is significantly related to company share price in uncertain conditions and CEO compensation, however, no other significant effects of leadership have been found for any other organizational performance measure, namely the market-based measure shareholder return and an accounting-based measure return on assets (Tosi, Misangyi, Fanelli, Waldman, & Yammarino, 2004). Similarly, although others may attribute effectiveness to the leader, hard financial data may not support the relationship between leadership and organizational performance as shown in a study by Agle and colleagues who found no relationship between the latter (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006). Conversely, Colbert and associates found an indirect effect of leadership through goal importance congruence amongst a top management team on organizational performance (Colbert, Kristof-Brown, Bradley, & Barrick, 2008). The direction of a definite conclusion on the extent of leader contribution on financial performance therefore remains not entirely clear.

The importance of human capital has not only be recognized amongst academics, but after years of viewing those who keep the system running, the essential elements of an

organization, the people, simply as a cost factor, public and private organizations have come to realize the importance of the capital within (e.g., BMW Sustainable Value Report – Employees 2007/2008). Many other companies develop action plans that cover topics such as treatment of customers, relations among work colleagues, interpersonal communication, decision-making processes, and the nature of the working environment (e.g., Rucci, Kirn, & Quinn, 1998). The importance of keeping this great asset is very much reflected in the way corporations are trying to tackle the current financial crisis by reducing the numbers of working hours per worker rather than reducing the overall headcount (e.g., Reuters, 2009). This is evidence of what firms have learned from previous crises; that is, to keep good people on board, finding compromises, in order to later not have to spend a big budget on re-hiring and fighting over talent in the job market (Wirtschaftsnachrichten, 2009). This is not to say that people are not still considered a cost factor, after all it appears as 'personnel costs' in any balance sheet, yet organizations are struggling to not only recruit qualified, motivated, and committed staff but are also faced with the challenge of retaining them. As Jack Welch put it, any company should let the bottom 10 percent go, should cherish the top 20 percent of employees but it is the 70 percent in the middle that are the spine of the organization that need to be developed and supported (Welch, 2005).

The Close-Knit Ties between the Leader and Followers

HRM is an important part of recruiting, motivating, retaining good employees, and achieving productivity increases (e.g., Aguinis & Kraiger, 2009; Becker & Huselid, 1992, 1998). Yet, it is the leaders, in particular, the direct superiors that have the greatest impact on their followers (e.g., Van Latham, 1987) through their, in most cases, daily contact. The challenge remains of how to make full use of the potential that lies with the main assets that, as argued by many, determine a group's or organization's success (Bayo-Moriones & Merino-Díaz de Cerio, 2002, Becker, Huselid, & Ulrich, 2001, November; Ciavarella, 2003), in particular as the human capital is not only an asset or tool to survive competition, but gives organizations a competitive advantage (Becker, Huselid, Pickus, & Spratt, 1997). As mentioned earlier, one of the main factors in tapping into the full potential of followers and using it to the group's and/or organization's advantage is the effectiveness of the leader. Unfortunately many leaders lack the necessary skills to lead effectively. Paul Austin, former CEO of Coca-Cola, for instance, used "scare methods," i.e., coercive leadership techniques, to "motivate" his employees. His philosophy is that people need to experience fear to be motivated (Pendergrast, 1993) leading to averse effects leaving the organization unable to

react to turbulent times and subsequently decreasing cohesion within the organization and deteriorating financial performance (Peterson, Smith, Martorana, & Owens, 2003). In a report by the HM Treasury (2000) the lack of skilled senior staff was pointed out as one of the barriers to greater productivity growth. Maddock and Fulton (1998) note that one of the main shortcomings of many leaders is to recognize people's efforts. Hogan, Curphy, and Hogan (1994) further add the incompetency of leaders to build and manage teams as one of the reasons why leaders are not able to progress any further in their careers and are not able to make full use of the benefits a team has to offer (e.g., Thamhain & Wilemon, 1988).

The problem of developing effective leaders, however, does not only lie within competency frameworks of individuals. Competencies can be developed but intentional misuse of leadership is a much more serious issue that often does not surface until bad has been done. The danger of leadership being abused, as pointed out in the beginning such as during the Third Reich under Hitler or amongst the management teams in Enron (see Harari & Brewer, 2004) and Worldcom, has been described as the dark side of leadership (e.g., Ashforth & Humphrey, 1995; Bass & Steidlmeier, 1999; Kets de Vries, 1988; Yukl, 1999). Relevant issues include an idealizing of the leader by which the leader actively seeks to impress followers to raise his or her status and the aura of superiority surrounding the leader. It is in particular those followers who are in need of the most guidance, in search for an empathic, understanding, father-like figure, who tend to be most vulnerable and gullible. The leader seeking grandiosity for its own sake, yet falls short of delivering, is suggested to manipulate and exploit those who follow him or her (Kets de Vries, 1988). In a similar vein, Ashforth and Humphrey (1995) point out the negative aspects related with leadership. They argue that negative leadership, leadership that does not serve the group or organization but is selfish and has adverse effects for others, is only possible due to the emotional dependence of followers on the leader. This aspect shows the importance of the leader-follower relationship and the responsibilities a leader has in that relationship that some argue is similar to that of a parent-child relationship (e.g., Kets de Vries, 1988; Martin, 2005). Hogan et al. (1994) pointed out that one of the limitations a leader may face in progressing in his career is the inability to build and lead a team. Yukl (1999) also argues for the importance of the leader's ability to effectively manage a team, however, notices that one of the drawbacks of an ineffective leader is an in-group – out-group creation within the team leading to serious inter-group conflicts. This in-out-group process may occur through favoring some members over others by sharing information with only particular members of the team (Terry & Callan, 1998; Yukl, 2006) or failing to fairly reward individual members of the group (George, 1995;

Schunk, 1983). Unethical leadership can also be attributed to cases such as Enron, where the vision is to be 'the best' regardless of the costs. It is therefore important to critically inspect a vision for its dark side potential, and it is to minimize the potential for unethical leaders to misuse their power to create "empty" visions that have a harmful potential to the group, the organization, or society (Yukl, 2006).

The Importance of Ethical Leadership

The above issues highlight the importance to discuss the difference between good and bad leadership, or as Bass and Steidlmeier (1999) put it, understanding what differentiates ethical from unethical leadership. Bass and Steidlmeier (1999) make the argument that unless leadership is not grounded in moral foundations, it is unlikely to be ethical leadership. The differentiations lie in the moral character of the leader and what the leader's objectives are, both in vision, communication, mission, and behaviors, and the ability of followers to decide on whether they want to follow the set path or not. Leadership is also more likely to be ethical if followers are able to contribute to the decision-making process and the path set out to be pursued by the leader (Bass & Steidlmeier, 1999). They also point out that the role model function of a leader should not be underestimated. A leader who represents an unethical role model, eager to pursue own over collective benefits and willing to walk on shaky moral grounds may neither be considered an ethically acceptable leader nor is he likely to effect positive outcomes amongst followers and within group and organization. As mentioned, one of the best examples is Enron, but also Siemens in more recent times, where corruption was an accepted part of daily dealings (BBC, 2007; Spiegel, 2008; WirtschaftsWoche, 2008).

Although Bass and Steidlmeier (1999) primarily address the concept of transformational leadership in their paper, a concept of leadership that will be discussed at a later point in more depth, their arguing applies to the ethics of leadership on a much more general basis. Bass and Steidlmeier (1999) continue in analyzing some of the most common leadership elements. They argue that in order for tasks to be ethical, the means and the essence of the task need to be morally legitimate. Perception of what is moralistic and ethical may be a situation, perception, and cultural issue and likely to be perceived differently in any of the different contexts, however, the core message appears to be the same amongst any context, that moral means not doing anything harmful to others that is not excusable on any grounds (Bandura, 1999; Mill, 1972). They further argue for rewards to not undermine people's freedom and to not offend their conscience. This argument is similar to the

distinction between intrinsic and extrinsic motivation, discussed at a later point, where the argument is made against external rewards due to their undermining potential of personal choice (e.g., Deci, 1971, 1975, 1972). Bass and Steidlmeier (1999) go on emphasizing the importance of truth in the leader's intentions, behaviors, and vision and to keep promises in order to build trust. Part of this trust building process is the aspect that an ethical leader will take responsibility for consequences when delegating (Brown, 2007). In other words, regardless of the nature of the outcomes, an ethical leader should take the blame when confronted with failure, but give credit to followers when the results are positive and successful (Harari & Brewer, 2004). It is also argued that ethical leaders act in accordance with the organizational and cultural values (Yukl, 2006) and need to be open to suggestions by others, including being a good listener (Bass & Steidlmeier, 1999; Yukl, 2006) and foremost be sincere and persistent in their efforts to lead by moral standards and in their display of their ethical behaviors (Brown, 2007). These suggestions are in line with Brown's (2007) suggestion that ethical leaders do the right thing even if it is unpopular following their beliefs and inner compasses. A final important aspect of ethical leadership is a leader's ability and striving to ensure that followers conform to ethical values, always keeping in mind that followers will not always behave in ways that might be in line with good value systems (Brown, 2007). The difficulty in determining whether a leader's intentions are of ethical nature is that their might not be obvious during a person's reign and the effects on organization and followers may only appear in post-leader times (Price, 2003). Unethical leadership is often characterized by higher stress levels amongst employees when leaders fail to timely disclose information regarding the individual, the group, the organization, or external factors such as changes in the market that may negatively affect the workforce (e.g., Devine, Reay, Stainton, & Collins-Nakai, 2003; Golembiewski, 1999; Rubin, 1999; Yukl, 2006). Golembiewski (1999) points out that one aspect of ineffective leadership is the failure to proactively anticipate and manage forthcoming events requiring short-term downsizing followed by subsequent shortages of skilled workers leading to re-recruitment of the previously abolished positions. Golembiewski (1999) highlights the negative effects this has on employees including decreased morale, productivity, trust, and satisfaction leading to greater levels of turnover and lower levels of post-event productivity. Kilpatrick, 1999) points out that at any given time – in particular in periods of crisis – good, effective, and open communication is essential. This is in line with the view on ethical leadership (see Bass & Steidlmeier; Yukl, 2006). It needs to be mentioned, however, that even ethical leaders may occasionally achieve successes at the expense of the followers (Bass, 1990b).

The following chapter will look at what a leader can do to be effective including most recent concepts of transformational, charismatic, transactional, and psychodynamic leadership.

Chapter 2: Three core theories of leadership and the potential of leadership

2. Beyond transformational leadership

In 1978 James McGregor Burns wrote a bestselling book on political leadership and set the basis for subsequent leadership theories, in particular transformational and charismatic leadership. Burns (1978) argued for the concept of transformational leadership with leaders instilling changes in followers' behavior allowing for better performance, greater identification, stronger levels of trust, greater levels of motivation, and numerous other positive attributes on the part of the subordinates. His assumption was that transforming leaders will appeal to and elevate people's moral values. Burn's theory led to the development of current transformational theories (e.g., Bass, 1990b, 1985; Bennis & Nanus, 1985) where the focus rather lies with pragmatic performance variables such as task objectives than moral aspects (Yukl, 2006). Bass (1985) subsequently developed the Multi Leadership Questionnaire (MLQ) to capture the essence of transformational leaders arguing that it is a combination of four factors: charisma, inspiration, individual consideration, and intellectual stimulation. The MLQ was later revised reporting a six-factor structure (Avolio, Bass, & Jung, 1999) and most recently comprising nine factors (although the debate about the conceptualization of the full factor model is beyond the scope of this thesis (e.g., Charbonneau, 2004) (Bass & Riggio, 2006). It still included *charisma* combined with *inspirational motivation*, which Avolio et al. (1999) argued, represented a sense-giving, energizing, ethical role model able to instill a sense of identification with the leader and the vision. Avolio and colleagues found that the second factor, intellectual stimulation, is related to the aspect of an effective transformational leader's ability to challenge the status quo and to instill the same sort of attitude amongst subordinates. A third factor, individual consideration, which will later be contrasted with a concept proposed as Servant Leadership by Greenleaf, 1977), describes those behaviors occupied with the leader's empathic skills, his ability to understand and address follower needs focusing on developing subordinates to their full potential. Avolio et al. (1999) established that the fourth factor, contingent reward, is part of the transactional leadership theory, which will be discussed in the subsequent section. It represents an economic exchange model characterized by rewarding subordinates for their previously agreed performance levels. This contingent reward factor comprises of the leader's actions ensuring that the leader's economic exchange contract is fulfilled as long as the

follower meets the therewith associated expectations. The last two factors are also usually associated with transactional leadership. The fifth factor Avolio et al. (1999) report is active management-by-exception, a leadership style distinguished by its rather proactive laissez-faire attitude. A leader applying active management-by-exception merely focuses on maintaining current performance levels through monitoring and, if necessary, correcting upcoming problems. Passive-avoidant-leadership, also known as passive management-by-exception (e.g., Lievens, Van Geit, & Coetsier, 1997), is manifested in a leader that only intervenes if serious problem occur, yet does not actively accompany day-to-day activities through such behaviors as monitoring.

2.1 Charisma

In both versions of the MLQ charisma was one of the foundations for the concept of transformational leadership, which makes this notion the first important area to explore. After Burns (1978) model was further elaborated on, Conger & Kanungo, 1987) proposed a behavioral theory of charismatic leadership in which they argue for an attributional phenomenon. They distinguish between the charismatic leader and others by pointing out that despite them being liked as many other leaders, it is their vision that makes the charismatic leader such an outstanding personality. This vision, the ability to communicate the leader's own motivation to lead and to succeed by following through the vision earns the leader respect. It is these abilities as well as being willing to take high personal risks that earns the leader the followers' trust and gives him the special gift of charisma. This results in others striving for identification with the leader and the desire to follow his footsteps and imitate actions, behaviors, and thought processes (Conger & Kanungo, 1987).

The notion of the special gift is close to its historical meaning of charisma, the divinely inspired gift (Sohm, 1892-1923) and what Weber (1925) referred to as supernatural, or at least exceptional, powers inaccessible to others "but are regarded as of divine origin or as exemplary, and on the basis of them the individual concerned is treated as a leader" (Weber, 1978, p. 358-359). Yet, Conger and Kanungo (1987) point out, in line with Weber's (1978) statement, that in order to be charismatic, one needs to be perceived as such. The Conger-Kanungo model suggests a three-step process leading to the follower perception of a leader's charismatic characteristics. As mentioned earlier the willingness to challenge the status quo and the ability to consider environmental aspects and the herewith resulting opportunities while being aware of follower needs form the basis for the charismatic perception process. The charismatic leader strengthens this perception through subsequently

forming a vision and implementing it regardless of any personal risks involved in succeeding and fulfilling the vision. This three step process is what Conger and Kanungo (1987) view essential to creating the charismatic perception. Den Hartog and colleagues make an important point by referring to the Bass's (1990b) argument of the necessity of a cultural willingness to acknowledge and accept charisma, arguing against the universality of charisma (Den Hartog, House, Hanges, & Ruiz-Quintanilla, 1999). The GLOBE study, in their worldwide survey of more than 17,000 managers across 62 cultures found that charisma is the most desirable leadership trait across the globe (House & Javidan, 2004). Although the universality of charisma has been refuted by a more recent study showing that it is considered an undesirable trait in New Zealand; suggested to be due to the so-called 'tall poppy' effect describing the negative perception amongst New Zealanders of those who stand or attempt to stand out (Littrell & Ao, 2008). Just as argued in the Conger-Kanungo model, a leader who is visionary, inspirational, self-sacrificing, and performance-oriented is attributed the label charismatic and an important facet of an effective leader. The underlying strength of charisma manifests in the previously mentioned identification, idealizing, and idolizing of the leader; the "magic" component of the success of a charismatic leader is the emotional attachment to the leader on part of the followers (Shamir, House, & Arthur, 1993). It is the human relationship aspect that creates this bond between follower and leader and the follower commitment to the leader's vision and path that makes charismatic leaders superior to many other leaders (Conger & Kanungo, 1994). But how do charismatic leaders succeed in effecting the great outcomes associated with their leadership style? For once, charismatic leaders motivate their followers by increasing the intrinsic valence of their efforts and goals, while heightening their self-efficacy, their beliefs that they are able to achieve, and giving their followers' self-esteem a boost. This allows a charismatic leader to instill greater faith amongst followers in the vision and future and therefore effectively creating stronger personal commitment than other leaders are likely to achieve (Shamir et al., 1993). The success of a charismatic leader lies therefore in the ability to motivate followers and instill levels of trust and faith through interpersonal aspects. Charismatic leaders manage to elevate people's needs on Maslow's hierarchy (Maslow, 1954), raise their morality levels, as proposed by Burns (1978), and turn self-interest into collective interest (Shamir et al., 1993). The "package" of effects is unlikely to be achieved by other leaders who, for instance, only use rational and economic exchange behaviors. What is missing in other leadership styles are emotions and unconscious processes (see House, 1996) and the use of positive psychology (Martin, 2005).

Components of Charismatic Leadership

What then are the exact elements making a leader a charismatic leader? As mentioned before, the articulation of an absorbing vision relating to the individual and the collective is one of the distinct characteristics of a charismatic leader (Bligh & Kohles, 2009; Conger, Kanungo, & Menon, 2000). An important element of communicating the vision is the content of the leader's speech. The speech is a tool to interpret the reality in a way enabling the followers to understand the meaning of the vision (Den Hartog & Verburg, 1997). This is achieved through frame alignment representing the linkage of values, beliefs, and interests followers have with the goals and path comprised in the leader's agenda (Snow, Rochford, Worden, & Benford, 1986). In other words, the followers' priorities and needs need to be matched with the leader's future plans. This frame enables individuals to identify important occurrences on both individual and collective level, giving meaning to the events, and subsequently being able to act upon it. This process guides people's behaviors and actions in a way that allows them to move forward (Conger, 1989). The distinct contents of a charismatic leader's speech are built around the concept of frame alignment (Den Hartog & Verburg, 1997) giving the leader greater influence over followers by building upon this process using content that is regarded appealing by followers. Shamir and colleagues identified seven features as the building blocks of a charismatic leader's speech content (Shamir, Arthur, & House, 1994). Amongst these features is the reference to events touching on the collective history and emphasizing the relevance to presence and future. Shamir et al. (1994) also emphasize that rather than placing the emphasis on the self regarding the content of speeches, the charismatic is likely to highlight and reference the collective identity more frequently. Similar to what has been argued regarding the ability of the charismatic leadership to heighten followers' self-efficacy and self worth (e.g., Bass, 1990b), Shamir et al. (1994) argue that a charismatic leader will make greater use of positive references to the followers' abilities and their value and importance to the collective. This also includes the leader's willingness to talk of himself as one of them, as a part of the collective. In the discussion on ethical leadership, it has been argued that an ethical leader emphasizes values and morals (e.g., Bass & Steidlmeier, 1993). Similarly, Shamir et al. (1994) point out that a charismatic leader tends to emphasize the importance of values and morals rather than including tangible outcomes and instrumental justifications in a speech. In a similar vein, the charismatic leader's speech is thought to differentiate from that given by another leader in that hope and faith are attributed more weight when speaking to followers (Shamir et al., 1994). In line with the importance of vision (e.g., Bass, 1990a), Shamir et al. (1994) propose that a charismatic leader will not

primarily focus on proximal goals and events that may occur in the near future, but will make distal goals and the distant future an important part of his speech. The strength of the charismatic leader lies partly within this construct of speech patterns. Fiol and associates found that a charismatic leader incorporates more inclusive language and abstraction in speeches (Fiol, Harris, & House, 1999). Fiol et al. (1999) use the example of former US president Bush who called for a "new world order" as the reason for intervening in the Iraq-Kuwait conflict in 1991 to describe this phenomenon. They point out that by using an abstract concept such as "new world order", a variety of interpretations were possible and therefore people followed Bush's call on the basis of their own interpretations. Abstractions in speeches therefore help to involve others and gain their commitment due to their personal interpretations, and hence their personal emotions associated with the vision. Awamleh & Gardner, 1999), however, argue that the main characteristic of a speech given by a charismatic leader, but also in general, is the delivery. Delivery therefore becomes a more influential technique than the actual content, a skill incorporated in the concept charisma (Shamir, Zakay, Breinin, & Popper, 1998). Finally, charismatic leaders tend to be more persistent in the accomplishment of goals (Waldman, Ramírez, House, & Puranam, 2001), which is an important aspect regarding the successful challenge of the status quo. This persistence and willingness to take risks is dependent on the following of subordinates requiring trust. This function of trust building (e.g., Gambetta, 1988) is an important aspect of effective leadership and will be discussed in more depth in the section on trust. However, it can be said at this point that the greater the deviation from traditions, the more important the level of experienced follower trust in the leader (e.g., Fiol et al., 1999). It is noteworthy that the ability and knowledge possessed by a charismatic leader are due to the leader's extraordinary strategic insight and energy to follow through visions that are amongst the key elements giving the charismatic leader the superior effectiveness over other leaders (Yukl, 2006). The charismatic leader achieves his inspirational motivation therefore by a combination of the above making him or her act as a role model, someone others inspire to be (Bass, 1990a; Kets de Vries, Vrignaud, & Florent-Treacy, 2004; Lievens et al., 1997).

Considering the qualities of a charismatic leader, the question arises in which way this is manifested in performance aspects. Lowe, Kroeck, & Sivasubramaniam, 1996) report the strongest relationship between objective and perceived effectiveness can be attributed to a leader's charisma. The effect is higher than that of transactional or other elements of transformational leadership, which will be discussed below, holding true for individual and collective level effectiveness and performance (Shea & Howell, 1999). Shea and Howell

(1999) also made an interesting observation in their study on the interaction effects between charisma and task feedback. First, they found that the follower performance depends largely on the elements of charismatic leadership regardless of whether task feedback is provided or not. This is in strong contrast to other leadership styles that show the importance of task feedback for follower performance when given by a non-charismatic leader (Shea & Howell, 1999). Their study also sheds further light on the learnability of charismatic leadership. Considering their use of actors representing the charismatic leaders, Shea and Howell (1999) argue that this indicates the possibility that the features associated with charismatic leadership may be learned. This allows individuals who may not necessarily be born or possessing the characteristics to learn them and achieve positive results, at least on a temporary basis.

Emergence of Charisma

It needs to be mentioned, however, that despite charismatic leadership being perceived as an outstanding leadership quality in almost all countries (Brodbeck, Frese, & Javidan, 2002), House and Javidan (2004) report that the desire for charisma is most pronounced in the Anglo country cluster (e.g., UK, USA). House and colleagues add an interesting aspect on the manifestation of charisma in real-life leaders. They emphasize that charismatic leaders are not necessarily those who are most assertive such as JFK or Dr. Martin Luther King, but may also be of a quiet, nonassertive nature such as Mahatma Ghandi, Nelson Mandela, or Mother Theresa (House, Wright, & Aditya, 1997). Another interesting aspect of the role charisma plays in a leader's effectiveness is that similar to its cultural variation, charismatic leader effectiveness is higher in public organizations (Lowe et al., 1996). In a similar vein, Lowe and his associates found in their meta-analysis that leaders in the public sector displayed higher levels of charismatic leader behaviors than their counterparts in private organizations. Lowe et al. (1996), however, point out that this phenomenon may merely be due to the private sector having experienced greater and longer exposure to charismatic leadership and therefore charismatic leaders are more likely to be taken for granted than is the case in public organizations. This may lead to public employees rating leaders displaying relevant behaviors as more extraordinary. Another interesting finding from their meta-analysis was a less frequent display of transformational leadership behaviors amongst higher-level leaders than lower-level leaders. Lowe et al. (1996) assume that it is the function of the job that inhibits not only the display but also the opportunity to perceive higher-level leaders as transformational leaders. Due to their more strategic job function and much lesser personal interaction with employees and therefore fewer opportunities to use charismatic leadership to

effect follower outcomes, the lower level of influence, or at least perceived influence through charismatic behaviors, does not appear surprising (Lowe et al., 1996) emphasizing the importance of the direct contact between leader and follower for leadership behaviors, at least those of a charismatic nature, to yield any of the positive outcomes. Similar views of the role of leadership amongst the different hierarchical levels are shared by leaders themselves. Lower-level managers have been found to prefer direct supervision including monitoring problems and managing conflict, whilst their counterparts in middle level management saw themselves more as managers of human relations. They reported fostering cooperative effort and motivating and developing subordinates as an important element of their daily activities (Lowe et al., 1996). Similar to the follower perceptions in Lowe et al.'s (1996) meta-analysis, managers at the executive level also perceived themselves as strategy builders including long-range planning, having entrepreneurial abilities, monitoring information relevant to corporate strategies and serving as a liaison (see Eagley & Karau, 2002 for a review).

Crisis – The Basis for Charisma

Charisma needs crisis (e.g., Weber, 1978). This short statement is an essential part of what makes charismatic leadership most likely to emerge. As discussed earlier, it has been claimed that charismatic leadership is only possible to exist if an individual is recognized as possessing particular characteristics (e.g., Klein & House, 1995). And it is in crisis situations in particular when others might see the desired characteristics in an individual they consider necessary to help the collective out of the crisis situation. This desire for certain charismatic features ease the emergence of a charismatic leader (Hunt, Boal, & Dodge, 1999). This does not have to be a full-blown crisis, but an uncertainty and stress amongst people increases the need for an individual who appears to be able to turn things around and lead them through the crisis offering an inspiring vision (Klein & House, 1995). An interesting insight into the mechanisms involved in the crisis-charisma desire/emergence relationship is a proposition by Shamir et al. (1993) arguing for a greater effectiveness of charismatic leadership in situations where goals are not clearly defined. A crisis is a situation in which the outcomes are likely to be open and goals may be difficult to be defined in that the mission statement cannot clearly be set (see Beyer & Browning, 1999; Crisis, 2008). A lack of clarity of goals therefore presents the building ground for charismatic leadership to emerge and function, as the charismatic leader "shines" lighter than other leaders through the above described characteristics such as greater communication skills and emotional involvement of followers.

The emergence and maintenance of charisma in leadership is best summed up in the following two equations:

1) Charisma = leader + follower + situation (Conger & Kanungo, 1998; Conger & Kanungo, 1987, 1998);

2) Charisma = mere influence of the leader on follower attitudes and motivation regardless of follower's perception of leader (House, 1977; Shamir et al., 1993).

Although two of the core elements are the same across the two equations, a crucial difference is the varying importance attributed to the situational factor. Keeping with Yukl's (1999) argument that an important aspect for the presence of charismatic leadership is the followers' willingness to attribute charisma to the leader, it emerges from the previous paragraphs that a leader with no one to attribute him or her the relevant attributes, cannot be, by definition, be perceived as possessing charisma. Similar, the important role a crisis plays in the emergence and effectiveness of a charismatic leader indicates how much environmental aspects influence followers' perceptions and needs. The importance of the followers is underlined by the example of a superintendent who faced a crisis due to shortages in her school district funding (see Roberts, 1985). This put the entire education system in jeopardy and demanded for radical action. Despite having been perceived as "ruthless" and "authoritarian" prior to her action plan and successful implementation, she was later described as a charismatic "mover, shaker, and visionary" who radically changed and dramatically saved the district's education system. This highlights the importance of follower attribution. The fact that one person can be described as non-charismatic in one situation, yet as charismatic when the situation requires it and therefore affecting the perceptions of what needs to be done, what type of person should take over, and what needs are to be fulfilled, indicates the validity of Conger and Kanungo's (1987, 1998) formulation of the defining elements of charismatic leadership.

At the beginning of the chapter the MLQ by Bass (1985) and its factors were briefly mentioned. The Conger-Kanungo model and the MLQ are highly positively correlated, while measures on task orientation show amongst the lowest correlations with the model (Conger & Kanungo, 1994). Charismatic leadership is the little cousin of transformational leadership, it is not only overlapping with transformational leadership as will be elaborated in section 2.3, but it is a defining element of what we view as transformational leadership (Masi & Cooke, 2000).

2.2 Transactional leadership

Transactional leadership has received a lot of negative publicity (e.g., Bass, 1990b; see Howell & Hall-Merenda, 1999). It has been suggested to result in lower levels of productivity and motivation than other types of leadership (Barbuto, 2005), undermine leadership effectiveness (Lowe et al., 1996), and simply be a mediocre style of leadership (Bass, 1990b). Distinguishing between transformational, discussed below, and transactional leadership is similar to the subject of intrinsic and extrinsic motivation (discussed in Chapter 3) (Yukl, 2006) and the related cognitive and psychological processes and outcomes (see e.g., Deci, 1972; Eisenberger, Pierce, & Cameron, 1999). The concept of transactional leadership has been an essential part of leadership research since World War II with its roots lying in House's (1971) path-goal theory (see Hater & Bass, 1988). It essentially comprises of three subcategories: contingent reward leadership, active management-by-exception, and passive management-by-exception (e.g., Bass, 1990a, 1990b; Bass & Steidlmeier, 1999). There also is a fourth component that has been associated with transactional leadership, *laissez-faire* leadership, describing a leader who, due to his lack of leading may not be regarded a leader as such, yet holding the position of a leader (e.g., Bass & Steidlmeier, 1999). Passive management-by-exception, in contrast, involves post-event leading. In other words, a leader of such kind will not take action – through negative feedback or reprimands – until a problem has occurred. The active management-by-exception style leader will monitor events and performance and correct followers if necessary (e.g., Lievens et al., 1997).

The main and most controversial element of transactional leadership, however, is contingent reward leadership. Contingent reward leadership is based on an economic contract between two parties – the leader and the follower (Blau, 1964). While laissez-faire leadership leads to confusion, inefficiency (Lewin, Lippitt, & White, 1939), low levels of motivation and productivity (Murnigham & Leung, 1976) and management-by-exception showing either negative or no relationship with follower motivation and leader effectiveness (Bass, 1985; Lowe et al., 1996), contingent reward behaviors indicate a different picture. As mentioned, contingent reward is based on an economic exchange relationship between leader and follower(s) comprising of pre-agreed target outcomes. If the follower succeeds in matching those arranged performance levels, the leader will fulfill his part of the contract by rewarding the employee with a type of incentive (e.g., Bass, 1985; Burns, 1979). The relationship is therefore purely based on rational decisions and therefore differs from its charismatic counterpart in that the motivation to perform is not based on emotional factors towards the

leader. It needs to be mentioned, however, that followers will conform and perform to a high standard under contingent reward leadership (Bass, Avolio, Jung, & Berson, 2003; Curphy, 1992; Podsakoff, Bommer, Podsakoff, & MacKenzie, 2006). This is primarily due to the aspect of incentives such as money acting as a great motivator (e.g., Herzberg, Mausner, & Snyderman, 2005; Maslow, 1954; Pessiglione et al., 2007). Due to its effectiveness regarding its leadership potential, contingent reward behaviors have therefore been found to load on transformational leadership scales (Avolio et al., 1999; Howell & Hall-Merenda, 1999; Masi & Cooke, 2000). This shift in the structure of leadership concepts is supported by the argument that contingent reward behaviors represent positive supervisory feedback (MacKenzie, Podsakoff, & Rich, 2001) acting as a reinforcement mechanism (e.g., Cameron & Pierce, 2002), and therefore effecting followers through, for instance, increasing their self-efficacy beliefs (e.g., Schunk, 1983); effects similar to those of transformational leadership, discussed in the following section. Contingent reward leadership behaviors may not affect followers as strongly psychologically as charismatic leadership tends to, but increases motivation and performance through satisfaction of followers' immediate needs (e.g., Jung & Avolio, 2000; Maslow, 1954) as will be discussed in chapter 3.

2.3 Transformational Leadership and Related Theories

2.3.1 Components of Transformational Leadership

The previous sections discussed two important parts of the transformational leadership theory with contingent reward having been argued to be more strongly related to transformational leadership than the transactional concept (e.g., Masi & Cooke, 2000). While transactional leadership takes a limiting economic outlook with the relationship between the two parties constrained to an exchange relationship in a bargaining process, the transformational leadership relationship goes beyond this simple rational interaction (Price, 2003). The dimensions of transformational leadership comprise of charisma, or idealized influence (Bass & Steidlmeier, 1999), and contingent reward behaviors (see Avolio et al., 1999; Howell & Hall-Merenda, 1999; Masi & Cooke, 2000) amongst three other features including inspirational motivation, individual consideration, and intellectual stimulation (Bass, 1985). Inspirational motivation has been argued to be a greater motivator than contingent reward leadership (see Bass, 1997) due to its challenging and meaning-giving character (e.g., Bass & Steidlmeier, 1999). It is characterized by the leader's challenge of followers to mobilize the best in them in order to achieve goals that they may not necessarily

have envisioned possible. In contrast to followers' motivation to perform and improve for the sake of inspiring to copy the leader, that is the role model function, inspirational motivation encourages people to strive for greater things because they feel they possess the abilities to do so (McClelland, 1975). Inspirational motivation therefore taps into people's efficacy beliefs (e.g. Arnold, Barling, & Kelloway, 2001; Bass & Riggio, 2006). Goals that are achievable, yet challenging, are a core element of this motivational process. Followers do not need to identify with the leader or strive to be like him, they need to strive towards achieving goals (Bass, 1990a). In contrast to the inspiring leader, there is a shift in focus on part of the followers from leader to task, respectively, the path and goal ahead of them. In sum, the inspirational leader expresses goals that inspire people to work their hardest towards success, raises their self and collective efficacy, and unite them as a collective in their enthusiastic pursuit of those goals (Gardner, 1965; Yukl & Van Fleet, 1982). The transition from individual to collective goals is achieved, similar to charismatic leadership, through communicational tools such as emotional talks elevating followers' motivation and confidence (Bass, 1985). Symbols are a core element in making a speech meaningful and keeping listeners' attention. These center elements may come in the form of stories, ceremonies, metaphors, or analogies enabling the listener to easily comprehend the leader's speech and to visualize the messages and the vision (Conger, 1991; Den Hartog & Verburg, 1997; Emrich, Brower, Feldman, & Garland, 2001). Bass (1990a) adds that the use of symbols can also be found outside of oral or written communication. A leader may choose to install a uniform dress code that is representative for the group or organization such as the dress code in investment banking. The uniformity in form of high-level standard suits indicates that everyone is part of a successful organization with the goals set out to multiply investments. This left some to argue for the combination of vision and inspirational motivation into one single paradigm (Rafferty & Griffin, 2004). This is also supported by findings in factor analyses that showed that the boundaries between charisma and inspirational motivation have become blurred appearing as a single factor (Barbuto, 1997; Bass, 1997). Bass (1990a) argues that the differences between inspirational and charismatic leadership can be made conceptually, but empirically are difficult to be clearly established.

Another dimension of the transformational construct is the focus on the individual follower, individual consideration – separated into supportive behaviors and developmental behaviors (Yukl, 1999). Leaders using individual consideration are concerned about their followers development and enabling them to make full use of potential through coaching, mentoring, and other forms of development (Bass, 1985). Bass and Steidlmeier (1999) argue

that this is one of the main differences between a true transformational and pseudo-transformational, that is an unethical, leader. Whilst a true transformational leader attempts to aid people's careers, the pseudo-transformational leader will demoralize and expect blind trust and obedience minimizing the follower's chance to develop and utilize his or her potential. Individual consideration behaviors manifest in respectful communication with followers leaving each individual feeling appreciated and aware that individual needs are recognized (Lievens et al., 1997). Avolio and Bass (1995) add that one subdimension of individualized consideration is supportive leadership characterized by a good level and high frequency of support for follower efforts. The follower is not simply viewed as part of a collective, but an integral individual part whose concerns should be taken seriously, be respected, and listened to attentively (Barbuto & Burbach, 2006; Bass & Avolio, 1994). Conversely to charismatic leadership or inspirational motivation, the focus of the leader's behaviors therefore lie with the individual instead of creating a collective sense, yet at the same time creating a sense of equality ensuring that every member is an important part of the group (e.g., Gully, Incalcaterra, Joshi, & Beaubien, 2002; Shepperd, 1993). The positive effects of individual consideration including the aspect of respect in the one-on-on relationship between leader and follower manifest in follower motivation (Herzberg et al., 2005) and a feeling of empowerment and better performance (Dionne, Yammarino, Atwater, & Spangler, 2004). Its reinforcing character due to its "compensatory" reward nature (House & Mitchell, 1974) in form of, for instance, developmental opportunities provided by the leader, increases satisfaction and job involvement (Abdel-Halim, 1981). It is therefore noteworthy that the distinction between individualized consideration and contingent reward have not been consistently clearly loading onto one single factor (Bass, 1997). House (1996, p.327) sums up individual consideration as "behavior directed toward the satisfaction of subordinates' needs and preferences, such as displaying concern for subordinates' welfare and creating a friendly and psychologically supportive work environment." It therefore shows that a supportive or individual considerate leader not only takes individual aspects into account but also ensures an environment in which the follower is able to take risks and grow (e.g., Diehl & Stroebe, 1987; Porter & Lawler, 1968). As Herzberg et al. (2005) put it, people need to be recognized as individuals as "no man wants to be just a cog in a wheel" (p.117).

The final dimension of the transformational leadership theory is also the least developed (Lowe et al., 1996). Intellectual stimulation describes leadership behaviors of a rather creative nature blurring the lines between vision and reality. Not only is the leader innovative but also encourages others to think in new ways and challenge the status quo

(Bass, 1990a). The intellectually stimulating leader places great emphasis on encouraging people to conceptualize and analyze problems in ways different from traditional patterns ideally resulting in a higher standard of generated solutions (Bass & Avolio, 1990). Yammarino & Bass, 1990) suggest that the articulation of a realistic vision that is shared amongst followers, communicated in a way that it is intellectually stimulating taking into account the possible benefits and further effects on followers and the organization are crucial elements of transformational and charismatic leadership. Bass (1985) adds at this point that raising awareness and emphasizing the importance and the value of the vision, mission, and the related outcomes is a necessity for transformational leaders allowing them to pass on their own self-interests to followers. This in turn should ideally translate into a heightening of followers' motivational needs, viewing the path ahead of them as their own (Cropanzano, James, & Citera, 1993; Jung & Avolio, 2000).

Interestingly, however, intellectual stimulation has not been shown to positively affect one of the main ingredients for effective leadership: trust. Podsakoff and colleagues reported a negative relationship between intellectual stimulation and trust (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). This is a thought-provoking finding in that it indicates that leaders who set out to encourage their followers to think creatively when tackling problems and traditional ways might undermine follower trust reducing the basis for leadership and therefore their own effectiveness (Martin, 1998). This is in line with findings from a study on sales people by MacKenzie and colleagues who found that intellectual stimulation, in contrast to Bass's (1985) original claim, affects productivity negatively and their willingness to display organizational citizenship behaviors such as helping others decreases (MacKenzie et al., 2001). They view part of the issue in the decreased levels of trust while they found an increase in role ambiguity. MacKenzie and associates therefore argue that a permanent encouragement to think in new innovative ways leaves the followers unclear about what is expected of them on a day-to-day basis undermining their perception of the leader as a trustworthy person. This finding is supported by Britt and Bliese's (1998) argument that the leader needs to make sure that people have a feeling of stability. As such the superior needs to create an atmosphere of stability by clarifying assignments and giving a clear picture of where the journey is going. In the light of Zaleznik's (1977) discussion on the differences between leaders and managers, an intellectually stimulating leader is more concerned about drawing up new ideas than the actual implementation process. Part of the current research will be investigating to what extent trust might be undermined by intellectual stimulation like behaviors.

2.3.2 The Similarities Between Transformational, Servant, and Psychodynamic Leadership

Transformational leadership has many similarities with other theories on leadership. Two relevant theories for the present discussion are servant leadership as coined by Greenleaf in 1970 in his famous essay *The Servant as Leader* and psychodynamic leadership as described by Kets de Vries and others (e.g., Kets de Vries, 1988). Inspired by Hermann Hesse's *Journey to the East* Greenleaf reasons that a good leader needs to be a servant first, then in aspiration of leading, makes the conscious decision to become a leader. Contrasting the servant-leader and leader-servant types: the former is characterized by a person making a conscious decision to lead after having served and understood the needs of others, the latter is a leader who has to decide to do good for others although already established as the leader. It is the leader who puts others wellbeing first who is an effective, and speaking in Bass and Steidlmeier's (1999) terms, an ethical leader. Spears (1998) lists ten essential elements of servant leadership. Similar to the transformational leader, a servant leader needs to proactively listen while remaining alert to his own reactions and behaviors when communicating with another allowing him to respond effectively (Listen). Spears (1988) also argues for the importance of the leader's empathic skills (Empathy), the ability to guarantee others' wellbeing and uplift them if necessary (Healing) and the aspects of challenging others to think beyond the status quo (Persuasion), while also trying to develop others (Commitment to growth of people) and understand their needs, which are similar assumptions to what Bass (1985) coined intellectual stimulation and individual consideration. This, however, Spears argues cannot go without the ethical character of the leader who ensures moral standards through self-reflection (Awareness). While Conger and Kanungo (1987) argued for charismatic leadership, the servant leader needs to be able to convince others of a vision through symbols and stories (Spears, 1988). The servant leader is also able to make sense of the surroundings and uses the information strategically and conceptually to generate new ideas and goals (Conceptualization), while constantly being aware of the possible consequences (Foresight). The servant leader, similar to the individually considerate one, ensures that people are equipped with the right tools to meet their needs. This includes resources such as the right equipment, matching the follower's ability to the task, and providing the financial rewards (Spears, 1988), as would the transactional leader. Spears (1988) also argues that the servant leader as described by Greenleaf is aware of the importance of a collaborative, productive work environment in which individual members

feel appreciated and conform to ethical guidelines (Building community). This final point is similar to what is argued to be an important aspect of charismatic leadership (e.g., House, 1996). Russel and Stone (2002) emphasize the importance, however, that a servant leader needs to be visible if she wants to create change and generally lead. When looking at the importance of speech in many of the dimensions in the transformational leadership theory, it is conclusive that the leader's function as a role model and the ability to effectively communicate will allow for this visibility. Overall, the characteristics of servant and transformational leadership are relatively analogous attempting to capture people-oriented leadership, although the transformational leader is primarily focused on outcomes through people, while the servant leader sees people first and through his or her manners positively affects follower and organizational outcomes (Barbuto & Wheeler, 2006; Farling, Stone, & Winston, 1999; Greenleaf, 1977; Stone, Russel, & Patterson, 2004).

2.3.3 Psychodynamic Leadership and the Psychology behind Effective Leadership

A crucial element for the current research that has its focus on the psychological-interpersonal aspects underlying leadership is the second theory, coined psychodynamic leadership (e.g., Kets de Vries, 2005, 1988). This type of leadership is a further form of people-oriented leadership originating in the psychoanalytic school regarding the relationship between leader and follower as a similar and related construct to that of a parent-child relationship (Kets de Vries, 1988; Popper & Zakkai, 1994). In regarding leadership in terms of unconscious psychodynamic processes related to this early bond – including regression, transference, and projection – various aspects of follower outcomes and reactions to leadership and changes in their environment can be explained. Kets de Vries (1988), for instance, argues that in situations when people regress to feelings and behaviors that were typical of their younger years they may engage in counterproductive behaviors in order to obtain satisfaction and gratification. Due to the regression of childhood emotions, followers, in a psychodynamic context, are thought to transfer their feelings they held towards their father or mother onto their leader who now becomes a facilitator in the 'ego-ego ideal' mergence. In other words, the leader eases the merging process in which the exaggerated wishes the follower carries merge into a new formed reality (Kets de Vries, 1988). The leader therefore becomes a projected image of what the follower is longing for since the outgrowth of the child-parent relationship: safety and stability as it was once provided by the follower's parents (Kets de Vries, 1988; Popper & Zakkai, 1994). This blurring of past and present is not

an exclusive follower-leader process, but a constantly present phenomenon in human relationships in which an individual's perception of another is always mixed and based on past experiences (e.g., Kets de Vries, 1988; Lord & Maher, 1993; Lord & Smith, 1983). The projection of negative emotions and unreachable desires onto the leader act as a defense mechanism turning the leader into the "rock" the follower can hold onto during phases of aversive events or thoughts and making him or her the "ego ideal", the person the follower wants to be (Popper and Zakkai, 1994). These psychodynamic phenomena play an important role in the leader-follower relationship and are reflected in the charismatic and transformational theories (Popper & Zakkai, 1994) giving stability to the individual and the group during crises (Gemmill & Oakley, 1992). They may, however, also have derogatory effects for followers and organization, as debated by the proponents of a romanticizing of leaders who argue for an overattribution of leadership effects (e.g., Meindl, 1995; Meindl, Ehrlich, & & Dukerich, 1985) and the possible risks attached to it; such as "blind trust" (Grojean & Hasel, 2007). This is the crucial difference between psychodynamic and transformational leadership. While Bass and Steidlmeier (1999) argued for an authentic and ethical type of transformational leadership, the psychodynamic concept is a manifestation of the positives of leadership. Due to the psychoanalytical aspects incorporating interpersonal dynamics, in particular trust between the two parties follower and leader, it is conceptually the prerequisite for trust to develop.

Just as the underlined part of psychodynamic leadership implies, the relationship between follower and leader is a dynamic and emotional one. This relationship emerges and shapes partly influenced by changes among follower and leader but also by environmental aspects such as the need for different strategic organizational and personal approaches (de Jager, Cilliers, & Veldsman, 2003; Dulewicz & Higgs, 2005). This is not exclusive to behaviors related to the latest theory but to transformational, transactional, servant, and any other leadership behaviors. It is the emotional character of the leader-follower relationship as proposed by psychodynamic theories that also raises the question of how much one aspect of transactional leadership, contingent reward, is a matter of emotional reliance (Popper & Zakkai, 1994), in other words trust (see Mayer, Davis, & Schoorman, 1995), as trust is a crucial component in the effectiveness of rewards on follower outcomes. As the psychodynamic approach states, the leader represents a father or mother figure providing stability and safety. In order for the ego ideal to be projected onto the leader, trust is a necessity for rewards to be effective. As such this type of leadership is likely to be related to

the emotional bond between follower and leader. This is supported by the most recent findings indicating a greater loading of contingent reward behaviors on transformational leadership (e.g., Masi & Cooke, 2000). This is also the reason why the leader, in order to use rewards effectively, needs to be able to fulfill his "parent" role and be able to use rewards in a more psychologically rewarding way rather than a mere rational exchange instrument (see e.g., Bass, 1990b; Farling et al., 1999). However, the presently discussed theories – charismatic, transformational, servant, and psychodynamic leadership indicate the common basis for effective leadership; that is, an effective leader is able to tap deeper into follower potential through the use of emotional and psychological processes enabling followers to blossom and organizations to succeed. The leader does so by being kind, respectful and recognizing as well as appreciating follower contributions, whilst actively listening and emphasizing the importance he places on openly communicating with followers. Showing trust and confidence in followers enables the relationship-oriented follower to positively effect followers (Ehrhart & Klein, 2001). House (1996, p.333) sums up the advantage of the above theories by taking into account the underlying psychological effects that allow leadership to be effective in saying that

"[for] 25 years, from the early 1950s to the mid-1970s students of leadership were trapped in the limited person and task orientation paradigm of leadership. This paradigm, coupled with the prevailing rationality assumptions underlying motivation theory, resulted in several theories that ignore the effects of nonconscious motives, affect, symbolic leader behavior, and leader behavior that appeals to emotions of followers. Several leadership scholars have become aware of the importance of these variables which were largely overlooked or ignored until the mid-1970s."

Finally, Bass (1990) notes that transformational leaders, and therefore those who place greater emphasis on interpersonal aspects, are perceived as better leaders than those who are merely transactional reflected in quicker promotions and better outcomes amongst followers. This is supported by the importance of emotional intelligence (EI) – underlying all three related leadership theories – for leader effectiveness. Emotionally intelligent leaders have been found to be able to quickly recognize any cognitive errors (errors that are based on the cognitive processing of, e.g., information) amongst followers when approaching their work and able to distinguish what type of reward should be used when and with whom (Moss, Ritossa, & Ngu, 2006). Emotional intelligence has been argued to be one of the essentials for

effective leadership (Higgs & Aitken, 2003; Sosik & Megerian, 1999). Barbuto and Burbach (2006) reported interesting findings supporting the importance of good interpersonal skills for effective leadership, yet the another aspect of emotional intelligence, the ability to manage moods was not found to be predicting greater levels of leadership effectiveness..

2.4. No followers – no leaders: the importance of follower perception and situation

"It takes at least two for leadership to occur. Someone

has to act, and someone else has to react" (Bass, 1990,

p.320)

A leader is nothing without his followers. No matter how charismatic a person, how well-established his or her ability to lead, the authority to reward, the expertise one possesses, the position one occupies within an organizational or societal hierarchy, as long as there is no one who appreciates and recognizes this individual as a leader, no leader may emerge, no effects the person and her behaviors will have. As Hollander and Offermann (1990) put it "rather than worrying about distinctions between leaders and managers, leadership researchers need to consider seriously whether the "leaders" being studied are perceived as such by their subordinates and peers. Focusing on follower perceptions indicates that supervisors and leaders may be perceived differently" (p.187). Davenport and Prusak (1998) add that traditional criteria used to define successful leadership are no longer applicable and that the new leader to be effective needs to possess the right mix of skills, experience, and education. There therefore cannot be one combination-fits-all, but in order to be effective a leader needs to be able to adapt his style to followers and situations. Many studies and theories have taken on the importance of the relationship between the follower and the leader and the way the leader is perceived. The following section will outline some of the most relevant to the current research commencing with the cognitive processes – implicit leadership theories, also known as schemas or prototypes (e.g., Lord & Maher, 1993). Having previously discussed the importance and superiority of relationship-oriented leadership over other types of leadership, the following discussion will commence with what has been coined leader-member-exchange theory (LMX). LMX originated from the vertical dyad linkage theory (VDL) developed by Graen and associates (Graen, 1976; Graen & Cashman, 1975). At its core, VDL suggests that leaders will lead and manage individual subordinates differently with in-group subordinates experiencing a closer relationship with the leader than out-group members. LMX has at its

basis the assumption that both parties contribute to the relationship and through their interaction build a less or more functioning relationship (Graen & Scandura, 1987) with the relationship reaching an equilibrium in which the relationship is perceived mutually by both follower and leader (Brower, Schoorman, & Tan, 2000). Schriesheim and colleagues argued in their review that LMX comprises of six dimensions including mutual support, trust, liking, and both parties showing attention and loyalty to the other part (Schriesheim, Castro, & Cogliser, 1999). Whilst LMX may be an initial phenomenon in relationships (Bauer & Green, 1996), the level of LMX is consequential for the leader-follower relationship. Whilst a high level of LMX is generally though to be reflected by high levels of follower trust and extra effort, a low level is likely to manifest in the follower performing purely within the limits of the contract between the two parties (Brower et al., 2000). All these elements are crucial elements in the above described leadership theories and play an important role in the current research as further elaborated below. However, its linkage with transformational leadership and contingent reward leadership underlines the importance of the leader-follower relationship. Howell and Hall-Merenda (1999) reported a positive correlation between transformational and contingent reward leadership suggesting that an effective leader needs to build and maintain a good relationship with his followers. It also underpins the importance of including contingent reward leadership in the current research with it being an element of trust between the two parties that the leader will fulfill his part of the contract and reward the subordinate for appropriate levels of performance. LMX therefore again supports the notion of the importance of a good leader-follower relationship.

Schematic Representation of Leadership

Relationships are greatly influenced, in particular initially (e.g., Grojean & Hasel, 2007; Mayer et al., 1995), by the schemas people hold of each other, or rather, the prototypical perception a follower has of a particular type of leader, in a particular position or situation. These implicit leadership theories, or schemas or prototypes, are images of a particular leader shaped by previous experiences the followers had in similar situations (Lord & Maher, 1993). In essence, schemas are cognitive representations enabling individuals to make sense of their surroundings, including macro and micro-economic events, other people's behaviors, including leaders, and other aspects of life which may either be overstimulating or difficult to comprehend. Schemas are therefore a tool to categorize the world into easy chunks allowing the individual to make easy and convenient use of information whenever necessary (Meindl et al., 1985; Weick, 1995). Understanding the role schemas play in leader

effectiveness is crucial to understanding changes in leadership effectiveness and follower outcomes over time. As Lord and Maher (1993) state, leadership is "a social process involving the mutual behavior (and perceptions) of both leaders and followers" (p.6). Schemas tend to play a greater role in the early phases of a leader-follower relationship (Kets de Vries, 1999; Lord & Maher, 1993) when the two parties are not familiar yet. Through periods of collaboration, observation, actions, and behaviors schemas can be adjusted and change more externally influenced to a more internally focused implicit theory of what the leader should be like and can be expected from. In the context of this discussion, external refers to schemas that have evolved from and shaped by factors independent from the current leader such as previous leaders, cultural aspects, organizational values obtained in, for instance, other departments, and other types of previous experiences.

Internal schemas, in contrast, refer to schemas that are primarily influenced by the current leader and his value systems, behaviors, visions, ethics, and other leader-related factors. As Lord and Maher (1993) state, a leader is able to change people's cultural schemas, therefore implicit theories that are shaped by external environments such as national culture, to a value system that reflects the leader's visions, strategies, and ethics. Schemas are dynamic systems that are shaping and re-shaping through the permanent interaction with the leader. As Hanges and colleagues point out, the units making up a schema are activated by environmental stimuli. Changes in units spread throughout the entire network of related units and changing the overall schema, not necessarily affecting other schemas (Bruce & Young, 1986; Hanges, Lord, & Dickson, 2000). In other words, changes in one schema of an effective leader do not translate into changes of others schemas. As such a different leader in a different situation may be matched against another schema that has not been amended by those external stimuli responsible for changes in one particular schema. Units are therefore symbolic representations of object characteristics making up a holistic schema of, for instance, and effective leader (Hanges et al., 2000).

Past performance and behaviors within the leader-follower relationship are the key components in shaping a follower's schema of effective leadership (Awamleh & Gardner, 1999; Lord & Maher, 1993; Hanges et al., 2000). For instance, inferential models of leadership perception suggest that past organizational and leader performance leaves followers expecting similar performance levels in the future. Rush, Phillips, and Lord (1981) showed that people draw conclusions on the effectiveness of leadership behaviors according to the performance information they are given by the researchers. The participants, after watching the same videotapes of group-solving sessions, were given differing bogus

performance information. Despite all participants viewing the same leadership behaviors, the ratings of the leadership behaviors were seen as less effective when given poor performance data, whilst the effectiveness of the leader was rated higher when participants were told that the group performed better.

Romance of Leadership

Findings of this kind have led some to question the actual effectiveness of leaders. Meindl and others argue that leadership effects are overrated; that followers overattribute the possible impact a leader has on follower and organizational performance. Meindl and Ehrlich (1987), for instance, coined the idea of a romanticized concept of leadership arguing that people view leadership as the most important factor for effectiveness and performance. Just as the psychodynamic theories argue for the leader representing a parent figure upon which followers can put their anxieties and expectations and schemas being a cognitive function to make sense of an overcomplicated environment, a romanticizing of the leader allows followers to feel safer and avoid facing the complexities of their environments (Meindl & Ehrlich, 1987). The notion of this overattribution of leadership effects has been supported by findings by Meindl et al. (1985) who examined over 33,000 articles on Fortune 500 firms in the Wall Street Journal between 1972 and 1982. Their aim was to determine the amount of attention and publicity leadership receives in the media in relation to performance levels. Meindl and colleagues found that, on average, the better the fiscal year for any given company, the greater the emphasis on leadership in the media. In a further analysis of the amount of leadership emphasis, the correlation between leadership publicity and performance worked both ways; that is, the greater the deviation from the performance norm in both a positive or negative direction, the more media content was attributed to leadership. They found the same two-way correlation amongst academic publications. Meindl et al. (1985) analyzed their assumptions using doctoral dissertations and found that after a two-year lag, the number of doctoral dissertations increased the more the American Gross National Product differed from the norm. In other words, the better or worse the GNP, the greater the scholastic interest in leadership issues. In a third study, Meindl et al. (1985) found that amongst business-oriented publications the correlation between performance and leadership publications is predominantly positive, that is, the greater a nation's economic growth, the greater the interest in leadership in business-oriented publications. In two further studies Meindl et al. (1985) found support for the inference claim showing that observers are more likely to attribute positive and negative outcomes to leadership than any other factor

underlining the role past events play in the forming of effective leadership schemas. While Meindl and associates' reports of an overattribution of leadership effects raise questions regarding leadership; in particular, when viewed in the context of unethical leadership and negative outcomes such as blind trust with followers placing too much faith in the leader, they also underline the importance others place on the role of leaders. This does not necessarily need to have negative connotations but may, if used ethically, lead to self-fulfilling prophecies allowing leaders to effect positive results (Eden, 1992; Eden & Zuk, 1995; Liden, Wayne, & Stilwell, 1993). For instance, the relationship between initial follower trust in the leader tends to lead to motivation. Initial trust requires a matching of schema and leader behaviors indicating the effect beliefs and attitudes may have on follower and organizational outcomes (Grojean & Hasel, 2007). In a similar vein, Yukl (2006) states that sharing performance information with subordinates consequently gives the leader an aura of greater effectiveness. Although this may yield negative consequences as outlined by the discussions on unethical leadership and blind trust, the schematic approach indicates that when used correctly, it can lead to a motivation and therefore to a real performance increase (Epitropaki & Martin, 2005; Lord & Maher, 1993).

2.5 Context-effects and leadership effectiveness

> *"A man is what ever room he is in"* (Bertram Cooper, Mad
> Men).

Context as a Factor for Leadership Effectiveness

As pointed out in the section on charismatic leadership, the effectiveness of particular leadership features tends to change across contexts such as time, situation, and place. Crisis, such as the current financial world crisis, require different types of leadership on both macro and micro level than during regular times. For instance, as argued and reported by many scholars (e.g., Beyer & Browning, 1999; Hunt et al., 1999; Kilpatrick, 1999), the need for charismatic leadership is likely to emerge in crisis situations when followers are urging for a vision and a clear path that will allow them, the organization, the nation, or, as during the present crisis, to see the light at the end of the tunnel. Another study has found that during crisis people value directive leadership over participative leadership (Mulder, Koppelaar, de Jong, & Verhage, 1986). Hogan et al., 1994) report that during start-up phases leaders with a credible and strategic vision who remain resilient to setbacks are likely to be more effective,

whilst leaders who celebrate the organization and remind subordinates of organizational guidelines tend to do better in established environments. Baumgardner and colleagues support this view. They found that regardless of the hierarchy, subordinates rate particular behaviors more effective than others across any hierarchical level of leadership. Conversely, when using sector as the context variable, they found that people rate the effectiveness of leadership in a business environment differently from a sports environment (Baumgardner, Lord, & Forti, 1991). Hence, people in business have a similar prototype of effective leadership across hierarchies, and so do athletes.

Yet, the leader prototypes across the two sectors differ, highlighting the differences in schemas people hold of effective leadership and the possible effects. Lord and Maher (1990) found the following three overall clusters in which leadership prototypes and therefore leadership effectiveness were similar: 1) business, finance, minority, religion, and education; 2) labor and media; 3) national and world politics. In other words, a political leader may not necessarily be an effective leader in business and vice versa. This is not to say that leaders with cross-sectional abilities do not exist (e.g., John Snow, Chairman of Cerberus Capital Management and former US Secretary of the Treasury), but on a general scale, one cannot expect leadership to be effective across sections, nor that facets of leadership effectiveness may always be generalized (Lord & Maher, 1993). Further support for the context-specifics of leadership effectiveness comes from findings by Yu and Miller (2005) showing that employees in the educational sector placed greater value on leadership styles focusing on follower development, employee participation regarding job relevant aspects, greater job autonomy, and receiving social recognition for their efforts. Yu and Miller argued that this is likely to be due to an advancement level of needs amongst educational employees. Arguing in the light of Maslow's theory of needs (Maslow, 1954), they view employees in the knowledge sector, that is, the educational sector, as less concerned with lower needs and more concerned with higher-order needs such as self-actualization. In order to be effective, leaders therefore need to be aware of these differences including recognizing the particular motivational needs of followers (e.g., Maslow, 1943). In a similar vein, a great number of studies and findings show that leaders are not universally effective when it comes to organizational and national cultures. In order to understand the importance cultures play as a variable in leadership effectiveness, it is useful to draw on some definitions of culture. Schein (1992), for once, views culture as shared beliefs, passed on to new group members, amongst group or society members of how to adapt to environmental problems and maintain well-working processes passing. The GLOBE project takes a similar perspective on organizational and societal

culture, defining it as psychological attributes "shared motives, values, beliefs, identities, and interpretations or meaning of significant events that result from common experiences of members of collectives that are transmitted across generations" (Dorfman & House, 2004, p.15). Hofstede and Bond (1988), using a more cognitive approach, regard culture as "the collective programming of the mind that distinguishes the members of one category of people from those of another" (p.6). Again they stress dual-application of this definition to both societal and organizational levels. Considering culture is such an important factor in leadership effectiveness, Trice and Beyer (1991) define cultural leadership as an art of leadership that understands existing values, beliefs, and norms held by followers, reinforce them, and influence followers positively within the existing cultural framework. Trice and Beyer (1993) add a leader's task is to "originate or recognize sets of ideas that reduce people's uncertainties, make those ideas understandable and convincing, and communicate them widely and repeatedly, so that others come to share them" (p.256). The cultural leader can therefore only be considered cultural if he is able to influence subordinates' collective thinking and behaviors (Beyer & Browning, 1999). This is even more important as cultures tend to be relatively stable even over a long period such as decades (Dorfman & House, 2004). Leadership effectiveness therefore differs across cultures due to people's expectations, their schematic representations of effective leadership. The GLOBE project, for instance, found that while charismatic leadership defined as visionary, inspirational, self-sacrificing, and performance oriented leadership, is desirable everywhere, team-oriented and participative leadership is not always considered a preferred style (House & Javidan, 2004). House and Javidan (2004) further report that a leader who shows confidence in followers and communicates visions, goals, and values is considered effective on a global basis. Contrastingly, a leader who involves followers in decision-making processes emphasizing participative behaviors tends to be considered more effective in individualistic societies (Dorfman & House, 2004). Brodbeck and colleagues add that although a greater similarity between cultures allows for greater leadership effectiveness of the same style, but that even amongst clusters such as the Germanic countries, Germany, Austria, and Switzerland, the impact of leadership styles differs and is perceived differently between the respective followers (Brodbeck et al., 2000). However, charismatic or transformational leadership appears to be accepted as the most effective way of leading across most cultures (Hanges et al., 2000). Also, reward behaviors have been suggested to play an increasingly important role, in particular in individualist societies such as the UK (Bass & Steidlmeier, 1999).

Gender as a Factor for Leadership Effectiveness

Finally, leadership effectiveness, depending on direct contacts between leader and follower (Van Knippenberg, 2000) and reflecting an interpersonal phenomenon, also depends on follower and leader gender and age. Although the current research is not investigating gender per se, it is looking at two different "generations" of employees. In order to explore potential differences, it is crucial to understand possible underlying factors influencing leadership effectiveness.

The majority of leaders still tend to be men (Eagley, Johannesen-Schmidt, & van Engen, 2003; Eagley & Karau, 2002) and that many transformational leadership behaviors, such as inspiring others, encouraging follower participation, and showing empathic skills, are considered feminine leadership styles (Li, Koh, & Hia, 1997; Maddock & Fulton, 1998) and are therefore suggested to be better leaders (e.g., Yukl, 2006) as long as they stick to behaviors considered typical of females such as friendliness, supportive and considerate interaction approaches rather than dominant or task-oriented behaviors (Ridgeway, 1982), thought to be male trademarks. However, it is important to mention that studies have found that this is not universally true and that there is no real difference in the use of transformational and transactional leadership between men and women (Maher, 1997). This raises the issue of a gender-interaction effect. Is it possible that the gender-interaction between leader and follower may have different effects on outcomes such as trust? In particular with Maher (1997) reporting that women rated other women as more transformational, yet those female leaders are embedded and possibly restrained and affected by a primarily male organizational culture (Bajdo & Dickson, 2001). Elaborating further on the gender debate, Deci (1972) stated that men tend to be more positively affected by verbal reinforcement than women, pointing to different effects of some transformational leadership elements. Maddock and Fulton (1998) note the greater importance men place on discussing performance-related issues in conversations. It may be argued that performance-oriented behaviors are therefore considered as more important for male subordinates affecting them more positively regarding outcomes such as motivation and trust. In contrast, however, Eagley and colleagues report that women both score higher on contingent reward behaviors and also reward performance more appropriately (Eagley et al., 2003). This, in turn, should have greater positive effects on follower motivation and trust. As various studies show, if the reward is perceived as a tool of feeding back performance information, used fairly and perceived as such, and not considered controlling, motivation levels increase and so does subsequent performance (Eriksen, 2001; George, 1995; Greenberg, 1988; Locke, Bryan, &

Kendall, 1968; Tyler, 2002; Wilke, Rutte, & van Knippenberg, 2000). Eagley found in an earlier study that women displaying greater amounts of male characteristics such as greater task-oriented behaviors were perceived more negatively than their male counterparts (Eagley, Makhijani, & Klonsky, 1992). This is likely due to a discrepancy between schematic expectations of how a woman should behave and the actual style (e.g., see Lord & Maher, 1993). Despite this, Eagley et al. (1992) report no particularly strong evidence for the preference of men over women in leadership roles.

Age as a Factor for Leadership Effectiveness

Similar findings have been found by studies looking into the age of followers. Hersey and Blanchard (1977) already argued for the importance of subordinate maturity for leadership effectiveness and the relevance of particular behaviors. Herzberg, Mausner, and Snyderman (2005) also emphasized the difference in what they required from their job amongst younger and more educated employees from their older and less educated counterparts. They state that the younger and more educated place more importance on work per se as a dissatisfier. It is therefore the task of the leader to ensure that the job is designed in a fulfilling, stimulating way. Recognition, on the other hand, was reported to be more valued by older employees (Herzberg, Mausner, Peterson, & Capwell, 1957). While younger employees have been argued to be more self-motivated, older employees are suggested to place greater emphasis on a more stable working environment (Loomis, 2000). Yu and Miller (2005) report that while younger employees (Generation X – those born between 1965 and 1979) actively seek development opportunities, older employees (baby boomers – those born between 1946 and 1964) need to be encouraged to make use of available trainings and other ways of developing their skill sets. Younger employees also report to be more concerned about quicker promotion and developmental opportunity, also as part of performance rewards. Older employees, on the other hand, value job security and monetary rewards (Yu & Miller, 2005). Tulgan (1996) sums up the importance of understanding age-related difference in leadership effectiveness by pointing out the increased educational standard of younger generations. This is in line with the increasing importance of the the white collar or knowledge work sector requiring a greater level of qualification and cognitive rather than manual skills (Hofstede, 1993; Hogan et al., 1994; Ray & Sahu, 1989; Thomas & Baron, 1994).

The combination of these findings underline the relevance of investigating related effects further and by using these insights into the importance of culture and other contextual

factors for the effectiveness of leadership, the conclusion can be drawn that it is crucial to take into account people's perceptions of leadership. As such it is inevitable to take a look at the effects of leadership from a follower perspective and asking subordinates about the influence the leader has on their motivation, trust, and other variables rather than using leaders' self-rating of their leadership styles. The particular variables will be further investigated in chapter 3 after discussing the specifics of effective leadership. The similarities between the theories indicate the importance of particular leadership behaviors for follower outcomes with the following section looking at some related leadership effects and the limitations of knowledge to date.

2.6 The specifics of effective leadership

As outlined earlier, particular leadership behaviors have been suggested throughout the theories as important constructs in creating positive effects amongst followers and organizations. The following part will look at particular behaviors in more depth regarding their effects. First of all, leadership is motivation; the leader is the motivator (Maddock & Fulton, 1998); the leader is the source of trust (e.g., Dirks, 1999); the leader's behaviors are the source for good and bad to happen. This process as outlined earlier is particularly effective in situations beyond the economic-exchange relationship (e.g., Bass, 1985; Jung & Avolio, 2000; Van Dyne & Ang, 1998). This is what the servant leader, the transformational, and the leader aware of the psychodynamics in the leader-follower relationship have in common: their effects go beyond what may be achieved by positional power utilization. Leaders who set realistic goals have been found to increase self-efficacy beliefs subsequently increasing motivation due to a reinforcement effect (Bligh, Pearce, & Kohles, 2006; Cangemi, Burga, Lazarus, Miller, & Fitzgerald, 2008; Cropanzano et al., 1993). Setting the grounds for repetitive successes through the use of realistic sub-goals is similar to feedback effects in that they feed back performance standards allowing the individual to adapt in a successful manner (Bandura & Cervone, 1986; Relich, Debus, & Walker, 1986). The combination of the two – goals and feedback – leads to even higher levels of performance leading to a 75 per cent increase in productivity (Kolb, 1995; Pritchard, Jones, Roth, Stuebing, & Ekeberg, 1988). Although it has just been argued that economic exchanges have a rather limited effect on follower outcomes, Pritchard et al. (1988) found a 1 per cent increase in productivity due to the addition of incentives; resulting in a total of 76 per cent productivity increase when feedback, goal setting, and incentives are combined. This, again, underlines the importance to move the main focus of leadership behaviors to the social-exchange aspects. It needs to be

mentioned, however, that reward behaviors play a significant role in trust building as explored in Chapter 3.

Leadership and Efficacy

Returning to the debate on the importance of social aspects of leadership effectiveness, Shamir and colleagues reported no positive effects on follower efficacy when looking at various leadership behaviors (Shamir et al., 1998). They found that a leader's emphasis on ideology even showed a negative correlation with subordinate efficacy levels. Their study also indicated no relationship between supportive behaviors and self-efficacy. This is interesting in that supporting employees does not seem to have any effects on their beliefs in their capability to succeed or be equipped with the right skills to perform a task. Self-efficacy therefore appears to be caused and maintained by other factors, for instance, aspects that may lie within the individual's past. Shamir's findings are also thought-provoking in that they show no relationship between the leader's emphasis on a collective identity and self-efficacy beliefs of individual members. This relationship will be further investigated in chapter 3. While studies have shown that walking the talk increases people's motivation (e.g., Den Hartog et al., 1999), Shamir and colleagues found no such relationship for self-efficacy amongst followers. Podsakoff et al. (1990) found some indication that a leader is in fact able to affect follower levels of efficacy. They found that through expressing confidence in the follower, self-efficacy beliefs may increase. It may therefore be likely that efficacy beliefs are possibly embedded in a rebounding effect. In other words, the higher the leader's genuinely expressed belief in the follower's abilities, the higher the individual's belief in his own ability and potential. The leader's perception of the follower's abilities and subsequent expression is likely to, in turn, be affected by the higher performance achieved partly by the follower's efficacy beliefs and the level of ability portrayed to others. This is particularly true at lower organizational levels, where socio-emotional leadership behaviors were reported to have greater effects on self-efficacy than in leadership situations at higher organizational levels (Bliese & Castro, 2000). Self-efficacy is an important aspect in being able to adapt to performance requirements. Schuler (1977) argued in his adaptability hypothesis that those individuals with higher ability levels are likely to be better able to cope with changing performance requirements and ambiguous task situations. As self-efficacy is the belief in one's abilities, the higher self-efficacy individuals should therefore be able to be better equipped to deal with these changes. A leader therefore is able, through showing confidence,

to instill the basis and develop individuals better able to deal with arising issues. This view is supported by Jex and Bliese (1999) and Bandura (1997) noting that positive self-perceptions moderate potential stressors. This will create a workforce that will be more persistent and therefore perform better over a mid-term period. With self-efficacy being part of the foundation for motivation, it is important to ensure leaders maintain and build healthy levels of self-efficacy, that is levels that do not lead people to believe they are capable of more than they in fact are having possible detrimental effects.

Leadership and Motivation

The influence leaders have on follower motivation, however, is an important aspect in achieving higher levels of performance (e.g., Halepota, 2005). With motivation being consensually defined as the energy, the direction of this energy, and the persistence the individual or the group will utilize in pursuing goals (Locke & Latham, 2004; Steers, Mowday, & Shapiro, 2004) forming the basis and guidance of all human behavior (Griffiths & Luck, 2003). One important aspect of motivation is what has been classified as extra-effort that is effort and input beyond what is required by the contract (e.g., Bass, 1990a, 1990b; Podsakoff et al., 1990). This can manifest itself in various forms such as staying longer, working harder (Bass, 1990a; Sosik & Megerian, 1999), or in the form of organizational citizenship behaviors (Podsakoff et al., 1990). This is important in that it may help overcome shortcomings in productivity and minimize social loafing in groups (e.g., Shepperd, 1993; Shepperd & Taylor, 1999; Smith, Kerr, Markus, & Stasson, 2001). Although motivation has been found to be affected by various sources such as self-efficacy (e.g., Bandura & Cervone, 1986; Gagné & Deci, 2005), genetics (e.g., Maddock & Fulton, 1998; Volkow, Fowler, & Wang, 2003), be based on social comparisons (e.g., Adams, 1965; Greenberg, 1988; Scholl, 1981), trust (e.g., Brower et al., 2000; Dirks & Ferrin, 2001; Jung & Avolio, 2000), and, amongst various other sources, leadership, there is ongoing debate about the role rewards play. Elangovan and Xie (2000), for instance, found that the type of power used by the leader affects motivation in different ways. They found that while legitimate and reward power increased subordinate motivation and commitment, coercive power failed to show any relationship with motivation amongst followers.

The positive relationship of reward power and follower motivation adds an interesting aspect to the debate on the effectiveness of rewards in increasing motivation. In his Cognitive Evaluation Theory, Deci (1971, 1972) argues that intrinsic motivation, the occurrence of motivation requiring no external stimuli, is a rather detrimental way of motivating followers.

He argues that this is due to an expectancy that actions should not be taken unless they are accompanied by the previously offered reward. Building his propositions on deCharms (1968) and Festinger (1957), his argument sees the locus of control as an important facet in the effect external motivators, such as monetary rewards, have on individual motivation as the main factor for the detrimental consequences. Deci (1971; 1972) argues that due to the perceived external control accompanying the monetary reward, the individual is left feeling controlled by another and losing the ability to decide autonomously and act freely. This is in line with the arguments by, for instance, Bass (1985; 1990) who proposed the inferior effects of transactional leadership on follower, group, and organizational outcomes. As contingent reward behaviors were originally argued to be a dimension of this rather ineffective leadership style (e.g., Bass, 1985), the negative publicity attached to rewards is understandable.

Recent years, however, have shown the positive effects reward behaviors have on individual motivation (and their, as mentioned earlier, greater loading on the transformational component). The effect of any leader behavior is dependent, as described in the section on perception and situation, on the value the individual places on the particular behavior or particular reward. Schunk (1983) showed that offering rewards to children led them to complete a greater number of problems at the same level of accuracy. Schunk states that it is important to provide performance-contingent rewards for these positive effects to occur. Rewards therefore represent a feedback function and increase self-efficacy beliefs leading to higher levels of motivation (e.g., George, 1995, 1992). Support for the importance of monetary rewards as a leadership behavior for increasing follower motivation comes from neurological studies showing that monetary incentives activate the reward circuits in the brain (Pessiglione et al., 2007). Pessiglione and colleagues showed that people show greater levels of motivation and performance even in situations where they are not aware of the reward size. Rewards, however, also indicate to the follower that his performance is recognized and appreciated (George, 1995) therefore being in line with the transformational dimension coined individualized consideration.

Masi and Cooke (2000) found that transformational leadership styles as a whole lead to an increase in follower motivation. Returning to the distinction between intrinsic and extrinsic motivation, Tyagi (1985) found that a number of tested leadership behaviors that fall within the scope of what has been referred to as transformational leadership behaviors, including those outlined by Kets de Vries and within the servant leadership paradigm, have a greater influence on follower extrinsic motivation. In particular what could again be associated with individualized consideration, the ability to recognize other's needs and

successes showed the greatest level of effect on the sales personnel surveyed in Tyagi's study. In partly contrast to Deci's claims, rewards do have a positive effect on motivation, although Deci's claim for intrinsic motivation holds true. Interestingly goal setting and clarification had no effect on either type of motivation. This is in great contrast to what has been found and proclaimed in previous work. Wright (2004), for instance, found an increase in work motivation as a result of clarifying goals considering they are perceived as doable. This is in line with House's path-goal theory (1971; 1996) and later findings underlining the importance for the effects on self-efficacy, motivation, trust, and performance (Bandura, 1993, 1997; Bandura & Cervone, 1986; Evans, 1986; Farmer & Seers, 2004; Gist, 1987; House, 1996; Klein, 1989; Klein, Wesson, Hollenbeck, & Alge, 1999; Lee, Locke, & Phan, 1997; Locke et al., 1968; Mesch, Farh, & Podsakoff, 1994; Morgan, 1985; Wright, 2004; Wright & Kacmar, 1995). Shamir and colleagues propose that transformational leadership elevates follower needs from lower-order to higher-order motivation needs (Shamir et al., 1993) indicating the greater impact transformational behaviors can have over simple rewards. However, this again depends on the follower perception, as argued above rewards may be considered as a feedback/reinforcement tool fulfilling those needs coined self-esteem and belonging needs (Maslow, 1954, 1943) in that they may 1) increase a person's belief, status, and self-confidence in own abilities, and 2) increase the likelihood of acceptance by the group when rewards are a reflection of contribution to the collective and great, valuable performance. The list and findings of the influence leadership behaviors have on the level of motivation amongst followers is long, but it is noteworthy that Elangovan and Xie (2000) pointed out that there still is a relatively wide scope for investigating the direct effects on work motivation and performance rather than investigating motivation relatives such as organizational citizenship behaviors.

Leadership and Trust

Leadership, however, is also an important part in increasing follower trust. In particular in direct leader-follower relationships, which have been, as mentioned earlier, been compared to child-parent relationships (e.g., Kets de Vries, 1988). A major part of the current research is the importance of leadership for levels of trust amongst followers and the role trust plays as a mediator in a number of leadership-follower outcome relationships. It is therefore crucial to explore previous findings and draw comparisons between leadership findings and trust.

Pillai and colleagues argued for the similarities between idealized influence and trust. In other words, leaders who use idealized influence instill trust in themselves through the emotional bond and identification with the leader amongst followers (Pillai, Schriesheim, & Williams, 1999). In a similar vein, it is again the social-exchange aspects of the leader-follower relationship that lead to the highest levels of trust. Aryee and colleagues (2002), for instance, report that the social exchange triggers the desire and social requirement to fulfill the interpersonal contract (Aryee, Budhwar, & Chen, 2002). A leader who treats his followers fairly, shows consideration, recognition, and acknowledgement of follower needs making sure these are met to the best of his capabilities will be rewarded with a higher level of trust than those leaders who fail to emphasize the importance and fulfill the contractual foundations. As mentioned before, this fairness and meeting of contractual facets also applies to reward behaviors, that is, rational, economic exchange (e.g., Hosmer, 1995). As long as rewards are perceived as fair, follower trust develops, maintains, and possibly increases (e.g., Dirks & Ferrin, 2002; Grojean & Hasel, 2007; Kumar, Scheer, & Steenkamp, 1995).

The importance of the effect of the relationship between follower and leader on trust, however, goes further in that the leader is able, and in dire need if attempting to be effective, to establish an 'in-itself relationship'. Grojean and Hasel (2007) proposed that the more the leader-follower relationship is perceived by the follower as a fulfilling factor in itself, that is, that it is the relationship per se that the individual is working for and towards, the more effective the leadership and the greater the levels of trust. If the follower perceives the relationship as a means for some further ends, the level of trust is capped below the optimum or maximum level. That is in line with propositions and findings that leaders treating followers in equal terms with the relationship functioning as an end in itself rather than viewing the subordinate as no more than a means for further objectives (Blau, 1964), the greater the level of trust. This is supported by reports of the positive effects leaders have on followers' trust when showing concern for the follower, honoring their input, and being willing to act favorably towards and for the individual and the collective (Kirkpatrick & Locke, 1996). Similar results were reported by MacKenzie et al. (2001) and Den Hartog, Shippers, and Koopman (2002) showing transformational leadership behaviors, individualized support, and contingent reward behaviors are all positively related to the level of follower trust. This is in line with the above discussion on the impact these behaviors are likely to have in relationships were the mutual social and economic contracts are fulfilled.

The importance of trust, however, is not only important in so far as it acts as an outcome of effective leadership, or as the basis for greater outcomes but trust in the leader

minimizes potential costs acting as a substitute for leadership. Hosmer (1995) points out that a lack of trust leads to greater levels of required monitoring and controlling, which in turn may decrease the existing levels of trust (McAllister, 1995). Therefore, the greater the level of trust, the greater their potential role as leadership substitutes enabling a re-allocation of leadership resources and greater levels of efficiency and effectiveness (Grojean & Hasel, 2007; Kramer, 1999).

Leadership and Performance

Yet, the main outcome in work situations for organizations is performance. Regardless of the level of motivation, the level of self-efficacy or trust, performance is the core ingredient that ensures organizational success and survival. A great amount of research has been attributed to the relationship between leadership and performance. MacKenzie et al. (2001), for instance, found that individualized support positively affected in-role sales performance in their study of almost five hundred sales people. In contrast, high performance expectations were not related to in-role performance. This is in line with the argument that goals that are unrealistic or too distant and high fail to achieve having positive effects on followers. Interestingly, both intellectual stimulation and contingent reward behaviors showed no positive relationship with in-role performance. In contrast to these mixed results, findings from a recent study found no significant direct effect of transformational leadership on in-role performance (Bartram & Casimir, 2007). Som (2003) also reports a case supporting the importance of implementing effective management strategies. The high-level employee involvement strategy applied at Lafarge enabling employees to take greater part in decision-making has proven to be a management method leading to an increased sense of involvement with the organization resulting in stronger workforce commitment and motivation. The results of this were greater productivity and improved performance leading to the whole organization performing financially stronger than numerous of their competitors. Another example of effective, yet unorthodox management can be found at Haribo, the jelly baby manufacturer. Karsten Langer (2004) reports on manager-magazin.de about Hans Riegel, CEO of Haribo, who believes that the great enthusiasm among his employees is due to a friendly and family-like work atmosphere. In return, Haribo has enjoyed a double-figure percentage increase in turnover, while many of their competitors suffered stagnation or even losses. Kothen, McKinley, and Scherer (1999) found that employee involvement in decision-making reduces stress and burnout leading to an increase in productivity (Brotheridge, 2003) and a decrease in absenteeism and turnover (Bakker, Demerouti, & Verbeke, 2004). Huselid (1995) argues for

what might be considered the Darwinian natural selection of the most productive. Effective management and leadership are suggested to retain those who are productive and produce highly qualitative work, whilst non-performers are more likely to leave a highly productive environment. As these are all significant competitive factors, it is important that leaders implement effective strategies to increase productivity, efficiency, and performance, whilst minimizing negative aspects such as turnover and burnout or a decrease in employee motivation.

Putting the importance of leadership into figures: Day and Lord (1988) summarized findings from previous studies and concluded that 20-45 per cent of the variance in organizational outcomes can be explained by leadership. Weiner and Mahoney (1981) found that stewardship, which they defined as "all leadership influences occurring during the tenure of each top leader" (p.458), is responsible for 12.8 per cent of the variance in profits with 43.9 per cent of variance in profitability due to stewardship. Weiner and Mahoney obtained a similar figure for stock price variance, which they reported as 47 per cent due to stewardship. Earlier, Lieberson and O'Connor (1972) only found a mere 7.5 per cent variance in profit attributed to leadership and a 6.5 per cent and 14.5 per cent variance for sales profit margin, respectively. This led to the assumptions of a limited effect of leadership on performance, including Meindl's overattribution. However, although Thomas's (1988) results do not show higher variances, he concludes that a leader is constrained by the existing environment and other factors regarding the influence that can be asserted. A further important point is made by Thomas (1988) in stating that due to methodological issues regarding organizational size, which need to be taking into account to draw final conclusions, results may differ. He therefore ran a second analysis based on the unexplained variance after excluding non-leadership factors and arrived at 61.4 per cent for profit, 66 per cent for sales, and 51.2 per cent for profit margin underlining the importance leadership has on performance both on an organizational and group/individual level; with the latter two being elements of the earlier (e.g., Bayo-Moriones & Merino-Díaz de Cerio, 2002; Pfau & Cohen, 2003; Som, 2003). The influence of leadership were later supported by Barling and colleagues who showed that training managers in transformational leadership resulted in better financial performance measures such as credit card sales (Barling, Weber, & Kelloway, 1996). McGuckin & Nguyen, 1995) report that plant ownership is a vital ingredient in productivity. They found that if a plant had a successful ownership change, the productivity levels increased after a 5-9 year period. Similar support for the notion of the leadership-performance relationship comes from a long list of studies including top management teams (e.g., Finkelstein & Hambrick,

1990), financial institutions (e.g., Howell & Avolio, 1993), sports teams (e.g., Dirks, 2000), the army (e.g., Bass et al., 2003), and many more. The following chapter will explore the relationships and interrelatedness between the different variables further and present a new concept embedded in the proposed research model.

2.7 Summary

This chapter has looked at the origins of leadership and the difficulties in clearly defining leadership. Leadership may be a perceptual phenomenon, may stem from a leader's characteristics such as traits and behaviors, it has been suggested to be an individual role as well as a collective event with all members being equally and fully engaged in the leadership process. The section also attempted to clarify the differences between a manager and a leader drawing from their etymological origins in order to understand how history and linguistic origins may help us in defining the modern-day concepts. It has been concluded that while the manager is primarily concerned with keeping the system running, the leader takes his followers to new heights. This is in spite of the two being used interchangeably with both needing to possess a set of distinct skills and traits to be effective and with the most effective leader required to be able to keep the system running as well as advancing things beyond the status quo. The chapter further reviewed different theories attempting to understand, conceptualize, and establish empirical links between effective leadership and the trait and skill sets needed by the leader. Outlining the theories and findings helped to understand the confusion about when what type of leader and leadership is effective, discussing the advantages and knowledge gains as well as shortcomings and limitations of some of these studies and their implications for real-life leader development. Finally, the role of power and its function as a tool for influence is discussed. Power is argued to be a dynamic variable that changes with context with the effective leader able to understand when to use what type of power and the hows of applying them as a means to influence others.

The importance of human capital for organizational success has been discussed and the ways leaders can make use of this crucial asset to not only survive but to be ahead of competitors. This is achieved through ethical leadership that triggers the greatest potential in followers and organization alike. One way of achieving this is transformational leadership with its components including charisma. The chapter also looked at leadership theories associated with the most widely referenced transformational leadership theory and the similarities have been highlighted building the basis for the current research and explaining the newly, yet associated concept, psychodynamic leadership as argued for by Kets de Vries.

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The importance of contextual factors and follower perceptions for leadership effectiveness as well as the specific effects of leadership on self-efficacy, motivation, and trust are conferred building the basis for subsequent chapters discussing the building blocks of the proposed model. As Hollander and Offerman (1990) pointed out, it is crucial to investigate how followers perceive their leader and to which extent leaders are able to influence such outcomes as performance (see Bligh & Schyns, 2007 for a review). The current research moves the follower ratings into the focus of investigation for exactly this reason. To what extent can the leader effect followers' levels of motivation, trust, efficacy, and performance. The follwing sections will explore the importance of these variables and describe a new construct of trust, collective vertical trust, that is, a collective level of trust in the leader.

Chapter 3: Role of trust in leadership, and theoretical model, including hypotheses

3.1 The importance and history of trust

A lock is better than suspicion (Irish proverb)
Similar to the proverb, trust is good, yet control is better (German proverb)

Trust has received increasing interest in the last few decades and has moved from a niche field to a major field in leadership research. Trust is an essential part of leadership effectiveness. As a matter of fact, it is "the root of all great leadership" (Martin, 1998, p.41). A lack of follower trust in the leader manifests in a limited information flow towards the leader (Harari & Brewer, 2004; Zand, 1972), limits the level of influence leaders have over their followers (Dirks, 2000), minimizes the leader's and followers' ability to utilize additional strength in overcoming obstacles and resistance (Jung & Avolio, 2000), decreases the overall effectiveness of existing leadership behaviors (Podsakoff, Moorman, & Fetter, 1990) such as the impact reward behaviors have on follower outcomes (Grojean & Hasel, 2007; Mayer, Davis, & Schoorman, 1995), a shift in powers from personal to positional (Grojean & Hasel, 2007), lower levels of risk-taking (Mayer et al., 1995) and courage (Kramer, 1999), decreased organizational citizenship behavior directed towards other group members and the overall organization (Aryee, Budhwar, & Chen, 2002), decreased team morale (Segal, Rohall, Jones, & Manos, 1999) and performance (Rich,1997).

In organizational terms, trust grows from leadership behaviors. Leadership is the most crucial element in building and maintaining trust with 55 per cent of its variance attributed to leader behaviors (Podsakoff, MacKenzie, & Bommer, 1996a). It needs to be mentioned that positive effects may only be achieved through genuine leadership behaviors. As Blau (1964) puts it, these are behaviors that followers perceive as real and therefore trust building when matching in word and action. It is therefore the intrinsically motivated leader that is able to positively affect followers and achieve superior outcomes for the individual, the group and the organization. Before turning the attention to the specifics of the proposed framework, this chapter will outline the basics of trust and its relationship with the leader.

The concept of trust has been receiving great attention in the last decades leaving theorists and researchers bringing forward a variety of definitions of the construct. Mayer et

al. (1995, p.711) described trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party." Similar, Hosmer (1995, p.393) describes trust as "the reliance by one person, group, or firm upon a voluntarily accepted duty on the part of another person, group, or firm to recognize and protect the rights and interests of all others engaged in a joint endeavor or economic exchange." In a similar vein, Cunningham and MacGregor (2000) merely state that trust is whether another party such as a leader is dependable. Gamson (1968) add further to the rational benefits calculation concept of trust arguing it is the belief of the other party behaving in ways resulting in positive outcomes for the trustor. Similar economic rational constructs have been argued for by others viewing trust as a rational choice and regulation of a person weighing the negative against the positive. The extent of trust therefore depends on the size difference between two variables on opposite sides of an equation (positive outcomes – negative outcomes). An overweight of the possibility of positive outcomes for the trustor therefore results in trust (e.g., Deutsch, 1958; Gambetta, 1988; Zand, 1972). Overall the perspective of trust as a rational calculative choice based on potential benefits for the individual is considered economics- or calculative-based trust (McKnight, Cummings, & Chervany, 1998).

While the rational approaches to trust can be said to be similar to transactional leadership behaviors such as contingent reward, other definitions place greater emphasis on psychological factors comparable to the emotional effects transformational leaders have on their followers. Rousseau and associates regard trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (Rousseau Rousseau, Sitkin, Burt, & Camerer, 1998, p.395). Ring and Van de Ven (1994) also suggest trust to be a psychological construct of the positive attributes of another party and their leader's willingness to consider their positions and ideas.

In attempting to establish a consensus definition for trust, it can be argued that trust depends on the relationship between trustee and trustor and their propensity to trust and willingness to display trustworthy behavior, respectively. Some have argued for a cognitive, schematic-like phenomenon, a tendency to trust, which they bring into a relationship affected by previous experience, culture, and personality traits (Campbell, 1963) and affecting the future relationship with the leader, in particular during initial stages (McKnight et al., 1998; Webber, 2002). Whilst personality traits are unlikely to be affected by leadership and organizational culture, a leader may influence the earlier. A leader may be able to establish

trust building experiences that in later relationships or situations may present the basis for a higher level of initial trust (Dirks, 2000). Trust will therefore become an attitude, a state of mind learned and conditioned by experience and previous relationships (Eagley & Chaiken, 1993). This is particularly important in modern work teams where a level of initial trust is essential for effective working (Britt & Dickinson, 2006; McKnight et al., 1998). This is supported by suggestions by Ballinger and colleagues showing that early encounters and judgment formation of the other party such as trustworthiness influence subsequent exchanges between the two parties (Ballinger, Schoorman, & Lehman, 2009; Schoorman, Mayer, & Davis, 2007); in particular with focus on inter-group processes where initial trust levels spread amongst team members. However, it is noteworthy that Casimir, Waldman, Bartram, and Yang (2006) did not find a time-trust effect in their Chinese sample. The leader and the organization may also influence cultural aspects aiming to establish an environment that allows trust to flourish and yield valuable behaviors such as innovative thinking and risk taking. As outlined earlier, an increased level of trust is likely to reduce financial or other types of incentives, or coercive actions, reducing costs and, in the case of punishments, negative effects on employee motivation or morale.

The present chapter attempts to develop a framework capturing the effects of leadership on individual trust and collective vertical trust and the effects of trust on self and collective efficacy, individual and team motivation, and cohesion (see Figure 1,2, and 3; also see Appendix 1.1 and Appendix 1.2 for a table of hypotheses).

3.2 Individual trust

With trust being such an important part of leadership, it is apparent that it is beneficial for a leader to be aware of the potential benefits a trusting relationship can bring about. Podsakoff et al. (1996) found that task feedback and routine tasks substituted employees' trust in their leader. In contrast, Hosmer (1995) views control and monitoring important substitutes if the leader lacks trust in his followers, while McAllister's (1995) suggestions indicate that substitutes for trust may be used by either follower or leader in that a lack of reliability, which has been described as an important element of trust in many definitions (e.g., Cunningham & MacGregor, 2000), follows in the need for monitoring. However, as McAllister (1995) points out, this may lead to a decrease
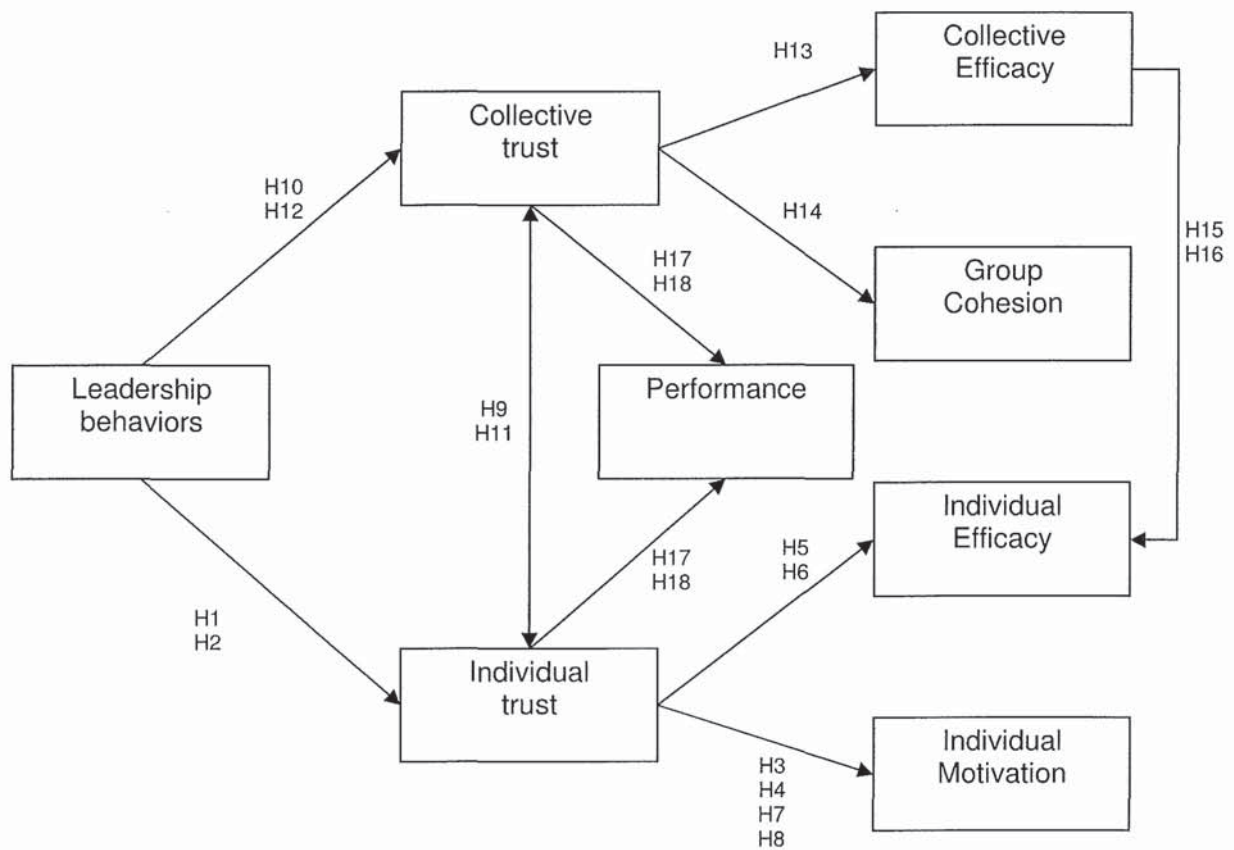
Figure 1. A full model of the importance of individual and collective vertical trust in leadership effectiveness (Figure 2 and 3 are snapshots of the two levels of trust and their roles for leadership-outcome relationships)
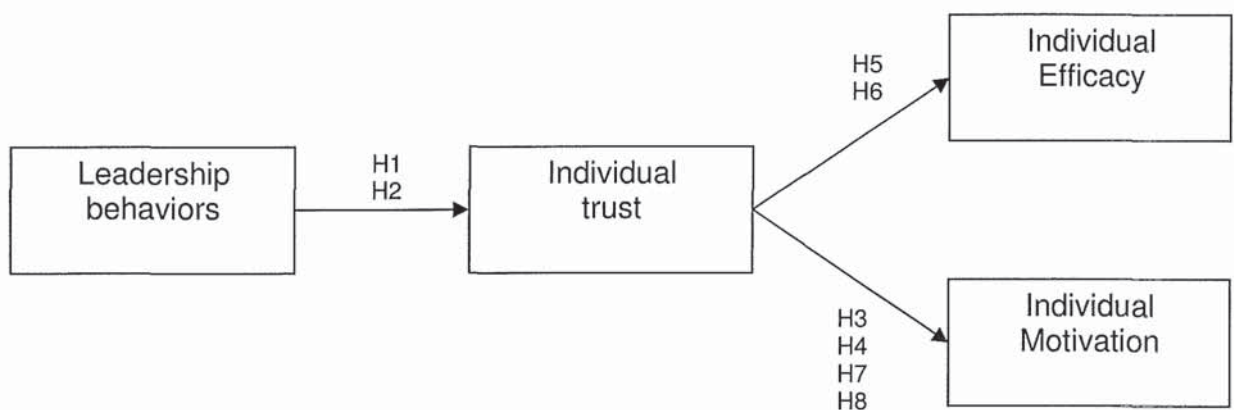
Figure 2. A model of the importance of individual trust in leadership-follower outcome relationships
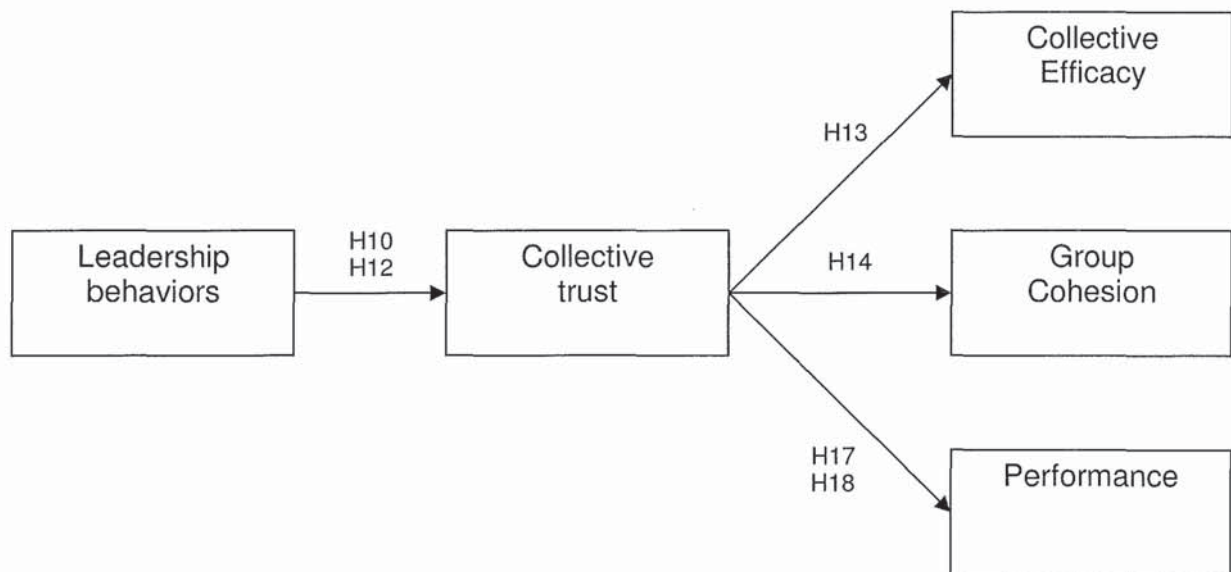
Figure 3. A model of the importance of collective vertical trust in leadership-follower outcome relationships

in trust and an increase in negative effects resulting in even higher levels of monitoring. It becomes clear that a lack of trust being substituted by such means as monitoring and control may cause negative perceptions and effects such as an unwillingness to share information with the untrustworthy party and an inaccuracy of information as well as the perception of the latter lacking accuracy (Dirks & Ferrin, 2001). Rousseau et al. (1998) make an important point by highlighting that other than in psychological-based relationships, legal contracts such as in transactional leadership and in economic-based trust relationships, although considered a substitute for leadership, lack the capacity of generating the other party's full potential regarding not only trust but also benefits associated with it. We can therefore conclude, in line with the research on the superiority of transformational leadership behaviors over their transactional counterparts that those styles similar to the Bass's (1985) concept of transformational leadership, respectively and even more so, those leadership styles that incorporate purely interpersonal rather than reward or external (in the current research Tenacity) behaviors will lead to higher levels of individual trust in the leader. These interpersonal dimensions, referred to here as psychological components of leadership, are behaviors that are focused on the internal facets of the leader-follower relationship. In other words, they incorporate aspects that affect the follower directly rather than through a mean such as rewards. In the current research these are Visioning, Empowering, Energizing, Designing and Aligning, Team-Building, and Emotional Intelligence).

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Hypothesis 1: Leadership behaviors incorporating interpersonal facets other than purely economic interaction will result in higher levels of individual trust in followers than reward behaviors, including feedback, and tenacity.

However, as pointed out by MacKenzie et al. (2001) who suggested that rewards contingent on performance are similar to positive supervisory feedback increasing intrinsic motivation, we can conclude similar for trust. It is important to point out that a positive effect is only likely to happen if the transaction is fulfilled. In other words, followers will only be willing to show greater levels of trust if their effort is awarded fairly and reliably (Bass, Avolio, Jung, & Berson, 2003). Finally, Creed and Miles (1996) argue that a central determinant of trust on an overall level, such as a team, and an individual level is the manager. Beyond social exchanges he can do so by designing reward and control systems that are transparent and underline trust within a unit or an entire organization.

Hypothesis 2: Fair reward behaviors will lead to greater levels of trust.

The relationship between leadership behaviors and trust, although not part of the current model but crucial for understanding the following discussion, is a bi-directional one. In the transformational, servant, and psychodynamic leadership literature, trust is considered not only the basis for effective relationships between leaders and followers but also an important substitute in situations in which it may not be feasible or possible to make use of leadership behaviors. Examples can be found in virtual teams (Jarvenpaa, Knoll, & Leidner, 1998), geographically distributed teams as increasingly required in a globalized world (Zolin, Hinds, Fruchter, & Levitt, 2004), and in teams where the leader has no direct contact with followers such as in delivery firms or in some sales units. Rich (1997), for instance, found that trust plays an essential part in leader-follower relationships amongst salespeople not allowing for control over performance and work related behaviors. In those relationships where the leader was rated as an honest, competent, and reliable partner follower satisfaction and performance levels were higher. The follower attribution of trustworthiness toward the leader mirrors the ability a leader has to create trust through his leadership style; subsequently enabling the leader to give greater autonomy to the follower, using trust as a substitute for particular leadership behaviors such as monitoring. This limitation of control and monitoring behaviors leads to greater levels of top-down delegation and feelings of empowerment amongst followers (Korsgaard, 1995; McAllister, 1995; Whitener et al., 1998). This is in line

with the positive effects the leader's willingness to involve her followers has on them and the organization. Sharing information has been found to increase trust through instilling the feeling amongst followers that they are equal and important and have equal access to data and that nothing is hidden from (Laschinger & Finegan, 2005). This and any other type of empowerment is vital for trust development and maintenance and effectiveness overall (Bartram & Casimir, 2007). The importance of trust for leadership is also reflected in increased levels of satisfaction with participative decision-making (PDM) (Driscoll, 1978). In the light of the PDM literature, this relationship can be explained by intrinsic motivational processes (Kleinbeck, 2000; Tyagi, 1985). In other words, a follower who is involved in decision-making feels a greater bond and emotional attachment to the decision and therefore is intrinsically motivated to achieve results (e.g., Bandura & Cervone, 1986; Cameron & Pierce, 2002). Trust in the leader that the individual's contribution is appreciated and recognized will therefore lead to greater levels of motivation.

Hypothesis 3: Trust in the leader acts as a mediator between participative decision-making leadership behaviors (i.e., empowerment) and motivation.

As mentioned earlier, trust also shifts the power focus from positional to personal. The more trust followers hold in their leader, the more likely is it for the leader to influence through the use of personal power dimensions such as referent and expert power. Blau (1964) argues that a leader's status is an important determinant for follower trust with lower level status leaders initially enjoying lower levels of trust than leaders higher in status. Taking into account Blau's (1964) argument that referent and expert powers, gaining power through role modeling, admiration, and identification with the leader and power originating from knowledge and expertise respectively (French & Raven, 1959), lead to a status increase within the group. In turn, levels of trust in the leader are affected and it may be suggested that with time the latter two personal powers gain in superior importance for the leader's abilities to instill trust amongst followers.

Individual trust may therefore either be compensated by particular leadership behaviors or act as a substitute for leadership. Individual trust, however, may also serve as a mediator in the leadership-outcome relationship yielding great benefits for leader, follower, unit, and organization.

As previously mentioned, trust leads to greater risk taking behaviors (Mayer et al., 1995) and is a building block for courage and civic engagement (Kramer, 1999). These are

both important foundations for individual and organizational success, as particularly risk taking is a necessary condition for innovative behaviors (Beyer & Browning, 1999). It is then the leader's task to establish and maintain a trusting environment in which leader and followers can work collaboratively (Britt & Dickinson, 2006) and ensure it is not violated. As Segal, Rohall, Jones, and Manos (1999) report, having observed two American PATRIOT missile units to be deployed on the same assignment, a violation of trust will yield to a reduction of team morale. In this case it was the violation of trust at being deployed earlier than promised reducing soldier morale. Another important aspect in creating and maintaining trust between leader and followers, but also between peers, is an atmosphere of stability. Leaders can achieve stability by giving clear directions and establishing and providing clear guidelines of task accomplishment (Britt & Bliese, 1998). The importance of trust in the leader-follower relationship, also reflected in vertical cohesion (Griffith, 1988), is highlighted by findings indicating that this relationship is the greatest determinant of morale amongst followers (Gal, 1986). A greater level of trust in the leader yields higher team morale argued to be a construct of collective motivation (Hart & Cooper, 2001; Manning, 1991). It may therefore be argued that with increasing individual trust both individual and collective constructs of motivation increase.

Hypothesis 4: Individual trust in the leader leads to both individual motivation and collective motivation constructs.

3.3 Self-efficacy

Self-efficacy has been proposed to be an important prerequisite of any future motivation and performance (Bandura & Cervone, 1986). Self-efficacy, the belief in one's capabilities and abilities, influence the extent to which the individual seeks challenges, the amount of effort utilized in endeavors, and to what level the individual will be persistent in accomplishing goals and be resistant to obstacles (Bandura, 1982, 1993, 1997; Bandura & Cervone, 1986). Self-efficacy represents a judgment in one's ability to mobilize the motivation, cognitive resources, and behaviors and actions essential to perform and succeed when attempting a particular task (Bandura, 1997; Bandura & Cervone, 1986). Self-efficacy is a necessary condition for people's desire to achieve. The greater self-efficacy beliefs, the less threatening and the more motivating are the discrepancies between personal standards and previous attainments (Bandura & Cervone, 1986). In other words, the difference between goals and the status quo appears smaller the greater perceived self-efficacy. In a similar vein,

self-efficacy has been found to moderate the effects of stress factors such as work overload (Jex, 1999) and consequently increasing performance (Bakker, 2004; Brotheridge, 2003). Jex and Bliese (1999) argue that the advantage of individuals with high levels of self-efficacy lies in the nature of their coping strategies. While low level individuals fall into an emotional trap, people with higher levels of self-efficacy approach stressors with a problem-solving attitude. They are therefore able to develop rational theories of dealing with (potential) stressors. They therefore keep control over their own destiny, while emotion-focused individuals may feel depersonalized leading to disengagement from work and a loss of control (Demerouti, Bakker, Vardakou, & Kantas, 2003; Devine, Reay, Stainton, & Collins-Nakai, 2003). It is a leader's task to ensure that a healthy level of self-efficacy is maintained and to raise self-efficacy when necessary. Wright (2004), for instance, report that by specifying goals and minimizing any constraints limiting subordinate action, follower self-efficacy can be elevated.

Using these simple behaviors, followers perceive goal attainment more achievable and utilize greater effort (Wright, 2004). Amongst those leadership behaviors that positively influence subordinate self-efficacy, are also follower development and coaching. Klein and associates showed given supportive and developmental leadership is in place, self-efficacy is not negatively affected even under elevated goal difficulty conditions (Klein, Wesson, Hollenbeck, & Alge, 1999). With self-efficacy at an appropriate level for the task in hand, goal difficulty perceived as doable, and the importance of the goal understood combined with the support from the leader, leads to subordinates feeling equipped to perform to the highest standards (Bandura & Cervone, 1986; Gist, 1987; Klein et al., 1999; Locke, 1968; van Mierlo, Rutte, & Vermut, 2006). Bandura and Cervone (1986) report that by giving realistic performance goals, self-efficacy and performance greatly increase. They found that when participants in a physical strenuous task were asked to increase their performance by 40 per cent, these individuals tended to show elevated levels of self-efficacy and subsequently improved their performance substantially. They support the notion that it is elementary for positive effects to occur, performance goals need to be set at an appropriate level leaving followers to perceive the discrepancies between the status quo and the desired standard as rather small in quantity or quality.

Foti and Miner (2003) suggest that another way of raising self-efficacy levels amongst followers is through showing confidence in individual and group abilities. Although self-efficacy partly depends on an individual's experience and previous successes or failures (Bandura, 1986; Lee, Hoerr, Weatherspoon, & Schiffman, 2007), the leader's behaviors greatly influence the way followers perceive themselves. For instance, Shamir and colleagues

found that charismatic behaviors are related to followers' self-efficacy, although, it needs to be mentioned that various behaviors including emphasizing ideology and collective identity were not found to be related to self-efficacy (Shamir, Zakay, Breinin, & Popper, 1998). In support of the importance of reward behaviors, Schunk (1983) reports a positive relationship between performance-contingent rewards and children's self-efficacy beliefs. Support for the importance of reward behaviors comes from a study conducted by Wright and Kacmar (1994) who found that participants working under piece-rate conditions tend to show higher levels of self-efficacy than those working under bonus pay conditions. It may be argued at this point that the limitations of the bonus pay structure may be due to individuals not perceiving a direct connection between their performance and the bonus (Bandura, 1986) and may therefore not regard bonus pay as a reinforcing element (Cameron & Pierce, 2002; Locke, 1968; Skinner, 1953). It has therefore been suggested to closely link bonus pay to performance to create positive effects regarding efficacy, motivation, and consequently performance (Lee, Locke, & Phan, 1997). As mentioned before, any positive relationship deriving from reward behaviors are only likely to be achieved if the two parties are in a trusting relationship. A lack of trust will therefore leave no space for self-efficacy to develop as 1) the reward behaviors will not be considered as a genuine attempt to reward the individual for appropriate performance, therefore undermining the honesty of the leader (e.g., Brashear, 2003); 2) the reward may be considered as an attempt to manipulate the target (e.g., Cameron & Pierce, 2002; Deci, 1972).

Hypothesis 5: Trust in the leader acts as a mediator between rewards and self-efficacy.

In a similar vein, performance feedback allows individuals to judge their effectiveness and level of competency. As Schunk (1983) observed, children who were given feedback on their abilities, rated themselves highest in efficacy amongst their peer group and perceived themselves as having used less effort to achieve current performance levels. Yet, as argued for rewards, feedback must be given in line with performance levels (Schunk, 1983a, 1983b) and also in a timely fashion (Bandura & Cervone, 1986; Cook & Dixon, 2006) in order to enjoy an enforcing character increasing self-efficacy (Shea & Howell, 2000). A few conditions, however, need to be met for feedback to fulfill its full potential: 1) goals need to be set that are perceived as worthy the effort (instrumentality) (Kolb, 1995); 2) individuals need to see value in the task (see Klein, 1989) and 3) individuals need to see that the efforts will improve

outcomes and perceive future successes as a realistic outcome (Carver & Scheier, 1990). Bandura and Cervone (1986) add that feedback needs to be set in a way that raises motivating potential through positive means of communication. For instance, the leader may tell the follower, 'you have already reached 75 per cent' instead of 'you still need to achieve a 25 per cent increase in performance'. Similar to the reward-efficacy relationship, trust in the feedback source is of great importance. As Mayer and Davis (1999) argue, appraisal systems need to be accurate to be effective. With feedback representing a type of reinforcement mechanism (Deci, 1972; Deci, Ryan, & Koestner, 1999), similar to appraisal systems, follower efficacy is likely to increase. Laschinger and Finegan (2005) add that feedback also represents a type of follower-leader exchange, therefore leading to greater levels of trust as followers feel valued. Early (1986) supports the notion of the significance trust in the leader plays for feedback effects to take place. Early found that trust mediates the effect of feedback on performance. This is important in that self-efficacy is a prerequisite for performance (Shea & Howell, 1999).

Hypothesis 6: The effects of styles based on psychological components, including feedback and goal-setting, on efficacy beliefs are mediated by trust in the leader.

Self-efficacy also influences the level of risk-taking (Prussia, 1998). Trust in one's own abilities therefore has a similar effect on risk-taking as trust in the leader. The possibility of positive aspects of follower behaviors through two different channels, that is, directly through trust and indirectly through instilling self-efficacy amongst followers underlines the relationship between the various variables.

3.4 Individual Motivation

As mentioned earlier, transactional leadership falls short of evoking emotional commitment and identification (Jung & Avolio, 2000), two significant aspects of internal motivation (Maddock & Fulton, 1998) and subsequently fails to fully benefit individual and corporate performance (Wright, 2004). Transformational leadership, in contrast, has been found to contribute to follower motivation. Bass (1985, 1990) and Burns (1978), for instance, argue that the transformational leader raises followers' needs with regard to Maslow's hierarchy of needs (1943, 1954). Other than transactional leaders transformational leaders instill motivation among subordinates by envisioning their potential and possibilities rather than only rewarding them for achievements. Also it may be argued that the latter acts as a form of conditioning (see Skinner Skinner, 1953) reinforcing positive behaviors. The majority

of studies, however, do not find a reliable relationship between transactional leadership and motivation (e.g., Masi & Cooke, 2000). The reason for transformational leadership to be so effective at positively affecting motivation may lie with Deci's (1971; 1972) argument of the greater benefits of intrinsic motivation over extrinsic motivation. In other words, behavior that is intrinsically motivated through, for instance, an identification with the task and the company, a feeling of ownership, or the feeling that due to a very good personal relationship with the manager you personally want to contribute to him and team success, is more likely to remain over a prolonged period of time. Motivation that is extrinsically motivated, that is, merely through financial incentives, may only be short-lived. Regarding one the main features of transactional leadership, Deci (1971; 1972) found that financial external rewards lead to a feeling of being controlled and hence negatively affect motivation, which in turn negatively affects performance (e.g., Tyagi, 1985; Van Knippenberg, 2000).

However, two aspects of leadership and motivation are most prominent in the leader's impact on follower motivation: the good personal relationship between leader and follower and fair and reliable contingent rewards. In order to analyze the effects of the leader-follower relations quality, it is beneficial to consider leader influence tactics. As Ring and Van de Ven (1994) state, trust is the willingness to consider and accept another's ideas, visions, and behaviors. Once an idea is accepted and considered beneficial by the follower, his level of motivation to reach the goal increases. Returning to the acclaimed benefits of transformational leadership behaviors, Jung and Avolio (2000) argue that the reason for transformational leadership may be seen in the light of identification-based trust as trust in a transformational relationship greatly stems from the leader's instilment of an identification of the followers with the proposed vision and goals and the resulting in-group effect with the leader and the organization. In a similar vein, the leader shows concern for the follower's needs, honors their input, and shows the willingness to think and act for the good of the collective (Kirkpatrick & Locke, 1996). The relationship between follower and leader therefore represents an end in itself rather than a means for some further ends as manifested in a purely economic relationship. As Blau (1964) states, a leader needs to establish a relationship that, if seen in terms of a continuum, is closer to the end-in-itself spectrum to effect the greatest benefits regarding attitudes such as trust (see Figure 4). This is in line with definitions of trust stating that in order for trust to develop, the trustor needs to perceive the trustee as acting for the benefits of the trustee rather than for himself (e.g., Rousseau et al., 1998). Viewing a relationship as an end in itself as in a trusting relationship should therefore lead to greater levels of motivation as the social contract and the identification with the leader require the

follower to perform well. She will therefore feel more motivated to fulfill the necessary requirements set by the social contract as the leader's influence is that of a referent and not enforced as in, for instance, coercive power relationships (French & Raven, 1959). One of the core driving forces among followers will therefore be not to demolish leader trust in the individual. Good leader-employee relationships are characterized by mutual trust (e.g., Blau, 1964) and should therefore lead to higher levels of trust and to greater motivation to not violate given trust.

Leader – employee relationship needs to be toward the right end of the spectrum for best benefits

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┌─────────────────┐                                    ┌──────────────┐
│ Means for some  │         ─────────────────▶         │ End-in-itself│
│ further ends    │                                    └──────────────┘
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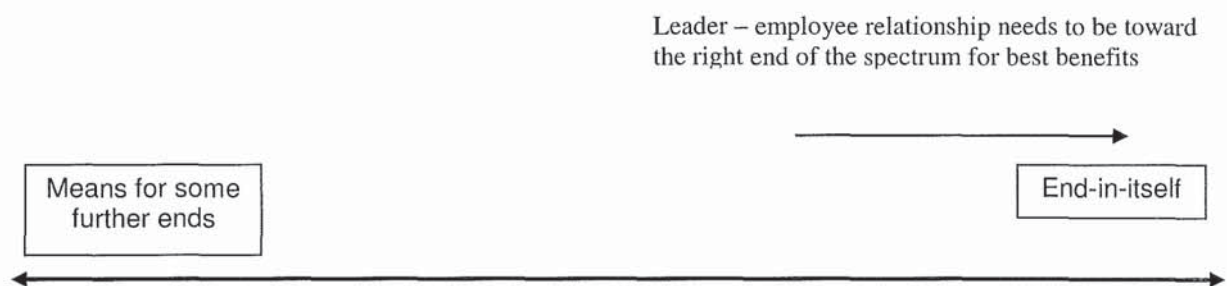
Figure 4. Continuum of leader-employee relationship goal (Grojean & Hasel, 2007)

Hypothesis 7: The effects of styles based on psychological components lead to greater individual motivation through higher levels of trust.

As pointed out before, trust can also come from contingent rewards if they are distributed fairly and reliably (Bass et al., 2003; MacKenzie, Podsakoff, & Rich, 2001). The belief and experience of fair rewards for performance should therefore lead to higher levels of trust and subsequently higher levels of motivation. First because the belief that one party fulfills its obligations (e.g., rewarding performance) and therefore the other needs to fulfill its obligations (i.e., performing well) will increase motivation. Secondly, possessing trust in the leader that he will value good performance should act as a reinforcer through increasing intrinsic motivation (see MacKenzie et al., 2001).

Hypothesis 8: Contingent rewards lead to greater individual motivation through higher levels of trust.

3.5 Teams

Why collective variables? This article addresses the importance of collective variables, primarily the crucial role of collective vertical trust, for a number of reasons. First, the increasing use of work teams in organizations (West, 2004) requires a better understanding of the collective counterpart of individual trust. Secondly, using collective constructs as analogies, it shows that individual and collective constructs of the same phenomenon cannot simply be regarded as straight-forward relationships (Hart & Cooper, 2001; Koorsgard, Brodt, & Sapienza, 2003). Hart and Cooper (2001) argue that individual and collective variables may have different causes. The following section will briefly highlight group work before moving on in developing the individual-collective framework.

West (2004) points out that the reason for creating teams is that it is assumed that they are more effective than individuals, which is why the proposed study will look at the team-based variable collective vertical trust as the main mediator for the relationship between leadership styles and collective efficacy, cohesion, and performance in employees. However, there are various definitions of teams. Smith (1945) defines a group as "a unit consisting of a plural number of separate organism (agents) who have a collective perception of their unity and who have the ability to act and/or are acting in a unitary manner toward their environment" (p.227). Bales (1950) defines a small group as "any number of persons engaged in interaction with one another in a single face-to-face meeting or series of such meetings, in which each member receives some impression or perception of each other member distinct enough so that he can, either at the time or in later questioning, give some reaction to each of the others as an individual person, even though it be only to recall that the other was present" (p.33). Bass (1960) defines group as "a collection of individuals whose existence as a collection is rewarding to the individuals" (p.39). Finally, Mills (1967) defines the concept of a group in terms of its goals, as a collective that merely acts together to accomplish a purpose. Guzzo and Dickson (1996) defined group as "made up of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g., an organization), and who perform tasks that affects others (such as customers or coworkers)" (pp.308-309). Cohen and Bailey (1997) defined a team as a number of individuals who view themselves and are seen by others as a social entity that is embedded in a greater social framework. McGrath and Argote (2001) therefore point out that individuals are interrelated, that is, one person's action affects and is affected by the other members of the unit. This is in line with Shaw's (1976, p.11) definition arguing that a group is "Two or more persons who

are interacting with one another in such a manner that each person influences and is influenced by each other person." Taking a consensus view of these definitions, it becomes apparent that a team comprises of individuals who are interacting, holding similar beliefs and perceptions, and work, in collaboration, toward a common goal. It is therefore suggested defining a team as *a group of individuals with shared interrelated beliefs and perceptions working collaboratively toward a common goal for any given time.* This definition allows us to view trust and efficacy as aggregations of individual beliefs that are shared and influenced by most team members. A final reason for looking at both the individual and the collective level is the nature of the sample. With all study samples falling into the category of knowledge workers, the appropriate level of analysis for work productivity has been suggested to be the collective, or (work) group level (Thomas & Baron, 1994).

3.6 Collective vertical trust – a new measure

The following section will explain a new measure of trust, collective vertical trust – group trust in the leader – based on previous research on group variables and horizontal trust, that is, trust in other team members. Webber (2002, p.205) argues for a group based perception of trust, that is, "the shared perception by the majority of team members that individuals in the team will perform particular actions important to its members and that the individuals will recognize and protect the rights and interests of all the team members engaged in their joint endeavor." Brower, Schoorman, and Tan (2000) see trust as a related concept being a construct of in-group relationships. Trust is therefore seen as a more affective-based construct influenced by the perception of behaviors and characteristics of the party to be trusted and the emotional bonds between the parties (McAllister, 1995).

Keeping with Webber (2002), these views are extended arguing that collective trust is a shared perception or belief amongst all team members regarding leadership. Collective trust is therefore not only a horizontal construct of individual team members trusting each other, but a team-based perception of the trustworthiness of the leader. Collective trust in the leader is therefore an aggregate of individual beliefs dependent on individual levels of trusts affecting the aggregate due to the dynamics in a team (McGrath & Argote, 2001). In other words, collective trust is an aggregate that changes with the level of individual trust as individuals interact and influence each others' perceptions, such as the level of perceived trust. This view finds support in Jung and Sosik (2002) definition of collective efficacy as shared perceptions among group members of the team's capabilities to perform a particular task. Similar it is argued here that collective trust, or collective vertical trust (Collective trust

vertical), refers to group-member' perceptions of how much trust the group as a whole may attribute to their leader. This is also in line with Webber (2002) arguing that group trust is the perception of the majority of group members beliefs that another individual, in this case the leader, will act favorably for the group's wellbeing and general endeavor. As it is argued here that collective trust is an aggregate of individuals' beliefs of their leader's trustworthiness, the following equation is proposed:

$$Collective\ trust_{vertical} = \frac{\Sigma(Individual\ perception\ of\ group\ trust)}{n}$$, where n is the number of followers

We can therefore derive three hypotheses:

Hypothesis 9: The higher individual trust, the higher collective vertical trust in leader.

Hypothesis 10: Leadership styles based on psychological components will result in higher levels of collective vertical trust in leader than reward behaviors.

Hypothesis 11: Collective vertical trust and individual trust in the leader are highly related with either level construct affecting the other level construct to a similar degree. (see Figure 5).
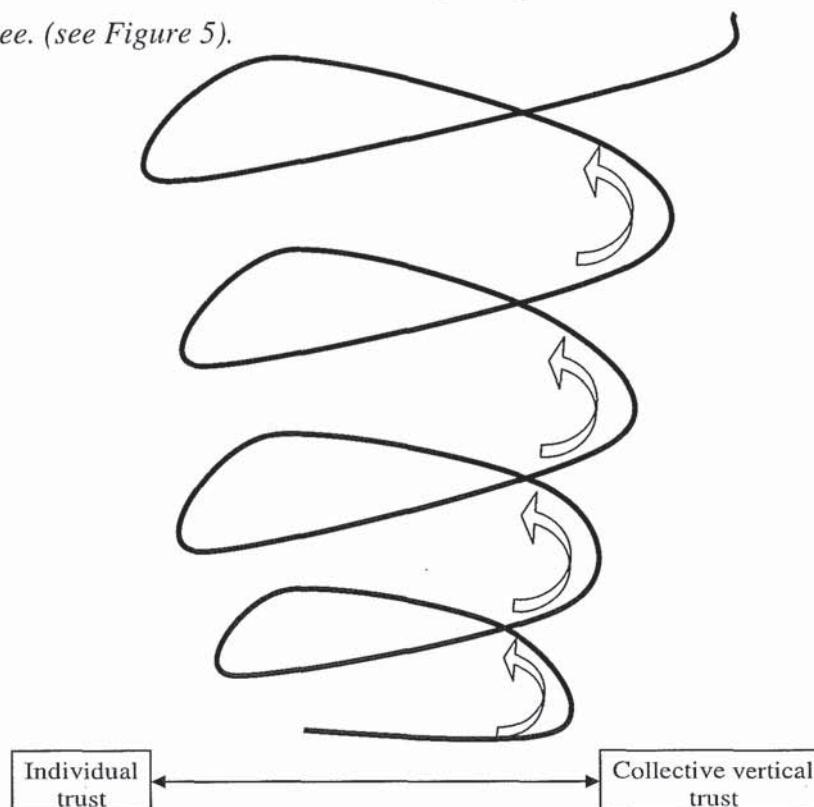
Figure 5. Spiraling effect of individual and collective vertical trust

As mentioned before, a manger is a central determinant in determining the level of trust in a unit such as a team by adopting transparent reward and control systems (Creed & Miles, 1996). Hence, just as in the case of individuals, team rewards contingent on their performance should influence the level of collective vertical trust.

Hypothesis 12: Fair contingent reward behaviors increase levels of collective vertical trust.

3.7 Collective Motivation

McGrath and Argote (2001) suggest that teams are dynamic systems which exist in temporal contexts. This is in line with my definition of a team as a group of individuals with shared interrelated beliefs and perceptions working collaboratively towards a common goal for any given time. Worchel and Coutant (2001) suggest a four-stage model of group development. Interestingly for the present discussion is the importance they attribute to the individual in the first stage of their model 'group identification'. Here, they argue, the individual identities form the group identity which in turn affects individual identity. If we apply this concept to trust and motivation, we can argue that individual motivation and trust determine the level of their collective counterparts, which in turn affect the level individual group members experience trust and motivation. As can be seen in the model, team motivation and individual motivation are proposed to be intercorrelated affecting each other linearly. In other words, the higher individual motivation, the higher team motivation and vice versa.

Dziewulski (1996) suggests that morale is human energy that is engaged in action, while Britt and Dickinson (2006) consider it a motivation variable. Further, Shamir (1990) argues that collective efficacy is part of group morale and group cohesion leading to greater levels of effort due to its social exchange nature (Shepperd, 1993; Tasa, Taggar, & Seijts, 2007). That is, the higher group cohesion, the greater the motivation of individuals to fulfill social contracts and perform according to group norms in order to avoid disappointing other team members and losing their trust. It can therefore be concluded that perception of trust leads not only to individual motivation but also to team motivation due to the dynamic interactive effects within a team. In order to test these relationships the study will investigate two constructs that have been suggested to make up collective motivation: collective efficacy and group cohesion.

3.8 Collective Efficacy

As Paskevich, Brawley, Dorsch, and Widmeyer (1999) point out collective efficacy has received little attention compared to its individual counterpart, self-efficacy. Its importance for performance is shown in previous studies that have found that triads high in collective efficacy showed greater performance increases on muscular endurance tasks following a failure experience than triads low in collective efficacy, who, in turn, experienced a decrease in performance (Hodges & Carron, 1992). A further reason for choosing collective efficacy as a motivation variable can be found by George and Feltz (1995) and Tasa et al. (2007) claim that our understanding of the extent collective efficacy influences group motivation and other group phenomena is still in its infancy and further research needs to be conducted to understand its role in achieving high levels of performance. Finally, Shamir (1990) argue that group motivation is a composite of collective efficacy, social rewards (group cohesion/identification, belonging to the group), and the relationship between collective outcomes and individual rewards.

Regarding the relationship between collective vertical trust and collective efficacy, Paskevich et al. (1999) point out that collective efficacy as a group phenomenon is highly likely to correlate with other group measures, such as collective vertical trust. Regarding collective efficacy as an outcome of trust in the context of social loafing underpins the current approach. With collective vertical trust being measured in the current study as an aggregate of individual trust in the leader, the team belief that it will be treated fairly and the leader will act in a beneficial way not only for certain individuals but for the entire group should increase the level of perceived collective efficacy. First, rewarding the team for performance is proposed to increase collective vertical trust as the trustee fulfills his obligation. Similar to an individual a team should be more motivated if its trust in the leader has been confirmed by him rewarding performance contingent to the team effort. Rewarding, however, has also been proposed to act as a type of feedback (MacKenzie et al., 2001; Podakoff et al., 2006). Trust in leader is important as the feedback needs to be perceived as genuine and accurate to have reinforcing effects (Herzberg, Mausner, & Snyderman, 2005). Furthermore, trusting a leader's feedback will enhance collective efficacy through enhanced effects of goal setting on task performance (Podsakoff, MacKenzie, & Bommer, 1996b). In the context of influence tactics (cf. French & Raven, 1959), the team needs to trust the leader that the offered rewards are not used as control mechanisms but as genuine attempts to reward good performance. As mentioned earlier, the better the relationship between followers and leader, the more likely that leader behaviors, such as rewarding, will be perceived as genuine feedbacks on

performance and therefore increase collective efficacy. Finally, collective vertical trust is likely to increase collective efficacy if team members perceive the leader to undermine social loafing. Davis (1969) underlines this importance by saying that social loafing allows the individual to hide or feel lost in group dynamics prohibiting team members to receive a fair share of performance contingent rewards. Finally, the belief of the individual that the leader will assign team members to the jobs he or she is equipped to succeed in and is provided the appropriate resources should lead to an increase in collective efficacy beliefs that the team in its entity can succeed. Therefore, the higher collective vertical trust in the leader to act for the good of the team and its individual members, the higher collective efficacy.

Hypothesis 13: Collective vertical trust leads to an increase in collective efficacy.

3.9 Group cohesion

The proposed study is further suggesting that collective vertical trust will affect group cohesion. Group cohesion is the individual's attraction to the group and its vision (Jung & Sosik, 2002; Paskevich et al., 1999). The reasons for proposing the influence of shared trust in the leader to affect group cohesion is manifold. First, as Jung and Sosik (2002) point out, it is the leader's task to create trust among his followers that his ideas and goals are beneficial to them. This in turn should then create strong values of internalization, cooperation, and congruence among followers (Jung & Avolio, 2000). Therefore, the collective vertical trust in the leader's vision should lead to a strong group vision increasing in turn group cohesiveness. As argued by Eagley et al. (2003), through his visionary and innovative personality and his empowering and mentoring behaviors the charismatic and transformational leader gains trust among followers and achieves that everyone involved will pull in the same direction leading to extraordinary results beyond effects possible from transactional leadership reflecting higher levels of group cohesion. Recent studies support the importance of leadership behaviors such as Emotional Intelligence for trust building (Schlechter & Strauss, 2008). Also, the higher the trust in the leader that he will act beneficial to the team, the greater the striving of the individual to belong to the group and to identify with it (e.g., Abram & Hogg, 2001) and therefore group cohesion should experience incremental effects. Finally, collective vertical trust in the leader's ability to effectively lead the team to perform well based on previous experience should not only lead to an increase in collective efficacy (Jung & Sosik, 2002), but also to an increase in group cohesion. This is likely to be due to the individual member's desire to identify with a successful team than an unsuccessful one.

Hypothesis 14: An increase in collective vertical trust will lead to higher levels of group cohesion among team members.

3.10 Individual vs. Collective Constructs

Hart and Cooper (2001) argue that individual and collective variables may have different causes. They argue that individual morale is likely to be more related to other individual variables. We would therefore expect a greater relationship between individual trust and individual motivation and self-efficacy. However, they add that under certain circumstances, individual variables may be influenced by both individual and collective constructs. One example for the interrelatedness between individual and collective motivation comes from Kelley and Thibaut (1969) who found that due to the observed activity by others, the individual experienced an urge for higher levels of speed and emotional excitement than when alone. Shaw (1976) adds that situations in which the individual shows low levels of interest in the task per se, a group situation will lead to increased levels of motivation to perform well due to social standards or what is herewith suggested to be an "audience effect". Applying this to the proposed framework, individual trust and motivation may not necessarily be merely related to each other but also to collective vertical trust, collective efficacy, and group cohesion. A different picture is likely to emerge, however, when considering the causes of self-efficacy. While collective efficacy may be influenced by self-efficacy beliefs due to an accumulation of positive beliefs in the possible success the group may attain through the skills, expertise, and knowledge of individual members, individual members may not regard themselves as more capable only because they work within a very capable group. In contrast, it may even have a diminishing effect with individual group members feel less capable when comparing themselves to other members and the overall ability of their team. Gully, Incalcaterra, Joshi, and Beaubien, (2002) report that team efficacy predict 15 per cent of the variance in group performance, whereas self-efficacy only predicted 4 per cent underlining the importance of investigating these motivational aspects on a team level. Therefore, it can be suggested that while collective efficacy levels are influenced by self-efficacy, self-efficacy is not increased by collective efficacy; however, it may be possible that self-efficacy decreases due to social comparisons.

Hypothesis 15: A higher level of self-efficacy has positive effects on collective efficacy.

Hypothesis 16: Collective efficacy will have no positive effect on self-efficacy.

3.11 Performance – An Outcome of Many Mediators

Bijlsma-Frankema, de Jong, and van de Bunt (2008) point to the importance of trust in the leader for team performance. They found that the greater the level of trust in the leader, the more people perceived the set goals as congruent with their own and in turn positively affected team performance. Shepperd (1993) found in a study of low and high cohesion groups that those individuals who were part of a high cohesion group composed of friends showed greater speeds at machine typing than their low cohesion counterparts. Further, team performance has been found to be less affected by social loafing in high cohesion groups, as members experience a stronger identity with the group and are less likely to act counterproductively (Hardy & Latané, 1988). As Gully et al. (2002) state, the importance of collective efficacy for group performance is substantially greater than individual efficacy beliefs underlining the importance of investigating these motivational aspects on a team level. With cohesion being proposed to be a dependent variable of a combination of individual and collective trust, the following suggestions are made:

Hypothesis 17: Trust on the collective level leads to higher performance.

Considering the proposed interrelatedness of individual and collective vertical trust, the question arises which of the two may be more elementary for group performance. Different from the self-efficacy and collective efficacy relationship, it is argued that due to individual and collective trust feeding of each other embedded in a spiraling effect both upwards and downwards, the importance of the two constructs is equally important for their effects on collective efficacy, cohesion, and group performance.

Hypothesis 18: Individual trust is equally important for group performance as is collective trust.

3.12 Summary

The goal of this chapter has been to build a model incorporating individual and collective variables, their interrelated influence and their mediating role for leadership effectiveness. The chapter suggests that although in most cases the individual and collective variable will be related bi-directionally, it also argues for exclusions. Whilst individual and collective vertical trust feed of each other, just as individual and collective motivation affect each other's levels,

the efficacy constructs are thought to show a unidirectional relationship. While self-efficacy is thought to affect the level of collective efficacy, with raising levels of individual beliefs yielding greater levels of collective efficacy, the inverse relationship is argued to be either non-existent or, in a worst case scenario, of a detrimental nature with collective efficacy increases possibly leading to decreases of self-efficacy due to psychodynamic processes. Due to the increasing importance of team work, it is important for understand how individual and group processes may differ and the way their leadership behaviors can have differing effects. The chapter has outlined that although the individual may react positively to leadership behaviors, the group may possibly react differently and that understanding the relationships will aid in determining the impact and the interrelatedness of the various follower outcomes. Understanding this relationships will help in shedding further light on the processes affecting group performance and will provide guidelines regarding potential performance obstacles and how they can be overcome and transformed into performance gains.

Finally, the role trust plays as a mediator in the relationship between leadership and follower outcomes has been pointed out and its significance is underlined in a recent statement by van Knippenberg and de Cremer (2008) who call for more research on the moderating role in the above relationship.

Chapter 4: Methodology and overview of studies

The research was conducted using a number of existing scales and partly amended scales. While the majority of scales were existing scales, validated in prior studies, two scales were either slightly amended or newly developed. The leadership measure was amended from an existing measure and the collective measure of trust in the leader was developed on the basis of an existing trust measure and conceptualizations of collective phenomena.

The research was of a cross-sectional nature with the financial crisis giving an interesting insight into leadership and follower outcomes relationships that could otherwise not have been explored. The three studies, explained further below, were conducted both amongst employees early in their career and more experienced employees. A final group study added further insight into the relationship between group phenomena and their individual counterparts, as well as leadership and trust effects on a collective level. For all three studies, more recent techniques were used to tap into indirect effects of leadership behaviors through trust in the leader on follower and organizational outcomes allowing to overcome a number of limitations of traditional statistical techniques. These include a macro testing for indirect effects and hierarchical linear modeling. The specifics of both measures, studies, and statistical methods is explained in depth further below in this chapter commencing with the individual measures, followed by an explanation of each sample and the particulars of the different statistical methods used across the different samples.

4.1 Measures

Leadership. Leadership was measured using an amended and shortened 12 dimensional instrument developed by Kets de Vries, Vrignaud, and Florent-Treacy (2004). The Global Leadership Life Inventory was developed to capture the psychodynamic facets of leadership currently not measured elsewhere. In brief, psychodynamic facets refer to those leadership dimensions that explaining interpersonal elements that derive from such relationships as the parent-child relationship and transfer them onto the leader-follower relationship. Leadership was measured on a 7-point Likert scale with anchor points being *Strongly Disagree* and *Strongly Agree.*

Individual trust. To assess the level of individual follower trust in the leader, a scale from Jung and Avolio (2000) was used. This 3-item scale was previously adapted from

Podsakoff, MacKenzie, Moorman, and Fetter (1990) and was measured on a 5-point Likert scale with anchor points being *Strongly Disagree* and *Strongly Agree.*

Self-Efficacy. Self-efficacy was measured using an 8-item 5-point Likert scale developed by Jex & Bliese (1999) on the basis of Jones (1986) efficacy scale. Items were rated from *Strongly Disagree* to *Strongly Agree* with the frame of reference for all items the follower's perception of individual within-job abilities.

Individual motivation. Motivation was measured using five items from Van De Ven and Ferry, 1980) measuring internal self-motivation (or intrinsic motivation) and work effort. All items were rated on a 5-point Likert scale ranging from *None* to *Very Much* for the two items on the follower's level of work effort (the increase of effort put into their work in the past three months). *Internal self-motivation* was measured on a 5-point Likert scale using anchor points *Disagree* and *Agree.* A composite score was taken for *Overall Motivation* including the five items on the two types of motivation in order to assess the overall level of motivation followers report.

Collective vertical trust. This newly defined measure was based on Jung and Avolio's (2000) individual trust measure and conceptualizations from collective measure research – amongst others Jung and Sosik's (2003) conceptualization of collective efficacy (see above for conceptualization and further below for a statistical analysis).

Collective Efficacy. The Jung and Sosik (2002) measure on collective efficacy was used and rated on a 5-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree.* The frame of reference for all items was the followers' perception of the team's within-job abilities.

Group cohesion. George and Bettenhausen's (1990) four-item scale, which is a modified version of O'Reilly and Caldwell (1985) and Seashore (1954) was used to measure group cohesion. The four-item scale was measured on a 5-point item Likert scale ranging from *Not very good at all* to *Great* with the frame of reference the level members of the group collaborated and worked together.

Performance. Organizational performance was measured using a range of financial measures ranging from return on equity to share price (see below for a more detailed explanation of performance measures.

While the collective measures and performance were only adapted in the final group study, the individual measures were used in all three studies.

4.2 Outline of Studies (see Table 4.1)

The first study investigated individual level effects. In detail, these are the effects of leadership behaviors on individual trust and individual motivation in order to form a basis for the overall model. This part of the overall project was tested in a final year leadership lecture. The majority of them mature students who had previously been on a one-year placement and should therefore represent a connecting link between a student population and experienced professionals. Study 1 therefore not only yielded insights into the individual level effects but will further highlight any possible differences between sample types regarding experience levels in a work context. In other words, it indicated whether professionals are affected differently by the same leadership behaviors regarding their trust and motivation levels than students with less work experience. The measures to be adopted were the GlobeInvent to test for leadership behaviors, the 4-item scale on self-efficacy, the 5-item scale measuring individual motivation, and the 3-item scale on individual motivation.

The second study involved employees from various organizations adopting the same measures as study one. Although the same measures were applied and the same variables (individual level) were tested, the main difference regarding study one and two was the sample population. While study one allowed insight into a young working force with a limited amount of work experience eager to join the job market again, the second study comprised of individuals in full-time employment from the white-collar sector.

The third and final study tested the whole model including individual and collective variables. The sample was drawn from a cohort of undergraduate students enrolled in a business simulation module at Aston Business School in the UK. This study added to the understanding of how leadership and individual, collective variables, and performance are related. It also tested the proposed concept of collective vertical trust, that is, collective follower trust in the team or group leader. The final study further included performance measures to determine the possible impact leadership may have on group performance through the various mediating variables as outlined in the section on model development. The different samples and measures will be further discussed in later parts in the context of the three relevant studies.

	Study 1	Study 2	Study 3
Sample Nature	Final year students (past industrial work experience)	Employee sample	Second year students
Number of Participants	207	90	311 individuals, 108 groups
Time Collected	Before crisis (i.e., the crisis was the worst economic crisis since WWII; data was collected before the period 2008/2009 when effects filtered through to the real economy)	During crisis (i.e., the crisis was the worst economic crisis since WWII; data was collected during the period 2008/2009 when effects filtered through to the real economy)	During crisis (i.e., the crisis was the worst economic crisis since WWII; data was collected during the period 2008/2009 when effects filtered through to the real economy)
Level Tested	Individual level	Individual level	Group level

Table 1 Outline of studies

4.3 Common methodology used in studies

Questionnaire testing

The questionnaire was initially validated using principal component and confirmatory analyses following previous research (Vassend & Skondal, 1998) indicating that in order to have conclusive evidence of whether a measure is appropriate and reliable one should establish the factor structure prior to confirming its fit to the data set. Byrne (2001), for instance, highlights the importance of using exploratory techniques in cases when the researcher lacks confidence that the measure applied measures the underlying factor structure. In the current case, although the factor loadings have been established for executive leaders, the factor structure for middle level leaders is likely to differ (see, e.g., Chapters 1 and 2). However, in order to derive a measure that proves good fit for a particular data set and to confirm, it is essential to conduct confirmatory factor analysis to establish to what extent the observed variables are related to the respective latent factors (e.g., Bollen, 1989). For a detailed discussion of the techniques see below.

Testing for indirect effects

Data in all three studies (individual and group level) was analyzed using a macro designed by Preacher and Hayes (2004; 2008) (also see Preacher, Rucker, & Hayes, 2007)

allowing for simple and multiple indirect effects testing in mediation models. This procedure was chosen as it offered the opportunity to run multiple tests including estimation of indirect effects "with a normal theory approach and a bootstrap approach to obtaining confidence intervals, as well as the traditional approach advocated by Baron and Kenny (1986)" (p.717). It is noteworthy at this point, to establish the difference between mediation and indirect effect. While mediation represents a "special case of indirect effects when there is only one intervening variable" with a total effect initially being present between the independent (IV) and the dependent variable (DV), there are no such assumptions for indirect effects. It is possible that indirect effects yield significance despite no significant total effect (Preacher & Hayes, 2004, p.719; Preacher et al., 2007), that is the sum of the direct effect between the independent variable and the dependent variable and the indirect effect, the effect between independent variable and dependent via the mediator (i.e. a*b). Preacher and Hayes (2004) argue that whether or not an effect represents mediation should be determined on basis of the total effect, that is, the presence of an initial significant relationship between IV and DV points towards mediation, while no such effect represents an indirect effect.

Preacher and Hayes' (2004; 2008) macro for analyzing indirect effects, or the role of a mediator, addresses some shortcomings of the Baron and Kenny (1986) criteria[1] regarding the determination of the possible presence of a mediation effect. Preacher and Hayes (2004) point out two potential issues with the Baron and Kenny (1986) method identified by Holmbeck (2002) are overcome with the newly developed macro. The first point is an over-, respectively, under-estimation of the significance level associated with a mediation effect. It has been argued that it is possible to both observe a shift from significant IV to DV path to a nonsignificant one after the introduction of a mediator despite a minor change in absolute coefficient size leaving the observer to conclude a mediation effect in spite of no such real presence (Type I error). Similar, the opposite may be true for particularly larger samples when the introduction of a mediator may yield a large change in the IV-DV relationship despite no significant decrease in statistical significance falsely leading to the conclusion of no mediation effect (Type II error) (Holmbeck, 2002; Preacher & Hayes, 2004). Secondly, Preacher and Hayes (2004) argue that running a test of no difference between the total effect and the direct effect between IV and DV rather than subsequent regressions, as argued for by Baron and Kenny (1986), is likely to be addressing the question of mediation more directly. They further argue on the basis of the suggested low statistical power of the Baron and Kenny

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[1] Baron & Kenny (1986) conditions for mediation: (1) IV significantly predicts DV; (2) IV significantly predicts mediator; (3) Mediator significantly predicts DV when controlling for IV; (4) IV effect on DV reduced after mediator included

(1986) test (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002) that due to the requirement of the IV-DV and the Mediator-DV paths showing statistical significance, small samples are more likely to yield nonsignificant results due to lower statistical power resulting in a Type II error. Using the Preacher and Hayes (2004; 2008) method, one can minimize risk of a Type II error and combining significance tests "involving the product of coefficients such as the Sobel test have been found to have greater statistical power than that of other formal methods of assessing mediation" (Preacher and Hayes, 2004, p. 719). Preacher and Hayes (2004) therefore sum up their approach as more powerful due to only two criteria – 1) the presence of an effect between IV and DV allowing for a mediator to mediate this relationship and 2) a statistical significance of the indirect effect as indicated by the mediation hypothesis.

A further advantage of the Preacher and Hayes (2004; 2008) macro is the inclusion of the nonparametric procedure *bootstrapping*. Bootstrapping simply takes repetitive subsamples from the data set estimating the effects for each of these subsamples and establishing confidence intervals for the indirect effect (Byrne, 2001; Preacher & Hayes, 2008). In order to establish an indirect effect, the range between the lower and upper 95 per cent confidence intervals may not contain zero. If they do contain zero, it cannot be claimed that the difference between the total and the direct effect of the IV on the DV is different from zero, therefore no mediation is likely to occur (Preacher & Hayes, 2008). The greatest advantage of including bootstrapping in determining a mediation effect is that while the Sobel test requires "the unrealistic assumption of normality of the sampling distribution of the indirect effect [...] bootstrapping of indirect effects is the most trustworthy inferential method" (Hayes, 2009).

A final note regarding the output: outputs reported from the indirect effects analyses are all shown as unstandardized coefficients. While the unstandardized coefficients allow to establish the change in the outcome variable, the standardized indicates the magnitude of the effect of the predictor on the dependent variable and allows to compare the effect sizes independent of the nature of the outcome variable. As Hayes (2009) pointed out the "unstandardized coefficients are the standard metric in causal models."

4.4 Summary

This chapter has outlined the reasons for choosing the Global Life Inventory for the current research and the importance of partially amending the questionnaire. Although the original had been a twelve-item leadership questionnaire constructed as a 360-degree feedback measure, four dimensions were deemed to be non-relevant for the current samples investigating middle level rather than executive leadership. Five items had to be slightly amended to fit the current purpose and nature of the samples investigated leaving a total of

eight leadership dimensions to be tested for their importance in influencing a number of individual and collective follower outcomes. The three studies – of which two are individual and the third investigating the entire model looking at groups – were described and their relevance for the white-collar section and links between different maturity stages regarding work experience illustrated. The following chapters will depict the statistical procedures involved in ensuring the reliability applicability of the amended measure for the research of leadership behaviors and their influences on follower outcomes.

Chapter 5: Validation of the Global Leadership Life Inventory

5.1 Reasons for choosing an amended version of the Global Leadership Life Inventory

As outlined in previous chapters, effective leadership consists of elements discussed in the transformational leadership literature, but it further entails elements that are more associated with psychodynamics. These include emotional intelligence and factors that can be found in parent-child relationships. It is therefore conclusive that using a measure such as transformational instruments falls short of what is investigated and attempted to be achieved in the current research. It is therefore crucial to use a measure that includes a greater variety of leadership facets than transformational/transactional measures. For the purpose of the current research it was also deemed crucial to be able to foremost investigate each leadership dimension independently (although an overall leadership construct was established). While a number of studies (see chapter 5) showed effects of individual leadership behaviors, studies investigating eight different dimensions simultaneously are, to the author's knowledge, non-existent.

Higgs (2003) looked at 20 participants going through a development center and found that their results support the notion, outlined by the three above theories, of the importance of emotional intelligence for effective leadership. The importance of a leader's emotional intelligence for effectively leading others is also supported by findings indicating a positive relationship between emotional intelligence and a leader's ability to recognize and accommodate for follower needs (Moss, Ritossa, & Ngu, 2006). Moss and associates also found that the emotionally intelligent leader is able to adapt to different follower personalities and needs. Their findings show that the emotionally intelligent leader is aware of the impact, for instance, rewards may have on different personality types such as extraverts versus introverts.

While the MLQ (Bass, 1985) focuses on the distinction between transformational and transactional dimensions, the Globe Leadership Life Inventory takes into account the psychodynamic processes in the leader-follower relationship (Kets de Vries, Vrignaud, & Florent-Treacy, 2004). Kets de Vries et al. (2004) add that the strength of the Global Leadership Life Inventory lies in its foundation in clinical psychology measuring the dynamics of the bidirectional relationship between follower and leader. It is this psychodynamic approach to measuring leadership that has great relevance for the current

research. With the model and the interrelationships between the individual and collective constructs argued to be greatly affected and established on group and interpersonal dynamics as outlined in previous chapters, the use of a leadership measure that is built and developed with the psychodynamic interpersonal dimension in mind appears to be the most appropriate tool to measure and add the concept of leadership. It is the combination of cognitive, emotional, and behavioral processes – coined by Kets de Vries et al. (2004) triangle of mental life – that is also reflected in the constructs measured in the current research. The advantage of the clinical orientation approach lies with the ability to deconstruct, what Kets de Vries et al. (2004, p.477) refer to as the 'inner theater', preoccupations of executives aiding the understanding of the factors that drive behavior. This deconstruction involves investigating interrelated behavioral, cognitive, and affective manifestations originating from personal experiences. "In the deconstruction of the dynamics of leadership, this orientation looks to the triangle of mental life, consisting of emotion, cognition, and behavior. While other approaches to leadership focus on the latter two elements, the clinical approach includes emotions in the equation."

Kets de Vries and colleagues also see a further strength in its follower-rating rather than self-assessment nature that various other measures adopt. Considering follower ratings, it has been argued to represent a more accurate picture of actual leadership behaviors than self-ratings (Hollander & Offermann, 1990; London, Wohlers, & Gallagher, 1990); in particular the obtained consensus from a number of follower ratings (London & Richard, 1993), supporting the current approach of preferably asking for follower instead of self-ratings.

The Global Life Inventory was developed in multiple stages. The team surrounding Kets de Vries initially conducted semi-structured, open-ended question-based interviews with 300 top-level managers over a period of three years. The list of questions was adapted according to the recommendations and answers given by the respondents forming the basis for the present 360-degree feedback instrument; yet importantly with the permanent focus on issues involving psychological issues related to the functioning of humans. The total sample of the INSEAD executive management program consisted of fifty CEOs, one hundred and fifty MBA students, and a further one hundred and twenty senior executives enrolled in another management development program.

The second step involved content analysis by five members of the INSEAD faculty with high agreement on scale contents; leaving Kets de Vries to argue for a two-role function of an effective leader; the charismatic leader and the role of an architect and the successful combination of the two. An important point pointed out by the INSEAD team is the ability of

the effective leader that beyond being emotionally intelligent regarding understanding other's emotions is the skill to be aware and control own feelings. Kets de Vries et al. (2004) derived a twelve-dimensional leadership scale: "envisioning, empowering, energizing, designing and controlling, rewarding and giving feedback, team-building, outside stakeholder orientation, global mindset, tenacity, emotional intelligence, life balance and resilience to stress" (p. 480). As the focus of the Global Life Inventory, and also the reason for choosing this instrument, are the psychodynamic processes between leader and follower initiated and manifested through leadership behaviors, the emphasis was placed on leader behaviors to reflect the different items for each dimension. The instrument was pre-tested with managers to minimize ambiguity of items deriving a total of 109 items after two pre-tests. The statistical analysis of the validity and reliability of the leadership measures was examined in three stages: ensuring internal consistency for each dimension, confirming the proposed structure through confirmatory factor analysis, and by testing its validity by using subject characteristic effects. In order for the statistical analysis of the questionnaire, 320 respondents completed the questionnaire of which the majority were senior managers. In addition, 287 individuals rated the leadership behaviors for the included managers, including peers, subordinates, superiors, partners, and others, All reliabilities were above the suggested 0.70 Cronbach alpha value indicating sufficient reliability (see Nunnally, 1978). Kets de Vries et al. (2004) conducted an item reliability test examining the corrected item test correlation. These were found to be higher than 0.40 for 94 per cent of the items leaving Kets de Vries and colleagues to argue for a good scale design. Their results for the confirmatory factor analysis showed some limitations (see Kets de Vries et al., 2004 for a review), but was found acceptable with the test of exact fit being significant and 94 per cent of items holding factor loadings above 0.40. Kets de Vries et al. (2004) therefore concluded that the theoretical underlying is a good reflection of the organization of the data; yet also pointed out that due to some high correlations between particular dimensions, the existence of second-order factors are to be assumed (see below). The dimensional structure was established through exploratory factor analysis (varimax rotation) indicating a four factor structure with the dimensions 'Emotional Intelligence' and 'Life Balance' primarily loading onto the first factor. The second factor showed the highest loadings for 'Empowering', 'Energizing', 'Designing', 'Rewarding', and 'Teambuilding'; the third comprising of 'Outside Orientation' and 'Tenacity'; while the fourth factor showed highest loading for the two dimensions 'Envisoning' and 'Global Mindset'. The last dimension 'Resilience to Stress' showed no high loading on any of the four

factors, leaving Kets de Vries et al. (2004) to conclude that this is an indication of its independence from the other dimensions.

As mentioned in the title of this section, the current research is not using an exact version of the Global Life Inventory. Due to the differences in sample demographics, the current research applies an amended and shortened version of the original measure. While Kets de Vries and colleagues developed the measure with the executive in mind who working on a global level needs to keep global changes and more senior management requirements in mind. The current study, however, is investigating leadership on a middle management level and therefore ruling some of the dimensions inapplicable to the current sample nature. As, for instance, Eagley and Karau (2002) point out, leaders at the executive level are much more concerned with strategic planning and a global outlook, middle level managers need to be much more concerned with behaviors engaging in human relations. Yukl and Lepsinger (2002) highlight the importance executive leaders play in the development and implementation of strategies on an organizational level incorporating macro economic factors. It was also decided to exclude dimensions that focus on leader personality due to the focus of the current research on how leadership behaviors influence follower outcomes. It was therefore decided to exclude four dimensions deemed less significant, or even unrealistic for middle and lower management to engage in. The four dimensions therefore removed from the original scale are 'Outside Orientation' (the strategic focus on customer/client and partner relationships), 'Global Mindset' (the global outlook and understanding of global events and their effects on strategic decisions and leadership), 'Life Balance' (the degree to which the leader is able to balance personal and business life – excluded due to the followers' limited ability to rate associated items) (a lack of possible insight into the leader's life may have inhibited honest and reflective answers) and the less relevance for the current study primarily investigating leadership behaviors), 'Resilience to Stress' (the degree the leader is able to cope with stress – with the focus on the current study on leadership behaviors, this dimension was determined to be less relevant). The remaining eight dimensions were also partly amended to keep with the theme of the current research. Confirmatory analysis was applied for each subsequent change as outlined below. The eight dimensions kept for the current research were (Kets de Vries et al., 2004, p. 479-480; dimension conceptualizations in parentheses):

1. Visioning

(Articulating a compelling vision, mission and strategy with a multi-country, multienvironment, multi-function and multi-gender perspective that connects employees, shareholders, suppliers and customers on a global scale.)

2. Empowering

(Giving workers at all levels a voice by empowering them through the sharing of information and the delegation of decisions to the people most competent to execute them.)

3. Energizing

(Energizing and motivating employees to actualize the organization's specific vision of the future.)

4. Designing and Aligning

(Creating the proper organizational design and control systems to make the guiding vision a reality, and using those systems to align the behaviour of the employees with the organization's values and goals.)

5. Rewarding and Feedback

(Setting up the appropriate reward structures and giving constructive feedback to encourage the kind of behaviour that is expected from employees.)

6. Team-Building

(Creating team players and focusing on team effectiveness by instilling a co-operative atmosphere, building collaborative interaction and encouraging constructive conflict.)

7. Tenacity

(Encouraging tenacity and courage in employees by setting a personal example in taking reasonable risks.)

8. Emotional Intelligence

(Fostering trust in the organization by creating, primarily through example, an emotionally intelligent workforce whose members know themselves and know how to deal respectfully and understandingly with others.)

The following items were amended to fit the research purpose and to shorten the questionnaire in order to make the length of the questionnaire feasible for the current research:

1. Item: *spends time mentoring other in our organization.* was replaced with *is a mentor and I can learn from him/her.*

    (After careful consideration of the literature and the direct contact middle management have on followers and their possible role model function, it was decided to include the learning part of the item)

2. Item: *gives feedback with respect* was removed as it did not seem relevant and covered by item 37 *gives ongoing constructive feedback to his/her people.*

3. Item: *makes sure that everyone on his/her team recognizes the importance of knowing and meeting customers' requirements.* was replaced with *makes sure that everyone on his/her team recognizes the importance of knowing and meeting set goals.*

    (This change was due to the samples not having a great amount of customer contacts and the importance of goal-setting was decided to be an important factor of effective leadership – see, e.g., House, 1971, 1977, 1996)

4. Items: *appears to analyze his/her feelings before acting on them, 57. makes sure that his/her behavior is appropriate to the situation, 58. analyzes his/her mistakes in order to learn from them,* and *60. engages in an ongoing process of self–reflection.* are summarized into one item: *ensures that he engages in self-reflection to improve act and behave appropriately.*

    (These items were summarized because the current research required a shorter measure; in particular as further variables such as trust, motivation, and efficacy were tested).

5. Item: *gives ongoing constructive feedback to his/her people* was replaced with *gives me regular constructive feedback on my performance.*

    Please specify how frequently:

    1-2 times/month   Every 2-6 months   Every 6-12 months   Never

(This supplementary question was decided to be useful for the individual studies because frequency of feedback has been found to have potential effects on follower outcomes – e.g., Ilgen, Fisher, and Taylor (1979))

Finally, to keep true to the original scale by Kets de Vries et al. (2004), the original seven-point Likert scale was adopted with the anchor points merely being adapted to 'Very strongly disagree' and 'Very strongly agree' instead of 'Not at all' and 'Very well' as Kets de Vries asked leaders to rate their behaviors as well as observers, while the current research exclusively involves observer, i.e. follower, ratings of leadership behaviors. This scale was later adapted according to the nature of the sample of each of the three studies – discussed within each section on the respective studies. This was primarily done to shorten the questionnaire because the nature of the research was restrictive regarding the potential length of the questionnaire due to time restraints. Particular items were further deleted from subsequent research if found to not be relevant for a particular sample, as explained below. Regardless of these changes, they only occurred for the final study testing the entire model comprising of the individual and collective levels. The questionnaire was kept the same for both individual studies, that is, the studies involving work-experienced students and employees. All three studies add to the knowledge in the way follower outcomes and performance in the increasingly important white-collar/knowledge worker sector may be increased. This is particularly important with an increasing number of blue-collar work being outsourced or done in Asia or other low labor cost countries. (see Vinchur, Schippmann, Switzer, & Roth, 1998). A meta-analytic review of predictors of job performance for salespeople supported the importance of investigating individual outcomes such as worker motivation for successes; in particular during times of crisis, rejection, failure, or hurdles (Vinchur et al., 1998). This is an extreme (in terms of the nature of the sales profession requiring the ability to deal with more setbacks than most other professions), yet exemplary, finding of how important it is to investigate the potential a leader has in affecting people's motivation and beliefs in themselves; with the core focus on the white-collar sector.

Prior to the analysis of leadership effects on the outcome variables, it was necessary to establish the model fit of the measure regarding the current research. Kets de Vries et al.'s (2004) questionnaire was based on a twelve dimensional structure with a total of one-hundred items. As their sample comprised of leaders at the executive level, while the current study investigates middle-level management levels, it was necessary to determine the appropriate fit and item structure. After initial confirmatory analyses and unsatisfactory results, it was

decided to proceed with an exploratory factor analysis to determine obsolete items. This was partly due to the initial questionnaire structure as adopted by Kets de Vries and his team incorporating eight-hundred sixty two error co-variances. With the focus of avoiding introducing any error co-variances in the current model and due to the changes made to some of the items (described in Chapter 4), it was decided to test the factor loadings in a principal components analysis with a varimax rotation. Although the issue of introducing error co-variances in an confirmatory factor model is heavily debated amongst statistician and researchers alike (see Byrne, 2001; Cote, Netemeyer, & Bentler, 2001), it was decided to avoid error term co-variances as much as possible in order to minimize any controversy.

5.2 Principal component analysis of the Global Leadership Life Inventory

The preliminary principal component analysis was based on the individual data obtained from a student sample with a minimum of one year work experience (n=207). The data was collected from a final year undergraduate leadership module at Aston Business School. The respondents just returned from a one-year full-time placement in companies and have voluntary chosen the leadership module as an addition to the compulsory courses.

The data was analyzed using a principal component analysis and varimax rotation (Field, 2002; Gerbing & Hamilton, 1996). The values for the Kaiser-Meyer-Olkin value of .928 and the chi-square of 7558.443 (df =1653, $p < 0.001$) calculated for the Bartlett's test of sphericity indicate the suitability of the applied factor analytic procedure. With four previously mentioned dimensions (Outside, Global Mindset, Life Balance, Resilience to Stress) removed from the original scale, the number of factors to be extracted was limited to eight in order to keep with the original scale. The exploratory analysis' sole purpose was exclusively to define the dimensional contents relevant for the current research. The loadings were mostly similar to the ones derived by Kets de Vries et al. (2004) except for a number of items, which either loaded onto other factors or did not load on any existing factors. These were consequently removed from future analysis. Those items that had loadings below the cut-off point of 0.4 were excluded from the subsequent confirmatory factor analysis. This procedure was based on the suggestion of items with values of 0.4 and above representing the major constituents of the respective factor (see Field, 2002). The resulting factors were again 'Visioning', 'Empowering', 'Energizing', 'Designing and Aligning', 'Rewarding and Feedback', 'Team-Building', 'Tenacity', and 'Emotional Intelligence' (see Table 2 for factor loadings and item content). Factor 1, *Emotional Intelligence*, comprised of seven items accounting for 35.3 per cent of the variance. Factor 2, *Rewarding and Feedback*, included 7 items, explaining 5.9 per cent of the variance of leadership, while Factor 3 with six items

loadings was responsible for 3.8 per cent of the variance. Factor 4 (4 items), *Energizing*, Factor 5 (5 items), *Visioning*, Factor 6 (4 items), *Empowering*, and Factor 7 (5 items), *Designing and* Aligning, explained 3.5 per cent, 3.2 per cent, 2.9 per cent, 2.6 per cent, and 2.6 per cent respectively. Finally, Factor 8 (5 items), *Tenacity*, accounted for 2.3 per cent of the variance of leadership. As can be seen in Table 2, the majority of items were retained; in particular *Emotional Intelligence* and *Tenacity* were completely carried over as measures into the current research. Changes were made to *Visioning* for which the exploratory factor analysis revealed that questions "Finds ways to simplify complex situations for his/her employees" and "Inspires people to look beyond existing limitations" load onto other latent factors. The four items "Makes sure that all employees have a clear idea of where the organization is going", "Does everything in his/her power to create commitment to the organization", "Encourages people to share information within the organization", and "Tries to minimize secrecy within our organization" were deleted from component *Empowerment* as they also showed higher loadings on other factors. The original dimension *Energizing* was reduced to four from eight original items with the following failing to fulfil the 0.4 loading criteria: "Makes people aware that s/he is available to them", "Conveys his/her ideas in a clear and understandable way", and "Makes an effort to interact with people at all levels of the organization". The exploratory factor analyses showed that there appears to be a difference between executive leaders and the leadership level explored in the present research with the two items tapping into the importance of emphasizing cultural values – "Emphasizes corporate values that serve to unite people in our organization" and "Ensures that people respect the basic values of our corporate culture" not loading onto the proposed factor *Designing and Aligning*, consequently being deleted from this dimension. The amended item "Is a mentor and I can learn from him/her" was deleted from *Rewarding and Feedback* due to its higher loading on another component.

Item	1	2	3	4	5	6	7	8	Dimension
new business opportunities					0.51				
status quo					0.45				
defining strategy					0.76				
whole situation when making decisions					0.56				Envisioning
simplify complex situations									
considers future events					0.58				
open to new ways									
inspires people beyond limitations									
employees have a clear idea of direction									
involves employees in decision-making						0.58			
encourages people to make decisions						0.73			
create commitment to the organization									Empowering
tolerates mistakes						0.45			
encourages to share information									
minimizes secrecy within our organization									
lets task take full responsibility						0.73			
action-oriented				0.50					
available to others									
clear and understandable way									
enthusiasm				0.57					Energizing
mobilizes people				0.42					
role model				0.44					
interact with people									
clear performance standards and goals							0.62		
develop org. systems reflecting values							0.54		
performance standards adhered to							0.68		Designing and Aligning
mngmt systems facilitating effective behavior							0.43		
makes people accountable							0.59		
emphasizes corporate values									
people respect values									
various types of incentives		0.63							
compensation for his/her employees fair		0.73							
performance review ongoing		0.63							
is a mentor									Rewarding and Feedback
individual rewarded appropriately		0.72							
team receiving appropriate rewards		0.70							
regular constructive feedback		0.55							
people's achievements recognized		0.67							
resolve conflict among team members			0.56						
encourages members to build relationships			0.64						
interest of the group before personal goals			0.47						
team members' individual strengths									Team-Building
effort to ensure everyone behind decision			0.49						
members feel they contribute to decisions			0.41						
welcomes differences in opinion									
solutions to problems			0.43						
defends principles								0.59	
stick to an unpopular decision								0.73	
willing to take risks								0.66	Tenacity
not easily discouraged								0.68	
change opinions of others								0.75	
considers effect of emotions	0.67								
"read" other's feelings	0.77								
engages in self-reflection	0.67								
full attention to person talking to him/her	0.71								Emotional Intelligence
great effort to help people feel at ease	0.73								
shows respect for and interest in individuals	0.70								
people to open up by being approachable	0.73								

Table 2 Exploratory Factor Analysis: Rotated Component Matrix (varimax rotation) – Global Life Inventory (n=207)

While "Builds on team members' individual strengths" and "Welcomes differences in opinion" were deleted from the dimension *Team-Building*, the remaining two dimensions *Tenacity* and *Emotional Intelligence* showed the exact same loadings as proposed by Kets de Vries and his team (Kets de Vries et al., 2004; Kets De Vries & Florent-Treacy, 2005).

As the task of the exploratory factor analysis was not to move content from one dimension onto another but rather to explore if the dimensions as proposed by Kets de Vries et al. (2004; Kets De Vries & Florent-Treacy, 2005) would yield the same item content for each dimension with the current samples, items that did not load onto the proposed factor, although possibly loading onto another of the eight factors, were consequently removed.

5.3 Reliability Analysis of the Global Life Inventory

A further step in ensuring the adequacy of the scale and subscales was to determine reliabilities and to compare them against the values established for the original scales. Reliability has been defined as "the degree to which measures are free from error and therefore yield consistent results" (Peter, 1979, p. 6) and as "the extent to which [they] are repeatable and that any random influence which tends to make measurements different from occasion to occasion is a source of measurement error" (Nunnally, 1967, p. 206). It is one of the most important measures in assessing scale reliability and a prominent tool in its construction (e.g., Cortina, 1993). Similar to the findings by Kets de Vries et al. (2004), the reliabilities measured using Cronbach's coefficient alpha (α) conformed to the suggested minimum value of .70 (Nunnally, 1978; see Peterson, 1994 for a review of Cronbach α's). Nunnally (1978) argued that this cut-off point demonstrates good internal consistency. It is noteworthy that the Cronbach α depends on the number of items with more items generally yielding larger Cronbach alphas (Cortina, 1993). The following Cronbach alphas are listed for the full scale and the subscales with the individual student alpha and the alpha for the second individual data set described in Chapter 5, individual employees, in parentheses. While the full scale showed a Cronbach α of .951 (.965) representing a very good level of overall scale reliability. The Cronbach α's for the respective scales are as follows: Visioning – α =.730 (.864); Empowering – α =.788 (.766); Energizing – α =.755 (.818); Designing and Aligning – α =.747 (.877); Rewarding and Feedback – α =.901 (.902); Team-Building – α =.847 (.894); Tenacity – α =.788 (.889); Emotional Intelligence – α =.915 (.915). Overall, the alphas for all scales indicate good levels of reliability. The reliability of the full and the subscales is further supported by the negligible changes in Cronbach alpha if a subscale was deleted (see Tables 3 and 4).

Scale	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Mean	Variance	Std. Deviation	Cronbach's Alpha if Item Deleted
Visioning	5	0.730	0.735	24.81	17.707	4.208	0.874
Empowering	4	0.788	0.789	20	17.383	4.169	0.874
Energizing	4	0.755	0.764	19.93	13.932	3.733	0.878
Designing and Aligning	5	0.747	0.748	24.92	13.081	3.617	0.862
Rewarding and Feedback	7	0.901	0.902	32.25	61.022	7.812	0.860
Team-Building	6	0.847	0.848	27.67	32.367	5.689	0.860
Tenacity	5	0.788	0.788	25.63	18.74	4.329	0.889
Emotional Intelligence	7	0.915	0.916	32.36	68.601	8.283	0.869
Full Scale	43	0.951	0.95	207.57	1002.226	31.658	

Table 3. Number of items, alphas, means, variance, and standard deviations (n = 207; Individual Student Sample)

Scale	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Mean	Variance	Std. Deviation	Cronbach's Alpha if Item Deleted
Visioning	5	0.864	0.864	22.378	41.316	6.428	0.897
Empowering	4	0.766	0.760	17.722	19.866	4.457	0.903
Energizing	4	0.818	0.820	17.522	21.511	4.638	0.898
Designing and Aligning	5	0.877	0.878	20.567	30.698	5.541	0.889
Rewarding and Feedback	7	0.902	0.903	26.633	67.965	8.244	0.891
Team-Building	6	0.894	0.894	23.578	54.314	7.370	0.890
Tenacity	5	0.889	0.890	22.833	34.433	5.868	0.910
Emotional Intelligence	7	0.915	0.915	28.533	75.240	8.674	0.898
Full Scale	43	0.9650577	0.965034265	179.767	1639.597	40.492	

Table 4. Number of items, alphas, means, variance, and standard deviations (n = 90; Individual Employee Sample)

The correlations between the subscales show no multicollinearity indicating that the scales measure separate and independent constructs (see Tables 5 and 6). The validity of the results from the exploratory factor analysis were further investigated in a first and second-order confirmatory factor analysis described below.

	Visioning	Empowering	Energizing	Designing Aligning	Reward Feedback	Team Building	Tenacity	EI
Visioning								
Empowering	0.46							
Energizing	0.50	0.35						
Designing-Aligning	0.55	0.52	0.56					
Reward-Feedback	0.51	0.54	0.56	0.64				
Team-Building	0.51	0.59	0.49	0.62	0.70			
Tenacity	0.43	0.25	0.41	0.43	0.40	0.36		
EI	0.45	0.57	0.36	0.58	0.61	0.68	0.29	

Table 5. Correlations between dimensions (n = 207; Individual Student Sample)

	Visioning	Empowering	Energizing	Designing Aligning	Reward Feedback	Team Building	Tenacity	EI
Visioning								
Empowering	0.50							
Energizing	0.57	0.45						
Designing-Aligning	0.67	0.54	0.66					
Reward-Feedback	0.55	0.54	0.63	0.68				
Team-Building	0.58	0.61	0.59	0.65	0.72			
Tenacity	0.55	0.31	0.51	0.54	0.47	0.44		
EI	0.51	0.60	0.45	0.62	0.65	0.70	0.34	

Table 6. Correlations between dimensions (n = 90; Individual Employee Sample)

5.4 Reliability analysis of variables

It was further important to establish the reliability of the individual variables to be measured in the current research. It is noteworthy that reliability values of 0.7, although generally accepted as representing an appropriate level, Kline (1999) argued for Cronbach alphas below 0.7 as acceptable and realistic observations when dealing with psychological constructs such as motivation.

The Cronbach alpha for the individual trust scale (employee sample in parentheses) indicates very good reliability with α =.920 (.904). Cronbach alphas for the motivation scales are as follows: Overall Motivation – α =.712 (.509); Intrinsic Motivation – α =.549 (.241); Motivation to Improve – α =.659 (.739). The scale for Self-Efficacy yields α =.670 (.672). Although *Overall Motivation, Intrinsic Motivation, Motivation to Improve*, and *Self-Efficacy* fall slightly short of the recommended level of 0.7, it needs to be said that 1) *Intrinsic Motivation* and *Motivation to Improve* are in themselves subscales of *Overall Motivation*. For all three scales short of the generally suggested level, the arguments by Kline (1999) and Cortina (1993) need to be drawn upon in that all scales are short scales ranging from 2 to 5 items and all three represent psychological constructs. As suggested by Kline (1999), values below 0.7 are therefore likely to be expected (see Table 7 and 8 for scale statistics).

Scale	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Mean	Variance	Std. Deviation
Individual Trust	3	0.920	0.921	11.527	8.901	2.983
Overall Motivation	5	0.712	0.740	21.546	9.036	3.006
Intrinsic Motivation	3	0.549	0.558	12.797	4.230	2.057
Motivation to Improve	2	0.659	0.673	8.749	1.801	1.342
Self-Efficacy	5	0.670	0.687	18.836	9.740	3.121

Table 7. Number of items, alphas, means, variance, and standard deviations (Student Sample, n = 207)

Scale	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Mean	Variance	Std. Deviation
Individual Trust	3	0.904	0.904	9.511	12.388	3.520
Overall Motivation	5	0.509	0.600	21.322	8.108	2.848
Intrinsic Motivation	3	0.241	0.306	12.600	3.883	1.971
Motivation to Improve	2	0.739	0.777	8.722	2.450	1.565
Self-Efficacy	5	0.672	0.690	19.500	11.556	3.399

Table 8. Number of items, alphas, means, variance, and standard deviations (Employee Sample, n = 90)

5.5 Confirmatory Factor Analysis – Global Life Inventory

Post exploratory factor analysis of the Global Life Inventory, the model structure was tested in a confirmatory factor analysis (CFA) in AMOS 7.0. Due to previous reviews and studies on the effects of sample size on model fit indices in structural equation modelling (see Hu & Bentler, 1998), only particular indices were chosen to test for model fit and both individual data sets were combined to ensure adequate sample size and minimize possible related effects leading to Type 1 or 2 errors. Hu and Bentler (1998) found that incremental fit indices, such as NFI (normed fit index) (Bentler & Bonett, 1980), IFI (incremental fit index) (Bollen, 1989), TLI (Tucker-Lewis index) (Tucker & Lewis, 1973), and CFI (comparative fit index) (Bentler, 1990), which indicate a good model fit the closer their value is to 1.0 (Bentler, 1990; Bentler & Bonett, 1980; Tucker & Lewis, 1973), although initially argued to be performing very well regardless of sample size (e.g., Bentler, 1990), are also subject to a size bias. Although the IFI was not tested by Hu and Bentler (1998), Bollen (1989) himself states that the value of the IFI is affected by sample size. They specifically found that NFI and TLI are strongly affected by sample size with their predictory power being positively related to sample size. Similar applies to RMSEA (root-mean-square error of approximation) tending to overreject models the smaller the sample size (they suggested n ≤ 250) (Hu & Bentler,

1998). They therefore argued for a more flexible approach to setting cut-off points for each index, although suggestions are that values for NFI, IFI, and TLI should be greater than 0.9 (Arbuckle, 2005, 2006; Bentler & Bonett, 1980; Tucker & Lewis, 1973). For RMSEA they argued for a cut-off value of 0.6 (also see Hu & Bentler, 1999 for further recommendations). This is in line with recommendations by Browne and Cudeck (1993) and Arbuckle (2005; 2006) who suggest RMSEA values between 0.5 and 0.8 to indicate a fair fit. The above indices only represent a small segment of indices. Further indices relevant for the current study are the ratio of minimum discrepancy and its ratio of fit (CMIN/df) argued to be indicating a good model if with values smaller than 5 (Wheaton, Muthén, Alwin, & Summers, 1977). Others have suggested ratios between 2 and 5 to indicate good model fit (Marsh & Hocevar, 1985), with some setting even stricter criteria of ratios of 2 or smaller (Byrne, 2001; Carmines & McIver, 1981). Finally, similar to the use by Kets de Vries et al. (2004) to test the original model fit, it was decided to use the ECVI, which needs to be inferior to the value of the saturated model (Arbuckle, 2005, 2006; Kets de Vries et al., 2004). Indices generally thought as oversensitive to sample size such as chi-square were excluded as potential indicators for model fit. The χ^2 measure has been shown to fail to detect that the observed data is significantly different from theory in small samples, while large samples often lead to the χ^2 statistic detecting negligible differences from theory (Cochran, 1952; Gulliksen & Tukey, 1958; Jöreskog, 1969). The χ^2 has therefore been argued to be an unrealistic measure of fit in real-life empirical research (Bentler & Bonett, 1980). It is therefore important, as Hu and Bentler (1998) argued to be flexible in what type of indices to use and to not take each index at face-value, yet rather to use them in conjunction (Hu & Bentler, 1999).

Results obtained from the confirmatory factor analysis initially yielded values for the incremental fit indices slightly below what is suggested to be indicated a good fit of the model to the observed data, which was the main reason for conducting a confirmatory analysis post the aforementioned exploratory factor analysis. As mentioned earlier, although some argue for the use of error term co-variances to improve model fit (e.g., Byrne, 2001; Cote, Netemeyer, & Bentler, 2001), it has been decided to avoid introducing error co-variances if possible. As Cote et al. (2001) and Anderson and Gerbing (1988) point out, there is a need for substantial theoretical and content-relevant reasons to justify model respecifications through the introduction of error term co-variances. Following the results from the exploratory factor analysis, a first order latent factor model was tested including the 43 observed variables. That is, the 43 items that were found to load onto any of the respective eight factors. In order to test the model in CFA, it was decided, based on previous research and suggestions of the

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sensitivity of fit indices regarding sample size (e.g., Hu & Bentler, 1998, 1999) to combine the two individual data sets. This was a legitimate technique in that both data sets comprised of individuals with work experience and both sets were part of, what will be later explained in more detail, the testing of the individual level effects of leadership on trust, self-efficacy, and motivation. The data for the CFA was therefore based on a total of n = 297 (individual student data set n = 207; individual employee data set n = 90). The structure of the 8-factor model was further supported by the standardized regression weights (see Table 9) ranging from 0.514 for 'tolerates mistakes made by employees who are taking initiative' (*Empowering)* to 0.844 for 'tries to involve his/her employees in decision-making' (*Empowering*). Table 9 further shows the correlations between the factors indicating discriminant validity. Although some factors share rather large correlations, these still fulfil the criterion for discriminant validity of less than 1.0 (Cole, 1987) and may be expected amongst latent factors measuring similar constructs (Field, 2002).

	Tenacity	Team-Building	Reward-Feedback	Designing-Aligning	Energizing	Empowering	Visioning	EI
Tenacity	--							
Team-Building	0.49	1.00						
Reward-Feedback	0.51	0.80	1.00					
Designing-Aligning	0.58	0.69	0.72	1.00				
Energizing	0.65	0.78	0.78	0.80	1.00			
Empowering	0.38	0.75	0.65	0.56	0.67	1.00		
Visioning	0.66	0.68	0.65	0.70	0.84	0.66	1.00	
EI	0.36	0.76	0.69	0.51	0.72	0.66	0.58	

Table 9. Correlations between latent factors (n = 297) – first order latent confirmatory factor analysis

The values for the relevant indices support a good model fit (see Table 10). The CMIN/df ratio (1.93) is within the suggested range of below two (Byrne, 2001; Carmines & McIver, 1981; Marsh & Hocevar, 1985; Wheaton et al., 1977) indicating a good model fit to the data. Further, two of the baseline indices, namely CFI (.900) and IFI (.901) are greater than 0.9 supporting a good model fit (e.g., Arbuckle, 2005, 2006). The value for RMSEA (.056) also indicates a good fit of the model fulfilling the criterion of being below .06 as suggested by Hu and Bentler (1998; 1999). The ECVI value for the model is, as previously

established by Kets de Vries et al. (2004) for the original model, smaller than the value for the saturated model. Overall, the model therefore indicates a good fit and supports the eight factor structure derived from the initial exploratory factor analysis.

Model	CMIN	DF	P	CMIN/DF	IFI Delta2	CFI	RMSEA	ECVI
8 Factor Model	1605.573	832	0	1.93	0.901	0.9	0.056	6.485
Saturated model	0	0			1	1		6.682
Independence model	8608.693	903	0	9.533	0	0	0.17	29.665

Table 10. First-order model - Fit indices (n = 297)

Item	1	2	3	4	5	6	7	8	Dimension
new business opportunities	0.66								Envisioning
status quo	0.58								
defining strategy	0.67								
situation, not details, when making decisions	0.75								
considers future events	0.73								
involves employees in decision-making		0.84							Empowering
encourages people to make decisions		0.81							
tolerates mistakes		0.51							
lets task take full responsibility		0.61							
action-oriented			0.62						Energizing
enthusiasm			0.72						
mobilizes people			0.76						
role model			0.72						
clear performance standards and goals				0.75					Designing and Aligning
develop org. systems reflecting values				0.65					
performance standards adhered to				0.76					
mngmt systems facilitating effective behavior				0.78					
makes people accountable				0.66					
various types of incentives					0.72				Rewarding and Feedback
compensation for his/her employees fair					0.79				
performance review ongoing					0.69				
individual rewarded appropriately					0.86				
team receiving appropriate rewards					0.82				
regular constructive feedback					0.69				
people's achievements recognized					0.83				
resolve conflict among team members						0.76			Team-Building
encourages members to build relationships						0.74			
interest of the group before personal goals						0.75			
serious effort to ensure everyone stand behind decision						0.71			
members feel they contribute to decisions						0.77			
solutions to problems						0.71			
defends principles							0.71		Tenacity
stick to an unpopular decision							0.71		
willing to take risks							0.86		
not easily discouraged							0.70		
change opinions of others							0.59		
considers effect of emotions								0.69	Emotional Intelligence
"read" other's feelings								0.77	
engages in self-reflection								0.75	
full attention to the person talking								0.70	
great effort to help people feel at ease								0.87	
shows respect for and interest in individuals								0.88	
people to open up by being approachable								0.85	

Table 11. CFA first order latent model - factor loadings (n=297)

5.6 Effective Leadership – A Second Order Latent Factor

Kets de Vries and associates (2004) suggested the possibility of a second-order factor. Although they did test for a number of second-order latent factors in their initial paper, the current article wishes to extend this by introducing a construct comprising of the eight dimensions coined *Effective Leadership*. Underlying this proposition are past findings indicating that an effective leader displays particular behaviors that repetitively have been proven to be crucial elements in being considered effective (e.g., Den Hartog, House, Hanges, & Ruiz-Quintanilla, 1999; Den Hartog & Verburg, 1997; Fuller, Morrison, Jones, Bridger, & Brown, 1999; Lord & Brown, 2001; Lowe, Kroeck, & Sivasubramaniam, 1996; Martin, 2005;

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Podsakoff, MacKenzie, & Bommer, 1996). Holladay and Coombs (1994) reported the greater importance of delivery over content of visions. They showed that follower perception of charisma, an established element of effective leadership (e.g., Bass, 1990b; Den Hartog et al., 1999; Fiol, Harris, & House, 1999; Lowe et al., 1996), is more strongly affected by the way a vision is communicated and less by what it entails. In spite of the assumed superiority of delivery over content, visionary leadership is a crucial part of an effective leader. Kirkpatrick and Locke (1996), for instance, found that visionary leadership is an important technique in increasing follower motivation and trust in the leader.

In a similar vein, giving followers greater responsibility and involving them in decision-making processes has been found to be an important element in positively affecting follower outcomes. Chen, Kirkman, Kanfer, and Allen (2007) showed the importance of empowerment for both the individual and the collective level. They found that leaders who empower the individual and the team are able to increase individual and team performance, even cross-level. Martin and Bush (2006) showed that salespeople's performance and attitudes towards selling are positively affected if they feel a greater sense of empowerment.

But effective leadership also involves being a role model and conveying a sense of action and enthusiasm. Regardless of whether one may regard specific aspects such as the morality of a leader as an important element of role modelling (Bass & Steidlmeier, 1999), or the leader as the general reference others identify with and strive to be alike (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Yukl, 2006), the influence a leader has as a role model is indisputable. Rich (1997), for instance, provided evidence for the effects of role modelling behaviors on follower trust and overall sales performance. Business leaders have permanently acted as evidence for the relationship between role modeling and successful business decisions and long-term organizational success (e.g., Beyer & Browning, 1999; Harari & Brewer, 2004).

The importance for setting clear goals and performance standards has been widely known since as early as 1971 when House published his path-goal theory (House, 1971) to underline its crucial role for leadership effectiveness. Just as Wright (2004) reported that goal-relevant aspects such as goal clarity are crucial prerequisites for increased motivation, similar effects were found for efficacy. Bandura and Cervone (1986) showed that internalized goals and performance standards are important factors for people's efficacy beliefs and level of satisfaction. Subsequently their level of motivation was affected depending on the level of discrepancy between goals, standards, and achievements. Furthermore, performance standards minimize social loafing. Hoigaard, Safvenbom, and Tonnessen (2006) showed that the greater the level of adherence to group norms, the lower social loafing. Similarly, specific group

performance standards increase the willingness to compensate for other weaker group members (Wegge & Haslam, 2005).

Related to the aspects of performance standards and goals is the ability, willingness, and manner to reward and give feedback on performance. Although the debate has been rather controversial over the years, in particular when regarding the role of tangible rewards on motivation (e.g., Deci, 1971, 1975, 1972; Deci, Ryan, & Koestner, 1999; Maddock & Fulton, 1998; Tyler, 2002), recent research has shown that rewards are an effective leadership tool to influence followers (Gagné & Deci, 2005; Masi & Cooke, 2000; Pessiglione et al., 2007). In a recent study, Podsakoff and colleagues found that the most effective way to positively influence follower attitudes and behaviors is through the use of performance-contingent rewards (Podsakoff, Bommer, Podsakoff, & MacKenzie, 2006). Although research is still divided on the effects and the ways rewards should be administered, the case regarding the role of verbal feedback is more straight-forward. Cameron and Pierce (2002) report that verbal praise even positively affects intrinsic motivation, the main point of controversy regarding the effects of monetary rewards. Deci et al. (1999) indicate in their meta-analysis that use of verbal praising as a means of reinforcing desired behavior results in the greatest positive intrinsic motivation effects. The use of any type of feedback, whether tangible or verbal, therefore needs to be of reinforcing nature.

Leaders, however, are not only responsible for followers on an individual but also collective level. As Lord and Maher (1993) point out, leadership is about the collective and the individual. In other words, a leader needs to address the individual as much as the collective to be effective. Chen and Bliese (2002) add that leadership is a group phenomenon in that individual perceptions of leadership behavior effectiveness are dependent on group dynamics. Amongst these leadership behaviors enabling successful individual and team work is the creation of a collaborative and safe team environment. Diehl and Stroebe (1987) showed that productivity increases under conditions allowing for mistakes and open communication. In a similar vein, a leader is able to increase team performance and satisfaction by minimizing conflicts within the group (De Dreu & Weingart, 2003).

Although the majority of these behaviors are directly targeted at the follower, one leadership dimension that has been found to be an element of effective leadership is tenacity. Those leaders who are most successful at leading others, are leaders who will not falter when faced with difficulties (Shin, 1998). A facet of the tenuous leader is stability. Followers are able to anticipate future developments and are ensured that once a decision has been reached amongst group members, the group can channel their energy towards the achievement of the goal, not fearing possible interruptions; at least no interruptions that may jeopardize the

success. Segal and colleagues support this view reporting that stability is a crucial element in creating and maintaining trust amongst groups (Segal, Rohall, Jones, & Manos, 1999).

Finally, the construct *Effective Leadership* is proposed to incorporate emotional intelligence. Emotional intelligence is an important underlying component of a number of recent theories including transformational leadership (e.g., Avolio & Bass, 1995; Bass, 1990a; Bass & Avolio, 1994), servant leadership (e.g., Greenleaf, 1977; Spears, 1998; Stone, Russel, & Patterson, 2004), and theories incorporating the psychodynamics of leadership (e.g., Kets de Vries, 1988; Kets de Vries, Vrignaud, & Florent-Treacy, 2004). Firstly, emotional leaders are able to use rewards more effectively by understanding other's expectations (Moss, Ritossa, & Ngu, 2006). Yet, the emotional intelligent leader is also aware that the display of his emotions affects his effectiveness. Lewis (2000), for instance, found that displaying negative emotions undermines follower ratings of the leader's effectiveness. Gardner and Stough (2002) found further evidence that emotional intelligence, understanding others' emotions, is highly correlated with transformational leadership.

These behaviors are not exclusive in their effectiveness. Rather than acting as separate entities, they are elements of a superior style, or as Kets de Vries et al. (2004) suggested, these leadership dimensions are essential parts of exemplary leadership. Therefore the development and testing of a leadership style incorporating all eight elements of effective leadership.

5.7 Confirmatory Factor Analysis of Second Order Latent Factor Model

Although the focus of the current research is on the effects the eight leadership dimensions have on follower outcomes, it was decided to establish a second-order latent factor model to point out the relevance of the eight dimensions for a superior construct named *Effective Leadership*. The second-order factor model also proved to be a good fit to the data, although it is noteworthy that two items were needed to be removed from the second-order latent factor model. This was done in accordance with suggestions by Byrne (2001) who argued for checking the modification indices to establish which items may limit the model fit. The two items that were removed from the second order factor are 'Makes sure that an employee's performance review is a summary of ongoing feedback' and 'Tries to change the opinions of others, when s/he believes it is necessary'. Both items cross-loaded with various other dimensions. The remaining 41 items were found to load onto the respective eight factors as proposed previously in the exploratory and first-order factor confirmatory analyses. As in the first confirmatory factor analysis the individual data sets were combined yielding a total of n = 297. The standardized regression weights (see Table 12) further supported the proposed

model with values ranging from 0.516 for 'tolerates mistakes made by employees who are taking initiative' (*Empowering*) to 0.891 for 'is willing to take risks when s/he strongly believes in a certain action' (*Tenacity*). *Energizing* shows the greatest loading on *Effective Leadership* (0.934), while Tenacity showed the lowest loading (0.649) on the second order latent factor. Table 13 shows the correlations between the factors including the second-order factor *Effective Leadership*. Again the criterion for discriminant validity of less than 1.0 (Cole, 1987) is met indicating that the second-order model also proves a good fit for the data. It is noteworthy at this point that the second-order latent factor analysis was primarily conducted to confirm that the eight leadership dimensions reflect effective leadership. The focus of this research, however, lies with establishing which of these eight dimensions appears as showing the greatest effects on trust and other outcomes. The values for the relevant indices support a good model fit (see Table 14). The CMIN/df ratio (1.956) is within the suggested range of below two (Byrne, 2001; Carmines & McIver, 1981; Marsh & Hocevar, 1985; Wheaton et al., 1977) indicating a good model fit to the data. Further, two of the baseline indices, namely CFI (.899) and IFI (.900) are close or equal to 0.9 supporting a good model fit (e.g., Arbuckle, 2005, 2006). The value for RMSEA (.057) also indicates a good fit of the model fulfilling the criterion of being below .06 as suggested by Hu and Bentler (1998; 1999). The ECVI value for the model is, as previously established by Kets de Vries et al. (2004) for the original model, smaller than the value for the saturated model. Overall, the model therefore indicates a good fit and supports the eight factor structure derived from the initial exploratory factor analysis.

Item	EL	1	2	3	4	5	6	7	8	Dimension
Visioning	0.83									EL
Empowering	0.77									
Energizing	0.93									
Designing and Aligning	0.80									
Reward and Feedback	0.86									
Team Building	0.89									
Tenacity	0.65									
Emotional Intelligence	0.77									
new business opportunities		0.66								Envisioning
status quo		0.58								
defining strategy		0.67								
situation, not details, when making decisions		0.75								
considers future events		0.73								
involves employees in decision-making			0.84							Empowering
encourages people to make decisions			0.81							
tolerates mistakes			0.51							
lets task take full responsibility			0.61							
action-oriented				0.62						Energizing
enthusiasm				0.72						
mobilizes people				0.76						
role model				0.72						
clear performance standards and goals					0.75					Designing and Aligning
develop org. systems reflecting values					0.65					
performance standards adhered to					0.76					
mngmt systems facilitating effective behavior					0.78					
makes people accountable					0.66					
various types of incentives						0.72				Rewarding and Feedback
compensation for his/her employees fair						0.79				
performance review ongoing						0.69				
individual rewarded appropriately						0.86				
team receiving appropriate rewards						0.82				
regular constructive feedback						0.69				
people's achievements recognized						0.83				
resolve conflict among team members							0.76			Team-Building
encourages members to build relationships							0.74			
interest of the group before personal goals							0.75			
serious effort to ensure everyone stand behind decision							0.71			
members feel they contribute to decisions							0.77			
solutions to problems							0.71			
defends principles								0.71		Tenacity
stick to an unpopular decision								0.71		
willing to take risks								0.86		
not easily discouraged								0.70		
change opinions of others								0.59		
considers effect of emotions									0.69	Emotional Intelligence
"read" other's feelings									0.77	
engages in self-reflection									0.75	
full attention to the person talking									0.70	
great effort to help people feel at ease									0.87	
shows respect for and interest in individuals									0.88	
people to open up by being approachable									0.85	

Table 12. Second-Order Latent Model - Standardized Regression Weights (n = 297)

	Effective Leadership	Tenacity	Team_ Building	Reward- Feedback	Designing- Aligning	Energizing	Empowering	Visioning	EI
Effective Leadership									
EI	0.77								
Tenacity	0.65	0.50							
Team Building	0.89	0.69	0.58						
Reward Feedback	0.86	0.66	0.56	0.76					
Designing and Aligning	0.80	0.62	0.52	0.71	0.69				
Energizing	0.93	0.72	0.61	0.83	0.80	0.75			
Empowering	0.77	0.59	0.50	0.69	0.66	0.62	0.72		
Visioning	0.83	0.64	0.54	0.74	0.71	0.66	0.77	0.64	

Table 13. Second-order model - Correlations between latent factors (n = 297)

Model	CMIN	DF	P	CMIN/DF	IFI Delta2	CFI	RMSEA	ECVI
8 Factor Model	1507.808	771	0	1.956	0.900	0.899	0.057	5.979
Saturated model	0	0			1.000	1	0.174	6.095
Independence model	8134.865	820	0	9.921	0.000	0	0.173	28.037

Table 14. Fit indices - Second Order Model (n = 297)

5.8 Confirmatory Factor Analysis of Outcome Variables

Finally a confirmatory factor analysis was conducted to establish the applicability of the integrated outcome variables for the current research. Table 15 shows that except for *Work Effort* and *Intrinsic Motivation*, discriminant validity is ensured. The high correlation between the two motivation constructs can be explained in that they represent *Overall Motivation*, an accumulation of the two separate types of motivation. Although the correlation is very high, Van de Ven and Ferry (1980) argued that they represent two sub-categories of motivation. The high correlation is therefore not surprising. The fit indices for the outcome variables all indicate a very good model fit with the value for CMIN/df being below 2.0 and IFI and CFI showing values close to 1. The value for RMSEA is well below 0.06 and ECVI for the eight-factor model is inferior to the corresponding value for the saturated model. Overall the values for the outcome variables represent a very good model fit.

	Self-Efficacy	Intrinsic Motivation	Work Effort	Individual Trust
Self-Efficacy				
Intrinsic Motivation	0.32			
Work Effort	0.33	0.94		
Individual Trust	0.13	0.39	0.35	

Table 15. Second-order model - Correlations between outcome variables (n = 297)

Model	CMIN	DF	P	CMIN/DF	IFI Delta2	CFI	RMSEA	ECVI
8 Factor Model	96.125	59	0.002	1.629	0.971	0.970	0.046	0.541
Saturated model	0	0			1	1.000		0.615
Independence model	1328.512	78	0	17.032	0	0.000	0.233	4.576

Table 16. First-order model - Variables - Fit indices (n = 297)

5.9 Summary

This chapter established the validity and reliability of the amended Global Life Inventory for non-executive leaders. All relevant eight remaining factors were confirmed in both exploratory and confirmatory factor analysis, namely *Tenacity, Team-Building, Reward-Feedback, Designing-Aligning, Energizing, Empowering, Visioning,* and *Emotional*

Intelligence. 43 items emerged as loading on the eight factors ranging from 4 to 7 items. The factor structure is very similar to the one suggested by Kets de Vries et al. (2004), yet the analyses revealed that fewer items appear to apply to samples in a non-executive environment. A second-order confirmatory analyses confirmed that the eight dimensions represent *Effective Leadership*, although two items were excluded in order to ensure a good model fit of the second-order latent factor model, yielding a total of 41 items. Reliabilities and the confirmatory factor analysis also indicated a good model fit for the data and the current research. The outcome variables have mostly been found to have good reliabilities with the exception of intrinsic motivation for the employee sample. However, as pointed out, the scale is both short, of psychological nature, and representing a subcategory of motivation and will therefore be included in further analyses. The following chapters will investigate the proposed hypotheses on an individual level, followed by the analysis on the collective level and the relationships between the individual and collective constructs.

Chapter 6: Study 1 – Testing leadership effects in a young working sample

The potential influence of leadership on individual outcomes is the focus of this first of a series of three studies. Previous studies have established the links between leadership and a range of follower outcomes. As mentioned in previous chapters, leadership potentially increases self-efficacy (e.g., Podsakoff et al., 1990), although in some instances might even lead to a decrease in self-efficacy levels (Shamir et al., 1998). It has also been found to positively affect intrinsic and other types of motivation (e.g., Masi & Cooke, 2000), and is embedded in a bi-directional system with trust (e.g., Grojean & Hasel, 2007), with trust not only being an outcome of effective leadership (e.g., Dirks & Ferrin, 2001), but also a substitute and a prerequisite for a leader to be effective (e.g., Rich, 1997) The following section will investigate the direct effects eight leadership styles (i.e., dimensions) have on overall follower motivation, their intrinsic motivation and work effort, and their level of self-efficacy. It will further investigate the role individual follower trust in the leader plays as a mediator in the relationship of the individual leadership styles and the four different outcomes. This adds to the existing knowledge in various ways: 1) an in depth investigation of eight leadership dimensions and their effects on follower outcomes (including a composite measure); 2) the importance of psychological aspects of leadership, in particular emotional

intelligence is further explored; 3) determination of the role of rewards for follower outcomes (in particular the intense discussion on its effects on followers' level of intrinsic motivation); 4) the mediating role of individual trust in each of the eight (and the composite measure) leadership dimensions is explored for a number of motivational constructs and follower self-efficacy.

The following hypotheses are investigated in this first study:

Hypothesis 1: Leadership behaviors incorporating interpersonal facets other than purely economic interaction will result in higher levels of individual trust in followers than reward behaviors, including feedback, and tenacity.

Hypothesis 2: Fair reward behaviors will lead to greater levels of trust.

Hypothesis 3: Trust in the leader acts as a mediator between participative decision-making leadership behaviors and motivation.

Hypothesis 4: Individual trust in the leader leads to both individual motivation and collective motivation constructs.

Hypothesis 5: Trust in the leader acts as a mediator between rewards and self-efficacy.

Hypothesis 6: The effects of styles based on psychological components, including feedback and goal-setting, on efficacy beliefs are mediated by trust in the leader.

Hypothesis 7: The effects of styles based on psychological components lead to greater individual motivation through higher levels of trust.

Hypothesis 8: Reward behaviors lead to greater individual motivation through higher levels of trust.

6.1 Method

Samples

A total of 207 students from a final year undergraduate course participated in the study on the leadership effects on individual trust, motivation, and self-efficacy. The students had just returned from a one-year full-time placement with companies, primarily large caps. The mean age of students was 21.9 years (sd = 1.2) with 47.3 per cent being male and 52.7 per cent female. The leaders on their placement were 49.3 per cent male and 50.7 per cent female with all students in white-collar positions ranging from Marketing to Banking during their placement. 51.2 per cent of students worked with their manager for less than a year, while 47.3 per cent worked with the same leader for more than a year. 1.4 per cent of students reported to have worked with the same leader for a period of three to five years. 28.0 per cent of employees had been within the same department for less than a year, while 40.1 per cent

for a period of one to three years, 1.0 per cent three to five years, and 30.9 per cent had been with the same department for more than five years. The difference in time spent with one leader and in one department can be explained with a minority of students working while at university and therefore reporting a work relationship of longer duration and some students having been assigned to their specific leader later into their placement.

Procedure

All surveys were collected by the researcher during the second lecture after the students' return to university. As pointed out earlier, student participation was voluntary and they were assured that their answers are anonymous and confidential. All individual data was collected using the eight dimensional leadership behavior measure and the outcome scales on individual trust, self-efficacy, and intrinsic motivation and work effort forming the overall motivation measure.

6.2 Results

Although the primary interest was on the potential influence the eight leadership styles have on the five follower outcomes trust, overall motivation, intrinsic motivation, work effort, and self-efficacy, and the mediation role trust may play in the leadership – outcome relationship, all outcomes were also tested using the overall leadership measure Effective Leadership (see Appendix 2; however, selected results will be discussed to underline the previously mentioned second order suggestion). As previously mentioned, the scores for each variable were measured on Likert scales. The unstandardized coefficients derived from the Preacher and Hayes (2004; 2008) methods therefore correspond to the outcome change on the Likert scale (i.e., an unstandardized coefficient value of 0.5 would therefore correspond to a half-point Likert scale increase for the outcome variable if there was a one standard deviation increase in the predictor variable – that is, the respective leadership style).

Dimension	Dimension -> Trust (a paths)		Trust -> Overall Motivation (b paths)		Dimension -> Overall Motivation (c paths)		Dimension -> Overall Motivation (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Sobel test ($p < 0.05$ => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	1.03	***	0.76	$p = .2074$	0.29	***	0.21	$p = .0121$	1.27	$p = .2050$
Visioning	0.60	***	0.16	***	0.17	***	0.07	$p > 0.05$	3.25	**
Empowering	0.61	***	0.14	**	0.16	***	0.07	$p > 0.05$	2.69	**
Energizing	0.60	***	0.15	***	0.23	***	0.14	$p < 0.05$	3.06	**
Designing and Aligning	0.61	***	0.16	**	0.16	***	0.07	$p > 0.05$	3.05	**
Reward and Feedback	0.54	***	0.13	*	0.16	***	0.09	$p > 0.05$	2.52	**
Team-Building	0.74	***	0.13	*	0.19	***	0.10	$p > 0.05$	2.25	*
Tenacity	0.32	***	0.18	***	0.11	*	0.05	$p > 0.05$	3.08	**
Emotional Intelligence	0.58	***	0.15	**	0.14	***	0.06	$p > 0.05$	2.61	**

Table 17. Direct and indirect effects the eight leadership styles on overall motivation amongst employee sample ($n = 207$)

Dimension	Dimension -> Trust (a paths)		Trust -> Intrinsic Motivation (b paths)		Dimension -> Intrinsic Motivation (c paths)		Dimension -> Intrinsic Motivation (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Sobel test ($p < 0.05$ => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	1.03	***	0.09	p = .2141	0.27	***	0.17	p > 0.05	1.25	p = .2117
Visioning	0.60	***	0.16	**	0.15	**	0.05	p > 0.05	2.87	**
Empowering	0.61	***	0.14	**	0.16	***	0.21	p > 0.05	2.22	**
Energizing	0.60	***	0.16	**	0.17	**	0.07	p > 0.05	2.86	**
Designing and Aligning	0.61	***	0.15	**	0.16	**	0.07	p > 0.05	2.53	**
Reward and Feedback	0.54	***	0.13	**	0.15	***	0.08	p > 0.05	2.10	**
Team-Building	0.74	***	0.14	**	0.17	***	0.07	p > 0.05	2.09	**
Tenacity	0.32	***	0.17	***	0.10	p = .0578	0.04	p > 0.05	2.78	**
Emotional Intelligence	0.58	***	0.14	*	0.14	***	0.06	p > 0.05	2.17	*

Table 18. Direct and indirect effects the eight leadership styles on intrinsic motivation amongst employee sample (n = 207). Bootstrap results are only given when indirect and Sobel test yield varying results

Dimension	Dimension -> Trust (a paths)		Trust -> Work Effort (b paths)		Dimension -> Work Effort (c paths)		Dimension -> Work Effort (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	1.03	***	0.06	p = .3821	0.32	***	0.26	p = .0051	0.88	p = .3794
Visioning	0.60	***	0.16	**	0.20	***	0.10	p > 0.05	2.92	**
Empowering	0.61	***	0.15	**	0.17	***	0.07	p > 0.05	2.58	**
Energizing	0.60	***	0.13	**	0.31	***	0.23	p > 0.05	2.53	*
Designing and Aligning	0.61	***	0.17	**	0.17	***	0.07	p > 0.05	2.93	**
Reward and Feedback	0.54	***	0.14	*	0.17	***	0.09	p > 0.05	2.39	*
Team-Building	0.74	***	0.11	p = .0757	0.22	***	0.14	p = .0396	1.78	p = .751
Tenacity	0.32	***	0.18	***	0.13	*	0.07	p > 0.05	2.96	**
Emotional Intelligence	0.58	***	0.15	*	0.15	***	0.06	p > 0.05	2.43	*

Table 19. Direct and indirect effects of the eight leadership styles on work effort amongst employee sample (n = 207)

Dimension	Dimension -> Trust (a paths)		Trust -> Self Efficacy (b paths)		Dimension -> Self Efficacy (c paths)		Dimension -> Self Efficacy (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Sobel test ($p < 0.05$ => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	1.03	***	-0.01	p = .8883	0.13	*	0.14	p > 0.05	-0.14	p = .8876
Visioning	0.60	***	0.09	p = .0802	0.01	p = .8882	-0.05	p > 0.05	1.73	p = .0838
Empowering	0.61	***	0.09	p = .1043	0.02	p = .6004	-0.03	p > 0.05	1.62	p = .1043
Energizing	0.60	***	0.02	p = .6995	0.17	**	0.16	p = .0158	0.39	p = .6981
Designing and Aligning	0.61	***	0.05	p = .3708	0.07	p = .1375	0.04	p > 0.05	0.90	p = .3693
Reward and Feedback	0.54	***	-0.04	p = .5212	0.13	***	0.15	p = .0023	-0.64	p = .5191
Team-Building	0.74	***	0.05	p = .4626	0.07	p = 1.314	0.04	p > 0.05	0.74	p = .4602
Tenacity	0.32	***	0.05	p = 2.640	0.08	p = .0780	0.07	p > 0.05	1.09	p = .2751
Emotional Intelligence	0.58	***	0.04	p = .5174	0.06	p = .1041	0.04	p > 0.05	0.65	p = .5151

Table 20. Direct and indirect effects of the eight leadership styles on self-efficacy amongst employee sample (n = 207)

The Eight Leadership Dimensions and Motivation

The Eight Leadership Dimensions and Overall Motivation

Table 17 contains the results for the direct and indirect effects of the eight leadership styles on overall motivation. Figures incorporate four leadership styles each merely for presentational purposes and not based on any theoretical reasoning. Figure 8.5 shows the results for the first four dimensions *Visioning, Empowering, Energizing, Designing and Aligning.*

The relationship between Visioning and individual trust was statistically reliable *(β = .60; p <.001)*. The relationship between individual trust and overall motivation was reliable when controlling for Visioning *(β = .16; p <.001)*. The once reliable relationship between Visioning and overall motivation *(β = .17; p <.001)* became non-significant when controlling for trust *(β = .07; p >.05 and z = 3.25; p <.01)*. Hypotheses 4 and 7 were therefore supported.

The relationship between Empowering and trust was statistically reliable *(β = .61; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Empowering *(β = .14; p <.01)*. Most importantly, the once reliable relationship between Empowering and overall motivation *(β = .16; p <.001)* became non-significant when controlling for trust *(β = .07; p >.05 and z = 2.69; p <.01)*. Hypothesis 3 was therefore fully supported. Hypotheses 4 and 7 were also supported.

The relationship between Energizing and individual trust was statistically reliable *(β = .61; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Energizing *(β = .16; p <.01)*. Most importantly, the once reliable relationship between Energizing and overall motivation *(β = .16; p <.001)* became non-significant when controlling for individual trust *(β = .07; p >.05 and z = 3.05; p <.01)*. Hypotheses 4 and 7 were therefore supported.

The relationship between the final dimension shown in Figure 6, Designing and Aligning, and trust was statistically reliable *(β = .60; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Designing and Aligning *(β = .15; p <.001)*. Most importantly, the once reliable relationship between Designing and Aligning and overall motivation *(β = .23; p <.001)* became non-significant when controlling for individual trust *(β = .14; p <.05 but z = 3.06; p <.01 and bootstrap: .0337 to 1.729)*. Hypotheses 4 and 7 were therefore supported.

Figure 7 shows the direct and indirect effects for the remaining four leadership styles. The relationship between Reward and Feedback and individual follower trust in the leader was statistically reliable *(β = .54; p <.001)*. The relationship between trust and overall

motivation was reliable when controlling for Reward and Feedback *(ß = .13; p <.05)*. Most importantly, the once reliable relationship between Reward and Feedback and overall motivation *(ß = .16; p <.001)* became non-significant when controlling for trust *(ß = .09; p >.05 and z = 2.52; p <.01)*. Hypotheses 2 and 8 were therefore fully supported.

The relationship between Team-Building and individual trust was statistically reliable *(ß = .74; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Team-Building *(ß = .13; p <.05)*. Most importantly, the once reliable relationship between Team-Building and overall motivation *(ß = .19; p <.001)* became non-significant when controlling for trust *(ß = .10; p >.05 and z = 2.25; p <.05)*. Hypotheses 4 and 7 were therefore supported.

Figure 6. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on overall motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

The relationship between Tenacity and trust was statistically reliable *(ß = .32; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Tenacity *(ß = .18; p <.001)*. Most importantly, the once reliable relationship between Tenacity and overall motivation *(ß = .11; p <.05)* became non-significant when controlling for trust *(ß = .05; p >.05 and z = 3.08; p <.01)*. Hypotheses 4 and 7 were therefore supported.

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The relationship between Emotional Intelligence and individual trust was statistically reliable (*β = .58; p <.001*). The relationship between trust and overall motivation was reliable when controlling for Emotional Intelligence (*β = .15; p <.01*). Most importantly, the once reliable relationship between Emotional Intelligence and overall motivation (*β = .15; p <.01*) became non-significant when controlling for trust (*β = .06; p >.05 and z = 2.61; p <.01*). Hypotheses 4 and 7 were therefore supported.
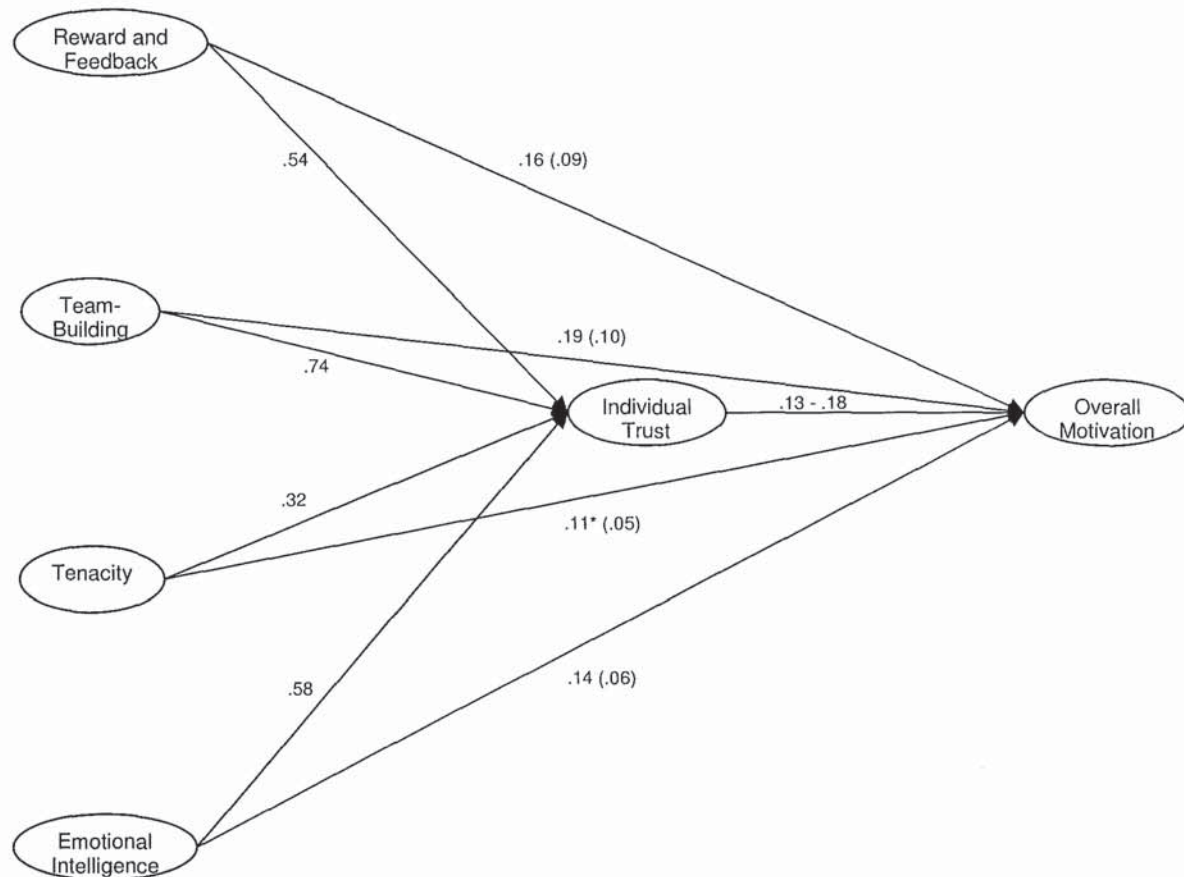
Figure 7. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on overall motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (*p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

The Eight Leadership Dimensions and Intrinsic Motivation

Table 18 contains the results for the direct and indirect effects of the eight leadership styles on intrinsic motivation. Figure 8 shows that the relationship between Visioning and individual trust was reliable (*β = .60; p <.001*). The relationship between trust and intrinsic motivation was reliable when controlling for Visioning (*β = .16; p <.01*). Most importantly, the once reliable relationship between Visioning and intrinsic motivation (*β = .15; p <.01*)

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became non-significant when controlling for trust ($\beta = .05; p > .05$ and $z = 2.87; p < .01$). Hypotheses 4 and 7 were therefore supported.

The relationship between Empowering and individual trust in the leader was statistically reliable ($\beta = .61; p < .001$). The relationship between trust and intrinsic motivation was reliable when controlling for Empowering ($\beta = .14; p < .01$). Most importantly, the once reliable relationship between Empowering and intrinsic motivation ($\beta = .16; p < .001$) became non-significant when controlling for trust in the leader ($\beta = .21; p > .05$ and $z = 2.22; p < .01$). Hypothesis 3 was therefore fully supported. Hypotheses 4 and 7 were also supported.

The relationship between Energizing and individual trust was statistically reliable ($\beta = .61; p < .001$). The relationship between trust and intrinsic motivation was reliable when controlling for Energizing ($\beta = .15; p < .01$). Most importantly, the once reliable relationship between Energizing and intrinsic motivation ($\beta = .16; p < .01$) became non-significant when controlling for trust ($\beta = .07; p > .05$ and $z = 2.53; p < .01$). Hypotheses 4 and 7 were therefore supported.

The relationship between Designing and Aligning and individual trust was statistically reliable ($\beta = .60; p < .001$). The relationship between trust and intrinsic motivation was reliable when controlling for Designing and Aligning ($\beta = .16; p < .01$). Most importantly, the once reliable relationship between Designing and Aligning ($\beta = .17; p < .01$) became non-significant when controlling for trust ($\beta = .06; p > .05$ and $z = 2.86; p < .01$). Hypotheses 4 and 7 were therefore supported.
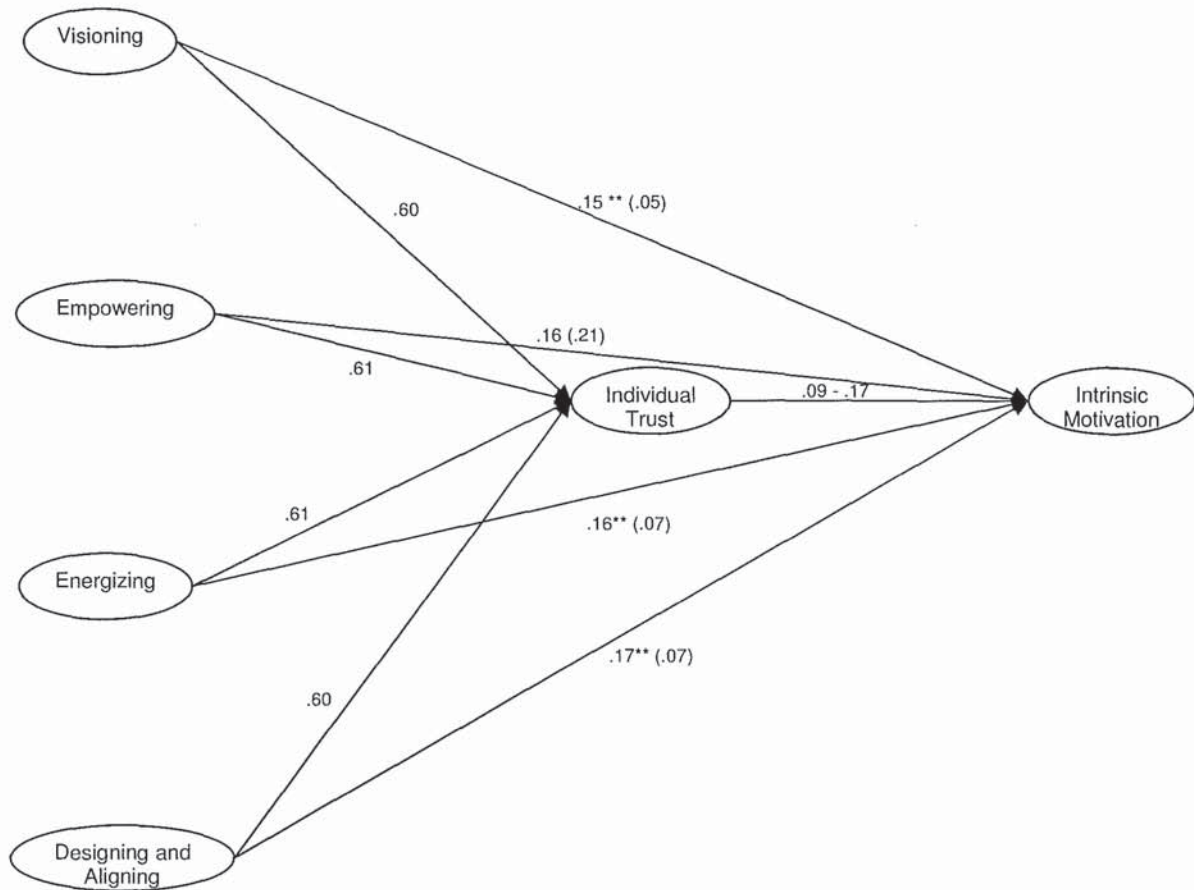
Figure 8. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on intrinsic motivation.

Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parenthese are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

Figure 9 shows that the relationship between Reward and Feedback and individual trust was statistically reliable *(ß = .54; p <.001)*. The relationship between trust and intrinsic motivation was reliable when controlling for Reward and Feedback *(ß = .13; p< .01)*. Most importantly, the once reliable relationship between Reward and Feedback *(ß = .15; p <.001)* became non-significant when controlling for trust in the leader *(ß = .08; p >.05 and z = 2.10; p <.01)*. Hypotheses 2 and 8 were therefore fully supported.

The relationship between Team-Building and individual trust in the leader was statistically reliable *(ß = .74; p <.001)*. The relationship between trust and intrinsic motivation was reliable when controlling for Team-Building *(ß = .14; p <.01)*. Most importantly, the once reliable relationship between Team-Building and intrinsic motivation *(ß = .17; p <.001)* became non-significant when controlling for trust *(ß = .07; p >.05 and z = 2.09; p <.01)*. Hypotheses 4 and 7 were therefore supported.

The relationship between Tenacity and individual trust was statistically reliable *(ß = .32; p <.001)*. The relationship between trust and intrinsic motivation was reliable when

controlling for Tenacity (β = .17; p <.001). Most importantly, the once reliable relationship between Tenacity and intrinsic motivation (β = .10; p = .0578) became non-significant when controlling for trust (β = .04; p >.05 and z = 2.78; p <.01). Hypotheses 4 and 7 were therefore supported.

Finally, the relationship between Emotional Intelligence individual trust was statistically reliable (β = .58; p <.001). The relationship between trust and intrinsic motivation was reliable when controlling for Emotional Intelligence (β = .14, p = <.05). Most importantly, the once reliable relationship between Emotional Intelligence and intrinsic motivation (β = .14; p <.001) became non-significant when controlling for follower trust in the leader (β = .06; p >.05 and z = 2.17; p <.05). Hypotheses 4 and 7 were therefore supported.

Figure 9. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on intrinsic motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

The Eight Leadership Dimensions and Work Effort

Table 19 contains the results for the direct and indirect effects of the eight leadership styles on work effort. Figure 10 shows that the relationship between Visioning and individual trust was statistically reliable *(β = .60; p <.001)*. The relationship between trust and work effort was reliable when controlling for Visioning *(β = .16; p <.01)*. Most importantly, the once reliable relationship between Visioning and work effort *(β = .20; p <.001)* became non-significant when controlling for trust *(β = .10; p >.05 and z = 2.92; p <.01)*. Hypotheses 4 and 7 were therefore supported.

The relationship between Empowering and individual follower trust in the leader was statistically reliable *(β = .61; p <.001)*. The relationship between trust and work effort was reliable when controlling for Empowering *(β = .15; p <.01)*. Most importantly, the once reliable relationship between Empowering and work effort *(β = .17; p <.001)* became non-significant when controlling for trust *(β = .07; p >.05 and z = 2.58; p <.05)*. Hypothesis 3 was therefore fully supported. Hypotheses 4 and 7 were therefore supported.

The relationship between Energizing and individual trust was statistically reliable *(β = .61; p <.001)*. The relationship between individual trust and work effort was reliable when controlling for Energizing *(β = .17; p <.01)*. Most importantly, the once reliable relationship between Energizing and work effort *(β = .17; p <.001)* became non-significant when controlling for trust *(β = .07; p <.01 and z = 2.93; p <.01)*. Hypotheses 4 and 7 were therefore supported.

The relationship between Designing and Aligning and individual trust was statistically reliable *(β = .60; p <.001)*. The relationship between trust and work effort was reliable when controlling for Designing and Aligning *(β = .13; p <.01)*. Most importantly, the once reliable relationship between Designing and Aligning and work effort *(β= .31; p <.001)* became non-significant when controlling for trust *(β = .23; p >.05 and z = 2.53; p <.05)*. Hypotheses 4 and 7 were therefore supported.

Figure 11 shows that the relationship between Reward and Feedback and trust in the leader was statistically reliable *(β = .54; p <.001)*. The relationship between trust and work effort was reliable when controlling for Reward and Feedback *(β = .14; p <.05)*. Most importantly, the once reliable relationship between Reward and Feedback *(β = .17; p <.001)* became non-significant when controlling for trust *(β = .09; p >.05 and z = 2.39; p <.05)*. Hypotheses 2 and 8 were therefore fully supported.

The relationship between Team-Building and individual trust was statistically reliable *(β = .74; p <.001)*. The relationship between trust and follower work effort was not reliable when controlling for Team-Building *(β = .11; p = .0757)*. Most importantly, the once reliable

relationship between Team-Building and work effort *(ß = .22; p <.001)* therefore remained significant when controlling for the mediator *(ß = .14; p <.05 and z = 1.78; p >.05).* Hypotheses 4 and 7 were therefore supported.
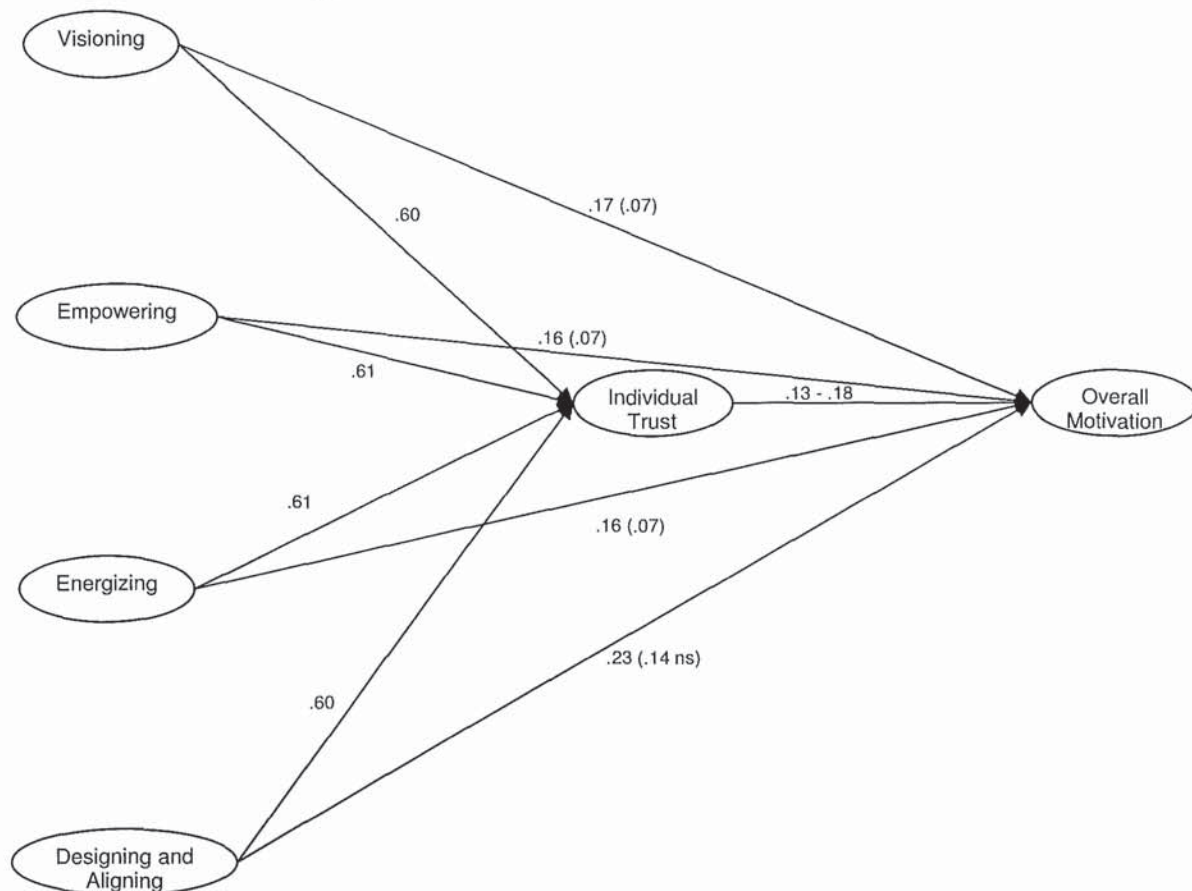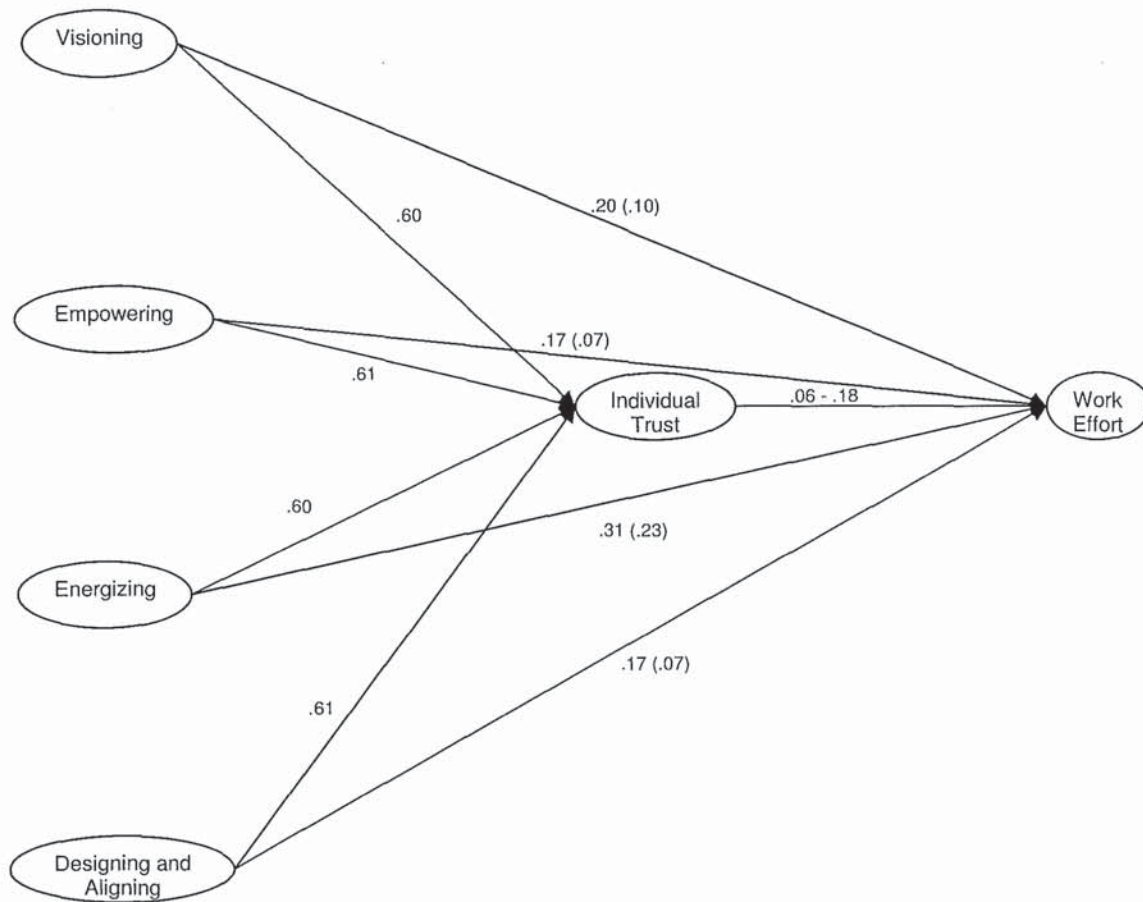

Figure 10. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on work effort.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

The relationship between Tenacity and individual trust was statistically reliable *(ß = .32; p <.001).* The relationship between trust and work effort was reliable when controlling for Tenacity *(ß = .18; p <.001).* Most importantly, the once reliable relationship between Tenacity and work effort *(ß = .13; p <.05)* became non-significant when controlling for trust *(ß = .07; p >.05 and z = 2.96; p <.01).* Hypotheses 4 and 7 were therefore supported.

The relationship between EI and trust was statistically reliable *(ß = .58; p <.001).* The relationship between trust and work effort was reliable when controlling for EI *(ß = .15; p <.05).* Most importantly, the once reliable relationship between EI and work effort *(ß = .15; p <.001)* became non-significant when controlling for trust *(ß = .06; p >.05 and z = 2.43; p <.05).* Hypotheses 4 and 7 were therefore supported.
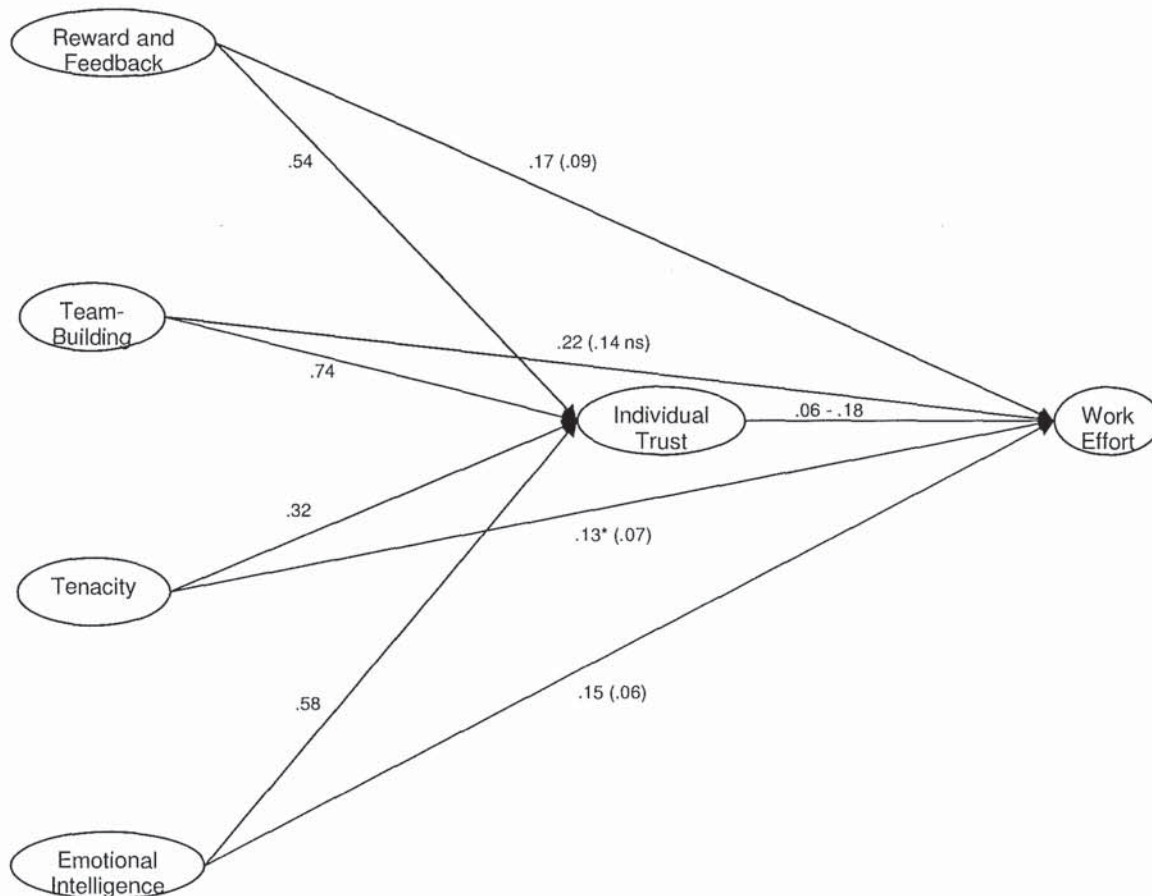
Figure 11. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on work effort.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

Summary of the Relationships between Leadership, Trust, and Motivation

The results showed that all eight leadership dimensions are positively related to trust, but that their effects occur through the level of follower trust in the leader. Hypotheses 2, 3, 4, 7, and 8 were therefore fully supported. Not only do all psychologically based leadership styles positively affect individual trust in the leader but also rewarding behaviors. They, however, rather than acting directly exercise their positive effects on overall and intrinsic motivation as well as work effort through trust in the leader.

The Eight Leadership Dimensions and Self-Efficacy

Table 20 contains the results for the direct and indirect effects of the eight leadership styles on and self-efficacy. The effects for all the leadership dimensions on individual trust remain the same as for all other outcome variable models, but as Figure 12 shows, Visioning has no direct effect on self-efficacy *(β = .01; p >.05)*, nor does individual trust directly affect

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self-efficacy $(\beta = .09; p > .05)$. Empowering has no direct effect on self-efficacy $(\beta = .02; p > .05)$, nor does individual trust directly affect follower self-efficacy $(\beta = .09; p > .05)$. The relationship between Energizing and self-efficacy was not reliable $(\beta = .07; p > .05)$. The relationship between Designing and Aligning and self-efficacy was reliable $(\beta = .17; p < .01)$. In contrast, the relationship between trust and follower's level of self-efficacy was not reliable when controlling for Designing and Aligning $(\beta = .02; p > .05)$. The relationship between individual trust and self-efficacy was not reliable when controlling for Designing and Aligning $(\beta = .05; p > .05)$. Figure 13 shows that the relationship between Reward and Feedback and self-efficacy was reliable $(\beta = .13; p < .001)$. The relationship between trust and self-efficacy was not reliable when controlling for Reward and Feedback $(\beta = -.04; p > .05)$. Team-Building has no significant effect on self-efficacy $(\beta = .07; p > .05)$, nor does individual trust in the leader $(\beta = .05; p > .05)$. The relationship between Tenacity and self-efficacy was not reliable $(\beta = .08; p > .05)$. The relationship between individual trust and self-efficacy was not reliable when controlling for Tenacity $(\beta = .05; p > .05)$. Finally, Emotional Intelligence has neither a significant effect on self-efficacy $(\beta = .06; p > .05)$, nor was the relationship between trust and self-efficacy reliable when controlling for EI $(\beta = .04; p > .05)$. Hypotheses 5 and 6 were therefore not supported.
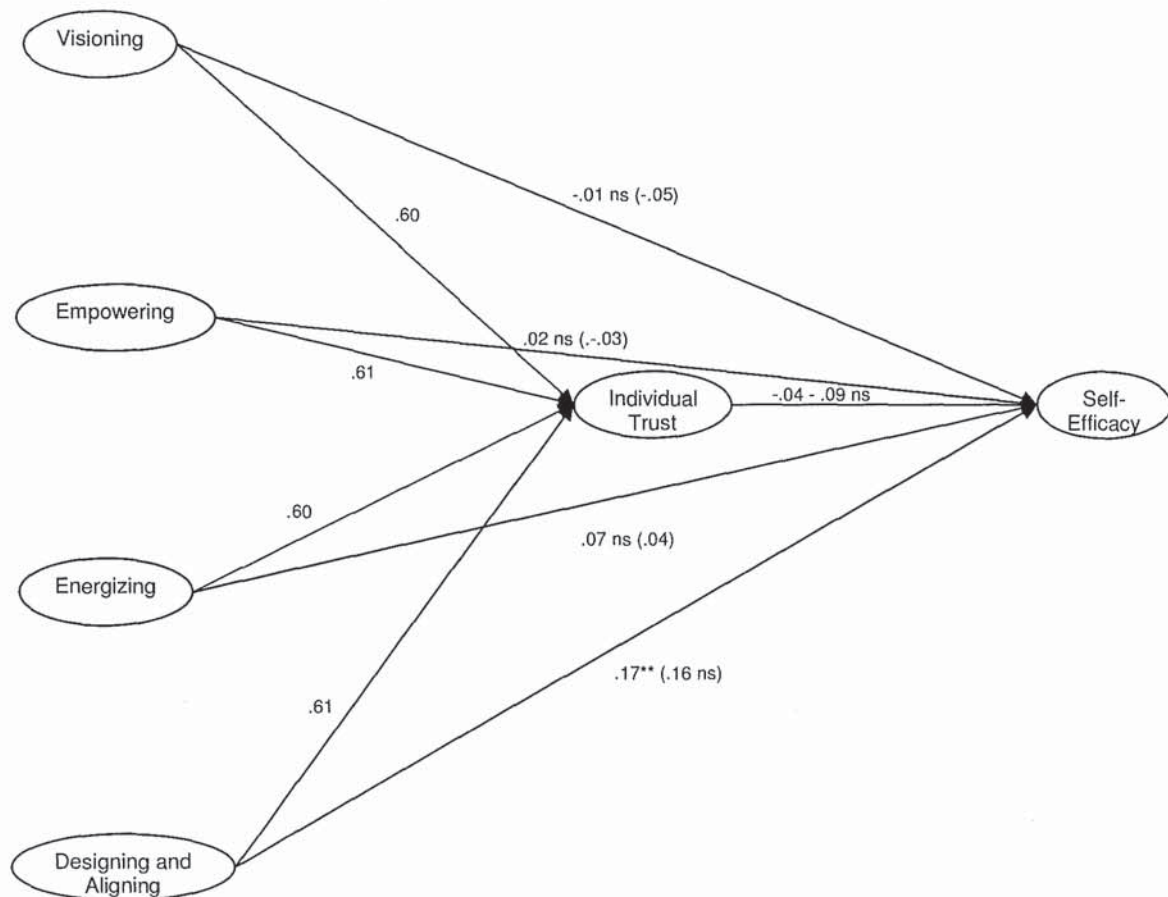
Figure 12. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on self-efficacy.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

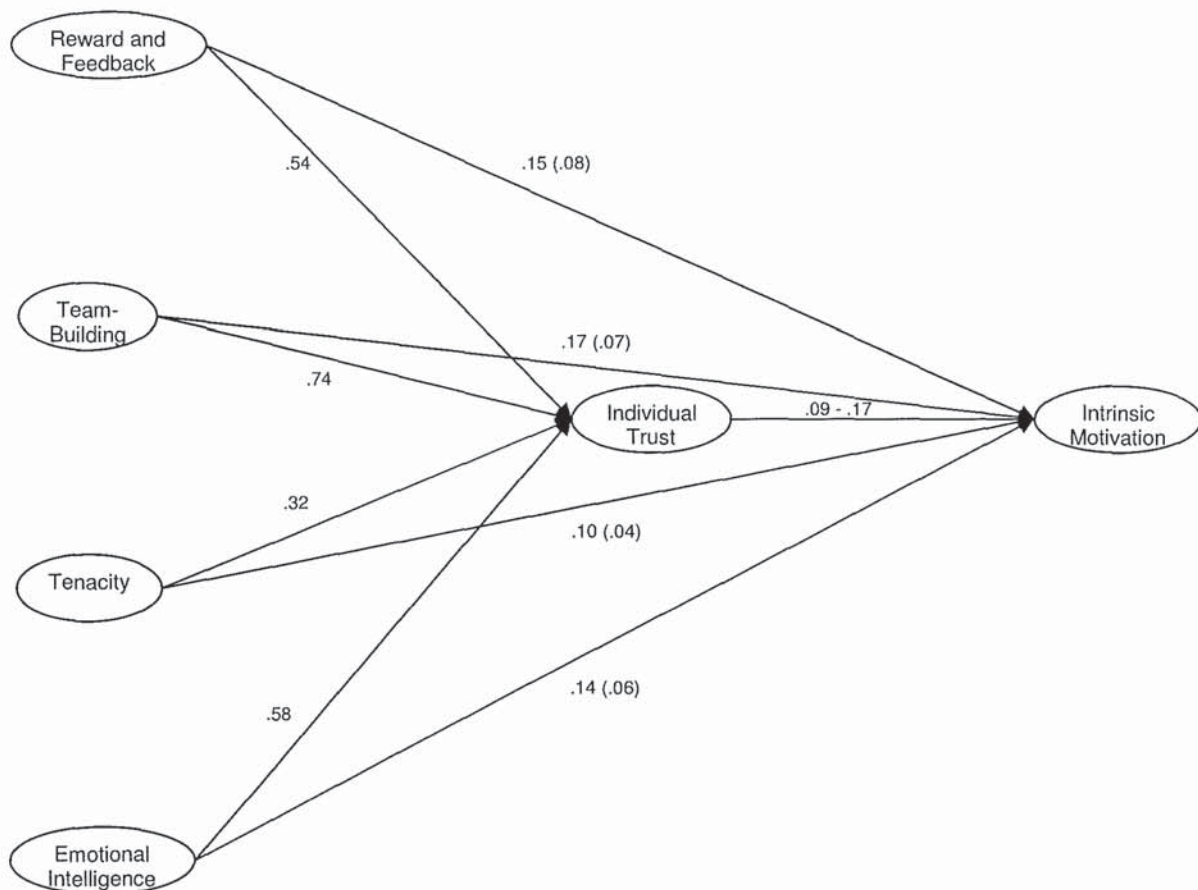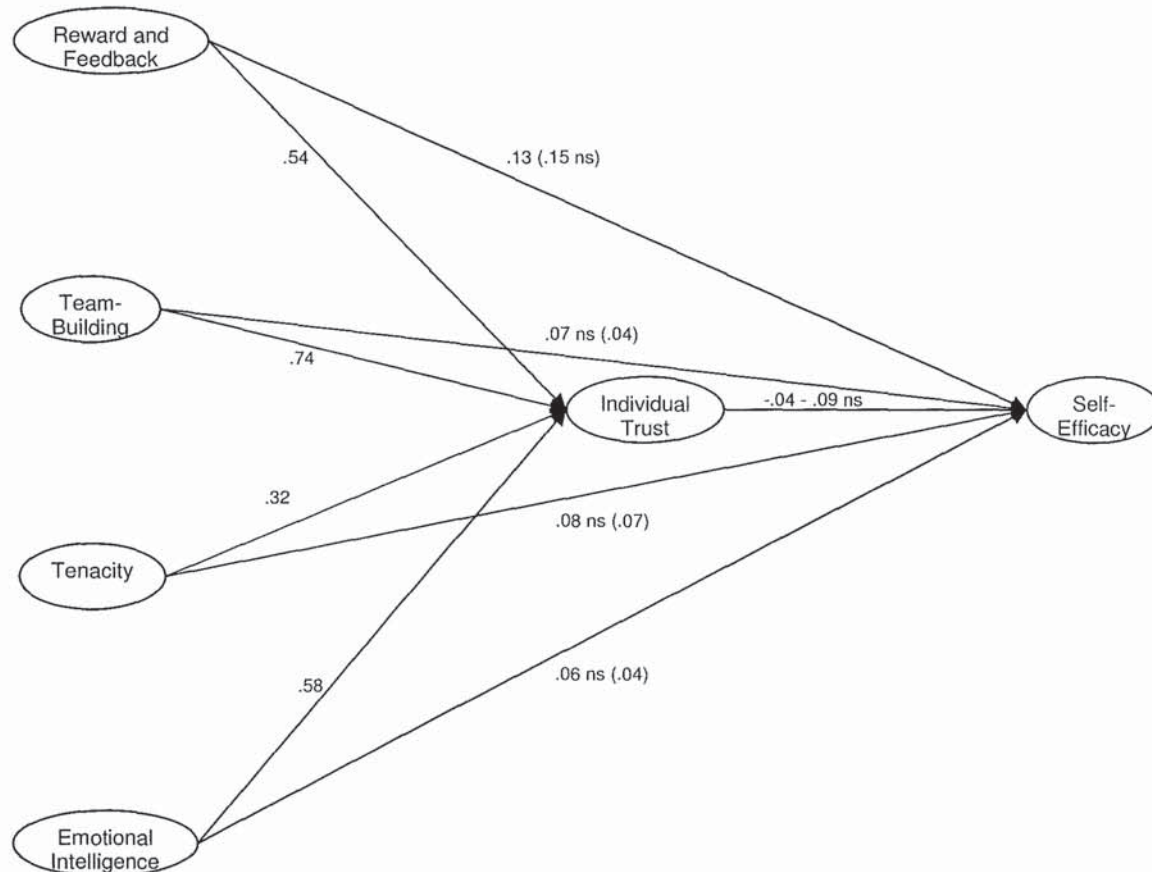**Figure 13. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on self-efficacy.**
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

Summary of the Relationships between Leadership, Trust, and Efficacy

None of the effects of the eight leadership styles were found to be mediated through individual trust in the leader. Self-efficacy is therefore shown to be independent of what the leader does and how much trust is attributed towards him or her; although Designing and Aligning does have a direct effect on self-efficacy. Hypotheses 5 and 6 were therefore not supported.

Individual Contribution of the Eight Leadership Dimensions on the Outcome Variables
including Trust

The following three hypotheses were set out to be investigated in the following
section:

Hypothesis 1: Leadership behaviors incorporating interpersonal facets other than purely
economic interaction will result in higher levels of individual trust in followers than reward
behaviors, including feedback, and tenacity.

Hypothesis 2: Fair reward behaviors will lead to greater levels of trust.

Hypothesis 4: Individual trust in the leader leads to both individual motivation and collective
motivation constructs.

Leadership Dimensions – Trust

In order to establish which of the eight leadership dimensions has the greatest direct
effect on trust, individual regressions as well as a forced entry multiple regression were run
for the respective leadership style (see Table 21 and 22). The hierarchical regression was
conducted to establish the contribution each leadership style has on the individual outcome
variable when incorporated into a single model. Loosely based on Den Hartog, Shippers, and
Koopman (2002), Reward and Feedback were first entered. In the second step Tenacity and in
the third step those scales that carry a psychological component.

Effective Leadership as an overall leadership style has the greatest significant effect
explaining 57.3 per cent of variance in individual trust in the leader. It further appears that
when testing the individual leadership dimensions separately, Team-Building is the strongest
contributor to the level of follower trust in the leader explaining 49.7 per cent of variance,
followed by Emotional Intelligence explaining 47 per cent, Empowering explaining 41.2 per
cent, and Reward and Feedback explaining 38.6 per cent of the variance in individual trust.
The fifth strongest contributor of individual trust is Energizing, explaining 32.9 per cent of
variance in individual trust, and Visioning, explaining 25.4 per cent of the variance, having
the sixth strongest effect. Designing and Aligning is the seventh greatest contributor
explaining 19.1 per cent of variance in individual trust, while Tenacity, only explained 8.8 per
cent of variance in individual trust, shows to be the weakest contributor to individual trust in
the leader. In order to test how much variance in individual trust in the leader a model
incorporating all leadership styles explains, a hierarchical regression was conducted. It was

found that 63.3 per cent of the variance in individual trust can be explained by a model comprising of all leadership styles. Hypothesis 1 was therefore partially supported, while Hypothesis 2 was fully supported.

Dimension	Trust				Overall Motivation				Intrinsic Motivation			
	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)
Effective Leadership	1.03	0.76	***	57.30	0.29	0.35	***	12.20	0.265	0.28	***	7.90
Visioning	0.60	0.50	***	25.40	0.17	0.23	***	5.40	0.146	0.18	**	3.20
Empowering	0.61	0.64	***	41.20	0.16	0.28	***	7.80	0.155	0.24	***	5.60
Energizing	0.60	0.44	***	19.10	0.23	0.27	***	7.30	0.170	0.18	**	3.20
Designing and Aligning	0.61	0.57	***	32.90	0.16	0.25	***	6.50	0.159	0.22	**	4.70
Reward and Feedback	0.54	0.62	***	38.60	0.16	0.30	***	8.90	0.151	0.25	***	6.30
Team-Building	0.74	0.71	***	49.70	0.19	0.30	***	9.10	0.172	0.24	***	5.60
Tenacity	0.32	0.30	***	8.80	0.11	0.17	*	2.90	0.099	0.13	p = 0.58	1.70
Emotional Intelligence	0.58	0.69	***	47.00	0.14	0.28	***	7.70	0.135	0.23	***	5.50

Table 21. Direct leadership effects and explained variance in trust, overall motivation, and intrinsic motivation (n = 207)

Table 22. Direct leadership effects and explained variance in work effort and self-efficacy (n = 207)

Dimension	Work Effort				Self-Efficacy			
	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)
Effective Leadership	0.32	0.35	***	12.30	0.13	0.15	*	2.40
Visioning	0.20	0.25	***	6.10	0.01	0.01	p = .89	0.00
Empowering	0.17	0.26	***	6.90	0.02	0.04	p = .60	0.10
Energizing	0.31	0.33	***	11.00	0.17	0.20	**	3.90
Designing and Aligning	0.17	0.24	***	5.60	0.07	0.10	p = .14	1.10
Reward and Feedback	0.17	0.28	***	8.10	0.13	0.23	***	5.40
Team-Building	0.22	0.31	***	9.60	0.07	0.11	p = 1.3	1.10
Tenacity	0.13	0.18	*	3.10	0.08	0.12	p = .07	1.50
Emotional Intelligence	0.15	0.27	***	7.00	0.06	0.11	p = .10	1.30

Table 23. Direct trust effects and explained variance in outcome variables (n = 207)

Dimension	Overall Motivation				Intrinsic Motivation				Work Effort				Self-Efficacy			
	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (ind.)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (ind.)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (ind.)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (ind.)
Trust	0.19	0.32	***	9.70	0.18	0.27	***	7.20	0.20	0.30	***	8.70	0.07	0.11	p = .113	0.70

Individual Follower Trust in the Leader and its Effect on Motivation and Self-Efficacy

In order to test the direct effects of trust in the leader on motivation and self-efficacy when considered independently from other variables (see mediation section for direct effects when embedded as a mediator in a multi-variable model), four regressions were conducted (see Table 22). These yielded that trust has a significant effect on all motivation variables, while it showed no significant relationship with follower's self-efficacy ($\beta = .07$, $p = .113$). In detail, trust was significantly directly related to follower's overall motivation ($\beta = .19$, $p < .001$), intrinsic motivation ($\beta = .18$, $p < .001$), and work effort ($\beta = .20$, $p < .001$). Hypothesis 4 was therefore fully supported.

Summary of the Leadership Impacts on Individual Trust in the Leader

Hypothesis 1, 2, and 4 were supported. The results showed that a number of styles that are most similar to the transformational leadership construct do indeed contribute more to the level of trust in the leader than reward, feedback, and tenacity. However, reward and feedback explained a greater variance in individual trust in the leader than Energizing, Visioning, and Designing and Aligning. In addition, individual trust was shown to lead to greater levels of motivation when considered independent of other variables.

The Eight Leadership Dimensions, Trust, and the Outcome Variables

Effective Leadership, the overall leadership style in which all of the eight separate leadership styles are embedded, has been shown to have a significantly positive effect on all outcome variables. Due to its strength, its effects were not mediated through individual trust in the leader for any of the tested relationships indicating that Effective Leadership is likely to incorporate aspects that may reflect trust instilling behaviors. Alternatively, Effective Leadership as an accumulation of all the individual leadership styles is likely to be far superior to any other style and therefore the contribution of individual trust is negligible.

To sum up the effects of the eight leadership dimensions and their effects on trust, overall motivation, intrinsic motivation, work effort, and self-efficacy, it has been shown that all leadership dimensions have a significantly positive direct effect on individual follower trust in their leader, overall motivation, and work effort. All transformational-like leadership styles show greater effect sizes on individual trust in the leader than Reward and Feedback and Tenacity yielding support for Hypothesis 1. Hypothesis 2 is also supported with the items in the Reward and Feedback scale asking for fair and reliable reward behaviors indicating their positive influence on individual trust. All eight leadership styles positively affect

intrinsic motivation amongst followers. Individual follower trust in the leader has a positive direct effect on overall motivation, intrinsic motivation, and work effort in most mediation models and when regressed isolated outside any mediation model. The only exception is the Team Building-work effort trust mediation model, which shows no direct effect of individual trust on work motivation. Similar, individual trust mediates the effects of all leadership styles on overall motivation, intrinsic motivation, and work effort with one exception being the Team-Building – work effort relationship. No mediating effect of individual trust in the leader has been found for this relationship. With the effects of empowering and participative decision-making leadership behaviors and all other transformational-like styles including reward behaviors being mediated through individual trust in the leader, Hypothesis 3, 8, and 9 are supported respectively. Similar, Hypothesis 4 and 7 are supported as individual trust affects all types of follower motivation positively both as parts of a mediation model and when investigated in direct regressions.

The picture is rather mixed for self-efficacy. Only two leadership styles – Designing and Aligning and Rewards and Feedback – have a direct effect on follower self-efficacy, while the remaining six appear to have no direct effect on self-efficacy. Individual trust has no direct effect in any of the leadership-self efficacy mediation models. Individual trust also does not act as a mediator for any of the leadership style effects on self-efficacy. Considering that only a number of leadership styles have a positive effect on self-efficacy, while the majority and trust in the leader show no potential to significantly influence the level of follower self-efficacy, it appears that the belief in one's own abilities has its roots in areas outside of leadership-related facets. Hypothesis 5 and 6 therefore are not supported with leadership reward behavioral effects on follower self-efficacy levels not being mediated through trust.

6.3 Discussion of Individual Student Sample Results

This study was conducted to examine the effects of eight leadership styles and five outcome variables - trust, overall motivation, intrinsic motivation, work effort, and self-efficacy. Since the early days of trust research, trust has been considered one of the crucial elements for leadership effectiveness. With 55 per cent of the variance in trust attributed to leadership (Podsakoff et al., 1996a), recent research has set the bar very high regarding the relationship between the actions of the leader and the level of trust followers willingly show towards her. The current research indicates that trust in the leader may be even more influenced by the characteristics of the leader than previously thought, at least amongst younger employees with less work experience as in the current study comprising of final year

leadership students with approximately one to two years of work experience. Over 57 per cent of variance in trust was explained by the way the leader behaved around his employees when taking the incorporating leadership style coined Effective Leadership.

Trust through thinking beyond and getting people on board

The leader who acknowledges the importance of trust in him or her will understand that in order to achieve this great impact on followers' trust is through setting a vision and challenging old ways, while similarly inspiring people to look beyond 'what is' and gets them to think 'what could be'. The study has shown that the effective leader empowers employees through, for instance, participative decision-making and tolerating mistakes while giving them authority over their delegated tasks. Korsgaard (1995) pointed out that participative decision-making leads to greater levels of trust as well as greater levels of information-sharing. In a similar vein, drawing from arguments by economists such as Adam Smith (see Cannella & Monroe, 1997) who regarded companies that were managed by their owners as more trustworthy and successful than those managed by hired executives. In other words, the positive influence empowering leadership has on followers is rooted in their identification with their delegated job. Similar to the owner-managed company who will go above and beyond to succeed and will fight dearly to have his "baby" survive any storm, the employee who has been given authority over task and execution will 1) experience the greater responsibility as evidence of greater trust in himself, and is therefore more likely to reciprocate the level of trust and 2) feel a much greater obligation to work towards goal achievement. The latter is reflected in the positive effect Effective Leadership and Empowering have on all types of motivation. Empowerment therefore not only leads the individual to work harder to accomplish "his" goal, but will, due to the task now becoming his "baby" (through greater responsibility and authority and greater involvement in decision-making), feel motivated to perform for the sake of task enjoyment.

Trust through addressing higher-order needs

At the same time, showing enthusiasm and walking the talk (i.e., being a role model) and setting clear performance standards, which are rewarded fairly and on-time is essential to create trust amongst followers. As most people work in some sort of group in today's work environment, the effective leader is also able to resolve conflicts amongst individual members creating a collaborative environment in which people feel valued and appreciated. The effective leader is able to achieve all of these and more through his empathic skills, his

attention to individuals, but also his ability to stand up for decisions made within the group and, if necessary, stand up for his own principles if he thinks that it is necessary to get the group and the organization ahead. Taken together, the common thread appears to be the ability of the leader to understand other people's emotions and needs and the ability to react and respond accordingly. Kets de Vries (1988) argued for the importance of establishing a parent-child like relationship between leader and follower. In a similar vein, creating a safe environment and showing enthusiasm for the group and the task combined with the ability to understand how much the individual is able to shoulder, will lead to follower's feeling greater levels of trust and motivation. The effective leader is therefore the one who understands to address and satisfy the higher order level needs in Maslow's (1954) theory.

Rewards and trust

This does not indicate that rewarding employees should be neglected. Since people are striving for acceptance and acknowledgment, the ability to use rewards and feedback in ways that show the individual that their contribution is important and makes a difference, and that their effort is appreciated, allows the leader to establish higher levels of motivation, including intrinsic motivation, as well as trust. Trust, because on a rational-exchange level the leader will fulfill his part of the contract and the likelihood of being exploited is minimized. But rewards and feedback are also signs of respect and carry a deep psychological meaning regarding their perceived value when given by a person considered trustworthy and of a human rather than a purely managerial nature.

Deci (1972) claimed that rewards will undermine intrinsic motivation because it leaves people feeling controlled by the rewarding party. However, as can be seen by the mediation model, those leaders who are trusted are able to elevate people's enjoyment in doing the task – that is their level of intrinsic motivation. The reward is therefore a social exchange instrument in situations when the leader is trusted as someone who will do good for the other party and not only exchange commodities. An additional reason for motivation, including intrinsic motivation, to increase is the fact that trusting the leader to minimize social loafing through rewarding people according to their contributions and not using a general bonus system as well as ensuring people adhere to performance standards will decrease the risk of social loafing to occur. By only rewarding those who work towards the collective goal within the ethical and collaborative framework set by all members of the society (i.e., the group, department, organization), people can perform and enjoy the work for its own sake.

Rewards as reinforcers

The study has found further support for Shamir et al.'s (1998) finding that leadership has a limited potential in changing follower perceptions of their own abilities. With the two exceptions reward and feedback and designing and aligning, none of the leadership styles show a relationship with self-efficacy. The reason behind the increase of follower self-efficacy under leaders who use reward and feedback may be due to a reinforcement effect. Just as Skinner (1953) showed in his experiments on conditioning, using rewards and feedback allows leaders to offer a type of reinforcer elevating follower levels of self-efficacy. In other words, rewarding followers fairly for contribution to the goal and good performance is likely to act as a sign of their capabilities. The reward therefore acts as a means indicating to the follower that his abilities are adequate and therefore his beliefs are confirmed and strengthened. This appears to be entirely independent of the level of trust in the leader. Simply the fact that the leader gives some type of positive feedback, either in tangible or verbal form, is sufficient for a reinforcement mechanism to occur. Similarly, a leader who sets clear performance standards and makes sure people understand goals clearly may trigger a feeling of self-efficacy amongst followers. Followers may feel more capable because their path is set out by rules and guidelines regarding performance and behavioral standards.

The most successful leader in terms of increasing follower trust in her, their level of overall and intrinsic motivation and willingness to attribute greater levels of personal resources and effort to the vision, is therefore the leader who uses her behaviors wisely but is aware that the crucial element in her behaviors leading to the desired outcomes is due to the level of trust attributed to her by her followers. In contrast, the ability of the leader to increase follower self-efficacy is limited regardless of whether she is trusted or not.

6.4 Summary

This chapter explored the mediating effects of individual trust in the leader in the leadership-follower outcome relationship. The findings show that trust plays a crucial role in the majority of relationship; the only exception is self-efficacy which is neither affected by leadership nor trust in the majority of analyses. Hypotheses 1, 2, 3, 4, 7, and 8 are all supported. Hypotheses 5 and 6 were not supported.

The following chapter will be an exact replication of this analysis. However, the samples differ in terms of their population. While this study comprised of students with work experience and data collected before the financial crisis, the next study will investigate the

relationships in a sample with more work experience, and importantly during the worst financial crisis since the Great Depression and WWII.

Chapter 7: Study 2 – Testing leadership effects in an experienced working sample

Similar to Study 1, this second study investigates the effects of the eight leadership styles on individual follower outcomes. As in Study 1, Study 2 will determine the direct impact of the eight dimensions on trust, self-efficacy, overall motivation and its two subcategories intrinsic motivation and work effort. The aim of this study is further to establish the potential mediating role individual trust plays in the relationships between the individual leadership dimension (for the composite *Effective* Leadership see Appendix 3; although some results are discussed in this section) and the follower outcomes self-efficacy, overall motivation, intrinsic motivation, and work effort. With the sample being drawn from a working population with more than one year of work experience as reported for the majority of the students in Study 1, this study allows to draw conclusions regarding possible differences in leadership effects between populations. In other words, the main differences between Study 1 and Study 2 is 1) the amount of work experience (i.e., the length of employment) between the samples; 2) participants in Study 2 are currently employed and therefore represent a "on-the-job" sample, while study 1 participants are a "retrospective" sample – looking back at their job; 3) data for Study 1 was collected before the worst financial crisis since WWII hit the real economy and was felt by employees; Study 2, on the other hand, was collected during the a time when the consequences of the crisis were felt. It therefore sheds light on possible differences between leadership styles in non-crisis and crisis situations.

The following hypotheses are to be investigated in Study 2 (these are the same as for Study 1):

Hypothesis 1: Leadership behaviors incorporating interpersonal facets other than purely economic interaction will result in higher levels of individual trust in followers than reward behaviors, including feedback, and tenacity.

Hypothesis 2: Fair reward behaviors will lead to greater levels of trust.

Hypothesis 3: Trust in the leader acts as a mediator between participative decision-making leadership behaviors and motivation.

Hypothesis 4: Individual trust in the leader leads to both individual motivation and collective motivation constructs.

Hypothesis 5: Trust in the leader acts as a mediator between rewards and self-efficacy.

Hypothesis 6: The effects of styles based on psychological components, including feedback and goal-setting, on efficacy beliefs are mediated by trust in the leader.

Hypothesis 7: The effects of styles based on psychological components lead to greater individual motivation through higher levels of trust.

Hypothesis 8: Reward behaviors lead to greater individual motivation through higher levels of trust.

7.1 Method

Samples

A total of 90 employees participated in the study on the leadership effects on individual trust, motivation, and self-efficacy. All 90 employees were full-time white-collar workers from areas such as Marketing, Consultancy, Research, and Finance. The mean age of the employees taking part was 33.4 years (sd = 7.812) with 44.4 per cent being male and 55.6 per cent female. The leaders in the employee sample were 60.0 per cent male and 40.0 per cent female. 25.6 per cent of participants had been working with the same manager for a period of less than a year, 46.7 per cent between one and three years, 20 per cent three to five years, and 7.8 per cent for a period of more than five years. 12.2 per cent of employees had been within the same department for less than a year, while 21.1 per cent for a period of one to three years, 8.9 per cent three to five years, and 57.8 per cent had been with the same department for more than five years. 25.6 per cent of respondents had been employed with organizations with less than one-hundred employees, 46.7 per cent worked in organizations with one-hundred to five hundred employees, while 43.3 per cent of participants were employed by organizations with more than five hundred employees. Only 1.1 per cent of participants had no formal qualification, while 3.3 per cent of employees had some sort of vocational qualification, 2.2 per cent had A-levels, 47.8 per cent reported to have a Bachelor degree as their highest qualification, while 31.1 per cent had a Master, 13.3 per cent a PhD, and 1.1 per cent some other type of qualification.

Procedure

All surveys were collected via an online survey sent to four institutions from four different sectors: academia, publishing, multimedia, finance. Due to the data collection technique involving anonymous online questionnaires it is not possible to determine a

response rate. An email with the link to the website containing the online questionnaire was sent to personal contacts within the organizations and asked to contribute it amongst employees. All individual data was collected using the eight dimensional leadership behavior measure and the outcome scales on individual trust, self-efficacy, and intrinsic motivation and work effort forming the overall motivation measure. As in Study 1, data was analyzed using a macro designed by Preacher and Hayes (2004; 2008) (also see Preacher, Rucker, & Hayes, 2007) allowing for simple and multiple indirect effects testing in mediation models.

7.2 Results

Although the primary interest was on the potential influence the eight leadership styles have on the five follower outcomes trust, overall motivation, intrinsic motivation, work effort, and self-efficacy, and the mediation role trust may play in the leadership – outcome relationship, all outcomes were also tested using the overall leadership measure Effective Leadership. As previously mentioned, the scores for each variable were measured on Likert scales. The unstandardized coefficients derived from the Preacher and Hayes (2004; 2008) methods therefore correspond to the outcome change on the Likert scale (i.e., an unstandardized coefficient value of 0.5 would therefore correspond to a half-point Likert scale increase for the outcome variable if there was a one standard deviation increase in the predictor variable – that is, the respective leadership style).

Dimension	Dimension -> Trust (a paths)		Trust -> Overall Motivation (b paths)		Dimension -> Overall Motivation (c paths)		Dimension -> Overall Motivation (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.93	***	0.13	$p = .0645$	0.24	***	0.11	$p > 0.05$	1.86	$p = .0623$
Visioning	0.49	***	0.13	*	0.18	***	0.12	$p = .0177$	2.23	$p < 0.05$
Empowering	0.75	***	0.21	**	0.14	**	-0.02	$p > 0.05$	3.04	$p < 0.05$
Energizing	0.57	***	0.17	**	0.16	**	0.06	$p > 0.05$	2.68	$p < 0.05$
Designing and Aligning	0.51	***	0.18	**	0.13	*	0.04	$p > 0.05$	2.85	$p < 0.05$
Reward and Feedback	0.57	***	0.19	**	0.12	*	0.01	$p > 0.05$	3.01	$p < 0.05$
Team-Building	0.71	***	0.19	**	0.15	**	0.01	$p > 0.05$	2.78	$p < 0.05$
Tenacity	0.37	***	0.18	***	0.13	*	0.06	$p > 0.05$	2.61	$p < 0.05$
Emotional Intelligence	0.67	***	0.15	*	0.17	***	0.07	$p > 0.05$	2.15	$p < 0.05$

Table 24. Direct and indirect effects of the eight leadership styles on overall motivation amongst employee sample (n = 90)

Dimension	Dimension -> Trust (a paths)		Trust -> Intrinsic Motivation (b paths)		Dimension -> Intrinsic Motivation (c paths)		Dimension -> Intrinsic Motivation (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Sobel test ($p < 0.05$ => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.93	***	0.13	$p = .1133$	0.24	***	0.12	$p > 0.05$	1.60	$p = .1097$
Visioning	0.49	***	0.14	*	0.18	***	0.12	$p > 0.05$	2.01	$p < 0.05$
Empowering	0.75	***	0.25	**	0.12	$p = .0530$	-0.07	$p > 0.05$	3.04	$p < 0.05$
Energizing	0.57	***	0.15	*	0.19	**	0.11	$p > 0.05$	2.09	$p < 0.05$
Designing and Aligning	0.51	***	0.20	**	0.12	$p = .0561$	0.02	$p > 0.05$	2.67	$p < 0.05$
Reward and Feedback	0.57	***	0.21	**	0.12	*	0.00	$p > 0.05$	2.77	$p < 0.05$
Team-Building	0.71	***	0.20	*	0.15	**	0.01	$p > 0.05$	2.42	$p < 0.05$
Tenacity	0.37	***	0.16	**	0.17	**	0.11	$p > 0.05$	2.27	$p < 0.05$
Emotional Intelligence	0.67	***	0.17	*	0.16	**	0.05	$p > 0.05$	2.14	$p < 0.05$

Table 25. Direct and indirect effects of the eight leadership styles on intrinsic motivation amongst employee sample ($n = 90$)

Dimension	Dimension -> Trust (a paths)		Trust -> Work Effort (b paths)		Dimension -> Work Effort (c paths)		Dimension -> Work Effort (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.93	***	0.13	p = .2066	0.23	**	0.10	p > 0.05	1.28	p = .2014
Visioning	0.49	***	0.12	p = .1409	0.18	**	0.13	p > 0.05	1.46	p = .1447
Empowering	0.75	***	0.16	p = .1073	0.17	*	0.05	p > 0.05	1.62	p = .1048
Energizing	0.57	***	0.20	*	0.11	p = .1410	-0.01	p = .9286	2.25	p < .05
Designing and Aligning	0.51	***	0.16	*	0.15	*	0.07	p > 0.05	1.94	p = .0528
Reward and Feedback	0.57	***	0.17	*	0.13	p = .0620	0.03	p < .05	2.02	p < .05
Team-Building	0.71	***	0.19	p = .0554	0.14	*	0.00	p > 0.05	1.92	p = .0543
Tenacity	0.37	***	0.20	**	0.06	p = .3482	-0.01	p > 0.05	2.21	p < .05
Emotional Intelligence	0.67	***	0.11	p = .2685	0.19	**	0.11	p > 0.05	1.12	p = .2633

Table 26. Direct and indirect effects of the eight leadership styles on work effort amongst employee sample (n = 90)

Dimension	Dimension -> Trust (a paths)		Trust -> Self Efficacy (b paths)		Dimension -> Self Efficacy (c paths)		Dimension -> Self Efficacy (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Sobel test ($p < 0.05$ => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.93	***	0.21	**	-0.09	$p = .2397$	-0.29	$p = .0122$	2.32	$p < 0.5$
Visioning	0.49	***	0.08	$p = .2859$	-0.03	$p = .6200$	-0.07	$p > 0.05$	1.07	$p = .2852$
Empowering	0.75	***	0.06	$p = .4640$	0.01	$p = .8705$	-0.04	$p > 0.05$	0.74	$p = .4583$
Energizing	0.57	***	0.13	$p = .0810$	-0.09	$p = .1643$	-0.16	$p = .0327$	1.72	$p = .0851$
Designing and Aligning	0.51	***	0.11	$p = .1102$	-0.10	$p = .1176$	-0.16	$p = .0324$	1.56	$p = .1196$
Reward and Feedback	0.57	***	0.16	*	-0.12	$p = .0559$	-0.21	$p = .0053$	2.08	$p < 0.5$
Team-Building	0.71	***	0.18	*	-0.07	$p = .2536$	-0.20	$p = .0217$	2.10	$p < 0.5$
Tenacity	0.37	***	0.06	$p = .3554$	-0.03	$p = .5619$	-0.06	$p > 0.05$	0.91	$p = .3609$
Emotional Intelligence	0.67	***	0.15	$p = .0766$	-0.05	$p = .3933$	-0.15	$p > 0.05$	1.78	$p = .0750$

Table 27. Direct and indirect effects of the eight leadership styles on self-efficacy amongst employee sample (n = 90)

The Eight Leadership Dimensions and Motivation

The Eight Leadership Dimensions and Overall Motivation

       The following figures each show the effects of a subset of four styles on the outcome variables. The separation into two sets of four styles per diagram has merely presentational and no theoretical purposes. Table 23 contains the results for the direct and indirect effects of the eight leadership styles on overall motivation. Figure 14 shows the results for the first four dimensions *Visioning, Empowering, Energizing, Designing and Aligning*. The relationship between Visioning and individual trust was statistically reliable *(β = .49; p <.001)*. The relationship between individual trust and overall motivation was reliable when controlling for Visioning *(β = .13; p <.05)*. The once reliable relationship between Visioning and overall motivation *(β = .18; p <.001)* became non-significant when controlling for trust *(β = .12; p = .0177 but z = 2.23; p <.01; bootstrap: .0126 to .1486)* [2]. Hypotheses 4 and 7 were therefore supported.

       The relationship between Empowering and trust was statistically reliable *(β = .75; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Empowering *(β = .21; p <.01)*. Most importantly, the once reliable relationship between Empowering and overall motivation *(β = .14; p <.01)* became non-significant when controlling for trust *(β = -.02; p >.05 and z = 3.04; p <.01)*. Hypothesis 3 was therefore fully supported. Hypotheses 4 and 7 were also supported.

       The relationship between Energizing and individual trust was statistically reliable *(β = .57; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Energizing *(β = .17; p <.01)*. Most importantly, the once reliable relationship between Energizing and overall motivation *(β = .16; p <.01)* became non-significant when controlling for individual trust *(β = .06; p >.05 and z = 2.68; p <.01)*. Hypotheses 4 and 7 were therefore supported.

       The relationship between the final dimension shown in Figure 9.5, Designing and Aligning, and trust was statistically reliable *(β = .51; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Designing and Aligning *(β = .18; p <.01)*. Most importantly, the once reliable relationship between Designing and Aligning and

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[2] The absence of a mediation effect is in line with the bootstrap confidence interval value range containing zero indicating that there is no significant different between c and c'. Preacher and Hayes (2004) argued that the bootstrap results give further insights into a potential presence of a mediation effect. They point out that if the range between the lower 95% and the upper 95% Confidence Levels contains zero, the absence of a mediation can be concluded. As Hayes (2009) pointed out, the bootstrap results are the most trustworthy in determining a mediation.

overall motivation *(β = .13; p <.05)* became non-significant when controlling for individual trust *(β = .04; p >.05 and z = 2.85; p <.05)*. Hypotheses 4 and 7 were therefore supported.
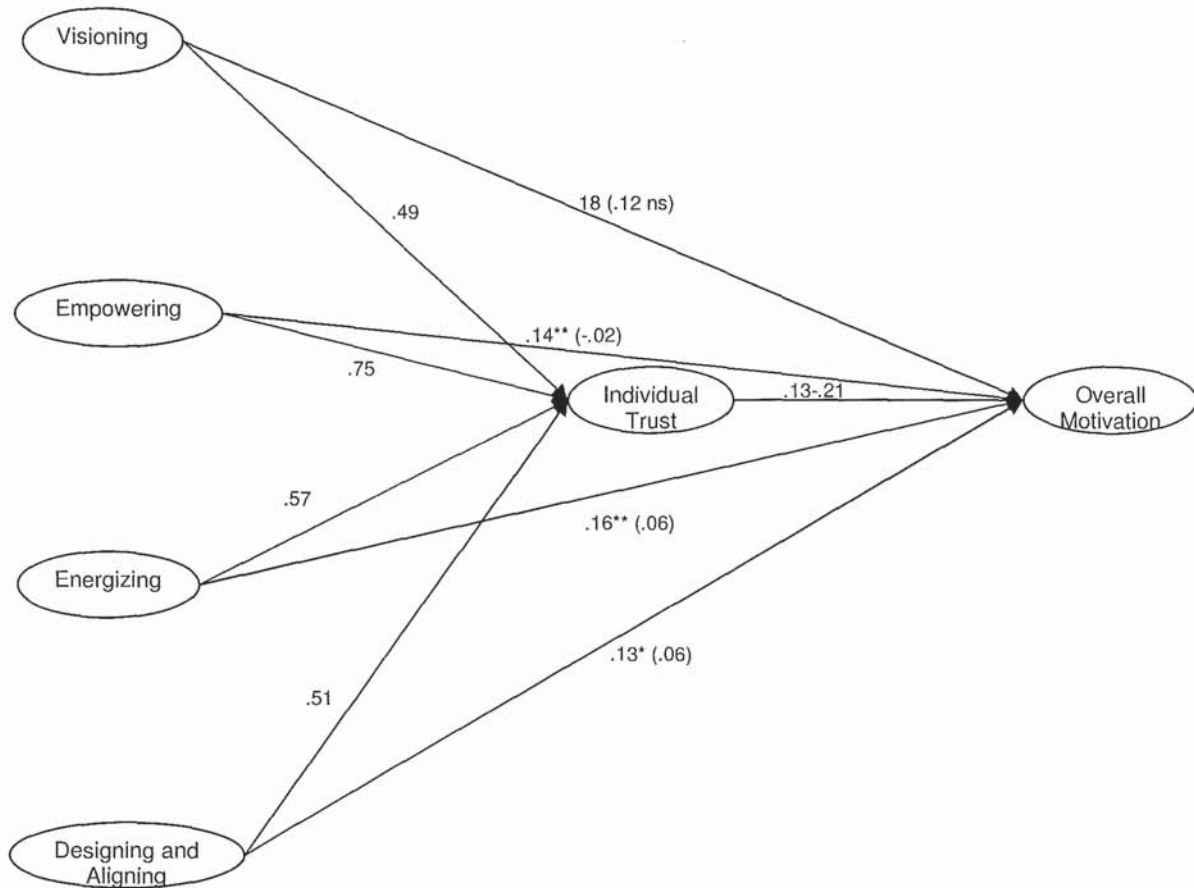
Figure 14. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on overall motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Figure 15 shows the direct and indirect effects for the remaining four leadership styles. The relationship between Reward and Feedback and individual follower trust in the leader was statistically reliable *(β = .57; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Reward and Feedback *(β = .19; p <.01)*. Most importantly, the once reliable relationship between Reward and Feedback and overall motivation *(β = .12; p <.05)* became non-significant when controlling for trust *(β = .01; p >.05 and z = 3.01; p <.05)*. Hypotheses 2 and 8 were therefore fully supported.

The relationship between Team-Building and individual trust was statistically reliable *(β = .71; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Team-Building *(β = .19; p <.01)*. Most importantly, the once reliable

relationship between Team-Building and overall motivation *(β = .15; p <.01)* became non-significant when controlling for trust *(β = .01; p >.05 and z = 2.78; p <.05)*. Hypotheses 4 and 7 were therefore supported.

The relationship between Tenacity and trust was statistically reliable *(β = .37; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Tenacity *(β = .18; p <.001)*. Most importantly, the once reliable relationship between Tenacity and overall motivation *(β = .13; p <.05)* became non-significant when controlling for trust *(β = .06; p >.05 and z = 2.61; p <.05)*. Hypotheses 4 and 7 were therefore supported.

The relationship between Emotional Intelligence and individual trust was statistically reliable *(β = .67; p <.001)*. The relationship between trust and overall motivation was reliable when controlling for Emotional Intelligence *(β = .15; p <.05)*. Most importantly, the once reliable relationship between Emotional Intelligence and overall motivation *(β = .17; p <.001)* became non-significant when controlling for trust *(β = .07; p >.05 and z = 2.15; p <.05)*. Hypotheses 4 and 7 were therefore supported.

Figure 15. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on overall motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (*p <.05). All path coefficients are statistically in parentheses non-significant at p > .05 indicating a mediation unless indicated otherwise.

The Eight Leadership Dimensions and Intrinsic Motivation

Table 24 contains the results for the direct and indirect effects of the eight leadership styles on intrinsic motivation. The direct effects for all leadership dimensions on individual trust in the leader remain the same as described before, but the effects between individual trust and intrinsic motivation and its mediating potential are described below. Figure 16 shows that the relationship between trust and intrinsic motivation was reliable when controlling for Visioning ($\beta = .14; p <.05$). Most importantly, the once reliable relationship between Visioning and intrinsic motivation ($\beta = .18; p <.001$) became non-significant when controlling for individual trust in the leader ($\beta = .12; p >.05$ and $z = 2.01; p <.05$). Hypotheses 4 and 7 were therefore supported.

The relationship between trust and intrinsic motivation was reliable when controlling for Empowering ($\beta = .25; p <.01$). Most importantly, the once reliable relationship between Empowering and intrinsic motivation ($\beta = .12; p = .0530$) became non-significant when controlling for individual trust in the leader ($\beta = -.07; p >.05$ and $z = 3.04; p <.05$). Hypothesis 3 was therefore fully supported. Hypotheses 4 and 7 were also supported.

The relationship between trust and intrinsic motivation was reliable when controlling for Energizing ($\beta = .15; p <.05$). Most importantly, the once reliable relationship between Energizing and intrinsic motivation ($\beta = .19; p <.01$) became non-significant when controlling for individual trust in the leader ($\beta = .11; p >.05$ and $z = 2.09; p <.05$). Hypotheses 4 and 7 were therefore supported.

The relationship between trust and intrinsic motivation was reliable when controlling for Designing and Aligning ($\beta = .20; p <.01$). Most importantly, the once reliable relationship between Designing and Aligning and intrinsic motivation ($\beta = .12; p = .0561$) became non-significant when controlling for individual trust in the leader ($\beta = .02; p >.05$ and $z = 2.67; p <.05$). Hypotheses 4 and 7 were therefore supported.

Figure 16. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on intrinsic motivation.

Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Figure 17 shows that the relationship between trust and intrinsic motivation was reliable when controlling for Reward and Feedback *(β = .21; p <.01)*. Most importantly, the once reliable relationship between Reward and Feedback and intrinsic motivation *(β = .12; p <.05)* became non-significant when controlling for individual trust in the leader *(β = .00; p >.05 and z = 2.77; p <.05)*. Hypotheses 2 and 8 were therefore fully supported.

The relationship between trust and intrinsic motivation was reliable when controlling for Team Building *(β = .20; p <.05)*. Most importantly, the once reliable relationship between Team Building and intrinsic motivation *(β = .15; p <.01)* became non-significant when controlling for individual trust in the leader *(β = .01; p >.05 and z = 2.42; p <.05)*. Hypotheses 4 and 7 were therefore supported.

The relationship between trust and intrinsic motivation was reliable when controlling for Tenacity *(β = .16; p <.01)*. Most importantly, the once reliable relationship between

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Tenacity and intrinsic motivation *(ß = .17; p <.01)* became non-significant when controlling for individual trust in the leader *(ß = .11; p >.05 and z = 2.27; p <.05)*. Hypotheses 4 and 7 were therefore supported.
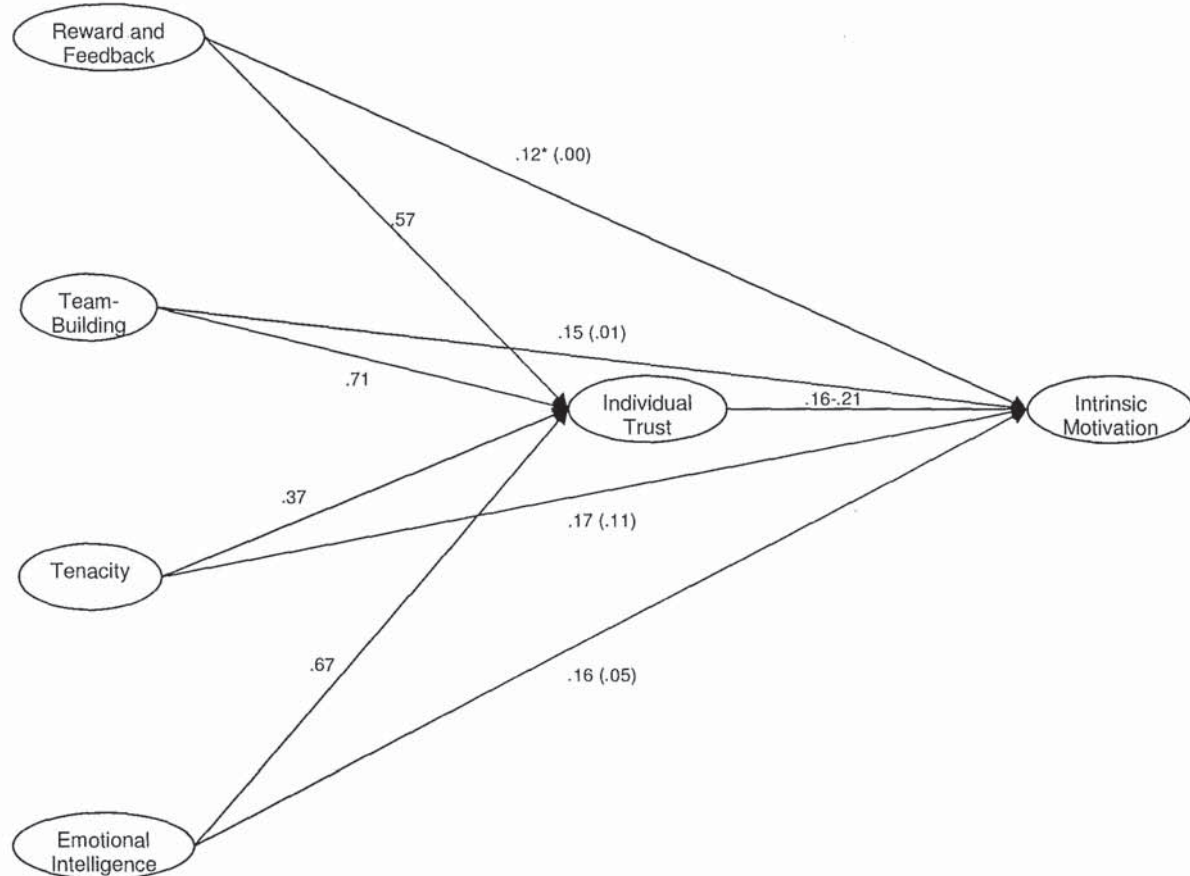
Figure 17. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on intrinsic motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

The relationship between trust and intrinsic motivation was reliable when controlling for Emotional Intelligence *(ß = .17; p <.05)*. Most importantly, the once reliable relationship between Emotional Intelligence and intrinsic motivation *(ß = .16; p <.01)* became non-significant when controlling for individual trust in the leader *(ß = .05; p >.05 and z = 2.14; p <.05)*. Hypotheses 4 and 7 were therefore supported.

The Eight Leadership Dimensions and Work Effort

Table 25 contains the results for the direct and indirect effects of the eight leadership styles on work effort. Figure 18 shows that the relationship between trust and work effort was non-significant when controlling for Visioning *(ß = .12; p = .1409)*. Therefore, the reliable

relationship between Visioning and work effort *(ß = .18; p <.01)* was not affected by the introduction of individual trust. Hypothesis 7 was therefore not supported.

The relationship between trust and work effort was non-significant when controlling for Empowering *(ß = .16; p = .1073)*. Therefore, the reliable relationship between Empowering and work effort *(ß = .17; p <.05)* was not affected by the introduction of individual trust. Hypothesis 7 was therefore not supported.

The relationship between trust and work effort was reliable when controlling for Energizing *(ß = .20; p <.05)*. The relationship between Energizing and work effort was non-significant *(ß = .11; p = .1410)*. Hypothesis 7 was therefore not supported.

The relationship between trust and work effort was reliable when controlling for Designing and Aligning *(ß = .16; p <.05)*. Most importantly, the once reliable relationship between Designing and Aligning and work effort *(ß = .15; p <.05)* became non-significant when controlling for individual trust in the leader *(ß = .07; p >.05 and bootstrap: .0000 to .2182)*. Hypothesis 4 and 7 were therefore supported.
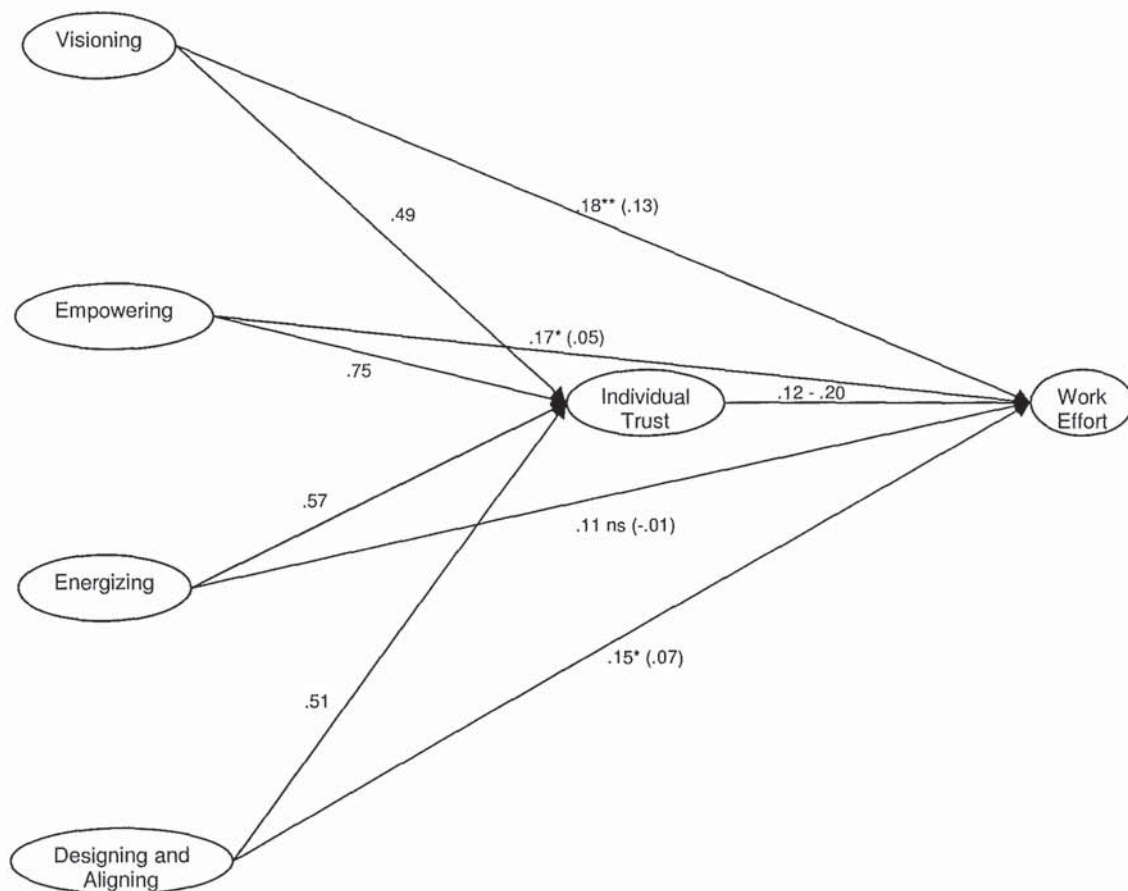
Figure 18. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on work effort.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Figure 19 shows that the relationship between trust and work effort was reliable when controlling for Reward and Feedback ($\beta = .17; p <.05$). The relationship between Reward and Feedback and work effort was non-significant ($\beta = .13; p = .0620$). Hypothesis 8 was therefore not supported.

The relationship between trust and work effort was reliable when controlling for Team Building ($\beta = .19; p = .0554$). Most importantly, the once reliable relationship between Team Building and work effort ($\beta = .14; p <.05$) remained significant when controlling for individual trust in the leader ($\beta = .00; p >.05$ but $z = 1.92; p = .0543$ and bootstrap: $-.0495$ to $.3829$). Although all significance values are slightly above the significance threshold, the bootstrap examples support an absence of a mediation. Hypothesis 7 was therefore not supported.

The relationship between trust and work effort was reliable when controlling for Tenacity ($\beta = .20; p <.01$). The relationship between Tenacity and work effort was non-significant ($\beta = .06; p = .3482$). Hypothesis 7 was therefore not supported.

The relationship between trust and work effort was non-significant when controlling for Emotional Intelligence ($\beta = .11; p = .2685$). The reliable relationship between Emotional Intelligence and work effort ($\beta = .19; p <.01$) therefore remained significant. Hypothesis 7 was therefore not supported.
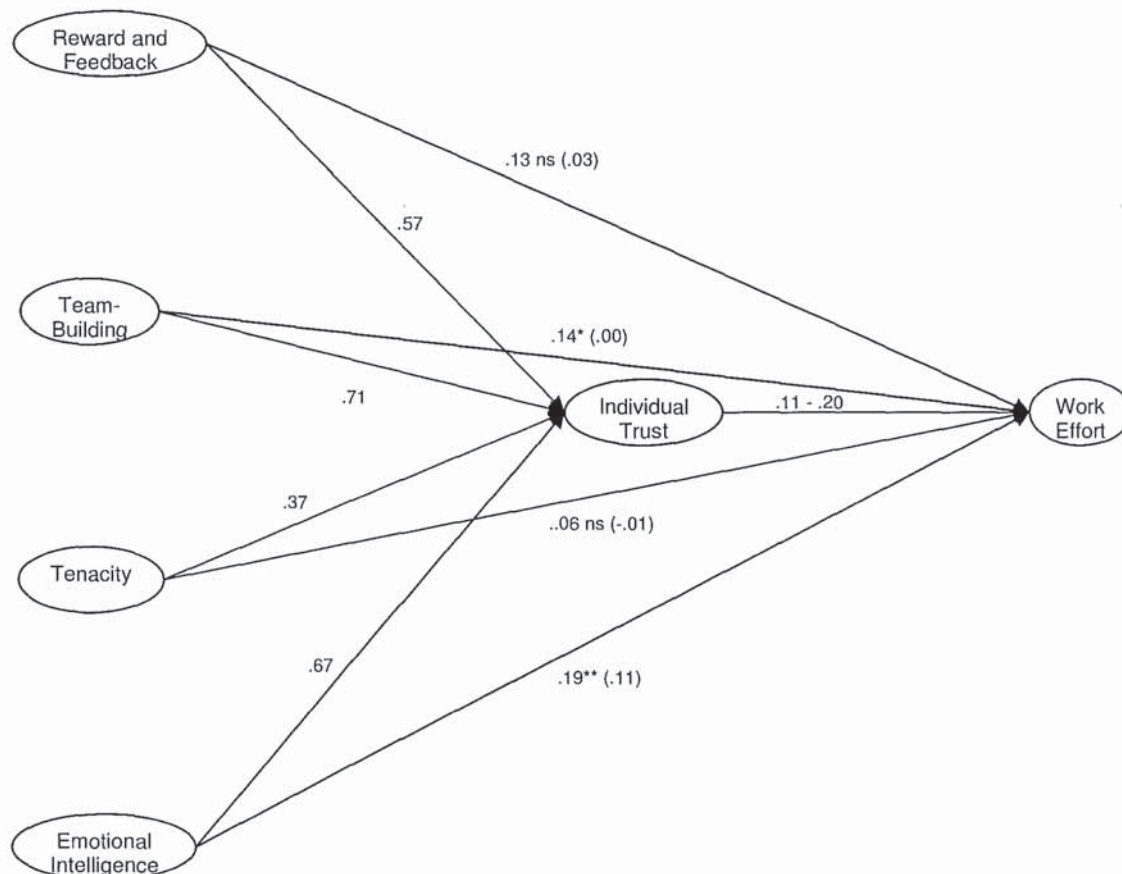
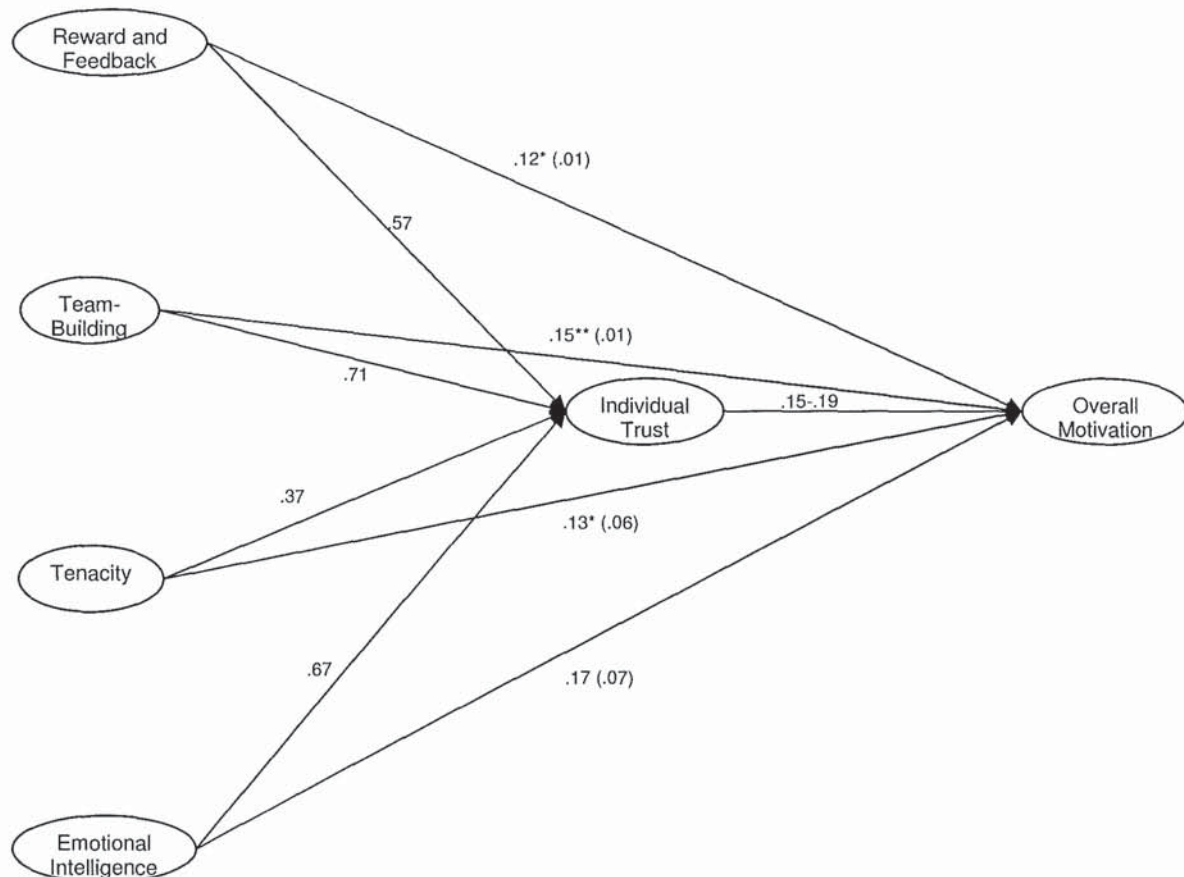**Figure 19. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on work effort.**
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Summary of the Relationships between Leadership, Trust, and Motivation

The results showed that all eight leadership dimensions are positively related to trust, but that the majority of their effects occur through the level of follower trust in the leader. Hypotheses 2, 3, 4, 7, and 8 were therefore partially supported. The effects of leadership on individual motivation, namely overall and intrinsic motivation, do indeed occur through the level of trust a follower possesses in the leader. For work effort, the picture is slightly different in that work effort appears to be independent of leadership and trust; that is to say, at least during a crisis situation.

The Eight Leadership Dimensions and Self-Efficacy

Table 26 contains the results for the direct and indirect effects of the eight leadership styles on and self-efficacy. The effects for all the leadership dimensions on individual trust remain the same as for all other outcome variable models, but as Figure 20 shows that the

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relationship between trust and self-efficacy was non-significant when controlling for Visioning ($\beta = .08$; $p = .2859$). Furthermore, the relationship between Visioning and self-efficacy was non-significant ($\beta = -.03$; $p = .6200$). Hypothesis 6 was therefore not supported.

The relationship between trust and self-efficacy was non-significant when controlling for Empowering ($\beta = .06$; $p = .4640$). Furthermore, the relationship between Empowering and self-efficacy ($\beta = .01$; $p = .8705$) was non-significant. Hypothesis 6 was therefore not supported.

The relationship between trust and self-efficacy was non-significant when controlling for Energizing ($\beta = .13$; $p = .0810$). Furthermore, the relationship between Energizing and self-efficacy was non-significant ($\beta = -.09$; $p = .1643$). Hypothesis 6 was therefore not supported.

The relationship between trust and self-efficacy was non-significant when controlling for Designing and Aligning ($\beta = .11$; $p = .1102$). Furthermore, the relationship between Designing and Aligning and self-efficacy ($\beta = -.10$; $p = .1176$) was non-significant. Hypothesis 6 was therefore not supported.

Figure 21 shows that the relationship between trust and self-efficacy was reliable when controlling for Reward and Feedback ($\beta = .16$; $p < .05$). The relationship between Reward and Feedback and self-efficacy was non-significant ($\beta = -.12$; $p = .0599$). Hypothesis 5 was therefore not supported.

The relationship between trust and self-efficacy was reliable when controlling for Team Building ($\beta = .18$; $p < .05$). The relationship between Team Building and self-efficacy was non-significant ($\beta = -.07$; $p = .2536$). Hypothesis 6 was therefore not supported.

The relationship between trust and self-efficacy was non-significant when controlling for Tenacity ($\beta = .06$; $p = .3554$). Furthermore, the relationship between Tenacity and self-efficacy was non-significant ($\beta = -.03$; $p = .5619$). Hypothesis 6 was therefore not supported.

The relationship between trust and self-efficacy was non-significant when controlling for Emotional Intelligence ($\beta = .15$; $p = .2685$). Furthermore, the relationship between Emotional Intelligence and self-efficacy was non-significant ($\beta = -.05$; $p = .3933$). Hypothesis 6 was therefore not supported.
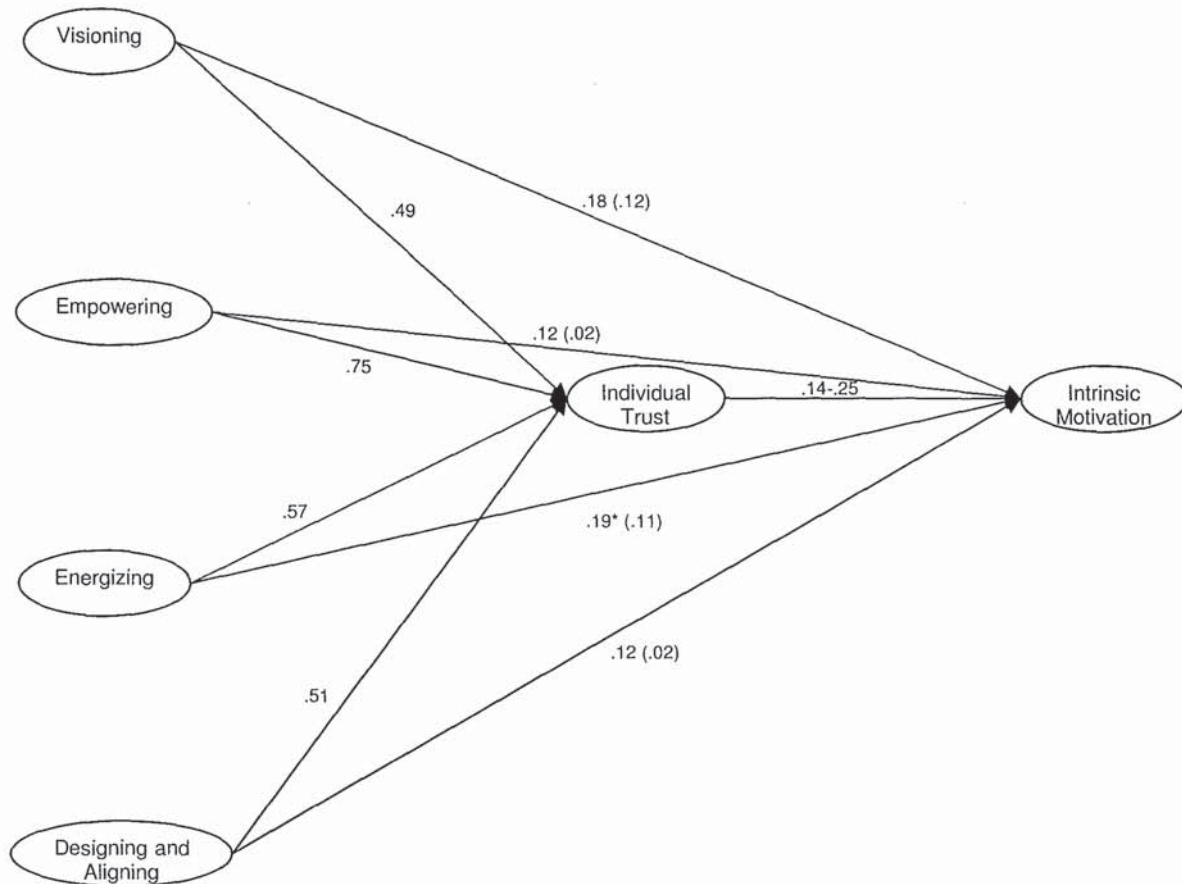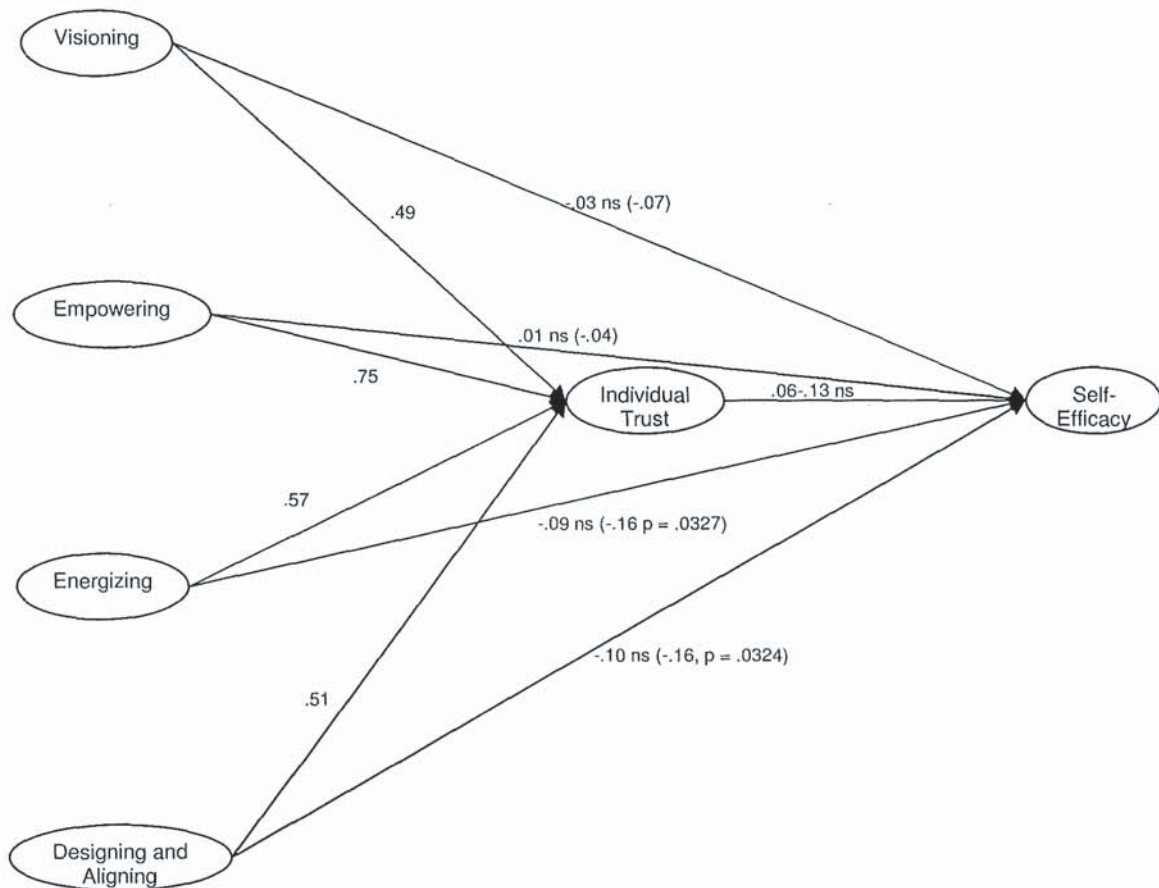
Figure 20. Results of analysis of effects of Visioning, Empowering, Energizing, and Designing and Aligning on self-efficacy.

Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.
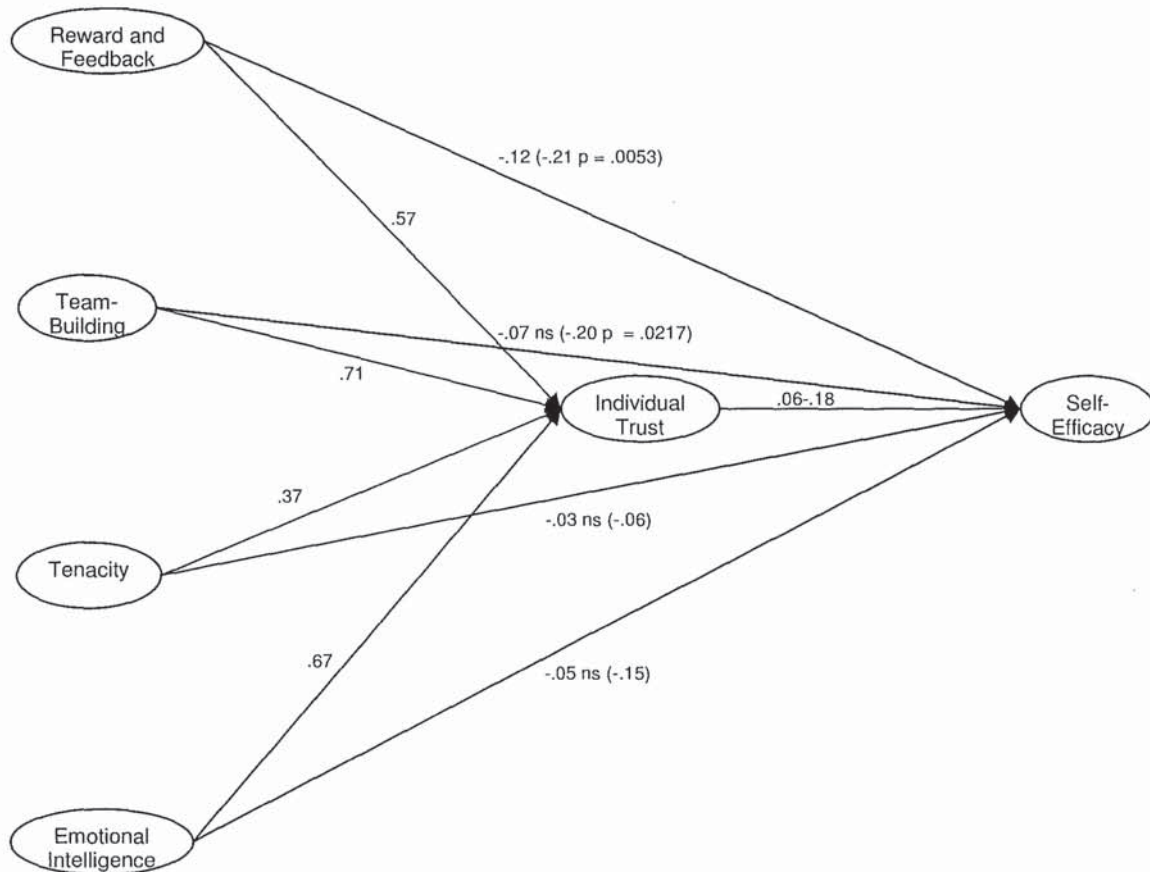
Figure 21. Results of analysis of effects of Reward and Feedback, Team-Building, Tenacity, and Emotional Intelligence on self-efficacy.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (**p <.01, *p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Summary of the Relationships between Leadership, Trust, and Efficacy

None of the effects of the eight leadership styles were found to be mediated through individual trust in the leader. Self-efficacy is therefore shown to be independent of what the leader does and how much trust is attributed towards him or her; although Designing and Aligning does have a direct effect on self-efficacy. Hypotheses 5 and 6 were therefore not supported.

Individual Contribution of the Eight Leadership Dimensions on the Outcome Variables including Trust

The following three hypotheses were set out to be investigated in the following section:

Hypothesis 1: Leadership behaviors incorporating interpersonal facets other than purely economic interaction will result in higher levels of individual trust in followers than reward behaviors, including feedback, and tenacity.

Hypothesis 2: Fair reward behaviors will lead to greater levels of trust.

Hypothesis 4: Individual trust in the leader leads to both individual motivation and collective motivation constructs.

Leadership Dimensions – Trust

In order to establish which of the eight leadership dimensions has the greatest direct effect on the outcome variables including trust, individual regressions as well as a forced entry multiple regression were run for the respective leadership style (see Table 27). The hierarchical regression was conducted to establish the contribution each leadership style has on the individual outcome variable when incorporated in a single model. The results for the individual regressions in Table 9.5 show the unstandardized and the standardized coefficients. While the unstandardized coefficients allow to establish the change in the outcome variable, the standardized indicates the magnitude of the effect of the predictor on the dependent variable and allows to compare the effect sizes independent of the nature of the outcome variable. Although it may be argued that one is more report worthy than the other, Hayes (2009) pointed out that the "unstandardized coefficients are the standard metric in causal models."

Effective Leadership as an overall leadership style has the greatest significant effect explaining 55.8 per cent of variance in individual trust in the leader. It further appears that on the individual leadership style level, Team-Building is the strongest predictor of trust in the leader explaining 51.0 per cent of variance in individual trust, followed Empowering explaining 50.7 per cent, Emotional Intelligence explaining 50.4 per cent, and Reward and Feedback explaining 32.3 per cent of the variance in individual trust. The fifth strongest predictor of individual trust is Energizing, explaining 31.4 per cent of variance in individual trust, and Visioning, explaining 28.3 per cent of the variance, having the sixth strongest effect. Designing and Aligning is the seventh strongest predictor explaining 22.2 per cent of variance in individual trust, while Tenacity, explaining 14.7 per cent of variance in individual trust, is

the weakest predictor of trust. In order to test how much a model incorporating all leadership styles would be able to explain in terms of the variance in individual trust, a hierarchical regression was conducted. It was found that 68.8 per cent of the variance in individual trust can be explained by a model comprising of all leadership styles.

The Isolated Effects of Trust on the Outcome Variables

In order to test the direct effect of individual trust in the leader on the outcome variables, a number of regressions were conducted (see Table 28). Trust has a direct influence, when considered isolated (i.e., not as a mediating variable) on overall motivation $(\beta = .20; p <.001)$, intrinsic motivation $(\beta = .21; p <.001)$, and work effort $(\beta = .19, p <.01)$. The relationship between individual trust in the leader and self-efficacy is not reliable $(\beta = .04; p = .527)$.

Summary of the Leadership Impacts on Individual Trust in the Leader

Hypothesis 1, 2, and 4 were supported. The results showed that a number of styles that are most similar to the transformational leadership construct do indeed contribute more to the level of trust in the leader than reward, feedback, and tenacity. However, reward and feedback explained a greater variance in individual trust in the leader than Energizing, Visioning, and Designing and Aligning. In addition, individual trust was shown to lead to greater levels of motivation when considered independent of other variables.

Dimension	Trust				Overall Motivation				Intrinsic Motivation			
	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)
Effective Leadership	0.93	0.75	***	55.8	0.24	0.39	***	15.3	0.24	0.35	***	12.3
Visioning	0.49	0.54	***	28.3	0.18	0.42	***	17.2	0.18	0.36	***	12.9
Empowering	0.75	0.71	***	50.7	0.14	0.27	**	7.5	0.12	0.21	p = .05	4.2
Energizing	0.57	0.57	***	31.4	0.16	0.32	**	10.1	0.19	0.33	**	11.2
Designing and Aligning	0.51	0.48	***	22.2	0.13	0.26	*	6.7	0.12	0.20	p = .06	4.1
Reward and Feedback	0.57	0.57	***	32.3	0.12	0.25	*	6.4	0.12	0.21	*	4.3
Team-Building	0.71	71.4	***	51.0	0.15	0.30	**	9.2	0.15	0.27	**	7.4
Tenacity	0.37	38.3	***	14.7	0.13	0.27	*	7.1	0.17	0.31	**	9.4
Emotional Intelligence	0.67	0.71	***	50.4	0.17	0.37	***	13.8	0.16	0.30	**	9.2

Table 28. Direct leadership effects and explained variance in outcome variables (n = 90)

Table 29. Direct leadership effects and explained variance in outcome variables (n = 90)

Dimension	Work Effort				Self-Efficacy			
	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)
Effective Leadership	0.23	0.27	**	7.4	-0.09	-0.13	p = .24	1.60
Visioning	0.18	0.30	**	9.1	-0.03	-0.05	p = .62	0.30
Empowering	0.17	0.24	*	5.8	0.01	0.02	p = .87	0.00
Energizing	0.11	0.16	p = .14	2.4	-0.09	-0.15	p = .16	2.20
Designing and Aligning	0.15	0.22	*	4.7	-0.10	-0.17	p = .12	2.80
Reward and Feedback	0.13	0.20	p = .06	3.9	-0.12	-0.20	p = .06	4.10
Team-Building	0.14	0.21	*	4.4	-0.07	-0.12	p = .25	1.50
Tenacity	0.06	0.10	p = .35	1.0	-0.03	-0.06	p = .56	0.40
Emotional Intelligence	0.19	0.30	**	8.7	-0.05	-0.09	p = .39	0.80

Table 30. Direct trust effects and explained variance in outcome variables (n = 90)

Dimension	Overall Motivation				Work Effort				Intrinsic Motivation				Self-Efficacy			
	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)	Unstand. Coefficient	Stand. Coefficient	Sign.	Variance explained (individual)
Trust	0.20	0.41	***	17.00	0.19	0.29	**	8.40	0.21	0.37	***	13.50	0.04	0.07	p = .53	0.50

The Eight Leadership Dimensions, Trust, and the Outcome Variables

To sum up the effects of the overall leadership style coined Effective Leadership and the individual leadership styles, it has been shown that Effective Leadership is significantly related to both individual trust in the leader, overall follower motivation, intrinsic motivation, and work effort, while no such significant relationship was found for self-efficacy. The effects of Effective Leadership were not mediated through individual trust in the leader for any of the tested relationships indicating that Effective Leadership is likely to incorporate aspects that may reflect trust instilling behaviors. Alternatively, Effective Leadership as an accumulation of all the individual leadership styles is likely to be far superior to any other style and therefore the contribution of individual trust is negligible.

Regarding the eight individual leadership styles, Team-Building emerged as the strongest predictor of individual trust in the leader, followed by Empowering, Emotional Intelligence, Reward and Feedback, Energizing, Visioning, Designing and Aligning, and Tenacity as the least strongest influence for followers to experience trust in their leader. This partially supports Hypothesis 1, although Reward and Feedback emerged as fourth strongest predictor of trust. Tenacity did indeed show the smallest effect on follower trust in the leader. Investigating the issue of reward and feedback behaviors further, it is important to mention two aspects: 1) two of the three styles that emerged as the strongest predictors – Team-Building and Emotional Intelligence – are both related to the interpersonal facets of leadership; 2) rewards and feedback, if delivered in a fair and timely manner, are likely to incorporate an interpersonal aspect in that it is a social exchange between the two parties and therefore influence the trust in the leader. Hypothesis 2 is fully supported as the items contained in the Reward and Feedback scale ask for fair and reliable rewards on both the individual and team level.

Overall Motivation, the accumulation of intrinsic motivation and work effort, was most strongly affected by Visioning, followed by Emotional Intelligence, Energizing, Team Building, Empowering, Designing and Aligning, and Tenacity, and finally Reward and Feedback. The picture for intrinsic motivation is similar in that all leadership styles positively affect the level of intrinsic motivation amongst followers. The effects for the second type of motivation, work effort – the motivation to improve one's performance – were two-fold with Emotional Intelligence being the strongest predictor, followed by Visioning, Empowering, Designing and Aligning, Team Building, Reward and Feedback, Energizing, and finally Tenacity. None of the leadership styles has any significant effect on followers' level of self-

efficacy. Followers appear to get their beliefs in their own ability from other sources than leadership.

The results for the direct influence of follower's level of trust in the leader on any of the outcomes are similar with overall motivation, intrinsic motivation, and work effort increasing when the level of trust increases. Conversely, individual trust has no potential to increase self-efficacy amongst followers. There is therefore full support for the individual part of Hypothesis 4 with all of the motivational constructs being directly influenced by the level of trust, particularly important here the fact that the overall measure of motivation is affected supporting Hypothesis 7. Hypothesis 8 has been partially supported with the effects of rewards and feedback on intrinsic and overall motivation being mediated by trust, while work effort was not. In contrast, there was no support for Hypothesis 5 and 6 with no leadership effects on self-efficacy mediated through trust.

Individual trust in the leader mediates the effects of all leadership styles on overall and intrinsic motivation. Trust did not show to play a mediating role in any of the relationships between leadership styles and work effort. Therefore Hypothesis 3 has been partially supported, as Empowering comprised of items on participative leadership.

7.3 Discussion of Individual Employee Sample Results

This study was conducted to examine the relationship between eight different leadership styles and the five outcome variables – Previous studies (e.g., Podsakoff et al., 1996a) have claimed that the most crucial elements in creating and maintaining trust in an organizational context and in particular trust in the leader are those behaviors, skills, and traits displayed by the leader. The current results support this view indicating an even greater impact of leadership on trust than previous studies. Podsakoff et al. (1996a) found 55 per cent of the variance in trust can be attributed to leader behaviors. Effective Leadership including behaviors like empowering people, showing empathic skills, making sure the team works as one unit, but nonetheless a style which is characterized by the leader standing out as the major contributor to decisions and restless in pursuing goals, even during rough times, explains almost 56 per cent of the variance in the level of trust followers attribute to their leader. Considering that previous studies have found that the individual characteristics incorporated in Effective Leadership are important constructs for developing and maintaining leadership, it becomes clear that those leaders who realize the importance of trust for organizational success need not forget to involve their people in decision-making processes and equipping them with the right tools to succeed. Indeed, one of the most important facets of leadership when

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attempting to create trust amongst those, who ideally are the key to success, is to elevate them to an independent equal level through empowering them. As Korsgaard (1995) and others have pointed out, empowering those who follow will not only lead to greater levels of trust, but will lead to feelings of greater competency and information-sharing. Empowerment, although a relatively easy thing to do by, for instance, delegating greater levels of authority, requires bipartisan trust with one party required to trust that the other person is able to deal with greater responsibilities and the other party feeling safe that the greater responsibility has been given to them due to their abilities. When done correctly, it will lead to levels of trust that are beneficial to the follower, the leader, the group, and the entire organization both regarding interpersonal relationships and successes.

Instilling trust through higher-order needs

Given that people work amongst many others in a team, department, or any other type of smaller or larger type of society, the ability of the leader to create a team-spirit, a feeling that everyone belongs to the collective appears to give individuals the feeling that they are considered part of a bigger phenomenon. Through team-building, a leader appears to be able to establish a feeling amongst individuals that they will be treated fairly by the leader due to his or her efforts to establish a little society. This may be due to, what Kets de Vries (1988) claimed to be the family-like aspect of leader and follower interaction. Individuals seem to be more willing to believe in the leader to be treating them fairly and watching out for their good, not taking advantage of them, if an atmosphere of belonging and being watched over and cared for is established. This is very much in line with the fact that emotional intelligence arose as one of the main factors in the level of trust followers are willing to attribute to their leader. Considering that emotional intelligence, team-building, and empowering all have one major aspect in common – understanding other's emotions, being able to react and respond to other's feelings and needs, and hence being aware of how much can be "loaded upon" the other party – it appears that the psychological and human aspect are really the most important characteristics for a leader to be effective. A leader should subsequently be human and care-taker first and only then the energizing one, the one calling out for new heights to be climbed and explored. The effective leader is therefore foremost the fulfiller of people's higher-order needs in the context of Maslow's (1954) theory and only later the one to make sure that needs such as financial needs are satisfied, at least regarding trust.

Fair rewards and trust

Yet, different from previous claims arguing for rewards to be a rather detrimental way of effecting others (e.g., Deci, 1972), when attempting to establish trust, the leader cannot go wrong by rewarding those who perform well. The important aspect of rewards to be trust-instilling, however, is the latter, fair and reliable rewards for appropriate performance. Those who are rewarded and view the exchange as gratitude for their contribution to the team and the leader's mission will ultimately have their beliefs confirmed that the person possessing the respective powers will use them for the follower's good. The study shows that different from previous suggestions (e.g., Cameron and Pierce, 2002; Deci, 1972), rewards are not considered attempts to manipulate the individual. In contrast, the reward acts as a tool in feeding people's trust when used correctly. What leaders can learn from this is that simply using rewards may lead to the proposed detrimental effects; however, using them in a way that people perceive them as something they deserve and as a form of a "thank you", respect, and acknowledgment, the effects are likely to be trust building and therefore improving the leader-follower relationship leading to effective long-term collaborations.

Goal-setting with a vision

Similar to previous studies, in particular, studies on the importance of goal-setting for motivation and self-efficacy (e.g., Gist, 1987; Lee, Locke, Phan, 1997; Wright, 2004), the study found that leadership behaviors incorporated in the leader setting out and designing job aspects such as performance targets increase the level of follower trust in the leader. Hence, trust is not only important for the acceptance of goals (e.g., Dirks, 2000), but goals are a prerequisite for trust to develop. It is the leader's task to set performance goals and make sure they are adhered to. It is likely that individuals experience greater levels of trust in their leader if they feel that performance standards are worked toward by every member of the team reducing the risk of social loafing.

Trust also depends on the leader's ability to envision new paths and look beyond the existing state. The reason for trust to be affected by visionary and anticipatory leadership behaviors may be due to 1) the followers' perception that the leader will challenge methods that may not work as well striving for the best possible processes; 2) followers' beliefs that the leader is a person of importance within the organization and is therefore able to change things when necessary; and 3) a combination of the two: the leader will stand up for his beliefs and the beliefs of the team and not back down if out-groups attempt to change group

dynamics and influence group beliefs. This is in line with the influence energizing and tenacity have on the level of follower trust. Both can be seen as prerequisites, respectively towards the next step in achieving the vision.

Trust dependent on effective leadership

The leader therefore displays a complete picture of effective leadership that leads to new heights and will not fold when things get tough. A leader therefore, to be trusted, needs to stand up for his vision, needs to defend his team, and get everyone on board to achieve the vision and the short-, medium-, and long-term goals. Although this goes beyond the current findings, it is possible that a leader, who has a vision, gets everyone to pull into the same direction and will always defend the members of the group may trigger specific in-group processes that should be explored further – the LMX (e.g., Epitropaki & Martin, 2005) and social-identity literature (Terry & Callan, 1998) gives a good indication of the possible in-out-group processes involved and my give a good starting point for further research into these aspects. The effective leader ensures everyone stands behind and works towards the common goal and rewards the individual and the team appropriately. The study has also shown that those leaders who establish an environment in which people are happy to share information and collaborate, are willing to listen to individuals and to empower them will attain one of the most important requirements of leadership effectiveness, trust in the leader. It seems therefore fair to say that leadership styles that are most similar to the transformational leadership construct and rewards are similarly effective when it comes to influencing the trust levels of followers in the leader when used correctly.

The importance of the emotional bond for motivation

Just as leaders have a huge arsenal of tools to influence their people's level of trust, a similar relationship appears to exist between leadership and motivation. A leader who uses any of the psychological tools available to him to lead his people will increase people's level of overall motivation and intrinsic motivation. For instance, the emotional intelligent leader, hence the leader who listens and is able to read other's feelings and generally makes people feel at ease when around him, is able to influence his followers to not only be motivated overall to perform the task at hand but also work towards improving their own efforts and feel motivated by the task itself. It is possible that the influence of emotional intelligence stems from a similar identification and commitment with the leader as observed in the transformational literature (e.g., Jung & Avolio, 2000). McAllister (1995) spoke about the

emotional bond between follower and leader and its manifestation in trust. A similar effect is likely to occur between the emotionally intelligent leader and followers. With the willingness to invest time in understanding the other (i.e., the follower), the leader shows his respect and builds an emotional bond. This is further strengthened by the fact that the emotionally intelligent leader will pay full attention to what the follower is saying and generally showing respect. These features are likely to be the building blocks, as much as the leader is concerned regarding her part in creating and maintaining those blocks, for the emotional bond leading to greater level of motivation in the follower. Followers that are motivated through the use of emotional leadership are likely to have the inner drive to fulfill and honor the psychological relationship they share with their leader. They may therefore simply work more for the relationship per se which in turn is fed and maintained by the empathic behaviors shown by the leader. Consequently, these followers are likely to view the relationship with the leader as an end in itself worth working for, rather than a means for some further ends. However, with people's intrinsic motivation being unaffected by empathic behaviors, it is likely that, although people's willingness to contribute more to the overall task and increase the input of personal resources toward achieving the leader's and the group's mission, their inner driving forces to do the task for their own satisfaction is likely be based in sources outside the leader's control – such as their own standards and personal goals.

The motivational potential of energizing leadership has been established before, particularly in the charismatic leadership literature (e.g., Avolio et al. 1999; Bass & Steidlmeier, 1999), but is also considered one of the main driving forces in servant leadership (e.g., Greenleaf, 1977) and hinted at by Kets de Vries (1988) arguing for the parent-role represented by the leader. All of them pointed out the importance of a role model for influencing follower behaviors. Because the energizing leader not only pushes ahead and gets people to do things, but also shows enthusiasm and walks in front of everyone indicating his own commitment to the task and its importance, followers are more likely to feel motivated to do the same.

Performance standards in a collaborative environment

Similar to trust, setting clear performance standards and making sure people adhere to them leaves people feeling safe to contribute their own effort, time, and resources to the project. With the leader ensuring that everyone carries the same workload and is responsible for their behaviors, the risk of social loafing is minimized. People therefore can fully engage themselves in the project, not risking that others might get a free ride since the leader will

always have her hand over everyone to make sure the team works effectively together increasing the level of intrinsic motivation. Minimizing the risk of being a sucker and working for others, the individual is able to focus on the job at hand and work for its own enjoyment sake. In a similar manner, a leader's focus on establishing good team work including a collaborative work environment and open communication between team members and the leader has positive effects on both work effort and intrinsic motivation. Again, the creation of a collaborative environment in which people feel they belong appears to increase motivation through this family-like aura as indicated by Kets de Vries (1988). Individuals working in an environment incorporating a feeling of "us" appears to result in team members motivated to work due the joy of the task. This is also likely to be due to the individual not only enjoying the task per se, but knowing that the success of the task is a success for the team, therefore likely to increase the identification with the task. The task therefore becomes the team's baby that it is important to nurture for its own sake because it is an outward reflection of the collective. The positive effects on trust and the relationship between the leader's empathic skills and motivation, creating an environment in which followers collaborate on an empathic level may result in a "happy environment" and a motivational one. In other words, although studies have found, happy does not necessarily mean more productive (e.g., Mellina, 2003), a collaborative and pleasant environment and a feeling of belonging are important facets for people's overall and intrinsic motivation to exist and increase.

Rewards and motivation

Regarding the long fought debate over the role of rewards in motivation, the current study refutes the suggestion that followers are not motivated by rewards and feedback. While Deci and others (e.g., Deci, 1972) reported that it undermines people's intrinsic motivation, the current results show that both overall motivation and intrinsic motivation are affected by rewards and feedback. However, using rewards and giving feedback does not increase people's willingness to put more effort into the accomplishment of goals. A reinforcing effect and the effect of being rewarded not only through the achievement of set goals but also through personal gratitude on parts of the leader manifested in rewards and feedback seem to be the basis for the increase in intrinsic motivation.

Conversely, work effort may be influenced by factors independent from leadership. The most likely explanation, in particular when comparing the results to the individual student study, which showed a positive relationship between reward and feedback and work effort, is

that the employee sample was influenced by macro economic factors. Given that the students reflected upon their leaders before the financial crisis affected the real economy and led to great numbers of redundancies and downsizing, the employee sample was collected when the real economy had already been heavily impacted. In other words, while the students increased their work efforts when their leader displayed particular styles, the increase in work effort among the employee sample, in particular within the last three months (as one of the items asked for the increase in work effort in the last three months), was most likely due to the increase of potential redundancies and the fear of losing their job. The leader therefore appears to have less influence over the extra amount of effort put into tasks during times when external factors, such as macroeconomic factors and potential job losses, are as prominent as during the current financial crisis. The reason for people to increase the attribution of personal resources and to work harder is therefore most likely based on their striving to remain in employment and less influenced by the ways their leader behaves.

Envisioning, empowering, and sticking to the agreed

The current results support the findings from previous studies (e.g., Masi & Cooke, 2000) showing a positive relationship between empowering and motivation. This is particularly insightful in that studies have shown that during crisis it is not the empowering leader, the leader involving people in decision-making that is desired by followers, but the leader who is directive (Mulder et al., 1986). The current results, however, point toward the possibility that giving followers the opportunity to prove their abilities may be an important leadership tool in increasing people's motivation even during crisis. As mentioned before, the current data was collected in the greatest economic crisis since World War II, people appear to want a leader who can guide them and who has a vision, but at the same time, people who have the chance to participate in important decisions feel they are working for something they participated shaping, and providing the chance to prove themselves as valuable assets.

Leaders who show great levels of tenacity and appear to be willing to be assertive in the face of resistance appears to be an effective characteristic for a leader to possess and display. Just as it may be a positive characteristic when defending in-group decisions, beliefs, or visions, sticking to own principles appears to convert into follower feelings of "it is worth working for a goal, the leader will not change his or her mind in the face of resistance" and "what has been decided today will still be valid tomorrow". Individuals are therefore more likely to be willing to work toward the completion of the task.

The study further supports the importance of the leadership style greatly linked to charismatic leadership (e.g., Bass, 1985), visioning. Visioning has been found to increase all types of motivation. The visioning leader through his willingness to challenge the status quo and the ability to open up new ways and doors is able to get people to channel their energy towards the achievement of what is promised to lie ahead. Through his or her inspirational style getting people to look beyond what they have previously considered the constraining boundaries, people appear to take a 'this is my baby' or 'I have thought of this myself' approach. This is likely to leave them feeling that it is worth pursuing for the sake of their own pleasure likely to be fed by the success of the goal that they now perceive as theirs and no longer only as something inspired by the leader.

The mediator trust for leadership effectiveness

The important role trust in the leader plays for in the relationship between leadership styles and follower motivation was shown in the second part of the study. The leader who is trusted to act favorably regarding her followers is the leader who is not only able to positively affect people's level of overall motivation but also their enjoyment of the task, that is, their level of intrinsic motivation. A leader's ability to execute her leadership depends on the level of trust people have in her. Although the "complete leader", the leader possessing the Effective Leadership style, appears to possess facets that rule trust as less important for leadership effectiveness, those leaders who possess or display one of the eight styles do affect their followers through the trust attributed to them. In the context of psychodynamic and servant, but also transformational leadership, the fact that trust is a prerequisite for leadership effectiveness makes most sense. As Greenleaf (1977) and Kets de Vries (1988) stated, the effective leader is the one who serves others, who creates a parent-child relationship. On a similar note, Bass and Steidlmeier (1999) argued for the importance of a leader to be ethical. Taking these suggestions and drawing from definitions of trust such as by Mayer et al. (1995) and Hosmer (1995) who pinpoint the importance of the other party to be reliable and protect the other party, the significant role trust plays in the leader-follower relationship becomes apparent. Considering that the leader is a superior as well as protective figure able to act as a role model and advise followers, the parent/servant analogy makes most sense. Just as the father or the mother ensure that the child will blossom and reach its greatest potential, the leader will achieve the same if the feeling towards him is built on similar grounds as it is in a healthy parent-child relationship, that is trust between parent and child, respectively, between leader and follower.

Those leaders who are trusted will be able to convert their willingness to engage others in decision-making processes into their motivation to work towards the goal. Followers who trust the leader will consider the vision as something rewarding and positive rather than threatening and will perceive the leader's willingness to engage and delegate to them as something beneficial rather than greater amount of work. Followers will also feel that their opinion is considered valuable when asked for their advice by a trustworthy leader. It is likely that those leaders who are not trusted are perceived as manipulative or lacking in interest when asking for follower opinions. In a similar vein, delegation may be perceived as threatening. Followers lacking trust in the leader may perceive it as an attempt to dump work on them rather than giving them more authority.

Regarding the importance of rewards in the workplace and the long-fought debate over its value, the current research shows that when the leader is trusted, not only will the reward increase the overall willingness to work harder increase, but also the likelihood that the follower enjoys the task as something rewarding and most important as something worthwhile pursuing for its own sake. Rewards are therefore not perceived as an attempt to manipulate, as claimed by Deci (1972), but as a sign of appreciation. Just as children are proud to receive a reward and a few nice words from their parents if they do perform well or achieve a goal, employees and followers in general will perceive the reward as an appreciation, a sign, of their importance, their contribution to the overall goal, and their achievements.

None of the leadership styles in this study had any significant effect on self-efficacy. This limited potential of leadership to affect self-efficacy has been established by Shamir and colleagues (1998). It is possible and likely that people's beliefs in their own abilities is influenced by previous experiences unrelated to the leader and that more experienced employees, as in the current study, draw their self-efficacy beliefs from areas such as past successes, yet not from leadership behaviors or the level of trust they have in the leader.

To sum up, while all eight leadership styles increased the level of follower motivation, in particular in trusting relationships, none of the leadership styles or trust had a significant effect on self-efficacy.

7.4 The Role of Tenure

As mentioned previously, the differences in leadership effects on work effort between the two samples are most likely due to the different macroeconomic conditions during which

the two samples were collected. This gives an interesting insight into the limited ability leaders may have in influencing their followers willingness to increase work efforts during times of crisis. However, as established in the two samples, overall motivation and the mere joy of performing a task and succeeding are both linked to the way the leader behaves around her followers. However, as has been argued before, the initial level of trust is essential for a productive (work) relationship between leader and follower and subsequently associated outcomes. While Schoorman et al. (2007) and Ring and Van de Ven point out the importance of the initial level of trust for the following effectiveness of the work relationship between leader and follower, Casimir et al. (2009) did not find a time-trust effect in their study. The following chapter attempts to shed further light on the time debate by investigating the way in which the duration of the relationship with the leader and the department affects the mediating effects of trust in the relationships between leadership styles and motivation and self-efficacy. Two analyses are conducted involving the employee sample (n = 90) and the individual student sample (n = 207). Based on a previous study by Casimir et al. (2009), the time control was conducted post the initial analyses. The reason for running the analyses in both samples rather than merely the employee sample was that students differed in terms of their periods their worked in the same department and with the same manager. This might provide additional information on a time-trust effect amongst younger employees with a set time frame as found in project teams, where members and leaders often only collaborate for a specific time.

7.5 Procedure

As in Study 1 and 2, the Preacher and Hayes macro (2004; 2008) was used to conduct the analyses. Their macro offers the option to include covariates. The first step was to include the length respondents had been working with the same manager as a covariate in the mediation models. The procedure was then repeated running the analysis including the length respondents had been working in the department. The final analysis included both control variables. All eight leadership styles and the overall leadership style Effective Leadership were tested.

7.6 Results – Individual Student Sample (n = 207)

Effective Leadership

The inclusion of the length respondents had been working with their managers showed no reliable relationship between length with manager and overall motivation (ß = .00; p =

.9616). The relationship between length with manager and intrinsic motivation was also not reliable ($ß = -.03$; $p = .7202$), nor was the relationship between work effort ($ß = .06$; $p = .5034$), and self-efficacy ($ß = .09$; $p = .2470$). Regarding the individual leadership styles, controlling for the time respondents had spent working with the same manager had no reliable partial effects on any of the outcome variables in any of the models.

In contrast, the partial effect of the time spent working in the same department on overall motivation was reliable ($ß = .08$; $p < .05$). The relationship between Effective Leadership and trust became slightly stronger when controlling for time spent in department ($\Delta ß = .01$; $p < .001$). Time spent in the same department as a control variable did not result in any significant changes in the relationship between trust and overall motivation when controlling for Effective Leadership ($ß = .09$; $p = .1354$). It did, however, slightly decrease the effect of Effective Leadership on overall motivation ($\Delta ß = -.02$; $p < .001$) (see Table 10.1).

The partial effect of the time spent in the same department on intrinsic motivation was non-significant ($ß = .07$; $p = .0678$). It therefore had no significant effect on any of the other relationships.

The partial effect of the time spent working in the same department on work effort was reliable ($ß = .09$; $p < .05$). The time spent in the same department increased the effect of Effective Leadership on trust ($\Delta ß = .01$; $p < .001$). In contrast, the control variable did not result in any significant changes in the relationship between trust and work effort ($ß = .075$; $p = .2662$). It did, however, slightly decrease the effects between Effective Leadership on work effort ($\Delta ß = -.02$; $p < .001$). The relationship between time spent working in the same department was not reliable ($ß = -.06$; $p = .1095$) and therefore had no significant effect on any of the other variables.

The partial effects of the time spent working in the same department on self-efficacy were non-significant when controlling for trust and Effective Leadership.

Eight Leadership Styles

The relationship between length with manager and overall motivation was non-significant for all leadership styles and therefore had no effect on any of the relationships or mediations found in Study 1. The relationship between length spent working in the same department and overall motivation was reliable for all leadership styles (see Table 29). It had no effect on the relationship between trust and overall motivation when controlling for any respective leadership style, except for when controlling for Team-Building. The relationship between trust and overall motivation became stronger when controlling for time with

department (Δ ß = .01; p <.05). When controlling for time, the relationship between all eight leadership styles and overall motivation became weaker.

The relationship between length spent working in the same department and intrinsic motivation was reliable for all leadership styles (see Table 30). It had no effect on the relationship of trust and intrinsic motivation when controlling for any respective leadership style, except for when controlling for Team-Building. The relationship between trust and intrinsic motivation became stronger when controlling for time with department (Δ ß = .01; p <.05).

The relationship between length spent working in the same department and work effort was reliable for all leadership styles (see Table 31). It had no effect on the relationship of trust and work effort when controlling for any respective leadership style, except for when controlling for Team-Building. The relationship between trust and work effort became stronger when controlling for time with department (Δ ß = .01; p <.05).

The partial effects of the time spent working in the same department on self-efficacy were non-significant when controlling for trust and any of the eight leadership styles.

Dimension	Dimension -> Trust (a paths)		Trust -> Overall Motivation (b paths)		Dimension -> Overall Motivation (c paths)		Dimension -> Overall Motivation (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Partial Effect of Length with Department on Overall Motivation	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.
Effective Leadership	1.05	***	0.09	$p = .1354$	0.27	***	0.18	$p = .0336$	0.08	*
Visioning	0.60	***	0.17	***	0.15	**	0.05	$p > 0.05$	0.09	**
Empowering	0.61	***	0.14	**	0.15	***	0.07	$p > 0.05$	0.09	**
Energizing	0.61	***	0.16	**	0.15	***	0.05	$p > 0.05$	0.09	**
Designing and Aligning	0.60	***	0.15	***	0.21	***	0.12	$p > 0.05$	0.08	*
Reward and Feedback	0.54	***	0.13	**	0.15	***	0.08	$p > 0.05$	0.09	**
Team-Building	0.75	***	0.14	*	0.18	***	0.07	$p > 0.05$	0.08	*
Tenacity	0.32	***	0.18	***	0.10	*	0.04	$p > 0.05$	0.09	**
Emotional Intelligence	0.58	***	0.15	**	0.13	***	0.05	$p > 0.05$	0.09	**

Table 31. Unstandardized Direct and Indirect Effects of Eight Leadership Styles on Overall Motivation amongst Student Sample Controlling for Length Spent Working in Department (n = 207)

Dimension	Dimension -> Trust (a paths)		Trust -> Intrinsic Motivation (b paths)		Dimension -> Intrinsic Motivation (c paths)		Dimension -> Intrinsic Motivation (mediated by trust) (c-prime path) p > 0.05 => mediation		Partial Effect of Length with Department on Overall Motivation	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.
Effective Leadership	1.05	***	0.10	$p = .1570$	0.25	***	0.15	$p > 0.05$	0.07	$p = .0678$
Visioning	0.60	***	0.17	**	0.13	*	0.03	$p > 0.05$	0.08	*
Empowering	0.61	***	0.14	*	0.15	**	0.07	$p > 0.05$	0.08	*
Energizing	0.61	***	0.15	**	0.15	**	0.06	$p > 0.05$	0.08	*
Designing and Aligning	0.60	***	0.16	**	0.15	*	0.05	$p > 0.05$	0.08	*
Reward and Feedback	0.54	***	0.13	*	0.14	***	0.08	$p > 0.05$	0.08	*
Team-Building	0.75	***	0.15	*	0.16	**	0.05	$p > 0.05$	0.08	$p = .0504$
Tenacity	0.32	***	0.17	***	0.09	$p = .0909$	0.03	$p > 0.05$	0.08	*
Emotional Intelligence	0.58	***	0.14	*	0.13	**	0.05	$p > 0.05$	0.08	*

Table 32. Unstandardized Direct and Indirect Effects of Eight Leadership Styles on Intrinsic Motivation amongst Student Sample Controlling for Length Spent Working in Department (n = 207)

Dimension	Dimension -> Trust (a paths)		Trust -> Work Effort (b paths)		Dimension -> Work Effort (c paths)		Dimension -> Work Effort (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Partial Effect of Length with Department on Work Effort	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.
Effective Leadership	1.05	***	0.07	$p = .2662$	0.30	***	0.22	$p = .0160$	0.09	*
Visioning	0.60	***	0.16	**	0.18	**	0.08	$p > 0.05$	0.10	**
Empowering	0.61	***	0.15	**	0.16	***	0.07	$p > 0.05$	0.10	**
Energizing	0.61	***	0.17	**	0.16	**	0.05	$p > 0.05$	0.10	**
Designing and Aligning	0.60	***	0.13	**	0.29	***	0.21	$p = .0140$	0.09	*
Reward and Feedback	0.54	***	0.14	*	0.16	***	0.08	$p > 0.05$	0.10	**
Team-Building	0.75	***	0.12	*	0.20	***	0.11	$p > 0.05$	0.10	**
Tenacity	0.32	***	0.18	***	0.11	*	0.06	$p > 0.05$	0.10	**
Emotional Intelligence	0.58	***	0.16	*	0.14	***	0.05	$p > 0.05$	0.10	**

Table 33. Unstandardized Direct and Indirect Effects of Eight Leadership Styles on Work Effort amongst Student Sample Controlling for Length Spent Working in Department (n = 207)

7.7 Results – Individual Employee Sample (n = 90)

Effective Leadership

Similar to the results in the student study, no reliable effects were found between the duration spent working with the same manager and any of the outcome variables when controlling for Effective Leadership. When including duration spent with the manager as a control variable in any of the eight leadership style mediation models, only one of the partial effects of the duration on any of the outcome variables was reliable, while all other models showed no reliable partial effect of the control variable. The partial effects of duration with manager on self-efficacy was reliable when controlling for Emotional Intelligence and trust (ß = .1704; p <.05). Duration with manager increased the strength of the relationship between Emotional Intelligence and trust (Δ ß = .0086; p <.001). The relationship between trust and self-efficacy became reliable, while previously non-significant (ß = .1697; p <.05). However, the relationship between Emotional Intelligence and self-efficacy remained non-significant (ß = -.0667; p = .2537).

Controlling for the duration of time spent working in the same department showed no reliable partial effects on overall motivation (ß = .0238; p = .6286), intrinsic motivation (ß = -.0439; p = .4486), or work effort (ß = .1253; p = .0786) when controlling for Effective Leadership and trust. The relationship between duration in department and self-efficacy was reliable (ß = .1585; p <.01). However, the effect of Effective Leadership on trust remained stable (ß = .93; p <.001). The effect of trust on self-efficacy only increased slightly (Δ ß = .0042; p <.05).

Eight Leadership Styles

The effects were similar for the eight leadership styles. Neither duration spent with manager, nor duration spent in the department were significantly related to any of the outcome variables when controlling for the respective eight leadership styles and trust. Although the relationships between duration spent working in the same department and self-efficacy were reliable for all eight leadership models (see Table 32), the relationships between the leadership styles and trust remained significant for all leadership styles. The relationships between trust and self-efficacy remained stable when controlling for the respective styles Effective Leadership, Reward and Feedback, and Team-Building, and after inclusion of duration spent in department as a control variable. The relationships between trust and self-efficacy remained non-significant when controlling for the respective styles Visioning, Empowering, Designing and Aligning, Tenacity, and after inclusion of duration spent in

department as a control variable. However, when controlling for duration in department, the relationships between trust and self-efficacy reached almost significance levels when controlling for Energizing (ß = .14; p = .0525) and Emotional Intelligence (ß = .16; p = .0594). It therefore appears that the longer the employee works with the leader, the more likely that the trust in the leader will positively affect the follower's beliefs in himself. When controlling for both duration with leader and department, the relationship between trust and self-efficacy becomes reliable when controlling for Emotional Intelligence (ß = .17; p <.05). The relationship between trust and self-efficacy, however, does not become reliable when controlling for duration with leader and department and Energizing (ß = .13; p = .0653). This indicates that the leader is able to influence the follower's level of self-efficacy through the trust attributed to her, at least in relationships in which the leader displays an emotionally intelligent leadership style.

Dimension	Dimension -> Trust (a paths)		Trust -> Self-Efficacy (b paths)		Dimension -> Self-Efficacy (c paths)		Dimension -> Self-Efficacy (mediated by trust) (c-prime path) p > 0.05 => mediation		Partial Effect of Length with Department on Self-Efficacy	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.
Effective Leadership	0.93	***	0.22	*	-0.09	p = .2266	-0.29	p = .0087	0.16	**
Visioning	0.49	***	0.08	p = .2640	-0.02	p = .6320	-0.07	p > 0.05	0.16	*
Empowering	0.75	***	0.07	p = .4039	0.01	p = .8933	-0.05	p > 0.05	0.16	*
Energizing	0.58	***	0.14	p = .0525	-0.09	p = .1185	-0.17	p = .0169	0.17	**
Designing and Aligning	0.51	***	0.12	p = .0709	-0.11	p = .0713	-0.18	p = .0142	0.17	**
Reward and Feedback	0.57	***	0.15	*	-0.11	p = .0617	-0.20	p = .0055	0.15	*
Team-Building	0.71	***	0.18	*	-0.07	p = .2511	-0.20	p = .0183	0.16	*
Tenacity	0.37	***	0.06	p = .3579	-0.03	p = .6624	-0.05	p > 0.05	0.15	*
Emotional Intelligence	0.67	***	0.16	p = .0594	-0.05	p = .3731	-0.16	p = .0490	0.16	*

Table 34. Unstandardized Direct and Indirect Effects of Eight Leadership Styles on Self-Efficacy amongst Employee Sample Controlling for Length Spent Working in Department (n = 90)

7.8 Discussion of Individual Results

The last two chapters have looked at the influence a leader has over follower trust, motivation, and self-efficacy. And even more important, the studies looked at the role trust plays in the relationship between leadership and follower outcome variables, namely overall motivation, intrinsic motivation, work effort, and self-efficacy. The student sample gives insights into what employers should offer to recruit high-potentials and how leaders should interact with young graduates, whereas the experienced sample sheds further light on how important success factors can further be fully utilized.

Leadership similarities between the young and old

Both studies showed the influence leadership has on trust. In both studies, Team-Building emerged as one of the most important predictors for individual trust in the leader explaining around 50 per cent of the variance. The fact that Team-Building has been shown to have the strongest effect on individual trust underlines the importance leaders need to place on establishing a collaborative environment. An environment in which the leader does not stand out, but is seen as one member of the team; or as Greenleaf (1977) pointed out, a leader that serves and puts others and their wellbeing first. Both groups, that is the student group representing a very young population of the future work population (Generation Y) and the more experienced employee sample appear to long for an environment in which they can belong and are a respected part of the collective working towards a common goal, similar to what Maslow (1943; 1954) argued for in his belonging and safety needs. The results from the two studies have shown that the greatest predictors of trust have a psychological and interpersonal basis. Although Empowering has shown to be a greater predictor than Emotional Intelligence in the employee sample, while it is the opposite in the student sample, all three leadership styles – Team-Building, Empowering, and Emotional Intelligence – have a common basis by which the leader increases trust through treating people equally and indicating to them their importance as individuals and the importance of their contribution, while involving them in decision-making processes.

Reward and Feedback have also been shown to be important tools in establishing and maintaining trust across age groups and independent of level of experience. While it is important to reward, it is also important to reward both the individual and the collective appropriately if performance is outstanding. It is similarly important to give people regular feedback on their performance for them to trust. Regular feedback and appropriate rewards are most likely considered a reflection of the value placed on their contribution and their trust

in that the economic contract will be fulfilled. The study has also shown that across age groups trust depends on the leader's willingness to hold people accountable for their actions, while ensuring that performance standards are adhered to. This enables the leader to minimize the risk of social loafing, which in turn instills the belief amongst followers that the leader will act in favor of his followers.

Across the two age and experience groups, the results showed that, what are considered essential elements of charismatic leadership (e.g., Bass, 1990b), Visioning and Designing and Aligning, both affect the level of trust in the leader. It is most likely that independent of age or experience, the leader who acts upon his vision and sets clear targets and frameworks people are to maneuver within is seen as a trustworthy because of the clear yet visionary style. This is also in line with the finding that results from both groups showed that trust is affected by the leader's assertiveness, sticking to his principles, and going against contradictory opinions.

Leadership differences between the young and old

There appear to be differences across age groups and their level of experience, however, in terms of the level of influence particular leadership styles have on motivation. While the order of the influence the eight leadership styles have on overall motivation, intrinsic motivation, and work effort is very similar within-group, the between-group effects are different. It appears that older, more experienced employees are less motivated by rewards and a leader who is visionary; the young generation about to enter the job market appears to be less concerned about someone's vision but more about receiving rewards and status. Considering that employees who are more experienced are likely to have already reached a particular position and a satisfying salary, it is more the leader who is willing to offer them new ways of doing things. Conversely, younger employees at the start of their career are much more concerned to reach a certain level of status and be rewarded by it appropriately. They are therefore more concerned about fulfilling those basic needs than their older counterparts. However, regardless of age or experience followers feel most motivated to work for someone who has empathetic skills and caters to their needs. The interpersonal characteristic ensuring the other one feels appreciated, respected, and protected, or as Kets de Vries (1988) said, the father-like figure, appears to be an equally significant part of leadership regardless of age and experience.

One interesting difference between the groups were the effects of leadership styles on self-efficacy. Younger employees about to start their career appear to be basing parts of the

beliefs they hold of their own abilities on the rewards and feedback they receive from the leader. Considering that rewards can act as reinforcers, as proven by behaviorists such as Skinner (1953), they act as a confirmation of the individual's beliefs in himself, therefore increasing it in either an upward spiraling manner if rewards are given, or a downward spiral if below standard performance is not rewarded. Although the results for the employee group were not fully significant, the direction was similar in that their self-efficacy beliefs appeared to be affected by rewards and feedback given by the leader. A different picture emerged for designing and aligning. Those more experienced do not appear to feel they have greater skills under a leader setting clear targets and ensuring people stick to their commitments. However, younger employees may consider it a valuable instrument to increase their self-efficacy when they know what is expected and that the leader will ensure they will reach their goals. In other words, a leader working with young starters is able to increase their beliefs in their abilities setting clear performance targets and ensuring the contextual components are in place.

Trust similarities between the young and old

The study also confirmed previous findings showing the effects of trust on motivation (e.g., Kleinbeck, 2000). Bandura and Cervone (1986) argued for the importance of intrinsic motivation to achieve great results. Trust, at its highest level, represents and emotional bond between two parties; at its lowest positive level, it reflects the belief that the other party will conform to prior agreements. While the latter is sufficient in explaining the positive effects of trust on work effort and partly overall motivation, it is the earlier, the emotional bond that increases followers' intrinsic motivation. Any leader should therefore be aware of the potential effects emotions and interpersonal facets have on people's motivation. This is in line with the emergence of the emotional, psychological leadership styles as the strongest predictors of follower outcomes. The fact that the results are the same between the young and experienced employee group underlines the importance of using leadership styles that appeal to the follower emotionally, regardless of their age and their experience.

A major part of the study was the role trust plays in the leadership-outcome relationships. The results were consistent for both groups when considering the relationship between leadership and overall motivation. The effects of leadership, again, occur through this (emotional) bond between the two parties, underlining the importance of creating and maintaining trust from an early encounter. As with overall motivation, intrinsic motivation is not merely affected by the leader's actions but by how much trust is attributed to him. As mentioned above, particularly intrinsic trust has an emotional facet. The study therefore

highlights that emotionally-based motivation requires emotions as a prerequisite. Emotions occur through emotions. Regardless of the demographics, at least when considering age and experience, emotions play an enormous part in getting people to enjoy their work and utilizing their full potential. Not only will they overall feel more motivated to perform but are also more likely to enjoy the task per se, independent of whether they are twenty-one years of age or fifty.

Trust differences between crisis and non-crisis

The picture is not as clear cut between the groups when regarding the role of trust in the relationship between leadership and people's work effort, their willingness to work harder. While the young student sample reported the importance of trust for leadership effects to occur, only the energetic leader's actions affect people's work effort through the level of trust they attribute toward the leader. The differences are most likely due to the time of data collection. While the student data was collected before the financial crisis had affected the real economy and led to huge numbers of redundancies and the fear of downsizing, the employee data was collected at a later time when the magnitude of the crisis and its impact on people's lives transpired. It is therefore very likely that leaders that are visionary, empower their people, are emotionally intelligent, and focus on the collective and on creating a collaborative work environment are perceived as countering the storm of recession resulting in people feeling more inclined to fulfill their part of the contract without the need for trust between the two parties to occur. These styles, all based on emotional leadership, appear to be effective at getting people to work harder during crisis without an obvious level of trust in the leader. It is possible that people feel that the leader with a vision will steer them through the crisis and by using means of engaging with and involving followers, they may feel that they are actively doing something about the crisis. Conversely, rewarding, assertive behaviors, and the focus on meeting performance standards are not effective during a crisis to increase people's work effort. People do not look for leaders who can reward them, or make sure that people will work towards performance goals, nor for leaders who stick to their own principles if most others feel different during times of crisis, but for leaders who can provide an emotional stronghold, the parent-figure who knows what to do and gives the necessary support. This is in line with the only style mediated through trust being energetic leadership. Those leaders who get people motivated and enthusiastic about a project, while acting as a role model increase people's work effort through trust.

Both studies showed that most leadership styles are ineffective at increasing people's self-efficacy. Amongst the students, however, Designing and Aligning and Reward and Feedback did have a positive effect on self-efficacy. The difference between the samples is likely due to the more experienced generation drawing from previous experiences and other sources to establish how well they are equipped to perform a task, while rewarding young and rather inexperienced employees may act as a reinforcement of their abilities. They therefore look for someone else to give them some type of feedback in order to self-reflect on their abilities and performance. It is likely that young employees also perceive energetic leadership as evidence – and as such as a sign of trust – that they have the necessary abilities the leader is looking for in those she wants to get on board for a specific project.

Limited effects of time spent with manager and department

The results from both studies also partially confirm earlier studies (e.g., Casimir et al., 2009) in that it has been shown that time spent working with the leader or the department has limited potential in affecting the level of trust. Interestingly, while relationships between leaders and followers result in no greater levels of trust with time spent working together, the length of working in the same department does have a slight positive effect of Effective Leadership on trust. It is possible that, as argued and shown by Schoorman et al. (2007) and Webber (2002), the level of trust is set very early on in relationships. The results indicate that this initial level of trust will neither decrease nor increase with time. It is noteworthy that the current study is asking for effective leadership behaviors and styles. The level of trust is possibly affected by unethical leadership and leadership that breaks the bond between leader and follower or gives the follower any reason to doubt the intention of the leader.

However, the longer one works in the same department, the smaller the influence of Effective Leadership on overall follower and work effort. This is likely to be due to a "settling-in" effect. While upon joining a new department, the individual will not only be more self-motivated to prove himself, but also more prone to follow the present leadership. With time the individual settles in and therefore no longer needs to prove himself to the leader and other team members as much as when initially joining. The absence of any relationship with self-efficacy is partially surprising, however, it is likely that the time spent in the departments and with the leaders may have either been too short, or that self-efficacy indeed is fed through other channels that are entirely independent from departmental and leadership aspects. It is possible that self-efficacy is a personality construct or that its development and

maintenance is related to departmental successes the current study has not been able to tap into.

The differences between the student and the employee study regarding the duration controls and effects is most likely to be due to the students' time within the organization being limited and therefore their motivation to improve and to perform declined with time; in particular as their contracts were limited to one-year after which they returned to university. In contrast, duration spent in the same department only had small effects on self-efficacy when controlling for Designing and Aligning and Emotional Intelligence. It is possible that the longer employees spent working in the same department, the more likely that trusting the leader has an effect on followers if the leader is emotionally competent and sets performance standards and puts other guidelines in place to make work more effective. Followers may, with increasing time spent in the same department, come to realize that the leader is trustworthy in that he will put measures in place to ensure effective working and treat them with respect and is aware of their needs, therefore increasing the likelihood that they will accomplish goals and have greater confidence in their own abilities.

7. 9 Summary

The two studies have investigated the direct and indirect relationships between leadership, trust, and follower motivation and efficacy. While the first study comprised of a sample with fewer work experience, the second study analyzed a working sample with more years of work experience. Both samples, however, were full-time employees. Additionally, the first sample was collected before the worst crisis since WWII, while the second sample was collected during this crisis yielding results on potential difference in leadership and its effectiveness in non-crisis and crisis situations. The results showed that the differences are negligible. Hypotheses 1, 2, 3, 4, 7, and 8 are all supported. Hypotheses 5 and 6 were not supported.

Finally, as Casimir et al. (2009) showed, time only appears to be a limited factor in trust building and its effects on other outcomes in work relationships. However, this appears to be constrained to work relationships that have an expiry date, such as in the student sample. Regarding the importance of modern project teams that are becoming an increasingly important part of, for instance, consultancy work, the likelihood of trust to increase within a short time appears limited. However, in relationships that have a longer history with no expiry date attached, such as in the employee sample, time spent with co-workers does seem to have potential effects on people's level of trust in their leader.

Considering that the leadership effects were very similar between the younger student sample and the older employee sample indicates that particular leadership styles are effective across age groups; at least across the two age groups in the current research. Most leadership effects occur through this (emotional) bond between the two parties, underlining the importance of creating and maintaining trust from an early encounter.

The following chapter will explore the mediating role of collective vertical trust and the relationship between trust and performance and individual and collective vertical trust. It uses a sample population comprised of incomplete (i.e., not all group members returned the questionnaires) but representative (i.e., a sufficient number of participants completed the instruments) groups. This allows to test for relationships on the collective level; an important aspect of leadership not possible to be investigated in the previous two individual studies.

Chapter 8: Study 3 – Testing leadership effects in a group sample

Understanding relationships between individual and group constructs

The final study of this series of three investigates 1) the influence of leadership styles on collective vertical trust, collective efficacy, and group cohesion and 2) the relationships between individual constructs and their collective counterparts; and 3) the relationship between trust in the leader on the individual and the collective level and organizational performance. The advantages of this final study lie in its nature allowing testing hypotheses regarding the relationships between leadership and collective variables. This was not possible in the previous two studies due to the nature of the samples being individual responses and therefore not allowing testing different levels of follower outcomes. First, the importance in understanding the relationship between the individual variables and their collective counterparts; in particular with the focus of this study being on the relationship between individual trust in the leader and collective vertical trust, is the fact that intragroup phenomena influence group dynamics (Martin, 2008). In other words, individual trust is likely to influence the level of collective vertical trust through people's perception of other's level of individual trust in the leader and their constant interaction with other members of the group. This study therefore attempts to show that the individual level of trust is a precedent of collective vertical trust. However, due to the group dynamics, the level of collective vertical trust is likely to be an important factor in the amount of trust the individual is willing to attribute to the leader. Martin (2008) also points out that individual perceptions of leadership are influenced by group contexts. This underlines the importance to determine the influence collective variables such as trust and efficacy have on their individual counterparts.

As mentioned, the role of leadership in affecting organizational performance is unclear, yet the relationship of trust; particularly when considering trust on the individual and the collective level, is, until now, an entirely untouched area of research. With the relationship of leadership and financial performance still being unclear; in particular when considering the proposed relationship between trust in the leader and organizational performance, performance measures were chosen representing crucial parts of organizational success, both from a within-company perspective as well as an investor's point of view. Seven financial outcome variables were chosen by the researcher due to their importance for organizational success (following a brief description of each measure): 1) *turnover* is a sign of efficiency in that it represents the level, including time, of goods shifting. The higher turnover, the greater

the efficiency and likelihood of survival for any business; 2) *pretax profit* is an important measure for company success. It represents business net profits before deduction of taxes and is therefore a "clean" measure of organizational efficiency; 3) *return on investment (ROI)* is an important measure of how well investments have been used to generate returns. It is simply the ratio, expressed in percentages, between the net return of the investment (investment return – investment input) and investment input; 4) *return on capital employed (ROCE)* is the ratio between the net income of an organization and its debt and equity capital and is representative of the management's ability to generate return from employed capital (ROCE = Net income/capital employed, where capital employed = average debt liabilities + average shareholder's equity); 5) *gross margin* expresses the financial status of a company by showing how profitable a business is operating (gross margin = (revenue – cost of goods sold) / revenue); 6) *share price* and 7) *market capitalization*: both measures are important determinants in the perceived value of the business and its ability to survive independently. A higher market capitalization also protects a company from hostile takeovers as it is more difficult to be bought out.[3]

The following hypotheses are to be investigated in this final study:

Hypothesis 5: Individual trust in the leader leads to both individual motivation and collective motivation constructs.

Hypothesis 6: The effects of styles based on psychological components, including feedback and goal-setting, on efficacy beliefs are mediated by trust in the leader.

Hypothesis 9: The higher individual trust, the higher collective vertical trust in leader.

Hypothesis 10: Leadership styles based on psychological components will result in higher levels of collective vertical trust in leader than rewarding behaviors.

Hypothesis 11: Collective vertical trust and individual trust in the leader are highly related with one affecting to similar degree. (see Figure 5)..

Hypothesis 12: Fair contingent reward behaviors increase levels of collective vertical trust.

Hypothesis 13: Collective vertical trust leads to an increase in collective efficacy.

Hypothesis 14: An increase in collective vertical trust will lead to higher levels of group cohesion among team members.

Hypothesis 15: A higher level of self-efficacy has positive effects on collective efficacy.

Hypothesis 16: Collective efficacy will have no positive effect on self-efficacy.

Hypothesis 17: Performance increases with greater levels of trust on the collective level.

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[3] It is noteworthy that the individual level has also been tested for the third sample and yielded similar results as the previous two studies. For a more detailed discussion see Appendix 6.

8.1 Method

Samples

A total of 311 second year undergraduate students split into 108 groups enrolled in a compulsory business simulation module participated in the study. A small number of these groups do not represent complete groups; rather they represent a minimum of two group members (for statistical reasons of this choice see below). Although the data set originally contained 342 participants, data for 31 students had to be deleted due to either a great number of incomplete items (i.e., ranging from 15 to none of the questions answered) or only one member of the group answering the questionnaire prohibiting group level aggregation. Students initially worked in groups ranging from three to seven with an average mean size of 2.8 students of completed questionnaires. They assigned particular positions within the group amongst each other with one student taking up the role as Managing Director overseeing all group operations. They group structure represented a hierarchical team structure in any organization with one team leader (Managing Director) and a number of managers responsible for purchasing, marketing, research, selling, and supply chain processes. All these responsibilities were realized through the means of the simulation. The students' task was to run an automotive company as successfully as possible. The task was computer-based and a business simulation of an automotive manufacturer. Students had a starting capital of 1,000,000 pounds sterling and ran the company for a fictional period of three years. The course, however, ran over a period of one academic year with the data collected in the second half of the course.

Their participation in the study was voluntary, although all students received a chocolate bar and were enrolled in a prize draw of ten vouchers each worth fifty pounds sterling for a local shopping center. The mean age was 20.6 years (sd = 1.91) with 45.7 per cent being male and 48.9 per cent female. 5.5 per cent of students did not report their age. Although 50.5 per cent of students did not report English as their native language, a very good level of English is a prerequisite for students to enroll as students at Aston Business School tested in accredited tests such as the International English Language Testing System (IELTS). Students therefore have a sufficient level enabling them to participate in the study and

complete the questionnaire effectively. In addition, students had spent an average mean time of 33 months (2 years and 9 months) in the UK prior to taking part in the research.

Procedures

The following section will explain a new measure of trust, collective vertical trust – group trust in the leader – based on previous research on group variables and horizontal trust, that is, trust in other team members. Webber (2002, p.205) argues for a group based perception of trust, that is, "the shared perception by the majority of team members that individuals in the team will perform particular actions important to its members and that the individuals will recognize and protect the rights and interests of all the team members engaged in their joint endeavor." Brower, Schoorman, and Tan (2000) see trust as a related concept being a construct of in-group relationships. Trust is therefore seen as a more affective-based construct influenced by the perception of behaviors and characteristics of the party to be trusted and the emotional bonds between the parties (McAllister, 1995).

Keeping with Webber (2002), these views are extended arguing that collective trust is a shared perception or belief amongst all team members regarding leadership. Collective trust is therefore not only a horizontal construct of individual team members trusting each other, but a team-based perception of the trustworthiness of the leader. Collective trust in the leader is therefore an aggregate of individual beliefs dependent on individual levels of trusts affecting the aggregate due to the dynamics in a team (McGrath & Argote, 2001). In other words, collective trust is an aggregate that changes with the level of individual trust as individuals interact and influence each others' perceptions, such as the level of perceived trust. This view finds support in Jung and Sosik (2002) definition of collective efficacy as shared perceptions among group members of the team's capabilities to perform a particular task. Similar it is argued here that collective trust, or collective vertical trust (Collective trust $_{vertical}$), refers to group-member' perceptions of how much trust the group as a whole may attribute to their leader. This is also in line with Webber (2002) arguing that group trust is the perception of the majority of group members beliefs that another individual, in this case the leader, will act favorably for the group's wellbeing and general endeavor. As it is argued here that collective trust is an aggregate of individuals' beliefs of their leader's trustworthiness, the following equation is proposed:

$$Collective\ trust\ _{vertical} = \frac{\Sigma(Individual\ \text{perception of group trust})}{n}, \text{where n is the number of followers}$$

All surveys were collected in the ninth week during several tutorials. As pointed out earlier, student participation was voluntary and they were ensured that their answers were anonymous and confidential. All individual data was collected using the eight dimensional leadership behavior measure and the outcome scales on individual trust, self-efficacy, intrinsic motivation and work effort forming the overall motivation measure. In addition, the three scales on collective vertical trust, collective efficacy, and group cohesion were included in the questionnaires. It is noteworthy that the scales for this study were part of a larger questionnaire, because data was also collected for two other studies independent of this one by two other researchers. Therefore the questionnaire had to be shortened in order to make it of feasible length and was again tested for its reliability and intra-group agreements. Those removed were items that appeared of lower importance to this student sample; including 'works to develop organizational systems that reflect our corporate values' from Designing and Aligning (Reason: student MDs only have a limited ability regarding the way they form the group structure; other than in real-life business), 'uses various types of incentives to compensate his/her people' from Reward and Feedback (Reason: student MDs only have a limited ability regarding the types of rewards they may use), 'does everything in his/her power to make sure that compensation for his/her employees is fair and reflects individual effort' from Reward and Feedback (Reason: the dimension comprises of a very similar item), 'has a set of principles that s/he defends' from Tenacity (Reason: this may not be as apparent to students at such an early stage in their collaboration), 'considers how his/her emotions can affect others' from Emotional Intelligence to improve the model fit leaving a total of thirty seven items. Aggregation and analysis of data was based on Arnold et al.'s (2001) method of forming groups if two members of the group fully completed the questionnaires. This was possible as the range of the group size was rather small and is also supported by Bliese and Halverson's (1998) description of calculating intra- and inter-group properties with group sizes as small as two. They point out that in dyads, each member contributes fifty percent to the group score. The only difference between group sizes of two and larger is therefore the size of the contribution of each member to the group score.

Collective vertical trust

Due to its significance in the final study and the fact that it is a new measure, the following will recap previous conceptualizations and its mathematical basis. As many have argued regarding collective trust (Webber, 2002) and collective efficacy (Jung & Sosik,

2002) amongst group members, it is a shared perception and as such an aggregate of individual beliefs. Regarding collective vertical trust, which forms a specific type of collective trust with the point of reference the (group) leader, it therefore represents a composite score of individual perceptions. This is in line with McGrath and Argote's (2001) argument that collective trust is an aggregate of individual beliefs dependent on individual levels of trusts affecting the aggregate due to the dynamics in a team (McGrath & Argote, 2001).

In order to ensure statistical reliability of collective vertical trust (but also collective efficacy and group cohesion) a number of statistical methods were applied from measuring within-group reliability, intra-group reliability, and inter-group variance.

8.2 Reliabilities of Scales

As mentioned before, Cortina (1993) argued that Cronbach alpha reliabilities are an important tool in establishing scale reliability and should be above the suggested value of 0.7 in order to determine good internal consistency (Nunnally, 1978; see Peterson, 1994 for a review of Cronbach α's). The reliabilities can be found in Table 33 and are as follows: Full leadership scale – α =.966; Visioning – α =.770; Empowering – α =.737; Energizing – α =.868; Designing and Aligning – α =.896; Rewarding and Feedback – α =.904; Team-Building – α =.881; Tenacity – α =.795; Emotional Intelligence – α =.883. Overall, the alphas for all leadership scales indicate good levels of reliability. The reliability of the full and the subscales is further supported by the negligible changes in Cronbach alpha if a subscale was deleted (see Tables 33). There was no multicollinearity supporting the earlier findings of the scales measuring separate and independent constructs (see Table 34).

Scale	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Mean	Variance	Std. Deviation	Cronbach's Alpha if Item Deleted
Visioning	4	0.770	0.767	18.77	10.30	3.21	0.918
Empowering	4	0.737	0.739	19.95	10.91	3.30	0.925
Energizing	4	0.868	0.868	19.42	16.77	4.09	0.911
Designing and Aligning	4	0.896	0.896	18.79	17.42	4.17	0.914
Rewarding and Feedback	5	0.904	0.905	22.37	23.29	4.83	0.916
Team-Building	6	0.881	0.882	29.26	25.95	5.09	0.913
Tenacity	4	0.795	0.798	18.35	12.20	3.49	0.939
Emotional Intelligence	6	0.883	0.883	29.09	25.12	5.01	0.917
Full Scale	37	0.966	0.965	176.01	755.09	27.48	

Table 35. Number of items, alphas, means, variance, and standard deviations (n = 311; Group Sample)

	Visioning	Empowering	Energizing	Designing Aligning	Reward Feedback	Team Building	Tenacity	EI
Visioning								
Empowering	0.55							
Energizing	0.74	0.62						
Designing-Aligning	0.72	0.56	0.80					
Reward-Feedback	0.67	0.55	0.77	0.76				
Team-Building	0.70	0.70	0.77	0.72	0.74			
Tenacity	0.43	0.35	0.43	0.48	0.41	0.42		
EI	0.68	0.68	0.73	0.65	0.69	0.77	0.35	

Table 36. Correlations between dimensions (n = 311; Group Sample)

Scale	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Mean	Variance	Std. Deviation
Individual Trust	3	0.777	0.777	12.026	4.032	2.008
Overall Motivation	5	0.492	0.576	18.923	6.439	2.538
Intrinsic Motivation	3	0.132	0.216	10.836	3.144	1.773
Motivation to Improve	2	0.688	0.688	8.087	1.583	1.258
Self-Efficacy	3	0.687	0.703	11.662	3.218	1.794
Collective Vertical Trust	3	0.859	0.861	11.961	4.540	2.131
Collective Efficacy	5	0.809	0.812	19.527	7.992	2.827
Cohesion	4	0.914	0.915	14.804	10.894	3.301

Table 37. Number of items, alphas, means, variance, and standard deviations (Group Sample, n = 311)

Table 35 shows the reliabilities for the variable scales, which are as follows: individual trust α =.777; overall motivation – α =.492; intrinsic motivation – α =.132; motivation to improve – α =.688; self-efficacy – α =.687 (the two items: 'I did not experience any problems adjusting to my current job' and 'I have all the technical knowledge I need to perform my job, all I need now is practical experience' were removed from the self-efficacy scale due to their lesser application in the current context in which students had to be practically active from the start). The reliabilities for the collective construct scales were as follows: collective vertical trust – α =.859; collective efficacy – α =.809; and cohesion – α =.914. Due to the low reliability of intrinsic motivation, it was removed from further analysis. Considering that it formed part of the overall motivation scale, only work effort was used for further analysis.

8.3 Confirmatory Factor Analysis of Scales

The values for the fit indices indicated a good model fit for both the first-order latent model (see Table 36) and the second-order latent model (Table 37). The correlations between the dimensions indicate discriminant validity for both the first-order latent model (see Table 38) and the second-order model (Table 39).

Model	CMIN	DF	P	CMIN/DF	IFI Delta2	CFI	RMSEA	ECVI
8 Factor Model	1268.58	597	0	2.125	0.912	0.911	0.06	5.015
Saturated model	0	0			1	1		4.774
Independence model	8253.685	666	0	12.393	0	0	0.192	27.102

Table 38. Fit indices - First-order model (n = 311)

Model	CMIN	DF	P	CMIN/DF	IFI Delta2	CFI	RMSEA	ECVI
8 Factor Model	1362.986	618	0	2.205	0.902	0.902	0.062	5.19
Saturated model	0	0			1.000	1		4.774
Independence model	8253.685	666	0	12.393	0.000	0	0.192	27.102

Table 39. Fit indices - Second Order Model (n = 311)

	Tenacity	Team-Building	Reward-Feedback	Designing-Aligning	Energizing	Empowering	Visioning	EI
Tenacity								
Team-Building	0.50							
Reward-Feedback	0.48	0.83						
Designing-Aligning	0.55	0.81	0.83					
Energizing	0.51	0.88	0.86	0.90				
Empowering	0.42	0.84	0.64	0.65	0.74			
Visioning	0.53	0.85	0.79	0.86	0.90	0.72		
EI	0.39	0.86	0.74	0.69	0.82	0.80	0.79	

Table 40. Correlations between latent factors (n = 311) – first order latent confirmatory factor analysis

	Effective Leadership	Tenacity	Team_ Building	Reward- Feedback	Designing- Aligning	Energizing	Empowering	Visioning	EI
Effective Leadership									
EI	0.86								
Tenacity	0.54	0.46							
Team Building	0.94	0.81	0.51						
Reward Feedback	0.88	0.76	0.48	0.83					
Designing and Aligning	0.89	0.77	0.48	0.84	0.79				
Energizing	0.97	0.83	0.52	0.91	0.85	0.86			
Empowering	0.79	0.68	0.43	0.75	0.70	0.71	0.77		
Visioning	0.93	0.79	0.50	0.87	0.82	0.83	0.89	0.74	

Table 41. Second-order model - Correlations between latent factors (n = 311)

Although individual and collective vertical trust share a relatively high correlation, the criterion for discriminant validity of less than 1.0 (Cole, 1987) has been met indicating that the factors are measuring separate constructs. The high correlation is not surprising in that it is hypothesized that the two are very strongly correlated, "feeding off each other" (see Table 40). CFA was conducted for the variables indicating a good model fit. The values for the relevant indices support a good model fit (see Table 41). The CMIN/df ratio (2.646) is within the suggested range of approximately two (Byrne, 2001; Carmines & McIver, 1981; Marsh & Hocevar, 1985; Wheaton et al., 1977) indicating a good model fit to the data. Further, two of the baseline indices, namely CFI (.923) and IFI (.923) are above the cutoff point of 0.9 supporting a good model fit (e.g., Arbuckle, 2005, 2006). The value for RMSEA (.073) also indicates an adequate fit of the model fulfilling the criterion of being below .08 as suggested by Arbuckle (2005; 2006).

	Individual Trust	Work Effort	Self-Efficacy	Collective Vertical Trust	Cohesion	Collective Efficacy
Individual Trust						
Work Effort	0.29					
Self-Efficacy	0.24	0.45				
Collective Vertical Trust	0.96	0.36	0.28			
Cohesion	0.55	0.46	0.28	0.58		
Collective Efficacy	0.62	0.52	0.39	0.62	0.74	

Table 42. Correlations between outcome variables (n = 311)

Model	CMIN	DF	P	CMIN/DF	IFI Delta2	CFI	RMSEA	ECVI
8 Factor Model	410.2	155	0	2.646	0.924	0.923	0.073	1.678
Saturated model	0	0			1.000	1		1.355
Independence model	3501.396	190	0	18.428	0.000	0	0.237	11.424

Table 43. Fit indices - Outcome variables (n = 311)

8.4 Data Aggregation

In order to test the relationships between the group variables and the individual level constructs, all relevant scales were aggregated to the group level after a number of procedures, such as group member agreement, testing for aggregation feasibility were conducted. Multiple ways have been suggested to investigate rating homogeneity amongst group members regarding group phenomena. Within-group agreement is most widely determined through the use of the within-group interrater reliability coefficient $r_{wg(j)}$ (James, Demaree, & Wolf, 1984, 1993). Although the $r_{wg(j)}$ has been criticized for not being consistent with the classical concept of reliability (Schmidt & Hunter, 1989), Kozlowski and Hattrup (1992) point out that one of the primary misconceptions underlying the critique of the $r_{wg(j)}$ was the lack of clarity in differentiating between interrater consensus (i.e., agreement) and consistency between raters (i.e., reliability). Schmidt and Hunter's (1989) proposed alternative measure using the raters' standard deviations, standard error of the means, and its confidence intervals to establish interrater agreement has been questioned by Kozlowski and Hattrup (1992) due, for instance, its sensitivity to group sizes. They point out that this is not as pronounced for $r_{wg(j)}$, although the higher the agreement amongst raters, the lesser the impact of group size on $r_{wg(j)}$. An $r_{wg(j)}$ value was calculated for each scale within each of the

108 groups. James et al. (1984) suggested a $r_{wg(j)}$ cutoff value of .70 for scales to be indicating an adequate level of within-group agreement in order for them to be aggregated from individual to group level.

The mean $r_{wg(j)}$ value for Visioning was .962 with 100 per cent of values above .70. The mean $r_{wg(j)}$ value for Empowering was .951 with 100 per cent of values above .70. The mean $r_{wg(j)}$ value for Energizing was .952 with 99.1 per cent of values above .70. The mean $r_{wg(j)}$ value for Designing and Aligning was .939 with 97.2 per cent of values above .70. The mean $r_{wg(j)}$ value for Reward and Feedback was .952 with 98.1 per cent of values above .70. The mean $r_{wg(j)}$ value for Team-Building was .972 with 100 per cent of values above .70. The mean $r_{wg(j)}$ value for Tenacity was .937 with 98.1 per cent of values above .70. The mean $r_{wg(j)}$ value for Emotional Intelligence was .974 with 100 per cent of values above .70 (see Table 42 for all leadership scale $r_{wg(j)}$ values).

The mean $r_{wg(j)}$ value for individual trust was .946 with 100 per cent of values above .70. The mean $r_{wg(j)}$ value for overall motivation was .925 with 98.1 per cent of values above .70. The mean $r_{wg(j)}$ value for work effort was .918 with 96.3 per cent of values above .70. The mean $r_{wg(j)}$ value for self-efficacy was .929 with 100 per cent of values above .70. The mean $r_{wg(j)}$ value for collective vertical trust was .950 with 99.1 per cent of values above .70. The mean $r_{wg(j)}$ value for collective efficacy was .958 with 98.1 per cent of values above .70. The mean $r_{wg(j)}$ value for cohesion was .923 with 98.1 per cent of values above .70 (see Table 43 outcome variable scale $r_{wg(j)}$ values).

Scale	Rwg(j) Min	Rwg(j) Max	Rwg(j) mean	Standard deviation	% of values above .70 cutoff point
Visioning	0.810	1.000	0.962	0.036	100.0%
Empowering	0.748	1.000	0.951	0.046	100.0%
Energizing	0.638	1.000	0.952	0.054	99.1%
Designing and Aligning	0.528	1.000	0.939	0.084	97.2%
Reward and Feedback	0.263	1.000	0.952	0.088	98.1%
Team Building	0.862	1.000	0.972	0.024	100.0%
Tenacity	0.000	1.000	0.937	0.112	98.1%
Emotional Intelligence	0.862	1.000	0.974	0.023	100.0%

Table 44. Rwg(j) values for leadership scales (n=108, Group Sample)

Scale	Rwg(j) Min	Rwg(j) Max	Rwg(j) mean	Standard deviation	% of values above .70 cutoff point
Individual Trust	0.717	1.000	0.946	0.054	100.0%
Work Effort	0.435	1.000	0.918	0.083	96.3%
Self-Efficacy	0.736	1.000	0.929	0.060	100.0%
Collective Vertical Trust	0.682	1.000	0.950	0.051	99.1%
Collective Efficacy	0.645	1.000	0.958	0.053	98.1%
Cohesion	0.000	1.000	0.923	0.115	98.1%

Table 45. Rwg(j) values for outcomes scales (n=108, Group Sample)

In order to test the reliability of the scales, the two intraclass correlations ICC(1) and ICC(2) values were calculated for each scale. Both are calculated from one-way ANOVAS with ICC(1) explaining the variance due to group membership (Bryk & Raudenbush, 1982). James (1982) argued that the ICC(1) should be the primary choice of measure when determining whether or not to aggregate a construct to group level. James (1982) points out that studies usually show ICC(1) values ranging from .00 to .50 with an approximate median of .12. It is noteworthy that despite its common use, no definite guidelines have been established regarding acceptable values to determine the level of variance in a variable due to group membership. Although values above zero reflect some variance due to group membership and are therefore indicative of an acceptable value allowing aggregation (e.g., Bliese, 2000; Bliese & Halverson, 1996). The second most commonly found form of ICC is the ICC(2) representing the overall reliability of the group means (Bartko, 1976; James, 1982; McGraw & Wong, 1996). Values above 0.5 have been suggested to be a sign of acceptable levels of reliability of the mean (Klein, Bliese, Kozlowski, Dansereau, Gavin, et al., 2000).

The ICC(1) and ICC(2) values are as follows (see Table 44): Visioning – ICC(1) = .40 and ICC(2) = .65; Empowering – ICC(1) = .31 and ICC(2) = .56; Energizing – ICC(1) = .44 and ICC(2) = .70; Designing and Aligning – ICC(1) = .28 and ICC(2) = .53; Reward and Feedback – ICC(1) = .26 and ICC(2) = .50; Team-Building – ICC(1) = .39 and ICC(2) = .65; Tenacity – ICC(1) = .19 and ICC(2) = .41; EI – ICC(1) = .42 and ICC(2) = .67.

Scale	ICC(1)	ICC(2)
Visioning	0.40	0.65
Empowering	0.31	0.56
Energizing	0.44	0.70
Designing Aligning	0.28	0.53
Reward Feedback	0.26	0.50
Team Building	0.39	0.65
Tenacity	0.19	0.41
EI	0.42	0.67

Table 46. ICC values for leadership scales

Scale	ICC(1)	ICC(2)
Collective Vertical Trust	0.46	0.71
Collective Efficacy	0.18	0.39
Cohesion	0.27	0.52

Table 47. ICC values for outcome scales

The ICC(1) and ICC(2) values for the collective variables are as follows (see Table 45): Collective Vertical Trust – ICC(1) = .46 and ICC(2) = .71; Collective Efficacy – ICC(1) = .18 and ICC(2) = .39; Cohesion – ICC(1) = .27 and ICC(2) = .52.

There was also significant between-group variance in the leadership styles: Visioning, $F(107, 310) = 2.890$, $p < .001$; Empowering, $F(107, 310) = 2.275$, $p < .001$; Energizing, $F(107, 310) = 3.285$, $p < .001$; Designing and Aligning, $F(107, 310) = 2.125$, $p < .001$; Reward and Feedback, $F(107, 310) = 1.989$, $p < .001$; Team-Building, $F(107, 310) = 2.880$, $p < .001$; Tenacity, $F(107, 310) = 1.694$, $p < .01$; EI, $F(107, 310) = 3.067$, $p < .001$. Similar, the between-group variance for the collective constructs was significant: collective vertical trust, $F(107, 310) = 3.406$, $p < .001$; collective efficacy, $F(107, 310) = 1.627$, $p < .01$; cohesion, $F(107, 310) = 2.066$, $p < .001$. Thus there were acceptable levels of within-group agreement ($r_{wg(j)}$ and ICC(1)), reliable mean scores (ICC(2)), and significant between-group variance amongst all collective variables.

8.5 Results

Table 46 shows the results for the effects of individual trust on the two collective motivation constructs collective efficacy and cohesion. For comparison purposes the values for the individual motivation construct and self-efficacy are also given. Hypothesis 5 predicted that individual trust would be significantly related to the collective motivation constructs, namely collective efficacy and group cohesion. Individual trust in the leader explained 39.9 per cent of the variance in collective efficacy ($\beta = .467$; $p < .001$). Individual trust explained 38.7 per cent of the variance in group cohesion ($\beta = .712$; $p < .001$). Hypothesis 5 was therefore fully supported.

	Individual Trust			
	Unstand. Coefficient	Standardized Coefficient	Sign.	Variance explained (individual)
Work Effort	0.215	0.229	***	5.2
Self-Efficacy	0.213	0.239	***	5.7
Collective Efficacy	0.445	0.619	***	38.3
Cohesion	0.641	0.577	***	33.3

Note. Significance levels: p < 0.05 *, p < 0.01 **, p < 0.001 ***

Table 48. Effects of Individual Trust on Individual (n = 311, Group Sample) and Collective Motivation Constructs (n = 108, Group Sample)

Hypothesis 6 predicted that the effects of leadership styles on collective efficacy beliefs amongst followers are mediated through trust in the leader. The results partially supported the hypothesis (see Table 47). The relationship between Effective Leadership and collective vertical trust (CVT) was statistically reliable (ß = .78; p <.001). The relationship between CVT and collective efficacy (CE) was reliable when controlling for Effective Leadership (ß = .21; p <.05). The reliable relationship between Effective Leadership and CE (ß = .42; p <.001) remained significant when controlling for CVT (ß = .26; p = .0016). The relationship between Visioning and CVT was statistically reliable (ß = .67; p <.001). The relationship between CVT and CE was reliable when controlling for Visioning (ß = .27; p <.001). The once reliable relationship between Visioning and CE (ß = .37; p <.001) became non-significant when controlling for CVT (ß = .19; p = .0043, but z = 3.66; p< .05 and bootstrap: .01 to .28). The relationship between Empowering and CVT was statistically reliable (ß = .61; p <.001). The relationship between CVT and CE was reliable when controlling for Empowering (ß = .34; p <.001). The once reliable relationship between Empowering and CE (ß = .33; p <.001) became non-significant when controlling for CVT (ß = .13; p = .0403, but z = 4.51; p <.05 and bootstrap: .07 to .32). The relationship between Energizing and CVT was statistically reliable (ß = .54; p <.001). The relationship between CVT and CE was reliable when controlling for Energizing (ß = .26; p <.001). The once reliable relationship between Energizing and CE (ß = .29; p <.001) remained significant when controlling for CVT (ß = .15; p = .0065, but z = 3.28; p <.05 and bootstrap: -.04 to .24). The relationship between Designing and Aligning and CVT was statistically reliable (ß = .56; p <.001). The relationship between CVT and CE was reliable when controlling for Designing and Aligning (ß = .25; p

<.001). The once reliable relationship between Designing and Aligning and CE (ß = .32; p <.001) remained significant when controlling for CVT (ß = .18; p = .0014, but z = 3.34; p <.05 and bootstrap: -.03 to .23). The relationship between Reward and Feedback and CVT was statistically reliable (ß = .55; p <.001). The relationship between CVT and CE was reliable when controlling for Reward and Feedback (ß = .31; p <.001). The once reliable relationship between Reward and Feedback and CE (ß = .31; p <.001) became non-significant when controlling for CVT (ß = .14; p = .0109, but z = 4.28; p <.05 and bootstrap: .06 to .27). The relationship between Team-Building and CVT was statistically reliable (ß = .66; p <.001). The relationship between CVT and CE was reliable when controlling for Team-Building (ß = .24; p <.01). The once reliable relationship between Team-Building and CE (ß = .36; p <.001) remained significant when controlling for CVT (ß = .20; p = .0018, but z = 3.20; p <.05 and bootstrap: -.02 to .27). The relationship between Tenacity and CVT was statistically reliable (ß = .44; p <.001). The relationship between CVT and CE was reliable when controlling for Tenacity (ß = .44; p <.01). The once reliable relationship between Tenacity and CE (ß = .16; p <.01) became non-significant when controlling for CVT (ß = -.03; p >.05 and z = 4.47; p <.05). The negative sign for the indirect effect might indicate a suppression effect, that is, it is very likely that a tenuous leader requires trust initially to have a positive effect on the group's level of collective efficacy. The relationship between EI and CVT was statistically reliable (ß = .69; p <.001). The relationship between CVT and CE was reliable when controlling for EI (ß = .24; p <.01). The once reliable relationship between EI and CE (ß = .37; p <.001) remained significant when controlling for CVT (ß = .20; p = .0039, but z = 2.96; p <.05 and bootstrap: -.02 to .29).

Dimension	Dimension -> Collective vertical trust (a paths)		Collective vertical trust -> Collective Efficacy (b paths)		Dimension -> Collective Efficacy (c paths)		Dimension -> Collective Efficacy (mediated by CVT (c-prime path) p > 0.05 => mediation)		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.78	***	0.21	*	0.42	***	0.26	$p = .0016$	2.54	$p < 0.5$
Visioning	0.67	***	0.27	***	0.37	***	0.19	$p = .0043$	3.66	$p < 0.5$
Empowering	0.61	***	0.34	***	0.33	***	0.13	$p = .0403$	4.51	$p < 0.5$
Energizing	0.54	***	0.26	**	0.29	***	0.15	$p = .0065$	3.28	$p < 0.5$
Designing and Aligning	0.56	***	0.25	***	0.32	***	0.18	$p = .0014$	3.34	$p < 0.5$
Reward and Feedback	0.55	***	0.31	***	0.31	***	0.14	$p = .0109$	4.28	$p < 0.5$
Team-Building	0.66	***	0.24	**	0.36	***	0.20	$p = .0018$	3.20	$p < 0.5$
Tenacity	0.44	***	0.44	***	0.16	**	-0.03	$p > .05$	4.47	$p < 0.5$
Emotional Intelligence	0.69	***	0.24	**	0.37	***	0.20	$p = .0039$	2.96	$p < 0.5$

Table 49. Direct and indirect effects of leadership on collective efficacy (n = 108, Group Sample)

Hypothesis 9 and 13 predicted an intercorrelation between individual trust and collective vertical trust. In order to analyze Hypothesis 9, an OLS was conducted with individual trust aggregated to the group level. Both hypotheses were supported in that the relationship between individual trust and CVT was statistically reliable (ß = .911; p <.001) and explaining 71.4 per cent of the variance in CVT. The effect of CVT on individual trust was tested in HLM6 in a hierarchical model where *IND_TRUS* refers to individual trust, β_0 refers to the intercept, r refers to the overall error term, γ_{00} refers to the intercept of Level 2 regression predicting β_0, γ_{01} refers to the slope of Level 2 regression (collective vertical trust [CVT_AG]), u_0 refers to the error term for Level 1 intercept (β_0). The reason for using hierarchical linear modeling for the analyses of the effects of the group variables on the individual counterpart is that OLS falls short of accounting for various issues related to nested data analysis. Goldstein (2003) points out that in contrast to ordinary techniques, which view a hierarchical structure as a nuisance factor, multilevel modeling allows to view it as a point of interest; e.g., yielding insights into the interactions between different levels of measurement. Hofman (1997) adds that there are three different options to analyze hierarchical data: 1) disaggregating data assigning a group level score to each lower level unit; 2) aggregating scores and conducting a higher level analysis; and 3) hierarchical linear modeling (HLM) (also see Chan, 1998 for a review of composition models). Firstly, disaggregation leads to issues regarding the independence of observations and also statistical inferences due to the analysis being conducted on the lower level unit representing a greater number of scores potentially affecting estimates (atomistic fallacy) (Bryk & Raudenbush, 1992). Aggregation, on the other hand, may ignore lower level variance in the dependent variable (ecological fallacy). Conversely, hierarchical linear modeling takes into account that within-group variance may be smaller than between-group differences and enable the researcher to investigate both levels of interest (Hofmann, 2003).

LEVEL 1 MODEL

IND_TRUS $= \beta_0 + r$

LEVEL 2 MODEL

$\beta_0 = \gamma_{00} + \gamma_{01}(\text{CVT\_AG}) + u_0$

Table 48 and Figure 22 show the results for Hypothesis 11. As shown, the relationship between group level variable CVT and the individual level construct individual trust in the leader was significant ($\gamma_{01} = .78$; p <.001, $R^2 = .25$). Although it is noteworthy that due to the

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nature of the data, only a relationship could be established. Whether or not the spiraling effect as outlined does indeed exist yields need to investigate the proposed relationship within a longitudinal design.
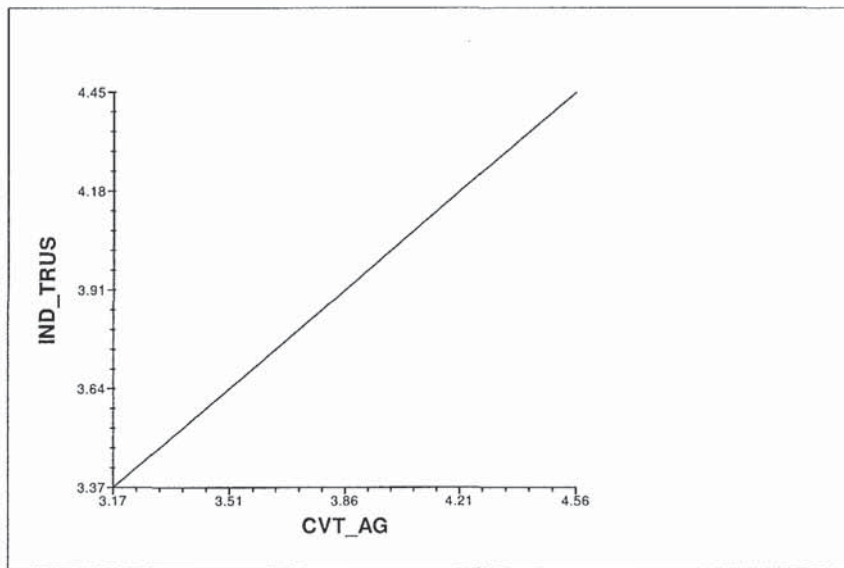
Figure 22. Relationship between collective vertical and individual trust

	Parameter estimates		
Model	γ_{00}	γ_{01}	δ^2
Hypothesis 11			
L1: IND_TRUS = β_{0j} + r			
L2: $\beta 0 = \gamma_{00} + \gamma_{01}$(CVT_AG) + u_0	0.90***	0.78***	0.252
Hypothesis 16			
L1: SELF_EFF = β_{0j} + r			
L2: $\beta 0 = \gamma_{00} + \gamma_{01}$(CE_AG) + u_0	2.22***	0.43***	0.331

Note: L1 = Level 1; L2 = Level 2; IND_TRUS = Individual trust in the leader; CVT_AG = Collective vertical trust; SELF_EFF = Group member self-efficacy; CE_AG = Collective efficacy; γ_{00} = Intercept of Level 2 regression predicting β_0; γ_{01} = Slope of Level 2 regression predicting β_0; δ_2 = Variance in Level 1 residual

Table 50. Hierarchical Linear Modeling Models and Results for Hypotheses 13 and 18

Hypothesis 10 predicted that the six leadership styles based on psychological components have a greater effect on collective vertical trust. Hypothesis 12 predicted that a leader employing fair reward behaviors will positively affect CVT. In order to establish which of the eight leadership dimensions has the greatest direct effect on the outcome variables including trust, individual regressions as well as a forced entry multiple regression were run for the respective leadership style. The hierarchical regression was conducted to establish the contribution each leadership style has on the individual outcome variable when incorporated in a single model. The results for the individual regressions in Table 49 show the unstandardized and the standardized coefficients. While the unstandardized coefficients allow

to establish the change in the outcome variable, the standardized indicates the magnitude of the effect of the predictor on the dependent variable and allows to compare the effect sizes independent of the nature of the outcome variable. Effective Leadership as an overall leadership style incorporating all dimensions emerged as the greatest predictor of CVT, explaining 65.9 per cent. Hypothesis 10 was almost fully supported with Emotional Intelligence being the strongest predictor of CVT, explaining 63.2 per cent, followed by Energizing explaining 60.5 per cent, Team-Building 58.5 per cent, Designing and Aligning 55.9 per cent, and Visioning 54 per cent. The only leadership style that comprises of psychological components in terms of the way a leader influences his employees that appeared as a smaller predictor of CVT was Empowering explaining 43.1 per cent. Hypothesis 12 was also supported as Reward and Feedback explained 44.7 per cent of the variance in CVT, while the smallest contributor to the variance in CVT was Tenacity explaining 21.7 per cent. The hierarchical regression conducted to establish how much variance in follower overall motivation is explained by a model comprising all eight leadership styles yielded an explained variance of 71.0 per cent.

Dimension	Collective Vertical Trust			
	Unstand. Coefficient	Standardized Coefficient	Sign.	Variance explained (individual)
Effective Leadership	0.78	0.81	***	65.9
Visioning	0.67	0.74	***	54.0
Empowering	0.61	0.66	***	43.1
Energizing	0.54	0.78	***	60.5
Designing and Aligning	0.56	0.75	***	55.9
Reward and Feedback	0.55	0.67	***	44.7
Team-Building	0.66	0.8	***	58.5
Tenacity	0.44	0.5	***	21.7
Emotional Intelligence	0.69	0.80	***	63.2

Table 51. Effects of individual leadership styles on collective vertical trust (n = 108, Group Sample)

Hypothesis 13 and 14 predicted that collective vertical trust will increase collective efficacy and group cohesion. Both hypotheses were fully supported. Table 50 shows that CVT explained 40.6 per cent of the variance in collective efficacy (ß = .425; p <.001) and 41.3 per cent in cohesion (ß = .663; p <.001).

	Collective Vertical Trust			
	Unstand. Coefficient	Standardized Coefficient	Sign.	Variance explained (individual)
Collective Efficacy	0.425	0.638	***	40.6
Cohesion	0.663	0.643	***	41.3

Table 52. Effects of Collective Vertical Trust on Collective Efficacy and Group Cohesion (n = 108; Group Sample)

Hypotheses 15 and 16 predicted a unidirectional relationship between self-efficacy and collective efficacy with self-efficacy positively predicting collective efficacy, while there are no such effects of collective efficacy on its individual counterpart self-efficacy. Only Hypothesis 15 was supported: self-efficacy significantly predicted collective efficacy ($ß = .446$; $p < .001$) and explaining 20.3 per cent of the variance in collective efficacy. The effect of CVT on individual trust was tested in a HLM6 in a hierarchical model where *SELF_EFF* refers to individual trust, β_0 refers to the intercept, r refers to the overall error term, γ_{00} refers to the intercept of Level 2 regression predicting β_0, γ_{01} refers to the slope of Level 2 regression (collective vertical trust [CE_AG]), u_0 refers to the error term for Level 1 intercept (β_0).

LEVEL 1 MODEL

$$SELF\_EFF = \beta_0 + r$$

LEVEL 2 MODEL

$$\beta_0 = \gamma_{00} + \gamma_{01}(CE\_AG) + u_0$$

Table 48 and Figure 23 show the results for Hypothesis 11. As shown, the relationship between the group level variable collective efficacy and the individual level construct self-efficacy was significant ($\gamma_{01} = .43$; $p < .001$, $R^2 = .33$). Therefore Hypothesis 16 was not supported as collective efficacy also significantly predicts the level of self-efficacy amongst group members.
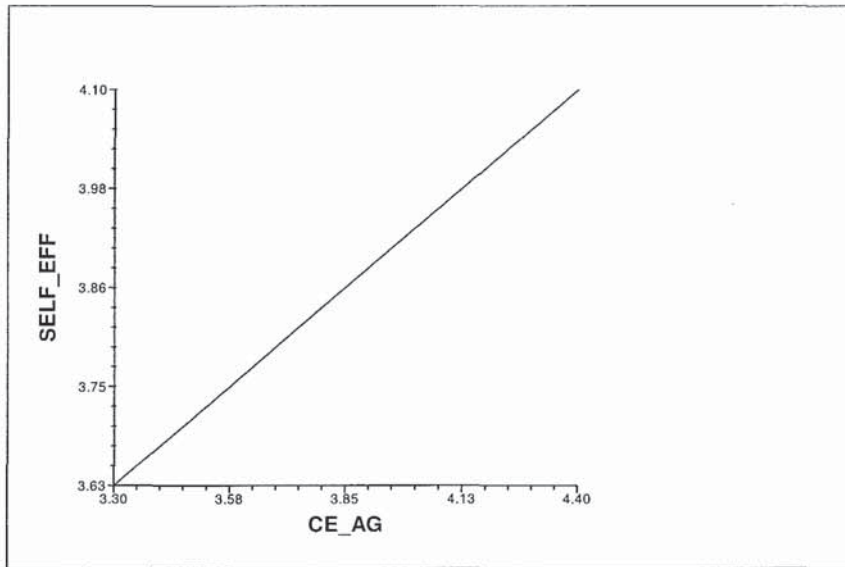
Figure 23. Relationship between collective and self-efficacy

Hypothesis 17 and 18 predicted a relationship between trust in the leader and performance. None of the hypotheses was supported for any of the performance measures (see Table 51) indicating that trust in the leader is not a predictor of financial success, at least directly.

	Turnover Year 2	Turnover Year 3	Pretax profit Year 2	Pretax profit Year 3	Return on Investment Year 2	Return on Investment Year 3	Return on employed capital Year 2	Return on employed capital Year 3	Gross margin Year 2	Gross margin Year 3	Share price Year 2	Share price Year 3	Market Capitalization Year 2	Market Capitalization Year 3
Individual trust	-.05 (.597)	.04 (.717)	-.07 (.495)	.04 (.716)	-.14 (.152)	-.01 (.941)	-.07 (.455)	-.01 (.906)	-.11 (.288)	-.00 (.992)	-.11 (.255)	.00 (.962)	-.02 (.861)	.07 (.526)
Collective vertical trust	-.06 (.527)	.01 (.910)	-.10 (.310)	-.02 (.875)	-.14 (.155)	-.04 (.730)	-.09 (.362)	-.06 (.603)	-.15 (.122)	-.07 (.521)	-.15 (.142)	-.04 (.697)	-.06 (.544)	.04 (.699)

Table 53. Correlations between individual trust in the leader and collective vertical trust and seven financial organizational performance measures (Signficance values in brackets)

8.6 Discussion of Group Study

This study investigated the relationship between individual constructs and their collective counterparts and the role collective vertical trust plays in the relationship between leadership and collective follower outcomes. Hart and Cooper (2001) pointed out that individual and collective constructs of the same phenomenon cannot simply be regarded as straight-forward relationships and may have different causes. The current study shed further light on this hierarchical relationship in terms of individual trust and collective vertical trust – a newly proposed concept of trust particularly focusing on the level of trust the group holds in the leader – and self and collective efficacy.

Predicting collective outcomes – the impact of individual trust on groups

First the study attempted to investigate the influence of individual trust in the leader on group phenomena. The impact of individual trust on collective efficacy and cohesion was a multitude of that for work effort and self-efficacy. The finding that an individual construct appears to have a greater impact on group phenomena than on individual phenomena highlights the interrelatedness of the individual and the group. On the other hand, the stronger linkage between individual trust and collective outcomes triggers the question in what way an individual phenomenon can have a stronger impact on group outcomes, in particular as Hart and Cooper (2001) pointed out that individual morale shows stronger relationships with other individual variables than other collective variables. Kelley and Thibaut (1969) might provide an explanation for the causal basis underlying this relationship. They argued that the observation of others functioned as the fuelling for individual motivation to increase. This "audience effect", that is, the impact of observation on follower outcomes, appears to be the key to understanding how group cohesion and collective efficacy can be influenced by individual trust. Through observing others' attribution of trust toward the leader and comparing it to own levels, the individual may perceive the group as a unit that is similar in its values and perceptions and as an entity where the group members support each other. The perception of others' level of trust and the way they interact with the leader may therefore act as a prerequisite for a greater level of 'group feeling'.

Collective vertical trust – a mediator in leadership-outcome relationships

Collective vertical trust also appears to be an important mediator in the relationship between leadership and group outcomes. Effective Leadership appears to incorporate aspects of collective vertical trust and be a compact composition of all eight separate leadership dimensions. It is therefore likely to represent a leadership style whose effects are, due to its strength, not mediated through collective vertical trust for collective efficacy indicating that Effective Leadership is likely to incorporate aspects that may reflect trust instilling behaviors. Alternatively, Effective Leadership as an accumulation of all the individual leadership styles is likely to be far superior to any other style and therefore the contribution of collective vertical trust is negligible. Collective vertical trust, that is, the group's perception of the leader's trustworthiness plays an important role as a mediator for four out of the eight leadership dimensions regarding their impact on collective efficacy. While Visioning has a direct effect on CVT and CE, the extent to which the group trusts the leader appears to be relevant for positive effects of Visioning on CE to occur. It is possible that followers consider a leader viewed as able to take them to new heights as trustworthy from a group perspective, because the willingness to challenge existing procedures and to go beyond the status quo are considered potentially positive outcomes and developments for the group. Similar, the group may feel that the display of visioning leadership is an indication of their ability to succeed. In other words, the group may perceive the willingness to act visionary as a sign of their own competence. A leader lacking the confidence in the group may be less likely to be displaying such behaviors, while the display of visioning leadership is perceived as a reflection of the leader's beliefs in the group's abilities feeding the group's own ability in their ability to perform and succeed. However, in order to experience an increase in CE, the group needs to be able to trust that the leader's vision and potential willingness to take risks is in fact beneficial for the team.

In a similar vein, while the empowering leader instills greater levels of trust and efficacy beliefs within the group, CVT is an important mediator regarding the influence of empowering on CE. Therefore, the leader willing to spend time on the development of the group and its members and willing to share the power in form of involving members in the decision making process is not only perceived as acting in the benefit of the group but also as showing trust in their capability to become involved in strategic and other important decisions and the ability to develop and learn from mistakes.

Rewarding individual group members and the group as a whole and providing feedback is an effective way to increase group trust in the leader and their efficacy level.

Considering that rewards and feedback are signs of appreciation and a fulfillment of both rational and social contracts, an increase in CVT is consequential. By rewarding and recognizing individual and group effort and performance, the group's belief in the trustworthiness of the leader is confirmed. They are also a confirmation of the group's ability; respectively, a tool to reinforce the group's belief in their own ability. In other words, providing rewards and feedback for adequate performance not only fulfills an economic and social contract but also reinforces people's belief in group abilities. It is the latter that requires the group's level of trust for the full effects to occur. The group has to perceive the rewards and feedback as genuine ways of showing appreciation and a sign of their abilities. If the leader is not trusted, rewarding may be perceived as a form of manipulation as argued for by Deci (1972) and feedback may be simply perceived as empty shells of words, not reflecting the genuine thoughts of the leader.

An important facet of an effective leader when it comes to instilling group trust in him or her and affecting the group's perception of their own abilities is a tenuous leader. Collective vertical trust develops on the basis of a leader's willingness to stick to decisions and the willingness to take personal risks. Two possible reasons may explain the process underlying the positive effects of tenacity on CVT: 1) the group knows what to expect; i.e., once a decision is made, they can move forward as an entity to work towards its success, therefore providing stability. As Segal et al. (1999) found, stability is an important aspect in initiating and maintaining trust. 2) A leader who is perceived to take risks and not falter in the face of obstacles indicates to the group that she will do whatever necessary to succeed and be a reliable partner to the group in pursuing group goals. A leader who changes his opinion does neither provide stability, nor does a lack of risk taking instill any trust in the leader, therefore failing to provide signs of acting in the favor of the group. This explains the reason for the crucial role CVT plays in the relationship between Tenacity and collective efficacy. Only the trusted tenuous leader is able to increase the group's belief in their ability. This is likely to be due to the fact that the group perceives the willingness of the leader to stick to decisions and take risks for their own benefit and the leader will only defend the group and related aspects if he believes in his group's ability to succeed.

Energizing, that is, leadership comprising of enthusiasm for projects, role modeling, and the realization amongst group members that their leader is available has been found to increase collective vertical trust. The fact that a leader who walks the talk and acts as a mentor for his people acts beneficial to team successes and underlines his role as a team member who is greatly involved in the pursue of goals and not stops at delegating, appears to be a

leadership style entailing trust per se. This is supported by the fact that it explains the second highest proportion of collective trust after Emotional Intelligence. It is likely that collective vertical trust is no necessary mediator for the effects of Energizing on collective efficacy to occur due to the trust antecedent-like elements of Energizing. A leader acting in energizing ways may therefore be perceived as a great contributor and "leader" ensuring the group has the abilities to succeed by simply displaying her own involvement and through the fact that the group merely has to observe and copy the leader's enthusiasm and actions. In other words, the group may experience an increase in collective efficacy due to the conclusion that "if we do as the leader does, it should lead to success."

Ensuring people stick to agreed performance standards and emphasizing values that bring the group together and increase identification with the group have been found to be important aspects for the occurrence of a collective feeling of the leader's trustworthiness. A likely explanation for the relationship between Designing and Aligning and CVT is the underlying group feeling feeding the group's level of trust in the leader. Through the leader's striving for a collective value system, the group perceives the leader as acting for the benefit of the group in terms of ensuring everyone contributes to the group goal and has the same uniting value system increasing identification with the group. This might also explain the positive relationship between Designing and Aligning and CE. The fact that the group becomes a greater unit through a shared value and performance system, the team might perceive itself as more capable, because everyone is pulling in the same direction. The perception of leadership behaviors targeting common values and standards appears to be sufficient in itself, not requiring group trust to affect CE.

In a similar vein, Team-Building strives to create a unit and therefore positively affects group phenomena. Followers, however, do not require CVT to experience the positive effects of Team-Building on their level of self-efficacy. A leader who puts the interest of the group before the individual with everyone working towards the same goal in a collaborative environment are therefore an important catalysts for the group to perceive his actions as beneficial for the team.

The most important leadership style for the group to experience high levels of trust in the leader as a common phenomenon is the ability of the leader to act emotionally intelligent. It appears powerful enough to increase the group's belief in itself and is most likely to incorporate antecedents of trust to occur. A leader who engages in self-reflection, listens, and generally ensures people feel comfortable around her is perceived as trustworthy due to her ability to instill a feeling of psychological and social benefits for the group. Through

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emotionally intelligent behaviors, group members realize that the leader is acting for their own good and similarly experiencing their own abilities as sufficient to succeed. The latter, due to their perception that the leader will be aware of any issues on both individual and collective level, ensures smooth collaboration and successful teamwork. Due to its strength, Emotional Intelligence does not affect CE through CVT, possibly because it already incorporates elements that are perceived to be related to trust.

Relationships between individual and collective level constructs

The study also found support for the relationships between individual and collective phenomena. While Hart and Cooper (2001) argued for the potential differences between individual and collective variables, Shaw (1976), for instance, pointed out the influence of group perceptions on the individual. The results showed that both individual trust and collective vertical trust as well as self-efficacy and collective efficacy are interrelated. Individual trust is a very strong predictor of collective vertical trust. In contrast to CVT explaining a quarter of the variance in its individual counterpart, individual trust explains more than two thirds of the variance in CVT. This large difference underlines the important factor of the individual for group phenomenon to occur and grow. CVT is a group phenomenon comprising of interaction effects between individual group members and individual group member effects. It was argued earlier that individual phenomena such as individual motivation are results of an *audience effect*, where the individual is shaped by group observation. In a similar manner, with the group comprising of individuals and group phenomena formed by the way individuals interact with each other, a phenomenon such as CVT is the result of its individual perceptions, interactions, and behaviors. That is not to say that group phenomena are necessarily the sum of individual attributes, but groups are entities made up of smaller elements, namely individual group members. This is in line with Webber's (2002) argument that collective trust, that is group member's beliefs that another individual is trustworthy, is a representation of the majority consensus regarding the extent of trust to be attributed to a particular individual. In the case of collective vertical trust, this majority consensus is specifically targeted at the leader and the results emphasize this notion of group phenomena representing individual beliefs plus the effects occurring through group interaction including individual and group behaviors, yet again not necessarily the sum.

The picture is similar for self- and collective efficacy. Although it was previously hypothesized that collective efficacy may undermine self-efficacy due to comparison issues, the results show that the individual's belief in her own abilities is influenced by an audience

effect. The more the group as a whole beliefs in its abilities, the greater the likelihood that the individual is willing to attribute a greater level of skills to herself. This may be due to two reasons: 1) an audience effect where the individual is "infected" by group beliefs; 2) the individual may believe that it is possible to learn through group interactions and therefore experiences greater levels of self-efficacy.

The crucial role of psychodynamic processes for leadership effectiveness

The results show that the leadership styles incorporating social exchange elements are indeed widely stronger than a leadership style that is based on rewards and providing followers with performance feedback. Considering that Emotional Intelligence emerged as the greatest predictor for CVT, it underlines the importance of viewing a group as a psychological phenomenon. In other words, a team that is working effectively and sharing the same attitudes and perceptions experiences these shared effects due to underlying psychological components. In this case the leader's willingness to involve with her followers on a psychological level, understanding their needs, and addressing their inner selves rather than merely treating them as means to an end. It is therefore those leaders who view their team and its members as an end-in-itself that are rewarded the highest level of group trust. The view that psychological factors play a crucial role in creating a collective feeling of the leader's trustworthiness is supported by the fact that Energizing and Team-Building follow second and third regarding their effect size on CVT. While Team-Building as a leadership style is focused on establishing a collective and therefore a feeling of group belonging; or as Kets de Vries (1988) pointed out a type of family-like situation, the psychological potential of Energizing lies with the parent-like role the leader plays. This parent-like relationship is, when looking at it from a psychoanalytic perspective (e.g., Kets de Vries, 1988; Popper & Zakkai, 1994), the basis for trust. It represents the basis on which trust can be build. If we consider the group as a family-like unit, the leader symbolizes a rock, someone members can look up to. Rewarding team members, both individually and collectively, and giving them feedback on performance instills great levels of group trust in the leader. It is very likely that part of this strong effect on CVT is due to the fulfillment of an economic and social contract and the feeling of appreciation. Considering that Tenacity is the weakest contributor to CVT, it appears that the secret of a successful, trust instilling leader is his ability to use the psychological tools available to him, but these tools need to be used, foremost, in connection with his team and

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the individual rather than outward, for instance, when defending group decisions as a tenuous leader in the current study would do.

The impact on collective vertical trust on other group phenomena

Collective vertical trust, however, is per se an important part in influencing group phenomena. It has a positive effect on both collective efficacy and cohesion. The reason behind group members perceiving their team as more capable when they experience high levels of trust in the leader is possibly an interrelationship. In other words, the group feels safe in the hands of the leader and perceives her actions as beneficial to the team, therefore the likelihood of them failing is minimized. Their perception of the leader acting in ways that will not harm but benefit the team instills a shared feeling of 'even if things go wrong, the leader will do his best to help the team succeed'. A trustworthy leader will also do her best to undermine social loafing, therefore increasing the ability of the team to succeed.

Similarly, cohesion is a manifestation of the extent of attraction to the team and the way the team interacts. Consequentially CVT is a representation of the level of trust the team has in its main figure, the leader. As the leader ideally ought to be the person to shape and regulate the team if necessary, a higher level of CVT will lead to greater levels of attraction to the team due to an expectation of positive actions taken towards the benefit for the team, including minimizing social loafing, greater levels of identification, and a more collaborative, risk-free environment.

Relationship between leadership and organizational performance

Finally, considering the long-fought debate on the relationship between leadership and organizational performance (e.g., Bartram & Casimir, 2007; Lieberson & O'Connor, 1972; MacKenzie et al., 2001; Weiner & Mahoney, 1981) and the relatively clear-cut findings on the positive effects of leader trust on group performance (e.g., Dirks, 2000; Rich, 1997), the current results are an interesting intermezzo between the two ends of the performance effects spectrum. None of the organizational performance measures are affected by trust in the leader, regardless of whether the trust occurs on an individual or the collective level. Considering that the study investigated trust on a level representative of top-management teams in real-life organizations, it is most possible that although trust in the leader amongst other top-level leaders has no direct effect on organizational performance, the effects may occur through channels not tested in the current research. Similar to findings by Colbert and colleagues

(2008) who found that leadership does affect organizational performance, although not directly but through the perception of goal congruence, trust in itself is no predictor of organizational performance but a prerequisite for other positive effects to occur that lead to changes in organizational performance. For instance, rewarding, as found in the studies, is affected by the level of trust. In turn, the effect on performance may therefore not be directly explained by trust but leadership behaviors, HRM policies, and other relevant factors that may be dependent on trust and influence performance. Considering the performance measures in detail, share price and market capitalization are representations of investor perceptions of the business potential. Share price is merely a belief in future developments but not a representation of the past (although technical analysis may partly explain leadership-share price relationships, behavioral finance has shown the importance of psychological investor beliefs for share price development; also reflected in the power of equity analysts on market developments). Returning to the earlier point on the absence of a direct effect of individual and collective top-management trust in the leader, share price implications due to trust is most likely to be indirect through policies and actions reflecting the level of trust. For instance, the more trust top-management have in their CEOs ability and realism of his vision, the more likely they will pass on their knowledge, confidence in the CEO and proposed visions and actions, and organizational developments to their investor relations team. In turn, it would therefore not be the direct effect of trust in the leader, but an effect on share price would be, and is indeed affected by the work of the investor relations department (e.g. Brennan & Tamarowski, 2000). Trust is subsequently the prerequisite for the investor relations department to be able to communicate company policies, plans, strategies, and visions to investors, which in turn will affect share price developments and subsequently the market capitalization of a listed company.

Similar arguments may explain the absence of a direct effect of individual trust and CVT on turnover, pretax profit, gross margin, ROI, and ROCE. Considering that the study asked for top-management perceptions of the executive's trustworthiness – particularly due to the nature of the study conducted in a business game simulation and therefore not allowing worker responses – current results do not support previous findings by, for instance, Thomas (1988) who found a significant portion of the variance in organizational outcomes explained by leadership. Important here, trust in itself has no direct effect on organizational outcomes. It is possible that effects of trust do occur through other channels and similar to the previous argument, trust may act as a prerequisite for leadership effects amongst other factors to take place. However, it is possible that Meindl and associates (1985; 1990; 1995) were right in

arguing that the effect of leadership, and subsequently the perception others attribute to the leader in the form of trustworthiness, may have a very limited effect on organizational outcomes. Considering that trust, however, plays a crucial part in affecting other outcomes including motivation that are significant requirements for a productive workforce, the former argument of indirect effects is more likely.

8.7 Summary

This chapter described the final study of a series of three. The main focus was to determine to what extent individual and collective variables are related and to add insight into the influence trust on both the individual follower level and the collective level has on organizational performance. Hypotheses 5, 6, 9, 10, 11, 12, 13, 14, and 15 were supported; while Hypotheses 16, 17, and 18 were not supported indicating no relationship between trust in the leader and organizational performance. In addition a new measure of collective trust, specifically the collective level of trust in the leader, coined collective vertical trust, was established. Its relationship with its individual counterpart was shown. The results also pointed out the importance of the collective for leadership effectiveness. Collective vertical trust emerged as a stronger predictor for follower outcomes, underlining the role of a leader as a group steward rather than a micro-manager. A leader needs to be aware that through her actions group dynamics are put into action affecting other group variables as well as individual phenomena. It also pointed to the limited ability of trust in affecting organizational performance. Although no direct effect was found in the current study, it is argued that trust does indeed affect organizational performance through indirect channels.

Discussion and Conclusion[4]

Despite the number of suggestions regarding the significance of trust for leadership effectiveness, only few studies have ever explored the particular effects on a wider scale. In particular investigating a number of leadership dimensions for their relationships with trust and the direct links between trust and other individual outcomes, namely motivation, efficacy, and cohesion. The current study further adds to the existing knowledge in that it investigates the relationship between eight leadership dimensions and collective vertical trust, a newly defined measure. Adding to the understanding of the complexity of organizational functioning, the current set of studies investigates the direct effects between trust on one level of the organization, namely individual and collective and other level variables. The study further contributes to the controversy regarding the influence of leaders on corporate performance measures such as share price or return on equity.

Although prior research has focused on various outcomes and various leadership styles in a particular context, this is the first study to test the mediating effects of trust for eight leadership dimensions and outcomes on both the individual and the collective level. In addition, this is the first study, although in a semi-experimental setup, to test the direct effect of trust on financial performance measures and its mediating role in the influence relationship with leadership behaviors. However, not only from a research point of view does trust appear to be a crucial point of interest, but also for practitioners. During the research the interest in trust has been strong; not only from the academic side, but particularly from the business side. This project therefore provides noteworthy findings for both researchers and practitioners, particularly with the three different populations of current and future employees. Indeed its findings are substantial not only in theoretical but also practitioner terms. It not only contributes to the understanding of trust as a mediator in the relationship between leadership and follower motivation and efficacy, but also emphasizes the importance of group dynamics for both individual trust, motivation, and efficacy as well as cohesion, collective efficacy, and last but not least collective vertical trust. Particularly focusing on the collective level of trust in the leader opens new doors to future research and helps in understanding the importance of group variable effects for both individual phenomena as well as collective follower outcomes.

All three studies in this research project have underlined the importance of trust in the leader for leadership effectiveness. Not only have all studies shown that trust has a significant

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[4] For a detailed evaluation of the individual studies, please refer to the discussion sections following each study.

direct effect on follower efficacy beliefs and different types of motivation, but all studies have shown that trust is an important ingredient regarding leadership effectiveness in the form of its mediating potential. The majority of leadership effects occur through individual and collective trust in the leader. Before discussing the overall results from the three studies and the differences between different times, demographic groups, and different levels of analysis, it is noteworthy to elaborate further on the way leaders may differ in terms of their leadership style depending on their level of leadership. While the original leadership measure was constructed for executives (Kets de Vries et al., 2004), the current study showed that middle level leaders may require fewer of those behaviors that may be considered strategic leadership. The middle level manager is a psychological leader; in other words, a leader who is aware of follower's emotions, needs, and is able to energize and build on this knowledge. In the context of what has been referred to as transformational leadership (e.g., Bass, 1990), those behaviors that go beyond the rational exchange are the most effective at affecting followers.

However, the story is not fully told yet. Rewards, if used fairly, openly, and in manners and ways understandable to followers, have a very positive effect on follower outcomes. In order to understand the controversies surrounding rewards, suggestions regarding charismatic leadership and inspirational motivation may help to clarify the direction of the current findings. All three studies showed the importance of rewards for any of the follower outcomes, from trust to motivation and efficacy. The main difference, however, lies in the form the questions were phrased. The focus was the leader's behaviors regarding the respect for the contribution of the individual and the differentiation between individual and group performance. This approach of determining the effect of rewards may explain the differing results in the current study from others such as Deci's (1972) work. By asking about rewards for individual contribution as well as collective performance, it allowed to specify in what manner rewards were administered. The importance indeed lies in this clear differentiation from collective contribution enabling the investigation to focus on both the individual and the collective. As pointed out by Gully and colleagues (2002) and Shepperd (1993), it is just as important to emphasize a sense of equality ensuring that every member is an important part of the group.

Similarly, the positive effects of empowerment on motivation and trust across all three studies are likely to be embedded in the rewarding nature of entrusting followers with greater powers. As Herzberg et al. (2005) pointed out, the positive effects of individual consideration including the aspect of respect in the one-on-on relationship between leader and follower

manifest in follower motivation and a feeling of empowerment and better performance (Dionne et al., 2004). Its reinforcing character due to its "compensatory" reward nature (House & Mitchell, 1974) in form of, for instance, developmental opportunities provided by the leader, increases satisfaction and job involvement (Abdel-Halim, 1981). The findings support this showing that rewarding followers in the appropriate ways is one of the keys to success. Only those leaders who use rewards in, what Bass and Steidlmeier (1999) coined authentic leadership, that is, leadership that is genuine and not meant to be manipulative, will be successful in raising followers motivation both intrinsic and their willingness to work harder. Rewards, when used in such manner, even positively affect people's beliefs in themselves. The key, however, is in the use of rewards, may it be of a tangible financial nature or allowing greater levels of responsibility and autonomy, to be used not merely as an exchange, but as a mean to express genuine, personal gratitude.

All three sets of studies, and previously the different factor analyses have emphasized this aspect of leading in genuine, humane ways. They showed the importance of leadership behaviors beyond transformational leadership. While many of these behaviors fall within the category of transformational leadership, an effective leader, as investigated in the current research, does more than merely acting as a leader. The leader, particularly also in the context of trust, becomes a parent-like figure, or at least a trusted companion. This has later been shown to be the case in crisis and non-crisis situations, and on the individual and collective level. The psychological components of leadership are therefore important ingredients for effective leadership across situations, at least across crisis and non-crisis situations.

This finding has a number of implications. First, previous research suggested charismatic leadership to be an emergent phenomenon during a crisis situation (e.g., Beyer & Browning, 1999); particularly within the context of visionary leadership. The findings from the present studies show that visionary leadership and role model type behaviors are sought after aspects in a leader in crisis as well as non-crisis situations. With the first study being a reflection of the impact of leadership on followers in times of prosperity, the second study did not differ significantly in terms of results for charismatic type behaviors. In both situations, participants indicated that they were looking for a visionary leader. Although the need for a visionary leader may be higher in times of crisis; particularly during one of the worst financial crisis the world has seen in the last sixty years, followers regardless of situation appear to desire a clear vision of where the leader is taking them. A second aspect that may underline the importance of charismatic type leadership behaviors, even during prosperous times, is the desire of people to be taken to new areas and levels. Employees may likely feel the need to

break out of their daily lives and enter new eras and may see this need satisfied by a visionary leader. Therefore visionary leadership, although important during crisis to give people hope for a better future, may also act as a tool in the form of the leader to change their daily routines and as such motivate them to work harder. It is therefore not the immediate effect of the leadership behavior; after all, a vision lies in the future, but the outlook and possibility of something new that raises people's level of motivation. Future research should investigate this.

It follows that, regardless of time and external factors, the relationship between leader and follower is crucial. Whether it is the charismatic or rewarding leader, he or she needs to be able to instill and maintain trust in order to derive those positive outcomes amongst followers. The results from the individual studies underlined the role of the important interpersonal element in the relationship between the leader and his or her followers showing that 1) 56-57 per cent of variance in individual trust are explained by leadership; 2) the common thread amongst those leadership dimensions most influential in moving the follower's bar of motivation, efficacy, and trust is the ability of the leader to understand other people's needs and emotions and to respond in ways meeting their expectations and desires. This is important, in that it shows, that the ability to instill trust and maintain it amongst ones followers allows to affect other work-related aspects, which are not only substantial for people's willingness to work towards individual and common goals, but are crucial to organizational success. The finding that people's willingness to work harder and to work for the work per se, namely the effect on their level of intrinsic motivation, is affected by the level of trust they perceive in the leader, underlines the importance of personal relationships in a work context. It further indicates that organizations need to place less emphasis on bonus structure and more on the training of managers as human beings. This raises additional questions regarding the widely used practices of performance bonuses, particularly, those paid as an annual lump sum. Neither do these bonuses act as reinforcers or signs of gratitude for contributing to the overall goal due to the lack of possible association with the applied effort, or can they be used as psychological means to increase motivation. Annual bonuses as used in many corporations today are therefore most likely the detrimental means of motivation as proposed by Deci, while bonuses that can be used as a means of personal gratitude carrying a psychological meaning will have, as shown, positive effects on motivation. In the context of leadership skills regarding human interaction, the later should be successful motivators, while the first are most likely a mere cost factor for an organization.

All studies have shown that the most effective leader is the one able to address and satisfy needs that are associated with the higher order levels in Maslow's (1954) theory. Considering that across all three studies those leadership dimensions emerged as strongest predictors of follower outcomes tapping into interpersonal leadership, that is, leadership that is concerned with the relationship per se and not the relationship as a mean to further ends, the importance of understanding human needs is further emphasized. As Blau (1964) pointed out, any relationship to be successful, effective, and lasting needs to be based on aspects that require such aspects as mutual trust, respect, and interest in the other party. It is not enough to lead through task-related leadership. The magic of effective leadership lies in realizing that humans need to be treated as such and it is therefore essential to adopt leadership behaviors reflecting empathy, respect, and interest in the employee.

This is just the same for emotional intelligence as it is for rewarding behaviors. Again, the essence lies in its use. Rewards per se may not be effective tools to motivate and create trust, as they may be perceived as manipulative, as argued by Deci and others. However, as all studies across the individual and the collective level showed that some of the claims previously made with regards to the detrimental effects of rewards (e.g., Deci, 1972; 1999) may not necessarily be stable across populations and context. Both studies with work-experienced students and full-time employees showed the positive effects of rewards on people's motivation, including intrinsic motivation.

The difference between previous studies and claims that have argued for a perceived manipulation effect when receiving rewards and the current studies is possibly due to the role of trust. Since all studies in the current research tested the mediating role of trust in the leadership-follower outcome relationships, the importance of trust as a mediator has for the first time been shown. In other words, it is not the rewards per se that have a positive effect, it is the level of trust attributed toward the leader that is the key to the success of rewards when using it as a tool to effect levels of motivation. Deci (1972) may have been right in claiming that rewards used as a leadership or management tool may fail to have positive effects on people's motivation, but it appears to be the opposite when rewards and feedback are used as means to fulfill social exchange contracts by which the leader indicates to the follower his or her gratefulness and appreciation of their effort. Therefore, regardless of the level of experience, rewards can have a reinforcing character by which they positively affect motivation, including intrinsic motivation.

Considering the entire picture that emerges from the set of three studies, followers are in dire need of leaders who are human and treat their surrounding just the same. In other

words, the findings that leadership based on behaviors emphasizing that an individual follower is important combined with the importance of trust as a mediator in all these relationships indicate that leadership is indeed a difficult task to learn. Although Shea and Howell (1999) showed that charismatic leadership may be learned, at least temporarily, long-term success may only be achieved if leadership is not put on as a mask to achieve a goal, but leadership, whether learned or not, needs to be applied and lived constantly with honest intentions. This is further emphasized by the finding that the time spent working with a leader does not change the level of trust followers perceive in the leader, as long as he or she possesses and portrays the genuine attempt to behave, decide, and lead those relying on him or her in ways that are beneficial. This closes the circle with the definitions of trust, both those of a psychological and a rational nature. As, for instance, Cunningham and MacGregor (2000) and Rousseau et al. (1998) pointed out, trust is the belief that another party is dependable, fulfills his or her part of the contract and does not abuse the follower's position of vulnerability. With respect to trust in the leader, followers are willing to trust those leaders that display and act in ways that ensure that neither will they take advantage of their followers, nor will they abuse their position but rather protect those under their leadership.

It is noteworthy, however, that there are differences between those employees with more and those with less work experience. The findings show that both overall motivation and intrinsic motivation are more affected amongst less experienced employees. It is most likely that this is due to younger students, and as such graduates, being in much greater need to be shown that they are appreciated in terms of reward and feedback. Feedback most likely because it gives younger, less experienced workers, a benchmark and an idea of how they can improve and where they are standing at a point in time. In contrast, older, more experience workers, may already have a good idea of where they need, want, and have the potential to go and in which ways they are able and aim to develop. Rewards are possibly most effective for two reasons: 1) they fulfill the lower level needs in Maslow's (1954) hierarchy; therefore, individuals just starting out in their first real job are looking for fulfilling their desire for money, for receiving a monetary reward for their efforts both before, while at university, and in their job. It may also be likely that living on a budget at university and suddenly being faced with the possibility of a much greater income may be more motivating in that they financial and societal status is rising; 2) older employees have already satisfied some of the needs described above and are now looking for career development.

Work effort, however, does not appear to be affected amongst older employees. However, the conclusion is less likely to be the level of work experience, but the fact that the experienced employee sample was collected through the biggest crisis since World War II. It is therefore not surprising that people are not motivated to put more effort into their work for greater rewards. Their fight for survival to keep their job is much more likely to be a factor affecting their work effort. This is in line with the finding that Emotional Intelligence has a greater effect on experienced employees than on younger employees. People in crisis appear to be looking for, what has been described as the parent figure (Kets de Vries, 1988). Someone they can trust and look to for guidance. In layman's terms: a rock in rough times.

However, more experienced employees attribute greater levels of trust when working with a leader that empowers them, uses emotional intelligence, rewards them and gives them feedback, and is more tenuous in her decision making. It therefore appears that in order for starters (i.e., younger, less experienced workers) urge for a vision, someone that challenges their existing beliefs, but at the same time gives them exact guidelines on how the vision can be achieved. Trust for younger employees is therefore an outcome of leaving the status quo and working with someone who can take them to new heights, or at least promises to do so. It is important for them, however, that the leader does not only throw a vision into the room but puts measures in place that will undermine social loafing and ensure that clear guidelines are in place making effective working possible. Older employees, in contrast, may have seen many visions not materialize and guidelines not adhered to, resulting in their willingness to attribute the same levels of trust as less experienced workers inhibited. The leader who involves them in decision-making and gives them the opportunity to work on an equal level, while treating them with respect and showing gratitude is therefore a leader that will act as a role model and live the vision.

Viewing the different leadership styles on a timeline from Visioning in the beginning to Emotional Intelligence as a manifestation later in the leadership process, older employees appear to place greater emphasis on the later stages of the leadership process, while younger employees attribute trust when encountering leadership that occurs early in the timeline. This is supported by the finding that a tenuous leader is perceived as more trustworthy by more experienced employees. Those employees who have already seen visions never manifest and leaders not able to fight their way and stand up against opposition are much more affected in terms of their level of trust by leaders who will go the entire way, are strong, defend decisions, and bring the vision to life.

The findings indicated interesting implications regarding the potential of influencing follower efficacy beliefs. Amongst more experienced employees, self-efficacy beliefs appear to be fully independent of the ways a leader behaves. In contrast, rewards, feedback, and clear guidelines have a positive effect on self-efficacy beliefs amongst less experienced followers. The story is most likely very similar to motivation. While older employees do not look for confirmation of their beliefs in their own abilities, possibly because they have established a good sense of their capabilities over time, or maybe they self-reflect upon their skills through successes and peer reactions to their performance, younger employees require confirmation. The most striking fact is that the only two leadership dimensions significantly related to self-efficacy beliefs amongst individual followers can be considered reinforcement mechanisms. Rewards and feedback, when viewed from a behavioral perspective (e.g., Skinner, 1953), are reinforcements of people's abilities indicating that the individual's abilities are sufficient in achieving group targets and individual goals. Therefore, not only are rewards and feedback important factors in influencing people's motivation, but equally their beliefs in their abilities. The similarity between the relationships appears rather conclusive when considering self-efficacy as a prerequisite for motivation.

Trust – a group phenomenon

An important focus of this research project was to explore the relationship amongst variables between different levels. Although the core aspect was 1) to establish a new concept of collective trust; specifically collective trust in the leader; and 2) to understand the relationship and interaction between trust on the individual level and its collective counterpart, the study also explored the relationship between self- and collective efficacy. There are several reasons for investigating the different levels of leadership, such as the increasing importance of knowledge workers in Western societies (e.g., Vinchur et al., 1998). With all samples drawn in the UK, the study provides important insights into the collective processes determining organizational success in the white-collar sector. As Thomas and Baron (1994) pointed out in order to determine work performance in the white-collar sector, the appropriate level of analysis is the collective level. The findings therefore offer further insight into this crucial organizational level by investigating group cohesion and collective efficacy. However, with the importance of trust on the individual level, the need arises to investigate a specific type of trust in the leader, namely the collective level of trust in the leader. In particular, as McGrath and Argote (2001) pointed out the group dynamics in any organizational units such as teams. With the attempt to establish a collective measure of trust

in the leader, it is essential to investigate the relationship between the individual and collective level. The findings support this view showing that trust is not merely an individual phenomenon. Trust may originate on an individual level; however, the group dynamics play an important role in forming individual trust, and vice versa in shaping the way the group perceives the leader's trustworthiness. The strong relationship between individual trust and collective vertical trust emphasizes the importance of group dynamics and the individual in creating group dynamics and group phenomena. Although previous propositions have pointed out that collective and individual variables may be relatively independent, the case for individual trust in the leader and CVT is very different. It has been argued that the relationship is strong to an extent where the two variables enter an upwards or downwards spiraling effect with increases in one variable resulting in almost equal effects in the other variable. The findings in the final study have supported this view showing that the relationship between the individual and the collective variable are highly correlated. The findings are similar to Bandura's (1982) suggestion regarding the relationship between self- and collective efficacy, who suggested that the collective variable is rooted in its individual counterpart and the social processes involved warrant investigation. The current study added to this knowledge of multilevel relationships indicating the bi-directionality of the effects of the two variables. The relationship between individual trust and collective vertical trust supports Bandura's assumption of the collective variable rooted in its individual counterpart. It is significant to be aware of the relationship between levels of analysis; in particular, as suggested earlier, with the increasing importance of 1) knowledge workers who depend on group work and 2) the mounting evidence of trust as a determinant for leadership, group, and organizational success.

In practical terms, it is therefore crucial that leaders are aware that the more followers lack trust in them, the lower the collective level of trust. Considering the importance of the collective level for organizational success, this warrants further research and similarly exposure and training of leaders to these findings and their implications for their effectiveness. It is therefore of utmost importance that any leader is able to address both levels of trust through spending time, energy, and resources on developing and maintaining individual trust, while doing similar for the group level of trust. A leader is able to address both levels through the repeatedly mentioned psychological components of leadership. The leader simultaneously needs to ensure that rewards also address both levels; that is, that individual team members feel equally appreciated as does the group. The core aspect for effective leadership regarding maintaining a high level of trust lies with the understanding

that a group comprises of individuals, and it is therefore the leader's role to ensure both levels are addressed through his behaviors and actions.

In practical terms, the findings further underline the importance of addressing the needs of the human capital and to not neglect the personal facets of work relationships. As Becker et al. (1997) pointed out, the human capital, thus the people in an organization, not only allows organizations to be competitive and innovative, but they are the most crucial element of a company's or other type of organization's survival. Making full use of the available human capital should not be a choice but mandatory. It should be of foremost importance for any leader to understand that those he or she is dealing with on a daily basis are those who will keep the team and the organization alive and subsequently guarantee the leader's success and survival within the organization. The issue organizations are still facing is that of a shortage of skilled, not workers, but leaders. IBM recently announced that they estimate an increasing demand of leaders who possess the people skills necessary to run an organization today and give it the competitive edge and advantage. The findings underline a recent report by the HM Treasury (2000) that found that one of the major barriers of greater productivity and future productivity growth lied with the lack of skilled senior staff and leadership. The findings, in the context of the report and the predictions by IBM, show that the major issue to be addressed in leadership training, employee motivation, and group performance is not merely providing greater bonuses or share options, but the ability to create and maintain trust within the organization, amongst individuals, within teams, and any other level or area within an organization.

The importance of the group dynamics for leadership effects on follower outcomes are further underlined by the finding that self- and collective efficacy are related. The higher the respective efficacy belief, the higher its counterpart. Although a leader's ability to influence efficacy beliefs are rather limited, there is no wrong in remaining aware of the relationship between the two levels of efficacy. This may aid in establishing levels that are necessary for successful individual and group performance.

Leadership is indeed a group phenomenon. In other words, leaders overall have a greater impact on all collective follower outcomes than on their individual counterparts. A leader, while leading individuals, needs to be aware that his leadership is a group phenomenon, a tool to influence a society, group perceptions, culture, and subsequently the group's, organization's, and even nation's success. Similar, collective vertical trust appears to be a greater factor in influencing group phenomena. For both collective efficacy and group cohesion, the group variable of trust in the leader emerged as a greater predictor than its

individual counterpart. The significant role of CVT is further highlighted by its crucial role as a mediator in the leadership-outcome relationship. CVT is therefore not only an important direct predictor of the level of collective efficacy, but effects for four out of the eight tested dimensions emerged as being mediated through the level of trust the collective has in the leader. It is therefore of utmost importance that leaders are aware that in order to affect group phenomena, the level of trust needs to be at an appropriate level. The higher trust on the individual and the collective level, the higher efficacy, cohesion, and motivation. A team's collaboration is therefore a result of the way a leader interacts with all members and the group as an entity and his ability to establish and maintain trust on two different levels – the individual and the collective level.

The data support the notion of intra-group division as suggested by Terry and Callan (1998) resulting from ineffective leadership. The more effective the leader, the higher group cohesiveness and a shared perception of other group phenomena and perceptions. The data also suggests that the reduction or prevention of an intra-group division with particular members perceiving themselves excluded, consequently lacking the motivation to contribute to the collective, is dependent on leadership. George (1995), for instance, pointed out that failing to reward the individual group member appropriately may be cause for the collective to be divided. The findings indeed indicate a relationship between the manners a leader uses, for instance, rewards and other considerate behaviors and the level of group cohesiveness and a collective perception of the leader's trustworthiness. The gross of the findings across all levels and studies suggest that researchers and practitioners should consider trust, both individual and collective vertical, as both an outcome and a determinant of effective leadership and other organizational outcomes.

The data showing followers' demand and appreciation of leaders' understanding of the power of interpersonal aspects such as trust supports the notion by Hogan and colleagues (1994) that the failure and incompetence of leaders to understand and manage group processes and the individuals involved is not only a problematic aspect for the group itself, but also for the leader's ability to progress within the organization. It is therefore important for leaders to understand that by learning, adapting, and applying the knowledge of human processes will 1) increase the performance of their team; 2) increase their ability to lead; and 3) increase their chances of promotion.

Finally, conversely to the assumptions that individual trust in the leader and CVT may be a factor for organizational performance, the final study found no relationship between the level of trust on any of the two levels and organizational performance measures. Two possible

explanations: 1) the study was conducted in an environment similar to a laboratory study; that is, in a business simulation. With the team responsible for organizational success representing the top executive team of an organization, the potential relationship between trust in the leader and organizational performance may be limited. It is therefore likely that a repeat study amongst organizational groups and departments on a middle level management level may yield different results and indicate a relationship between trust in the direct leader and organizational performance. This is likely to be due to the fact that what has been coined human capital is primarily the greater workforce of an organization and less the executive team; and 2) the available financial performance measures may not reflect direct effects of human capital efforts. In other words, using performance measures that are closer related to the group level, such as input-output logarithms as applied by Huselid (1995) may yield different results. Due to the nature of the business simulation, this data, however, is not available. It would therefore be valuable to conduct similar research in a real-life, business environment on a group level using financial performance measures directly associated to the group level.

A final thought on the issue the relationship between leadership and performance: while a number of studies, although even today the number of studies investigating financial performance and its relationship with leadership is very limited, have found varying degrees of influence of leaders on corporate performance, the findings and discussion should not dismiss a potential relationship. Thomas (1988) summed up the differences between different findings on leadership influence on corporate performance by arguing that the major issue in attempting to explore a relationship is the methodology applied. In a similar manner, it is argued here that it is of utmost importance to repeat the studies with other types of performance data and with different levels of leadership. It may be that Meindl (e.g., 1985) was right in arguing for a romantization of leaders, an overattribution of what they are actually able to achieve. However, the past and current events in business, such as the failure of General Motors or the continuing success of business tycoon Richard Branson, have shown that the influence of leaders on organizational performance is strong and should not be dismissed. However, the findings suggest that Meindl's argument might apply to particular data or particular time frames, yet it is the long-term that needs to be taken into consideration. Future research should therefore focus on the long-term effects of leaders on corporate financial data including the measures investigated in the current research.

However, it is noteworthy that despite the lack of evidence of a relationship between leadership and organizational performance, the influence on individuals and the collective is a

cost-factor per se. The ability of the leader to instill trust and create and maintain positive levels of individual and collective phenomena aid the retention of employees. Being aware of a leader's awareness and ability to reward, empower, stand up for the group, and take the group to new heights enables the leader to motivate followers to stay with the group minimizing recruitment costs and attract new followers to the group. As Golenbiewski (1999) pointed out, lacking effective leadership is a great cost factor for an organization, regardless of whether the effects on corporate performance measure may be directly measured. Future research should therefore investigate the cost savings of effective leadership through such means as trust.

Overall, the findings indicate the strong effects of leaders on individuals and the group. The many processes that mediate or moderate these relationships need to be explored further taking into account a greater variety of measures on all levels with an increasing focus on multilevel investigations.

Contribution and Limitations

Theoretical Implications

The current research project has added a number of new insights to the existing knowledge about leadership, trust, and their role and effects in the processes underlying follower outcomes. The current research has extended the use of an existing leadership measure from the executive to non-executive leadership levels. It has shown that many aspects of leadership that are effective tools on an executive level are similarly effective on a non-executive level.

Although existing concepts of horizontal trust do exist, the current research proposed an original variable of trust measuring specifically the collective level of trust in the leader, coined collective vertical trust. The new concept has been tested and its crucial role for leadership effectiveness and relationship with individual trust in the leader established. It has therefore been shown that trust is a dynamic concept in that individual phenomena affect collective phenomena and vice versa. It is crucial for researchers to understand the multilevel dynamics of concepts to fully understand effects occurring on either level. Although we need research testing the separate levels to gain deeper understanding in leadership processes, we shall never fail to conduct multilevel research. That this is not only the case for individual trust in the leader and collective vertical trust but also for other variables was indicated by the bi-directional relationship between self- and collective efficacy.

Further, to the author's knowledge, the mediating role of trust has never been tested and established on such a thorough and wide level, in particular on two different levels and its contribution to existing mechanisms of leadership. The results showed that although leadership is important, trust is the key ingredient to making it successful in achieving desirable individual and group follower outcomes. That this mediating relationship is not only an individual phenomenon but a collective occurrence has been shown by similar results for the mediating role of trust in the relationships between leadership and individual motivation and group cohesion. Although self-efficacy is likely to be obtained through other means outside the leader's control, collective efficacy is dependent on the level of trust perceived by the team as an entity. This finding underlines the importance in understanding leadership as a group phenomenon.

Finally, one common thread across age groups, demographic groups, individuals with different levels of work experience or amount of time spent with their leader and department is the effectiveness of the psychological components involved in leadership. This cannot only be seen in the greater effectiveness of those leadership styles associated with greater levels of the parent-child component, respectively, those addressing intrinsic and emotional needs, but also the crucial role trust on both the individual and the collective level play for leader effectiveness and follower outcomes.

Implications for leaders

Although not focal part of the research, it has been shown that leaders need to be aware that no matter what stage of their career they are at, respectively, regardless of whether the leader is an executive or a middle level leader, the interpersonal aspects are crucial for their success and effectiveness. Whilst middle level leaders are much less likely to engage in strategic aspects of leadership, nor will they need to be as outside focused (with regards to the organization), the finding that trust plays a crucial role in the majority of relationships between leadership and follower outcomes emphasizes the importance of the psychological phenomena occurring in leader-follower relationships.

Leaders therefore will only benefit from understanding that through their actions the level of trust, a core aspect of any functioning relationship, amongst their followers will be affected significantly. Yet, not only is the level of trust in the leader affected, it also functions as a crucial intermediary between leadership behaviors and follower motivation. In particular when viewing trust as both an individual and a collective processes.

Although leaders may not be able to affect self-efficacy beliefs amongst all types of followers with regards to their level of experience or age, leaders most certainly need to be aware that particularly younger individuals may gain some of their beliefs about their own abilities from the feedback they receive from the leader. A leader who uses rewards as a reinforcing tool is very much able to increase people's self-efficacy beliefs.

A crucial element of what leaders need to take away from this research is the interrelationship between individual and collective outcomes. Even more so the fact that leadership is indeed a group phenomenon. This, however, does not indicate that leadership is not a phenomenon occurring on the individual level, but leaders need to be aware that group dynamics are a powerful element in multiplying effects occurring on the individual level to levels that are most crucial for the leader's personal success, but ultimately for the success of the team and therefore the organization.

It is therefore important to understand that while leader's ability to affect self-efficacy may be limited; hoisting collective levels of efficacy are very strongly affected by leadership. Ultimately, however, collective efficacy and group cohesion are not directly affected by leadership per se, but through the level of trust the team perceives in the leader. Leaders therefore need to be aware that it is not only the individual or the group that will determine his or her success, but it is the dynamics of the two that ultimately lead to a leader succeeding or remaining a "lame duck".

Limitations and Directions for Future Research

There are a number of limitations in relation to the current research design. First, the individual employee study was an accumulation of respondents from different industries. Future research should look into industry-specific effects. It will also be worthwhile to look into culture-related effects and the relevance of leadership trust on different levels. The current research did not control for level of leadership. Although the data has been collected on a middle level management level, future research should look at leadership levels on the executive level. It is noteworthy that a first step has been taken to investigate executive level effects, but due to the nature of the final study sample being drawn from a business simulation rather than a real-life context may limit the application.

The group-level study has its advantages in terms of the control of macro-economic factors. Due to the nature of the business simulation being similar to a laboratory-study, the effects of external factors such as recession have been excluded. However, in order to establish real-life conclusions, this study should be repeated in real-life settings in different

organizational contexts. In particular with the possibility of finding effects through other variables involved in company success; such as the investor relations department mediating role in leadership-share price relationships. The study has also focused exclusively on business leadership. Future studies could investigate effects in political and public sector domains. With the increasing importance of virtual teams and project teams, future research should also investigate to what extent the findings are replicable in geographically dispersed teams and teams that work under the presumptions of limited shared leadership and collaboration.

Although this study has given an indication on the interrelationships between individual and group variables, the specific dynamics are yet to be explored. Future research should therefore investigate the particular processes involved in this multilevel dynamic. It may be possible that it is communication amongst team members that affects each level. Alternatively, it may be observation. In order to determine further the hidden constructs leading to the level effects, mediation models should be established and tested.

Finally, although the total number of groups is very extensive, it would add further value to investigate larger teams in order to explore group size effects on collective vertical trust and its role in leadership effectiveness.

Conclusion

The research has added significant knowledge to the processes involved in leadership effectiveness and the indirect paths leaders influence follower outcomes. The overall contribution from all three studies pointed toward the important role of trust in the leader, both amongst individual followers and the collective unit of followers, namely the team. Although particular dimensions of leadership act directly, the majority of dimensions influence follower motivation and beliefs in their abilities through the trust followers hold in their leaders. However, not only does trust play a significant role for motivation and efficacy beliefs, but also for the level of cohesion.

The research has contributed in that it has shown these effects for eight different dimensions of leadership and two levels of follower outcomes; specifically the individual and the collective level. However, it has also tested these direct and indirect effects in three separate studies from students to very experienced employees. A final addition to the existing knowledge has been made due to the turns the world economy has taken during the process of this research. The research showed that regardless of whether leaders lead during times of

crisis or non-crisis, the level of trust their followers perceive in them is crucial for their effectiveness in leading them and affecting their beliefs and motivation.

Although the research has its limitations, it provides directions for future research and implications for both researchers and practioners.

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Appendix 1.1 Hypotheses tested

	Hypothesis to be tested	Study 1 (n=207)	Study 2 (=90)	Study 3 (n_{ind}=342; n_{groups}=108)
1	Styles that are based on psychological components will result in higher levels of individual trust in followers than reward behaviors, including feedback, and tenacity.	✓	✓	✓
2	Fair reward behaviors will lead to greater levels of trust.	✓	✓	✓
3	Trust in the leader acts as a mediator between participative decision-making leadership behaviors and motivation.	✓	✓	✓
4	Individual trust in the leader leads to both individual motivation and collective motivation constructs.	✓	✓	✓
5	Trust in the leader acts as a mediator between rewards and self-efficacy.	✓	✓	✓
6	The effects of styles based on psychological components, including feedback and goal-setting, on efficacy beliefs are mediated by trust in the leader.	✓	✓	✓
7	The effects of styles based on psychological components lead to greater individual motivation through higher levels of trust.	✓	✓	✓
8	Contingent rewards lead to greater individual motivation through higher levels of trust.	✓	✓	✓
9	The higher individual trust, the higher collective vertical trust in leader.	N/A	✓	✓
10	Leadership styles based on psychological components will result in higher levels of collective vertical trust in leader than reward behaviors.	N/A	✓	✓
11	An increase in collective vertical trust subsequently leads to higher levels of individual trust.	N/A	N/A	✓
12	Fair contingent reward behaviors increase levels of collective vertical trust.	N/A	N/A	✓
13	Collective vertical trust leads to an increase in collective efficacy.	N/A	N/A	✓
14	An increase in collective vertical trust will lead to higher levels of group cohesion among team members.	N/A	N/A	✓
15	A higher level of self-efficacy has positive effects on collective efficacy.	N/A	N/A	✓
16	Collective efficacy will have no positive effect on self-efficacy.	N/A	N/A	✓

17	Performance increases with greater levels of trust on individual and collective levels.	N/A	N/A	√
18	Individual trust is equally important for group performance as is collective trust.	N/A	N/A	√

NB: √: tested; N/A: not tested

Appendix 1.2 Results for hypotheses

	Hypothesis supported/not supported	Study 1 (n=207)	Study 2 (=90)	Study 3 (n_{ind}=342; n_{groups}=108)
1	Styles that are based on psychological components will result in higher levels of individual trust in followers than reward behaviors, including feedback, and tenacity.	√	√	√
2	Fair reward behaviors will lead to greater levels of trust.	√	√	√
3	Trust in the leader acts as a mediator between participative decision-making leadership behaviors and motivation.	√	√p	√
4	Individual trust in the leader leads to both individual motivation and collective motivation constructs.	√	√	√
5	Trust in the leader acts as a mediator between rewards and self-efficacy.	X	x	√
6	The effects of styles based on psychological components, including feedback and goal-setting, on efficacy beliefs are mediated by trust in the leader.	X	x	√p
7	The effects of styles based on psychological components lead to greater individual motivation through higher levels of trust.	√	√p	√
8	Contingent rewards lead to greater individual motivation through higher levels of trust.	√	√p	√
9	The higher individual trust, the higher collective vertical trust in leader.	N/A	N/A	√
10	Leadership styles based on psychological components will result in higher levels of collective vertical trust in leader than reward behaviors.	N/A	N/A	√p
11	An increase in collective vertical trust subsequently leads to higher levels of individual trust .	N/A	N/A	√

12	Fair contingent reward behaviors increase levels of collective vertical trust.	N/A	N/A	√
13	Collective vertical trust leads to an increase in collective efficacy.	N/A	N/A	√
14	An increase in collective vertical trust will lead to higher levels of group cohesion among team members.	N/A	N/A	√
15	A higher level of self-efficacy has positive effects on collective efficacy.	N/A	N/A	√
16	Collective efficacy will have no positive effect on self-efficacy.	N/A	N/A	x
17	Performance increases with greater levels of trust on individual and collective levels.	N/A	N/A	x
18	Individual trust is equally important for group performance as is collective trust.	N/A	N/A	x

NB: √: supported; √p: partially supported; x: not supported; N/A: not tested

Appendix 2 (Student Sample; n = 207) The Direct and Indirect Relationships between Effective Leadership, Trust, and Follower Outcomes

Effective Leadership and Overall Motivation

Table 52 contains the results for the direct and indirect effects *Effective Leadership* on overall motivation, intrinsic motivation, work effort, and self-efficacy. As can be seen in the first column and in Figure 24, the relationship between Effective Leadership and trust was statistically reliable *(ß = 1.03; p < .001)*. The relationship between trust and overall motivation was not reliable when controlling for Effective Leadership *(ß = .76; p = .2074)*. Most importantly, the reliable relationship between Effective Leadership and overall motivation *(ß = .29; p < .001)* remained significant when controlling for the mediator *(ß = .21; p <.05)*. This absence of a mediating effect of trust is also supported by the results derived from the Sobel test *(z = 1.27; p >.05)*. Hypothesis 2 was therefore fully supported, while Hypothesis 7 was not supported.

Dimension	Dimension -> Trust (a paths)		Trust -> Overall Motivation (b paths)		Dimension -> Overall Motivation (c paths)		Dimension -> Overall Motivation (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Stand. Coefficient
Effective Leadership	1.03	***	0.76	p = .21	0.29	***	0.21	p = .01	1.27	p = .21
Visioning	0.60	***	0.16	***	0.17	***	0.07	p > 0.05	3.25	**
Empowering	0.61	***	0.14	**	0.16	***	0.07	p > 0.05	2.69	**
Energizing	0.61	***	0.16	**	0.16	***	0.07	p > 0.05	3.05	**
Designing and Aligning	0.60	***	0.15	***	0.23	***	0.14	p < 0.05	3.06	**
Reward and Feedback	0.54	***	0.13	*	0.16	***	0.09	p > 0.05	2.52	**
Team-Building	0.74	***	0.13	*	0.19	***	0.10	p > 0.05	2.25	*
Tenacity	0.32	***	0.18	***	0.11	*	0.05	p > 0.05	3.08	**
Emotional Intelligence	0.58	***	0.15	**	0.14	***	0.06	p > 0.05	2.61	**

Note. Significance levels: $p < 0.05$ *, $p < 0.01$ **, $p < 0.001$ ***

Table 54. Direct and indirect effects of Effective Leadership and the eight leadership styles on overall motivation amongst employee sample (n = 207)
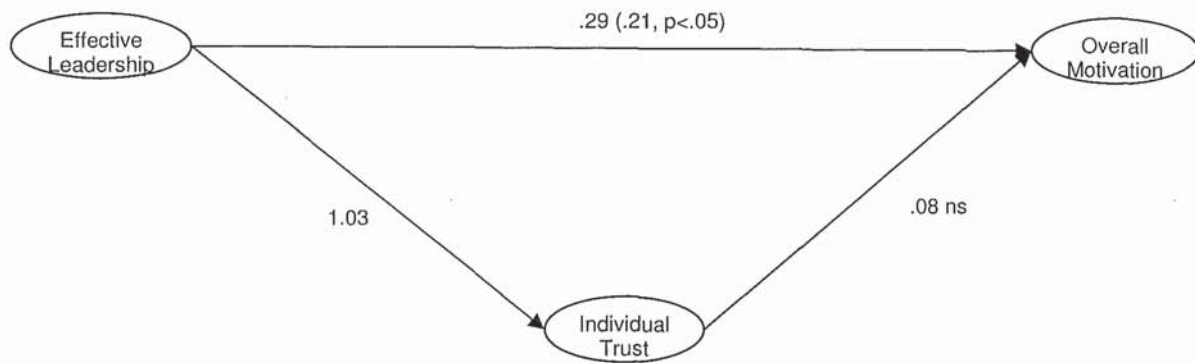
Figure 24. Results of analysis of effects of Effective Leadership on Overall Motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership and Intrinsic Motivation

Figure 25 shows that Effective Leadership is significantly related to trust *(β = 1.03; p < .001)*. The relationship between trust and intrinsic motivation was not reliable when controlling for Effective Leadership *(β = .09; p >.05)*. Most importantly, the reliable relationship between Effective Leadership and intrinsic motivation *(β = .27; p < .001)*, became non-significant when controlling for trust *(β = 1.74; p >.05)*. Conversely, the results from the Sobel test indicate an absence of a mediating effect of trust *(z = 1.25; p >.05)*. Preacher and Hayes (2004) argued that the bootstrap results should yield further insights into a potential presence of a mediation effect. They point out that if the range between the lower 95% and the upper 95% Confidence Levels contains zero *(-.0704 to .2351)*, the absence of a mediation can be concluded. Following their suggestion, it appears that the Sobel test proved to be correct in showing no mediation or indirect effect through trust. Hypothesis 2 was therefore fully supported, while Hypothesis 7 was not supported.

Dimension	Dimension -> Trust (a paths)		Trust -> Intrinsic Motivation (b paths)		Dimension -> Intrinsic Motivation (c paths)		Dimension -> Intrinsic Motivation (mediated by trust) (c-prime path) p > 0.05 => mediation	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.
Effective Leadership	1.03 ***		0.09 p = .2141		0.27 ***		0.17 p > 0.05	
Visioning	0.60 ***		0.16 **		0.15 **		0.05 p > 0.05	
Empowering	0.61 ***		0.14 **		0.16 ***		0.21 p > 0.05	
Energizing	0.61 ***		0.15 **		0.16 **		0.07 p > 0.05	
Designing and Aligning	0.60 ***		0.16 **		0.17 **		0.07 p > 0.05	
Reward and Feedback	0.54 ***		0.13 **		0.15 ***		0.08 p > 0.05	
Team-Building	0.74 ***		0.14 **		0.17 ***		0.07 p > 0.05	
Tenacity	0.32 ***		0.17 ***		0.10 p = .0578		0.04 p > 0.05	
Emotional Intelligence	0.58 ***		0.14 *		0.14 ***		0.06 p > 0.05	

Note. Significance levels: $p < 0.05$ *, $p < 0.01$ **, $p < 0.001$ ***

Table 55. Direct and indirect effects of Effective Leadership and the eight leadership styles on intrinsic motivation amongst employee sample (n = 207).
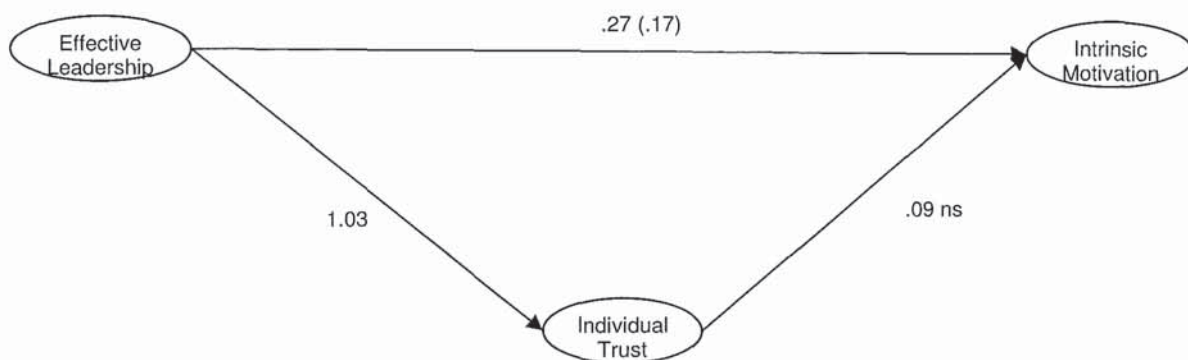

Figure 25. Results of analysis of effects of Effective Leadership on Intrinsic Motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at $p < .001$ unless indicated otherwise. All path coefficients in parentheses are statistically insignificant at $p > .05$ indicating a mediation unless indicated otherwise.

Effective Leadership and Work Effort

Table 54 and Figure 26 show the direct and indirect effect of Effective Leadership on Work Effort. As can be seen the relationship between Effective Leadership and trust was statistically reliable ($\beta = 1.03$; $p < .001$). The relationship between trust and work effort was non-significant when controlling for Effective Leadership ($\beta = .06$; $p > .05$). Most importantly, the reliable relationship between Effective Leadership and work effort ($\beta = 0.32$; $p < .001$) remained significant when controlling for trust ($\beta = .26$; $p < .05$). This absence of a mediating effect of trust is also supported by the results derived from the Sobel test ($z = 0.88$; $p > .05$). Hypothesis 2 was therefore fully supported, while Hypothesis 7 was not supported.

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Dimension	Dimension -> Trust (a paths)		Trust -> Work Effort (b paths)		Dimension -> Work Effort (c paths)		Dimension -> Work Effort (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	1.03 ***		0.06 p = .3821		0.32 ***		0.26 p = .0051		0.88 p = .3794	
Visioning	0.60 ***		0.16 **		0.20 ***		0.10 p > 0.05		2.92 **	
Empowering	0.61 ***		0.15 **		0.17 ***		0.07 p > 0.05		2.58 **	
Energizing	0.61 ***		0.17 **		0.17 ***		0.07 p > 0.05		2.93 **	
Designing and Aligning	0.60 ***		0.13 **		0.31 ***		0.23 p > 0.05		2.53 *	
Reward and Feedback	0.54 ***		0.14 *		0.17 ***		0.09 p > 0.05		2.39 *	
Team-Building	0.74 ***		0.11 p = .0757		0.22 ***		0.14 p = .0396		1.78 p = .751	
Tenacity	0.32 ***		0.18 ***		0.13 *		0.07 p > 0.05		2.96 **	
Emotional Intelligence	0.58 ***		0.15 *		0.15 ***		0.06 p > 0.05		2.43 *	

Note. Significance levels: $p < 0.05$ *, $p < 0.01$ **, $p < 0.001$ ***

Table 56. Direct and indirect effects of Effective Leadership and the eight leadership styles on work effort amongst student sample (n = 207)
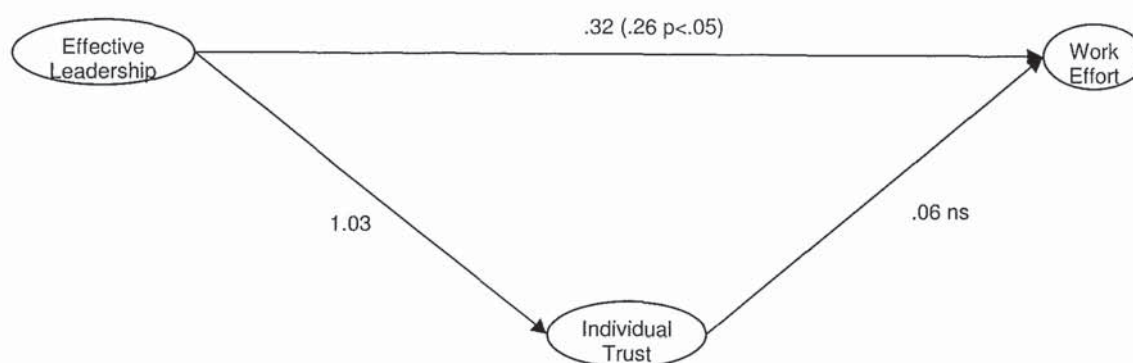

Figure 26. Results of analysis of effects of Effective Leadership on Work Effort.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership and Self-Efficacy

The direct and indirect effects of Effective Leadership on Self-Efficacy are shown in Figure 27 and Table 55. As can be seen Effective Leadership is significantly related to self-efficacy *(β = .13; p < .05)*. Trust shows no significant relationship with self-efficacy *(β = -.01; p >.05)*, nor does it appear to mediate the relationship between Effective Leadership and self-efficacy when looking at the results from the Sobel test *(z = -.14; p >.05)*. Although the indirect effect shows a mediation effect for trust when introduced into the Effective Leadership-self efficacy relationship *(β = .14; p >.05)*, the range for the lower and upper confidence intervals derived from the bootstrapping method include zero *(-.1614 to .1486)*, therefore supporting the conclusion that there is no mediating effect when introducing trust into the model. Hypothesis 6 was therefore not supported.

Dimension	Dimension -> Trust (a paths)		Trust -> Self Efficacy (b paths)		Dimension -> Self Efficacy (c paths)		Dimension -> Self Efficacy (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	1.03	***	-0.01	p = .8883	0.13	*	0.14	p > 0.05	-0.14	p = .8876
Visioning	0.60	***	0.09	p = .0802	0.01	p = .8882	-0.05	p > 0.05	1.73	p = .0838
Empowering	0.61	***	0.09	p = .1043	0.02	p = .6004	-0.03	p > 0.05	1.62	p = .1043
Energizing	0.61	***	0.05	p = .3708	0.07	p = .1375	0.04	p > 0.05	0.90	p = .3693
Designing and Aligning	0.60	***	0.02	p = .6995	0.17	**	0.16	p = .0158	0.39	p = .6981
Reward and Feedback	0.54	***	-0.04	p = .5212	0.13	***	0.15	p = .0023	-0.64	p = .5191
Team-Building	0.74	***	0.05	p = .4626	0.07	p = 1.314	0.04	p > 0.05	0.74	p = .4602
Tenacity	0.32	***	0.05	p = 2.640	0.08	p = .0780	0.07	p > 0.05	1.09	p = .2751
Emotional Intelligence	0.58	***	0.04	p = .5174	0.06	p = .1041	0.04	p > 0.05	0.65	p = .5151

Note. Significance levels: p < 0.05 *, p < 0.01 **, p < 0.001 ***

Table 57. Direct and indirect effects of Effective Leadership and the eight leadership styles on self-efficacy amongst student sample (n = 207)
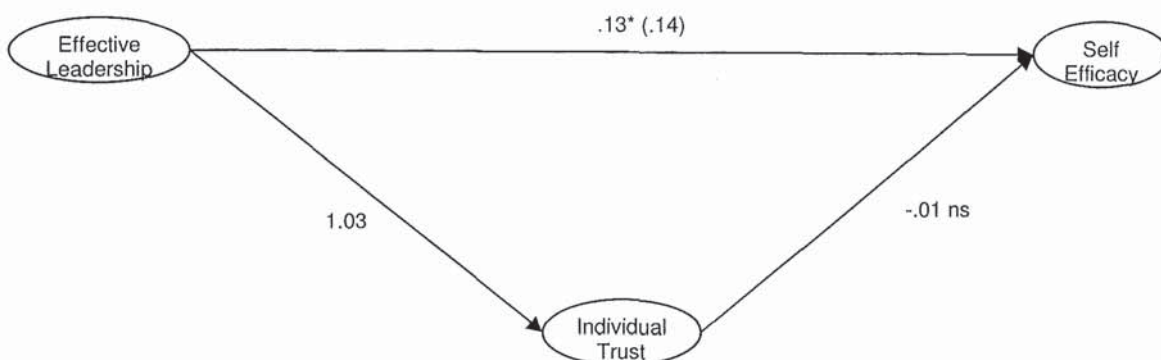

Figure 27. Results of analysis of Effective Leadership on Self-Efficacy.
Values in parentheses represent the model including trust as a mediating variable (n = 207). All path coefficients are statistically significant at p < .001 unless indicated otherwise (*p <.05). All path coefficients in parentheses are statistically insignificant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership, Trust, and the Outcome Variables

To sum up the results for the Effective Leadership direct and indirect effects models, it has been shown that Effective Leadership is significantly related to all follower outcomes. Effective Leadership positively affects the level of follower trust, overall motivation, the two subcategories intrinsic motivation and work effort, and self-efficacy.

Trust, however, does not act as a mediator in any of the models. Therefore, it appears that effective leadership as proposed in the current study incorporates a variety of factors similar to trust and therefore making trust redundant in mediating any relationship involving effective leadership. Alternatively, effective trust may prove to be a powerful construct making other potential factors that may potentially positively affect any follower outcomes redundant. In other words, a leader possessing and displaying the full set of leadership characteristics and behaviors, as proposed in the current research to be constituting effective

leadership, is likely to compensate for any (either heightened or dampened) level of trust through his behaviors.

Appendix 3 (Employee Sample; n = 90) The Direct and Indirect Relationships between Effective Leadership, Trust, and Follower Outcomes

Effective Leadership and Overall Motivation

      Table 23 contains the results for the direct and indirect effects *Effective Leadership* on overall motivation. As can be seen in the first column and in Figure 281, the relationship between Effective Leadership and trust was statistically reliable $(\beta = .93; p < .001)$. The relationship between trust and overall motivation was not reliable when controlling for Effective Leadership $(\beta = .13; p = .0645)$. Most importantly, the reliable relationship between Effective Leadership and overall motivation $(\beta = .24; p < .001)$ remained significant when controlling for the mediator $(\beta = .11; p > .05$ but $z = 1.86; p = .0623)$. The absence of a mediation effect is in line with the bootstrap confidence interval value range containing zero $(-.0432$ to $.3319)$ indicating that there is no significant different between c and c'. Preacher and Hayes (2004) argued that the bootstrap results give further insights into a potential presence of a mediation effect. They point out that if the range between the lower 95% and the upper 95% Confidence Levels contains zero, the absence of a mediation can be concluded. As Hayes (2009) pointed out, the bootstrap results are the most trustworthy in determining a mediation and it can therefore be concluded that trust does not act as a mediator in the Effective Leadership – Overall Motivation relationship.
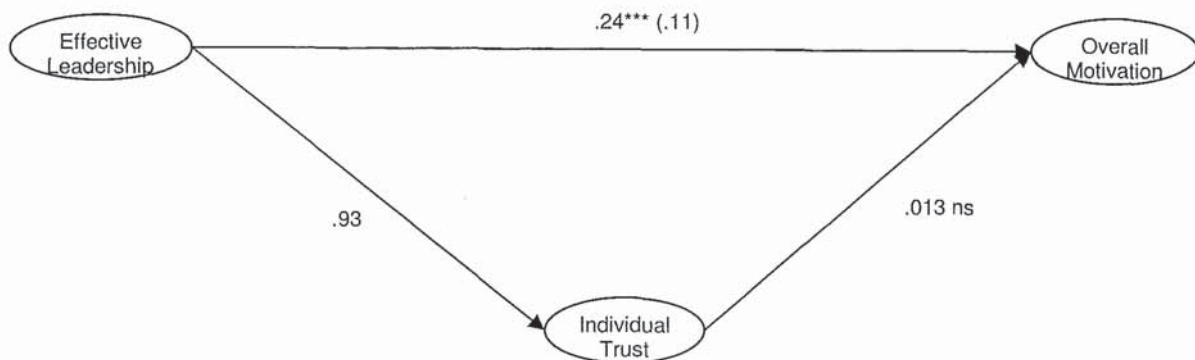

Figure 28. Results of analysis of effects of Effective Leadership on Overall Motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership and Intrinsic Motivation

      Figure 29 shows that the relationship between Effective Leadership and individual trust was statistically reliable $(\beta = .93; p < .001)$. The relationship between trust and intrinsic motivation was non-significant when controlling for Effective Leadership $(\beta = .13; p =$

.1133). Therefore, the reliable relationship between Effective Leadership (β = .24; p <.001) remained significant when controlling for trust (β = .12; p >.05 but z = 1.60; p = .1097 and bootstrap: -.0355 to .3431).
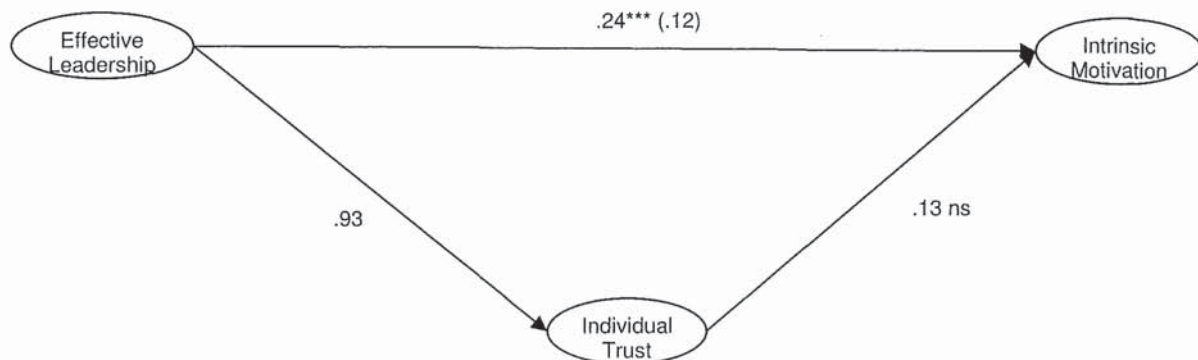

Figure 29. Results of analysis of effects of Effective Leadership on Intrinsic Motivation.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership and Work Effort

Figure 30 shows the direct and indirect effect of Effective Leadership on Work Effort (also see Table 25). As can be seen the relationship between Effective Leadership and individual trust was reliable *(β = .93; p < .001)*. The relationship between trust and work effort was non-significant when controlling for Effective Leadership *(β = .13; p = .2066)*. Therefore, the reliable relationship between Effective Leadership and work effort *(β = .23; p <.01)* remained significant when controlling for trust *(z = 1.46; p = .1447)*.
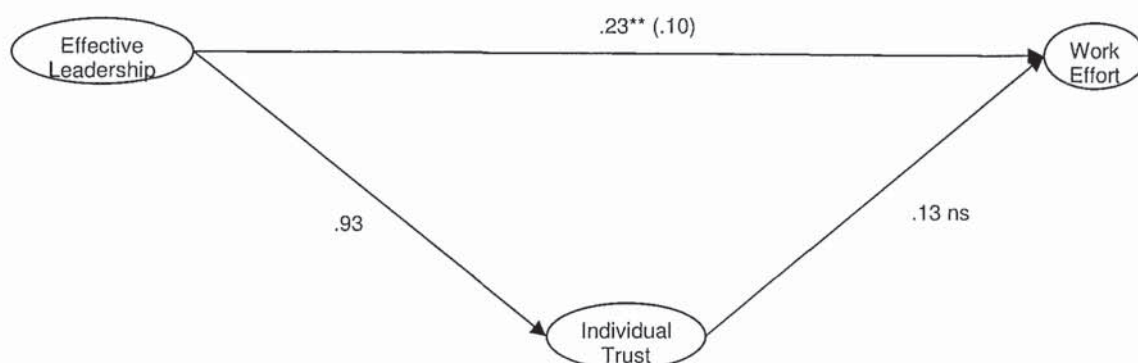

Figure 30. Results of analysis of effects of Effective Leadership on Work Effort.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise. All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership and Self-Efficacy

The direct and indirect effects of Effective Leadership on Self-Efficacy are shown in Figure 31 and Table 26. As can be seen the relationship between Effective Leadership and trust was reliable *(ß = .93; p < .001).* The relationship between trust and self-efficacy was reliable when controlling for Effective Leadership *(ß = .21; p < .01).* Most importantly, the relationship between Effective Leadership and self-efficacy was non-significant *(ß = -.09; p = .2397)* and therefore no mediation could have occurred.
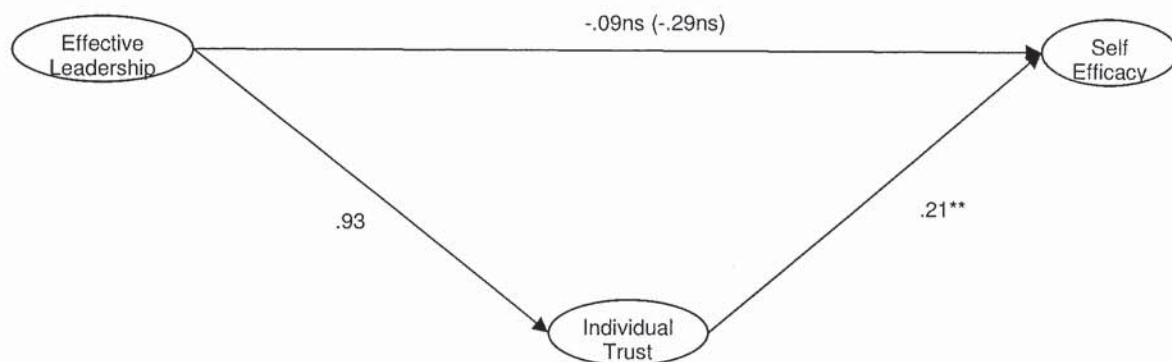

Figure 31. Results of analysis of Effective Leadership on Self-Efficacy.
Values in parentheses represent the model including trust as a mediating variable (n = 90). All path coefficients are statistically significant at p < .001 unless indicated otherwise (*p <.05). All path coefficients in parentheses are statistically non-significant at p > .05 indicating a mediation unless indicated otherwise.

Effective Leadership, Trust, and the Outcome Variables

The results for direct and indirect effects of Effective Leadership on the outcome variables vary between the models. While Effective Leadership has a direct effect on overall follower motivation, intrinsic motivation, and work effort, it has no direct effect on self-efficacy. Trust, however, does not act as a mediator in any of the four models. Therefore, it appears that effective leadership as proposed in the current study incorporates a variety of factors similar to trust and therefore making trust redundant in mediating the effects on any of the motivational variables. Alternatively, effective leadership may represent a powerful construct making other potential factors that may potentially affect any follower outcomes redundant. In other words, a leader possessing and displaying the full set of leadership characteristics and behaviors as proposed in the current research to be constituting effective leadership is likely to compensate for any (either heightened or dampened) level of trust through his behaviors and therefore not requiring the individual trust of the leader's followers for Effective Leadership to affect the level of any type of motivation or self-efficacy.

Appendix 4 (Group sample – Individual level; n = 311) The Direct and Indirect Relationships between Effective Leadership, Trust, and Follower Outcomes

Although not primary aim of this last of a series of three studies, it was decided to run individual level analyses. The method was an exact replicate of the previous two individual studies. The results are beyond the scope of the current paper; however, it is noteworthy to mention that the results are replications of the previous findings for both individual student and employee sample. Although overall and intrinsic motivation were not included in the analysis (due to their lack of reliability described in Chapter 8), the results for work effort were similar with the majority of leadership effects on work effort mediated through individual trust in the leader (see Table 1 and 2).

Conversely, the results for self-efficacy were in contrast to those found in the two individual studies. Except for the relationship between *Effective Leadership, Tenacity, and Emotional Intelligence* the effects of the alternative six leadership dimensions on follower self-efficacy were mediated through individual trust followers perceived in their leader. This deviating finding from individuals with work experience may indicate that those who do not possess past reference benchmarks on their performance do indeed root their beliefs in their abilities in leadership related aspects. As such, new graduates may possibly benefit from the way leaders behave regarding their level of self-efficacy. In other words, leaders can use their own behaviors to increase young, inexperienced employees' belief in themselves.

Dimension	Dimension -> Trust (a paths)		Trust -> Work Effort (b paths)		Dimension -> Work Effort (c paths)		Dimension -> Work Effort (mediated by trust) (c-prime path) $p > 0.05$ => mediation		Sobel test ($p < 0.05$ => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.61 ***		0.10	$p = .1592$	0.22 ***		0.16	$p = .0129$	1.41	$p = .1585$
Visioning	0.47 ***		0.19 **		0.13 **		0.04	$p > 0.05$	2.93	$p < 0.05$
Empowering	0.44 ***		0.16 *		0.15 ***		0.08	$p > 0.05$	2.51	$p < 0.05$
Energizing	0.42 ***		0.14 *		0.13 ***		0.08	$p > 0.05$	2.09	$p < 0.05$
Designing and Aligning	0.35 ***		0.13 *		0.15 ***		0.11	$p = .0078$	2.02	$p < 0.05$
Reward and Feedback	0.37 ***		0.14 *		0.15 ***		0.10	$p = .0141$	2.19	$p < 0.05$
Team-Building	0.52 ***		0.16 *		0.15 ***		0.07	$p > 0.05$	2.23	$p < 0.05$
Tenacity	0.25 ***		0.18 ***		0.12 **		0.08	$p > 0.05$	2.93	$p < 0.05$
Emotional Intelligence	0.48 ***		0.14 *		0.17 ***		0.10	$p > 0.05$	2.14	$p < 0.05$

Note. Significance levels: $p < 0.05$ *, $p < 0.01$ **, $p < 0.001$ ***

Table 58. Direct and indirect effects of the eight leadership dimensions and the composite score on work effort amongst followers (n = 311)

Dimension	Dimension -> Trust (a paths)		Trust -> Self Efficacy (b paths)		Dimension -> Self Efficacy (c paths)		Dimension -> Self Efficacy (mediated by trust) (c-prime path) p > 0.05 => mediation		Sobel test (p < 0.05 => mediation)	
	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	Unstand. Coefficient	Sign.	z-score	Sign.
Effective Leadership	0.61 ***		0.12	p = .0608	0.19 ***		0.12	p = .0472	1.88	p = .0608
Visioning	0.47 ***		0.21 ***		0.10 *		0.01	p > 0.05	3.37	p < 0.05
Empowering	0.44 ***		0.16 **		0.15 ***		0.08	p > 0.05	2.67	p < 0.05
Energizing	0.42 ***		0.17 **		0.11 ***		0.04	p > 0.05	2.64	p < 0.05
Designing and Aligning	0.35 ***		0.13 *		0.14 ***		0.10	p = .0105	2.22	p < 0.05
Reward and Feedback	0.37 ***		0.21 ***		0.08 *		0.00	p > 0.05	3.48	p < 0.05
Team-Building	0.52 ***		0.17 *		0.14 ***		0.06	p > 0.05	2.51	p < 0.05
Tenacity	0.25 ***		0.18 ***		0.13 ***		0.09	p = .0247	2.96	p < 0.05
Emotional Intelligence	0.48 ***		0.11	p = .0802	0.19 ***		0.14	p = .0041	1.75	p = .0809

Note. Significance levels: p < 0.05 *, p < 0.01 **, p < 0.001 ***

Table 59. Direct and indirect effects of the eight leadership dimensions and the composite score on self-efficacy amongst followers (n = 311)