

The Influence of Personality Domains and Working Experience in Peruvian Managers' Leadership Styles: An Initial Study

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Abstract

The purpose of this quantitative investigation is to examine the relationships that may exist among the five personality domains, working experience, and the three leadership styles in a sample of 500 managerial Master of Business Administration (MBA) students of a leading business school in Peru. Similar studies have previously been performed in developed countries; well-known examples come from the United States of America, Norway, Germany, Australia, Canada, and Singapore, but no such studies are found in a developing country. The Neuroticism Extraversion Openness to Experience Personality Inventory Revised (NEO-PI-R) and Multifactor Leadership Questionnaire (MLQ) were the instruments used for personality and leadership, respectively. In this sample, conscientiousness demonstrates the strongest and most consistent correlation with transformational (.426), transactional (.430), and passive-avoidant (-.354) leadership styles. Extraversion has the next highest correlation with transformational (.400) leadership styles and a weak correlation with transactional (.152) and passive-avoidant (-.166) leadership styles. Agreeableness has no significant correlation with any of the leadership styles, and openness to experience shows a significant correlation only to transformational (.201) leadership styles. Neuroticism shows weak correlations with transformational (-.214) and passive-avoidant (.267) leadership styles. Conscientiousness and extraversion may encourage individuals to emerge as leaders. Transformational and transactional leadership behaviors are demonstrated more frequently with increasing working experience.

Keywords: Personality, Leadership, Personality Domains, Leadership Styles, Working Experience.

Introduction

Personality domains as related to leadership styles have merited special attention among researchers and academics. A vast amount of research has been produced which studies the relationships between five personality domains, namely, neuroticism, extraversion, openness

to experience, agreeableness, and conscientiousness and three leadership styles, namely, transactional, passive-avoidant, and especially transformational leadership styles. Personality traits are important aspects for analysis with respect to leadership styles. Research of this type has only been performed in developed countries.

The nature/nurture debate with respect to leadership

is about whether leaders are born or made and is an issue that continues to be disputed in psychology. The nature side posits that an individual's personality is based largely on genetics. The nurture position argues that personality and leadership qualities are learned and are based less on heredity and more on life experience (Shriberg, Shriberg, & Lloyd, 2002). This dilemma has always been a matter of concern. This has been and will probably continue to be an inconclusive discussion. Most business schools claim that leadership is the most important aspect in their MBA programs. Business schools' brochures, advertisements, and web pages focus on leadership, bringing the applicant's attention to this crucial business skill and creating in the applicant the idea that she/he will become a leader after graduation. Education received and corporate experience gained could be important variables to support the nurture position.

Burns (1978) in his seminal book *Leadership* presented several reflections about leaders and the concept of leadership. In his prologue, Burns stated, "Leadership is one of the most observed and least understood phenomena on earth" (p. 2). This statement initiated a vast amount of literature and research on the subject of leadership. In this research, Burns' statement that too much is known about leaders but far too little is known about leadership will be explored. The focus of the paper is on the analysis of the relationships between the five personality domains, working experience, and the three leadership styles.

Leadership, as described by Bass (1990), is a personal attribute that is still a preoccupation for both the research community and business leaders, and it is a critical factor in the success or failure of organizations. "The crisis of leadership today is the mediocrity or irresponsibility of so many of the men and women in power, but leadership rarely rises to the full need for it" (Burns, 1978, p. 1). Drucker (1954) stated, "Leadership is of utmost importance. Indeed there is no substitute for it. But leadership cannot be created or promoted. It cannot be taught or learned" (p. 158).

Norwegian researchers Hetland and Sandal (2003) stated, "With growing globalization, research on cultural similarities and differences concerning leadership is crucial" (p. 167). Hetland and Sandal concluded that cultural differences need to be taken into account when research about leadership from developed countries is applied to developing countries. The current research is an attempt to explore existing relationships between personality domains and leadership styles in Peru, a developing country. Results may serve to help organizations that are attempting to identify their managers' personal attributes, to assist business schools that are developing their programs in an attempt to craft future leaders, and finally to aid the participants who were involved in this research to better know themselves.

Personality

Judge and Bono (2000) stated, "The search for the structure of personality is as old as the study of human nature itself" (p. 752). Ajzen (2002) indicated, "Dispositional explanations of behavior have a long and distinguished history in personality and social psychology. In the domain of personality the trait concept has carried the burden of dispositional explanation" (p. 1). Shriberg, Shriberg, and Kumari (2005) stated, "Psychology is the study of human behavior," and they defined *personality* as "how people affect others and understand themselves" (p. 64). Personality traits are important aspects to consider in terms of leaders.

Costa and McCrae (1995) indicated that personality psychologists have concluded that five major dimensions account for most individual differences in personality traits. These authors presented the Revised NEO Personality Inventory (NEO-PI-R)¹ which consists of 30 facet scales that define the five broad domains of the five-factor model of personality. Domains with their respective six facets each, a total of 30, are the following: (a) neuroticism includes anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability; (b) extraversion includes warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotions; (c) openness to experience includes fantasy, aesthetics, feelings, actions, ideas, and values; (d) agreeableness includes trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness; and (e) conscientiousness includes competence, order, dutifulness, achievement striving, self-discipline, and deliberation (Costa & McCrae, 1995, 1997; Judge & Bono, 2000). Costa and McCrae (1997) indicated, "No major revisions of the basic model are anticipated in the near future. Despite their popularity, social desirability and inconsistency scales will not be added to the NEO-PI-R because their validity and utility have not yet been demonstrated" (p. 86). These authors emphasized that these five dimensions [domains] provide a complete description of personality.

At the core of neuroticism is the tendency to experience negative affects, such as fear, sadness, guilt, and anger. Individuals with high scores in neuroticism tend to view the world through a negative lens, whereas those with low scores in neuroticism tend to be calm, relaxed, and even-tempered (Costa & McCrae, 1992). Bono and Judge (2004) explained in their research that extraverts are assertive, active, talkative, optimistic, and energetic and seek excitement and social attention. Openness to experience includes culture and sciences and a critical attitude toward society, and intellect includes tendencies to be creative, imaginative, resourceful, and insightful. Agreeableness represents the tendency to be cooperative, gentle, and kind and to value affiliation and avoid conflict; such persons are altruistic and tend to be trusting and trustworthy. Conscientiousness is related to individu-

als having a strong sense of direction and working toward goal achievement; conscientious persons are cautious, self-disciplined, and well organized. The NEO-PI-R is the most commonly used instrument to measure personality traits.

Leadership

Burns' (1978) most important contribution is what he termed transformational and transactional leadership. Transformational leadership is leadership that raises both the leader and his or her followers to higher levels of motivation and morality. Within this category, Burns included intellectual, reformist, revolutionary, and heroic leadership. Transactional leadership is leadership in which the leader exchanges values with his or her followers and acts in order to earn the votes of his or her followers. Within this category, Burns included opinion, group, party, and executive leadership. Passive-avoidant leadership is considered a nonleadership attitude.

Burns (1978) presented a representative list of the traits that characterize transformational leaders. Leaders need to be visionary, charismatic, and inspirational; be able to cultivate relationships; have excellent communication skills; build coalitions across lines; engender motivation in others; empower others; be trustworthy and purposeful; operate according to principles; identify their own values; take risks; be self-reflective; and balance work and life. Burns stated that leadership is an aspect of power but is also a separate and vital process in itself and, while all leaders are actually power holders, not all power holders are leaders. Leadership studies have concentrated on transformational leadership. The result of transformational leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents. Transactional leadership and passive-avoidant leadership have not received the same attention from academics.

Bass (1985) identified several dimensions of leadership behaviors that cover the two broad domains introduced by Burns (1978), namely, transformational and transactional leadership. Avolio and Bass (2004) presented, following Bass's (1985) leadership dimensions, the five major components of transformational leadership, namely, idealized influence (differentiated into attributes and behaviors), inspirational motivation, intellectual stimulation, and individual consideration. Transactional leadership possesses two components, namely, contingent reward and active management-by-exception. Passive-avoidant leadership is conceptualized to possess two components, namely, passive management-by-exception and *laissez-faire*, both components being presumed to have a negative impact on followers.

The first transformational leadership behavior, *idealized influence* (attribute and behavior), refers to leaders who have high standards of moral and ethical conduct,

who are held in high personal regard, and who engender loyalty from followers. The second transformational leadership behavior, *inspirational motivation*, refers to leaders with a strong vision for the future based on values and ideals. Leadership behaviors falling into this dimension include stimulating enthusiasm, building confidence, and inspiring followers by using symbolic actions and persuasive language. Idealized influence and inspirational motivation are highly correlated and are sometimes combined to form a measure of charisma. The third transformational leadership behavior is *intellectual stimulation*, which refers to leaders who challenge organizational norms, who encourage divergent thinking, and who push followers to develop innovative strategies. *Individual consideration*, the fourth transformational leadership dimension, refers to leadership behaviors that are aimed at recognizing the unique growth and developmental needs of followers as well as coaching followers and consulting with them.

Transactional leadership behaviors aim to monitor and control employees through rational or economic means. *Contingent reward* refers to leadership behaviors that are focused on the exchange of resources: leaders provide tangible or intangible support and resources to followers in exchange for their efforts and performance. *Active management-by-exception* refers to monitoring performance and taking corrective action as necessary. The focus of management-by-exception is on setting standards. *Passive management-by-exception* is a less active version of management-by-exception in which leaders take a passive approach, intervening only when problems become serious. Finally, *laissez-faire* leadership can be thought of as nonleadership or the avoidance of leadership responsibilities (Bono & Judge, 2004). The Multifactor Leadership Questionnaire (MLQ)² is the most common instrument used to assess leadership styles and outcomes.

Judge and Bono (2000) stated, "Given the centrality of leadership to success or failure of organizations and even societies, there are few more important questions than, *What makes a leader great?* [*italics added*]" (p. 751). Transformational leadership has been the focus of attention for academics who have attempted to provide answers to this age-old question. Moreover, several authors have attempted to create handbooks for leaders in order to simplify the complexity of defining and describing leadership, develop a "fit model" for leadership, or provide lessons for leadership (Hanbury, Sapat, & Washington, 2004; Lussier & Achua, 2001; Mueller & Goic, 2002; Watkins, 2003; Zenger & Folkman, 2002, 2004).

Personality and Leadership

Personality and leadership together have been two of the most researched personal attributes for many years; researchers have made numerous attempts to explain leadership on the basis of personality traits. Bono and Judge (2004) drew attention to this fact:

A recent PsycINFO search revealed that 1,738 of the 15,000 articles (12%) published since 1990 on the topic of leadership included the keywords personality and leadership. Clearly scholars have a strong and continuing interest in the dispositional bases of leadership behavior. (p. 901)

Hogan, Curphy, and Hogan (1994) posed nine questions in their study of leadership behaviors. Three of these questions are highlighted here. First, does leadership matter? "A growing body of evidence supports the common sense belief that leadership matters. Consequently, psychologists need to better determine when, where, and how leadership affects organization effectiveness and help organizations choose better leaders" (p. 494). Second, how are leaders chosen? "Psychologists have known for some time that measures of cognitive ability and normal personality, structured interviews, simulations, and assessment centers predict leadership success reasonably well" (p. 494). Finally, how does one forecast leadership? "The best way to forecast leadership is to use a combination of cognitive ability, personality, simulation, role play, and multirater assessment instruments and techniques" (p. 497). Personality is stressed as an important component influencing leadership styles, and those leadership styles are a matter of concern for organizations.

Leadership has also been studied from different perspectives. Bono and Judge (2004) developed a meta-analysis of personality and transformational and transactional leadership using the five-factor model of personality as an organizing framework and accumulated 384 correlations from 26 independent studies. Transformational leadership was analyzed in terms of behaviors: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Transactional leadership was also analyzed in terms of four behaviors, namely, contingent reward, active management-by-exception, passive management-by-exception, and laissez-faire. Personality traits were related to three dimensions of transformational leadership, namely, idealized influence, inspirational motivation, and individual consideration, and to three dimensions of transactional leadership, namely, contingent reward, active management-by-exception, and passive management-by-exception. Results were quite modest, indicating that the big five may not be the best way to discover relationships between personality attributes and transformational and transactional leadership. Extraversion was the strongest and most consistent correlate of transformational leadership, especially with respect to the charisma dimension.

Kornor and Nordvik (2004) studied personality traits associated with leadership behavior in Norway. "Correlational analyses of the personality traits measured by the Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) and three leadership styles: Change, Production, and Employee (CPE) measured by Ekvall and

Arvonen's (1991) CPE questionnaire were performed" (p. 49). Ekvall and Arvonen (1991, 1994) suggested a third dimension be added, namely, task-oriented (production) and relations-oriented (employee) or change/development. A sample of 106 Norwegian leaders was used, 64 males and 41 females, having a mean age of 41.9 years ($SD = 7.9$ years). Respondents were participants in various leadership and career development programs at the Norwegian School of Management, the National Police Academy, the Norwegian School of Economics and Business, and others. Three factors comprising leadership styles and personality domains were interpreted, namely, looking for new possibilities, being hardworking, and dealing with people. The strongest predictors of the CPE total score were conscientiousness and extraversion; openness to experience and agreeableness were specific predictors for change and employee, respectively.

Lim and Ployhart (2004) examined "the five-factor model of personality, transformational leadership, and team performance under conditions similar to typical and maximum performance contexts" (p. 610). A sample of 276 military personnel from the Singapore Armed Forces participated in the study: 39 team leaders, 202 followers, 20 superiors of these combat teams, and 15 assessment center assessors were used, whose ages ranged from 18 to 23 years ($M = 19.3$, $SD = 1.04$) and who were predominantly Chinese. Results suggested that neuroticism and agreeableness were negatively related to transformational leadership ratings. Moreover, transformational leadership related more strongly to team performance in the maximum rather than the typical context.

Felfe, Tartler, and Liepmann (2004) applied the model of transformational leadership proposed by Bass (1985) and used the MLQ in Germany. They concluded, "Results indicate that followers' characteristics, such as personality traits and implicit leadership theories, influence the perception and acceptance of transformational leadership" (p. 262).

Hetland and Sandal (2003) also studied transformational leadership in Norway. Their two study objectives were the following: (a) the relationship between transformational leadership and subordinates' and superiors' ratings of satisfaction, effectiveness, and work motivation, and (b) the relationship between transformational leadership and personality. A sample of 100 midlevel Norwegian managers, 17 females and 83 males, employed in five different companies completed Cattell's Sixteen Personality Factors Questionnaires (16PF5). The age of the sample ranged from 27 to 68 years with an average age of 43 ($SD = 9.1$), the participants had held their current position for 7 years ($SD = 4.2$), and 79 of them held university degrees. Each manager was rated for leadership behaviour and outcomes by one superior and two subordinates using the MLQ. Four scales from the 16PF5 were included in the analysis, namely, warmth, reasoning, openness to change, and tension. Using hierarchical

multiple regression analyses, Hetland and Sandal showed that “transformational leadership was strongly associated with the outcome measures in both subordinates’ and superiors’ ratings, when controlling for the impact of transactional and passive-avoidant leadership” (p. 147).

Cable and Judge (2003) studied the links between the five-factor model of personality and managers’ upward-influence tactic strategies in an attempt to assess the role of a manager’s personality and a supervisor’s leadership style. Longitudinal data coming initially from 1501 individuals with 553 respondents, followed by 258 responding to the second survey, and finally using data from 189 managers, 70% male, 88% Caucasian, with an average age of 36 years, and from 140 different organizations confirmed the following:

Managers scoring high on extraversion were more likely to use inspirational appeal and ingratiation; those scoring high on openness to experience were less likely to use coalitions; those scoring high on emotional stability were more likely to use rational persuasion and less likely to use inspirational appeal; those scoring high on agreeableness were less likely to use legitimization or pressure; and those scoring high on conscientiousness were likely to use rational appeal. (p. 197)

The results confirmed that managers’ upward-influence tactic strategies depended on the leadership styles of their supervisors.

Judge, Bono, Ilies, and Gerhardt (2002) provided a qualitative review of the trait perspective in leadership research, followed by a meta-analysis using the five-factor model as an organizing framework and analyzed 222 correlations from 73 samples. The following conclusions were reached:

Results indicated that the relations of Neuroticism, Conscientiousness, Extraversion, and Openness to Experience with leadership generalized in that more than 90% of the individual correlations were greater than 0. Extraversion was the most consistent correlate of leadership across study settings and leadership criteria (leader emergence and leadership effectiveness). Overall, the five-factor model had a multiple correlation of .48 with leadership, indicating strong support for the leader trait perspective when traits are organized according to the five-factor model. (p. 765)

Bradley, Nicol, Charbonneau, and Meyer (2002) investigated the relationship between personality and leadership development in a sample of Canadian Forces officer candidates. The relationship between personality and leadership has always been a concern in the military. Of the total number of applicants, 745 volunteered for the research, most of the students in their final year of high

school or first year of university. Of the original sample, 174 (74% males, 26% females; 69% Anglophone, 31% Francophone) were selected for enrolment. A longitudinal study constituting three stages was performed. In stage one, personality assessments were obtained for candidates at various recruiting centers. In stage two, six to nine months later, 174 military officer candidates were evaluated by instructors and peers in terms of various aspects of the Basic Officer Training Course. Four years later, in stage three, Bradley et al. examined the extent to which the self-ratings of personality obtained in stage one predicted leadership performance and perceptions of leadership styles. The authors concluded that “dominance, energy level, and internal control predicted some leadership criteria, with dominance predicting the most. Overall, these results indicate that measures of personality are associated with leadership development in the military” (p. 92).

McCormack and Mellor (2002) investigated the five-factor model and leadership effectiveness using a sample composed of 99 Australian Army commissioned officers. The NEO-PI-R was completed, and participants’ superior officers rated them with the annual evaluation schedule for leadership effectiveness. The sample was composed of officers from second lieutenant to lieutenant colonel, 97 of whom were men and 2 of whom were women, 47 of whom were on active duty, 48 of whom were reserve officers, and 4 officers were of unknown service type, all of whom were between the ages of 21 and 53 years. “It was hypothesized that leadership effectiveness would be predicted by the personality trait domains of high Conscientiousness, Openness to Experience, Agreeableness, and Extraversion and by low Neuroticism” (p. 179). The results obtained supported the usefulness of the five-factor model for exploring the role of personality in leadership effectiveness among military officers.

Cellar, Sidle, Goudy, and O’Brien (2001) stated, “past research has shown that when leader styles were dichotomized as autocratic versus democratic, female leaders were evaluated more harshly for using autocratic styles than their male counterparts” (p. 61). The authors investigated whether or not the personality characteristics of agreeableness interacted with a leader’s gender and leader’s leadership style to affect subordinates’ reactions to the leader. Participants were 165 undergraduates at a large Midwestern urban university in the United States of America. There were 99 women, 62 men, and 4 individuals who did not report their sex. The results partially supported the suggestion that disagreeable participants would rate gender-inconsistent behavior more harshly. Past research indicated that when leader styles were dichotomized as autocratic versus democratic, female leaders were evaluated more harshly for using autocratic styles than their male counterparts (Eagly, Makhijani, & Klonsky, 1992).

Judge and Bono (2000) suggested, “This study linked

traits from the five-factor model of personality to transformational leadership behavior. Neuroticism, Extraversion, Openness to Experience, and Agreeableness were hypothesized to predict transformational leadership” (p. 751). In Judge and Bono’s study, participants were enrolled in or were alumni of community leadership programs throughout the Midwest of the United States of America, and the research was conducted in an effort to encourage local leaders in business and government to exercise their leadership skills as stewards of their communities. The authors’ conclusions were the following:

Results-based on 14 samples of leaders of over 200 organizations revealed that Extraversion and Agreeableness positively predicted transformational leadership; Openness to Experience was positively correlated with transformational leadership, but its effects disappeared once the influence of the other traits was controlled. Results further indicated that specific facets of the Big 5 traits predicted transformational leadership less well than the general constructs. Finally, transformational leadership behavior predicted a number of outcomes reflecting leader effectiveness, controlling for the effect of transactional leadership. (p. 751)

Crant and Bateman (2000) tested the relationship between proactive personality and perceptions of charismatic leadership. A sample of 156 managers completed measures of proactive personality along with measures of the five-factor model of personality. The managers’ immediate supervisors rated their charismatic leadership and in-role behavior. Results suggested that a self-reported proactive personality is positively related to supervisors’ independent ratings of charismatic leadership.

Almost all previous studies show the use of raters’ assessments but are lacking in self-report information. The use of self-reports has been controversial because of the social desirability bias, but the use of raters is also sometimes questioned as unethical. Spector (2006) stated, “It is quite widely believed that relationships between variables measured with the same method will be inflated due to the action of common method variance (CMV), also referred to as monomethod bias” (p. 221).

Spector, in 1991, was listed by the Institute for Scientific Information as one of the highest impact contemporary researchers (out of more than 102,000) in psychology worldwide. In his article Spector (2006) concluded as follows:

The time has come to retire the term common method variance and its derivatives and replace it with a consideration of specific biases and plausible alternative explanations for observed phenomena, regardless of whether they are from self-reports or other methods. Ruling out such alternatives through a program of systematic tests using a variety of methods will help

establish the validity of conclusions based on initial monomethod studies. (p. 231)

The foregoing literature review has shown that these studies were performed in developed countries: the United States of America, Norway, Australia, Germany, Canada, and Singapore. Military and civilian organizations were used to perform specific research projects using mainly the most common instruments, namely, NEO-PI-R for personality and MLQ for leadership. These studies presented a diverse demographic composition as shown by the number of participants, gender, range of ages, and the environment in which each research project was performed. Results provided useful information about gender, context, and relationships. These studies do not present analyses relating age and working experience to leadership styles to support the nurture position that argues that personality and leadership qualities are learned and are based less on heredity and more on life experience (Shriberg et al., 2002). Age and working experience, mainly experience, deserve a more detailed analysis.

The educational aspects of developing leadership skills have also been discussed and studied in an attempt to find whether business schools can teach leadership, and if so, what essential skills should be provided to participants (Ashkanasy & Dasborough, 2003; Bowerman, 2003; Elmuti, Minnis, & Abebe, 2005; Mellahi, 2000).

Hypotheses

The following hypotheses were proposed in an effort to identify statistically significant relationships among personality domains, working experience, and leadership styles in a sample of Peruvian managers:

1. (a) A negative relationship exists between neuroticism (also known as emotional instability) and transformational leadership styles, (b) a negative relationship exists between neuroticism and transactional leadership styles, and (c) a positive relationship exists between neuroticism and passive-avoidant leadership styles.
2. (a) A positive relationship exists between extraversion and transformational leadership styles, (b) a positive relationship exists between extraversion and transactional leadership styles, and (c) a negative relationship exists between extraversion and passive-avoidant leadership styles.
3. (a) A positive relationship exists between openness to experience and transformational leadership styles, (b) a positive relationship exists between openness to experience and transactional leadership styles, and (c) a negative relationship exists between openness to experience and passive-avoidant leadership styles.
4. (a) A positive relationship exists between agreeableness and transformational leadership styles, (b) a positive relationship exists between agreeableness and transactional leadership styles, and (c) a negative re-

- lationship exists between agreeableness and passive-avoidant leadership styles.
5. (a) A positive relationship exists between conscientiousness and transformational leadership styles, (b) a positive relationship exists between conscientiousness and transactional leadership styles, and (c) a negative relationship exists between conscientiousness and passive-avoidant leadership styles.
 6. (a) A positive relationship exists between working experience and transformational leadership styles, (b) a positive relationship exists between working experience and transactional leadership styles, and (c) a negative relationship exists between working experience and passive-avoidant leadership styles.
 7. The five personality domains, namely, neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness, and working experience exert a combined influence on transformational leadership styles.
 8. The five personality domains, namely, neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness, and working experience exert a combined influence on transactional leadership styles.
 9. The five personality domains, namely, neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness, and working experience exert a combined influence on passive-avoidant leadership styles.

Method

The purpose of this quantitative research was to examine the relationships that may exist among the five personality domains, working experience, and the three leadership styles in a sample of Peruvian managers. This is the first known research of this nature to be performed in a developing country. The quantitative research dimensions were the following: it was basic research, correlational in purpose, cross-sectional in design, and using survey techniques to collect quantitative data. In this investigation, managerial Master of Business Administration (MBA) students at a leading business school in Lima, Peru, were surveyed in order to discover the individual and combined influences of personality domains and working experience on their leadership styles. The managerial MBA is a 26-month, six-cycle, part-time program, and students attend classes every other weekend. Managerial MBA students were chosen for several reasons: (a) they possessed more than 10 years' average working experience; (b) they demonstrated diverse careers, ranging from medical doctors to engineers; (c) their genders demonstrated a male to female ratio of 3:1; (d) they had attended an undergraduate university, mostly private and public best-ranked Peruvian universities; (e) they demonstrated diversity with respect to their hierarchical positions in companies, including owners, chief executive

officers, and line managers, among others; (f) they were currently working; and (g) their ages ranged from 23 to 60 years, with an average age of 35. The population of managerial MBA students constitutes an interesting and specific heterogeneous population that may provide a general description of Peruvian managers of legally constituted firms in Peru.

All the students enrolled in the managerial MBA program who started the program from October 2003 to March 2006 were invited to participate on a voluntary basis. Participants in the research needed to be active students. The following benefits of this research were indicated to participants: (a) the development of research and knowledge about Peruvian managers' leadership styles; (b) knowledge of their personality traits and leadership styles for participating students; (c) improvement of the educational quality of MBA programs on the basis of the research results; and (d) the establishment of possibilities for further research.

Participation was voluntary, and no likely risks were associated with participation in the study. The total possible sample was 528 students, and of these, 500 students voluntarily participated in the research. The participation percentage was greater than the 90% expected. The informed consent clause assured the participant that his or her responses would be held in confidence by the researcher (CITI, 2005). An informed consent form in Spanish was presented to participants. Self-reports were used for personality and leadership. The sample was composed of mature persons, sharing the same academic objective, trying to gain a real knowledge of themselves, and wishing to improve their managerial traits.

The general research topic was leadership. The variables of the study were the following: (a) dependent variables—leadership styles, namely, transformational, transactional, and passive-avoidant; and (b) independent variables—personality domains, namely, neuroticism, extraversion, agreeableness, openness to experience, and conscientiousness, and working experience.

The leadership styles were measured using the Multifactor Leadership Questionnaire (MLQ) Leader Form 5x-Short. This is a 45-question questionnaire that attempts to determine the multiple factors constituting a person's leadership styles. The instrument was designed by Bruce J. Avolio and Bernard M. Bass in 2004 and was provided by Mind Garden, Inc. The MLQ questionnaire assesses nine leadership factors: idealized influence attributes, idealized influence behaviors, inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, active management-by-exception, passive management-by-exception, and laissez-faire; and three leadership outcomes, namely, extra effort, effectiveness, and satisfaction with leadership. The MLQ yields 12 scores, one for each of the instrument's components. One final score results from the five factors that constitute the transformational leadership construct (Avolio & Bass, 2004).

Personality domains were the independent variables assessed. The NEO-PI-R Form S assesses personality, providing individual measures for five well-established domains: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. The NEO-PI-R Form S is a 240-question questionnaire that attempts to evaluate a person's personality traits. The instrument was developed by Paul T. Costa, Jr. and Robert R. McCrae in 1992 and was provided by Psychological Assessment Resources Inc. The instrument does not report a final total score for personality but does report one single score for each domain (Costa & McCrae, 1992). Both questionnaires were self-assessment instruments.

These instruments were administered using the Spanish version provided by the supplying companies, and the English version was readily available to confirm that the translation used was understandable in the Peruvian Spanish lexicon. Results were processed statistically with the help of the Statistical Package for Social Sciences (SPSS) version 14, together with its package for structural equations AMOS version 6, and the results have been reported in English in this study.

Data analyses were performed by studying the observations collected with the NEO-PI-R Form S and MLQ Leader Form 5x-Short instruments. The statistical analyses were initiated with an exploratory data analysis in order to detect outliers and missing data. Thereafter, the analyses for each test were performed. The specific sequence for each test was the following: (a) descriptive summaries; (b) reliability analysis; (c) validity analyses using factor analyses, including exploratory and confirmatory, as needed; and (d) *t*-tests and analyses of variance, used to detect possible significant differences between the average scores for each personality domain and leadership style by the demographic variables. Duncan *post hoc* analyses were conducted as needed.

Descriptive summaries for the five domains of the NEO-PI-R Form S test were obtained. Cronbach's alpha coefficient was used for studying the internal consistency of the test. The alpha coefficient was calculated for each of the 30 facets and for the five domains of the test. An exploratory factor analysis was used with the 30 facets of the test in order to study its internal structure. To confirm the replicability of the five-factor structure of the NEO-PI-R Form S instrument, a procrustes rotation was used for confirmatory analysis. With this procedure, the initial five-factor component matrix was rotated to the Normative American Structure reported in the NEO-PI-R manual (Costa & McCrae, 1992, p. 41).

Tests of differences between means enabled the detection of possible significant differences between the average scores for each domain by the demographic variables. A *t*-test for two independent samples was used for each independent variable by the variable gender, and analyses of variance (ANOVA) were used to detect differences by the variables age, years of experience, university attend-

ed, and undergraduate degree; each variable had three categories. *Post hoc* tests were applied in order to detect the categories in which the means were different.

Descriptive summaries for the nine leadership factors and for the corresponding leadership style scores were obtained. The Cronbach's alpha coefficient was calculated for each of the nine areas of the test that measured the three leadership styles, namely, transformational, transactional, and passive-avoidant leadership styles. A second-order confirmatory factor analysis was performed to confirm whether the nine leadership factors could be reduced to three leadership styles. The alpha coefficient was then calculated for the transformational, transactional, and passive-avoidant leadership scores. Analyses of variance and *t*-tests of differences between means were carried out for transformational, transactional, and passive-avoidant leadership styles by the demographic variables. Duncan *post hoc* analyses were carried out as needed.

The analysis of relationships between personality, working experience, and leadership styles was performed by calculating the Pearson's correlations to evaluate the first six proposed hypotheses about the association between personality domains and working experience related to leadership styles. The strength and significance of those correlations were assessed. Multiple regression models were proposed in order to examine, in a multivariate framework, the relationships that could exist between the dependent variables or the leadership styles, namely, transformational leadership (TL), transactional leadership (TcL), and passive-avoidant leadership (PA), the independent variables or the five personality domains, namely, neuroticism (N), extraversion (E), openness to experience (O), agreeableness (A), and conscientiousness (C), and working experience. An attempt was made to discover whether some significant personality facets of each domain could be the ones that predict leadership styles.

For each dependent variable, a regression model was constructed, thus allowing all the independent variables to be included with the "enter" method. The obtained values of the *F* statistic and its significance were assessed in order to decide whether the models had statistically significant predictive capabilities. Observation of the obtained adjusted *R*² value allowed for studying how well the model fits the data. The individual analyses of the standardized regression coefficients in each model informed which of the independent variables have a greater effect on the dependent variable.

The two chosen instruments were well-established instruments that had been used in different settings and had proven to be reliable and valid instruments in many different contexts, as indicated by Costa and McCrae (1992) for the NEO-PI-R Form S and Avolio and Bass (2004) for the MLQ Leader Form 5x-Short. These instruments have been translated into several languages, and their validity and reliability have been confirmed. Reliability and validity analyses were performed for the instruments when

applied to the managerial MBA students in Lima, Peru.

Participants in the study were enrolled students from 10 classes. Managerial MBA students are working and attend classes every other weekend. Students share the objective of attaining an MBA degree awarded by one of the most prestigious private universities in Peru. This university and three other universities are considered the best private universities (Apoyo, 2005) in Peru. These universities have formed the *Consortium* and have several common established objectives. In contrast to public education, private education in Peru is of a high quality. The business school operates in a modern facility outside the university's main campus. The sample comprised 500 students whose ages ranged from 23 to 58 years, with a median age of 32 years. The students possessed a median of nine years of working experience, ranging from 1 year to a maximum of 40 years. Students from private universities numbered 333 compared with 167 from public universities. A ratio of 3 males to 1 female was evident. Engineering was the dominant undergraduate career (289), compared to 211 from economics, business, and accounting, and some other careers (Table 1).

Findings

Personality

The descriptive statistics resulting from the NEO-PI-R Form S questionnaire indicated that the distribution of each domain was nearly symmetrical, as can be observed by the obtained means, medians, standard deviations, and skewness (Table 2). Facet results are not

presented because the test provided a final score for each domain. Of the 500 participants, 479 were considered valid cases. Validity checks for acquiescence and random responding resulted in the elimination of 21 cases (Costa & McCrae, 1992). Neuroticism had the lowest measures of central tendency, mean, and median and presented the largest dispersion according to its coefficient of variation. The scores corresponding to conscientiousness were the ones with the highest measures of central tendency and the lowest variation.

Internal consistency was assessed using the Cronbach's alpha coefficient, and the obtained values for the five domains were all higher than .79. The alpha coefficients for the individual facet scales were lower than those for the domains but were almost always demonstrated to be acceptable values for scales having only eight items as compared to the 48 items used for each of the five domains.

A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of .90 was obtained for the sample scores of the NEO-PI-R Form S test, thus indicating that the use of exploratory factorial analysis (EFA) was appropriate. Factors were extracted with the most frequently used EFA extraction method called principal components analysis (Thompson, 2004). Using this method, the five highest eigenvalues, varying from 1.45 to 8.41, explained 53.52% of the total variance.

McCrae, Zonderman, Costa, Bond, and Paunonen (1996) recommended the use of a confirmatory analysis based on a procrustes rotation to the Normative American Structure in order to confirm the replicability of the five-factor structure of the NEO-PI-R Form S instrument.

Table 1
Sample Demographic Information

Gender		
Females		Males
139		361
27.80%		72.20%
Age		
23 to 30 years	31 to 40 years	41 to 58 years
169	248	83
33.80%	49.60%	16.60%
University Attended		
Consortium of universities	Other private universities	Public universities
224	109	167
44.80%	21.80%	33.40%
Working Experience		
5 years or less	6 to 10 years	11 to 40 years
103	227	170
20.60%	45.40%	34.00%
Undergraduate Profession		
Engineering	Economics, business administration, and accounting	Other
289	162	49
57.80%	32.40%	9.80%

Table 2
Descriptive Statistics for Personality Domains

Personality domains	<i>M</i>	<i>Mdn</i>	<i>SD</i>	Min.	Max.	Skewness	Coefficient of variation
Neuroticism	64	62	22	8	149	.56	.35
Extraversion	129	129	19	62	175	-.33	.15
Openness to experience	110	110	15	64	153	.06	.14
Agreeableness	115	116	16	60	163	-.14	.14
Conscientiousness	142	143	18	77	184	-.42	.13

Note. *N* = 479 valid cases. *M* and *SD* were rounded out to the nearest integer.

In this analysis for the Peruvian sample's responses (Table 3), 27 of the 30 facets have their highest loadings in the intended factors. Factor coefficients of congruence ranged from .93 to .97, and all were significant compared to the indicated critical values ($p = .560$). The structure of the NEO-PI-R Form S Spanish version used in this study closely replicates the structure of the NEO-PI-R Form S English version.

Tests of differences between means were performed for every domain in personality. A *t*-test for two independent samples to test the equality of the means was used for the domains by the variable gender. Significant differences were found for neuroticism [$t(477) = -3.638, p < .001$] and extraversion [$t(477) = -2.538, p = .011$]. Females showed a greater degree of neuroticism and extraversion than males. Nonsignificant differences were found for openness to experience [$t(477) = -.497, p = .619$]; agreeableness [$t(477) = -1.291, p = .197$]; and conscientiousness [$t(477) = -.724, p = .470$]. For each of the five domains, an analysis of variance (ANOVA) was used to detect differences among the means by the variable age categories, and significant differences were found for openness to experience ($p = .003$), agreeableness ($p < .001$), and conscientiousness ($p = .007$). Duncan *post hoc* tests were performed for openness to experience, and participants aged 23 to 30 years demonstrated less openness to experience as compared to participants in the other two groups. For agreeableness, participants aged 41 to 58 years were more agreeable as compared to participants in the other two groups; and for conscientiousness, participants aged 23 to 30 years were less conscientious as compared to participants in the other two groups.

The ANOVA was also used for the personality domains by the variable university attended, and the only significant difference found was for agreeableness ($p = .004$). A Duncan *post hoc* test for this variable showed that participants who attended the Consortium's universities were less agreeable persons than those participants who came from other universities. The ANOVA procedures performed for the five domains by the variable working experience demonstrated a significant difference for conscientiousness ($p = .006$), and a Duncan *post hoc* test for this variable indicated that participants who had

five or less years of experience were less conscientious than those who had more than five years of working experience. The ANOVA for the personality domains by the variable career demonstrated significant differences only for extraversion ($p = .004$), and a Duncan *post hoc* test for this variable showed that participants from engineering careers were less extraverted compared to participants from economics, business, and accounting careers.

Leadership

The descriptive statistics' means, medians, standard deviations, and skewness resulting from administration of the MLQ indicated that the distribution of each of the nine factors is nearly symmetrical except for the laissez-faire factor. The 500 participants were considered valid cases. According to Avolio and Bass (2004), the five factors for transformational leadership (TL) styles are the following: idealized influence attributes (IIA), idealized influence behavior (IIB), inspirational motivation (IM), intellectual stimulation (IS), and individualized consideration (IC). These five factors compose a single measure of transformational leadership styles. The two factors for transactional leadership (TcL) styles are the following: contingent reward (CR) and active management-by-exception (MBEA). Finally, the two factors for passive-avoidant (PA) styles are the following: passive management-by-exception (MBEP) and laissez-faire (LF). The observed mean values for transformational leadership style factors were slightly higher as compared to those for transactional leadership style factors except for idealized influence attributes, and those values were much higher as compared to those for the passive-avoidant factors (Table 4).

A second-order confirmatory factor analysis was performed in order to establish whether the nine leadership factors could be reduced to the three general leadership styles, namely, transformational, transactional, and passive-avoidant leadership styles. Results obtained were goodness of fit index (GFI) = .977, adjusted goodness of fit index (AGFI) = .956, normed fit index (NFI) = .947, Tucker Lewis index (TLI) = .954, and root mean square error of approximation (RMSEA) = .051, showing that for this sample, the nine leadership factors can be reduced to

Table 3

Factor Loadings and Congruences for Factors in the Peruvian Managers' NEO-PI-R Form S Rotated to the Normative American Structure

Factor	Cronbach's Alpha	N	E	Factor ^a			Variable congruence
				O	A	C	
Neuroticism domain	.92						
N1: Anxiety	.64	.76	-.15	.00	-.06	-.13	.97**
N2: Angry hostility	.77	.69	-.23	-.02	-.35	-.18	.95**
N3: Depression	.72	.72	-.18	-.08	.01	-.41	.97**
N4: Self-consciousness	.68	.72	-.32	-.08	.06	-.21	.98**
N5: Impulsiveness	.64	.60	.19	-.03	-.36	-.35	.95**
N6: Vulnerability	.77	.66	-.21	-.14	-.01	-.42	.99**
Extraversion domain	.88						
E1: Warmth	.74	-.28	.72	.10	.33	.17	.98**
E2: Gregariousness	.69	-.38	.62	.01	.13	.11	.93*
E3: Assertiveness	.68	-.25	.48	.10	-.19	.49	.94**
E4: Activity	.63	-.02	.51	.20	-.19	.46	.99**
E5: Excitement-seeking.	.50	-.24	.40	.41	-.18	-.13	.76
E6: Positive emotions.	.76	-.30	.71	.20	.11	.21	.94**
Openness to experience domain	.79						
O1: Fantasy	.58	.22	.33	.47	-.14	-.13	.93*
O2: Aesthetics	.73	.20	.05	.67	.18	.13	1.00**
O3: Feelings	.56	.18	.52	.44	-.10	.23	.94**
O4: Actions	.49	-.25	.04	.57	-.11	-.11	.94**
O5: Ideas	.72	-.06	-.04	.75	.07	.19	.97**
O6: Values	.37	-.25	-.01	.37	.00	-.22	.92*
Agreeableness domain	.82						
A1: Trust	.87	-.29	.31	.17	.54	.14	.98**
A2: Straightforwardness	.66	.05	-.12	.08	.60	.17	.96**
A3: Altruism	.67	-.18	.48	.06	.54	.25	.98**
A4: Compliance	.52	-.26	-.10	-.08	.65	.00	.98**
A5: Modesty	.69	.20	-.32	.11	.55	-.17	.85
A6: Tender-mindedness	.24	.19	.20	-.02	.57	.19	.90*
Conscientiousness domain	.89						
C1: Competence	.62	-.37	.21	.07	.04	.66	1.00**
C2: Order	.67	-.24	-.02	-.07	-.06	.66	.94**
C3: Dutifulness	.59	-.15	.18	.06	.24	.67	.95**
C4: Achievement striving	.54	.01	.25	.12	.02	.72	.98**
C5: Self-discipline	.75	-.40	.17	.03	.04	.72	.99**
C6: Deliberation	.71	-.39	-.20	-.02	.23	.59	.97**
Factor/Total congruence		.95**	.95**	.93**	.97**	.97**	.95**

Note. $N = 479$ valid cases. Loadings over .40 in absolute magnitude are given in boldface. N = neuroticism; E = extraversion; O = openness to experience; A = agreeableness; C = conscientiousness.

^aThese are procrustes-rotated principal components.

*Congruence coefficient higher than 95% of random data sets rotated to target.

**Congruence coefficient higher than 99% of random data sets rotated to target.

the three leadership styles. This analysis was performed in order to confirm the results observed on two previous exploratory factor analyses. The first analyzed the five transformational leadership dimensions and yielded only one factor with eigenvalue greater than 1 that explained 53.2% of the total variance. A second exploratory factor analysis

of the four other dimensions of the MLQ yielded two factors explaining 66% of the total variance, clearly representing transactional and passive-avoidant leadership styles.

The findings of this investigation differ from those of previous studies. Judge and Bono (2000) indicated that when the four transactional leadership dimensions, name-

ly, contingent reward, active management-by-exception, passive management-by-exception, and laissez-faire were factor analyzed, a clear factor structure did not emerge. As a result, Judge and Bono analyzed those four dimensions separately. Avolio and Bass (2004) treated transactional leadership and passive-avoidant leadership as different styles of leadership and recommended not to use a unique score for each of these styles but the four independent scores of each dimension, namely, CR, MBEA, MBEP, and LF. The current study suggests the possibility of using a single score for each of these styles.

This study was focused on an analysis of the three styles of leadership, namely, transformational, transactional, and passive-avoidant leadership styles. The Cronbach's alpha coefficient for the transformational leadership score was .800 when assessing the 20 items for the five factors that comprise transformational leadership as a single measure. The Cronbach's alpha coefficient for transactional leadership score was .579 when assessing the eight items for the two factors that comprise transactional leadership as a single measure. The Cronbach's alpha coefficient for passive-avoidant leadership score was .559 when assessing the eight items for the two factors that comprise passive-avoidant leadership as a single measure.

Tests of differences between means were carried out for the transformational leadership style score. To detect differences, a *t*-test for two independent samples for equality of means was used by the variable gender, and no differences were found [$t(498) = 1.884, p = .060$, two-tailed]. Analyses of variance (ANOVA) for transformational leadership by the variables age, university attended, years of working experience, and career were conducted. Signifi-

cant differences were found by the variable age ($p = .001$). The Duncan *post hoc* test indicated that participants aged 31 to 58 showed more frequent transformational leadership behaviors than those aged 23 to 30 years. A significant difference by the variable years of working experience ($p = .002$) was found for participants with 11 to 40 years of experience who showed more frequent transformational leadership behaviors than participants with five or less years' experience. No significant differences were found for transformational leadership by the variables university attended and undergraduate profession.

Tests of differences between means were carried out for the transactional leadership style score. To detect differences, a *t*-test for two independent samples for equality of means was used by the variable gender, and no differences were found [$t(498) = 2.504, p = .013$, two-tailed] at a 1% significance level. Analyses of variance (ANOVA) for transactional leadership by the variables age, university attended, years of working experience, and career were conducted. Significant differences were found by the variable age ($p < .001$), and the Duncan *post hoc* test indicated that participants aged 41 to 58 showed more frequent transactional leadership behaviors than those aged 23 to 40 years. A significant difference by the variable years of working experience ($p = .003$) was found for participants with 11 to 40 years of experience who showed more frequent transactional leadership behaviors than participants with less than 11 years' experience. No significant differences were found for transactional leadership by the variables of university attended and undergraduate career.

Tests of differences between means were carried out

Table 4
Descriptive Statistics for Leadership Styles

Leadership Styles	<i>M</i>	<i>Mdn</i>	<i>SD</i>	Min.	Max.	Skewness	Coefficient of variation
II(A)	2.57	2.50	.61	.75	4.00	-.18	.24
II(B)	3.19	3.25	.55	1.50	4.00	-.61	.17
IM	3.41	3.50	.52	1.50	4.00	-.81	.15
IS	3.00	3.00	.57	1.00	4.00	-.37	.19
IC	2.90	3.00	.56	1.00	4.00	-.15	.19
CR	2.89	3.00	.57	.25	4.00	-.33	.20
MBEA	2.89	3.00	.63	.50	4.00	-.50	.22
MBEP	.85	.75	.54	.00	2.75	.53	.64
LF	.41	.25	.43	.00	2.25	1.25	1.06
Totals							
TL	3.01	3.05	.41	1.67	3.95	-.37	.14
TcL	2.89	2.88	.48	1.25	4.00	-.23	.17
PA	.63	.63	.40	.00	2.00	.71	.25

Note. $N = 500$ valid cases. II(A) = idealized influence attributes; II(B) = idealized influence behavior inspirational; IM = motivation; IS = intellectual stimulation; IC = individualized consideration; CR = contingent reward; MBEA = active management-by-exception; MBEP = passive management-by-exception; LF = laissez-faire; TL = transformational leadership; TcL = transactional leadership; PA = passive-avoidant.

for the passive-avoidant leadership style score. To detect differences, a *t*-test for two independent samples for equality of means was used by the variable gender, and no differences were found [$t(498) = .929, p = .353$, two-tailed]. Analyses of variance (ANOVA) for passive-avoidant leadership by the variables age, university attended, years of working experience, and career were conducted. Significant differences were found by the variable age ($p = .008$), and the Duncan *post hoc* test indicated that participants aged 41 to 58 showed more frequent passive-avoidant leadership behaviors than those aged 23 to 40 years. A significant difference by the variable years of working experience ($p = .007$) was found for participants with 11 to 40 years of experience who showed more frequent passive-avoidant leadership behaviors than participants with 6 to 10 years' experience. No significant differences were found for passive-avoidant leadership by the variables of university attended and undergraduate career. Table 5 summarizes these results for each personality domain and leadership style by the demographic information used in the sample for this investigation.

Relationships Between Personality Domains, Working Experience, and Leadership Styles

Pearson's correlations were calculated in order to study the relationships between personality traits, measured by

the varimax-rotated factor scores, working experience, and transformational, transactional, and passive-avoidant leadership styles, respectively. The possible direction of these relationships was predicted in the hypotheses. The strongest association of transformational leadership styles was found with respect to conscientiousness followed by extraversion, while a relatively weak positive association was noted with respect to openness to experience, a relatively weak negative association with respect to neuroticism, and no significant correlation with agreeableness (Table 6).

The strongest positive association of transactional leadership styles was with conscientiousness, followed by a relatively weak positive association with extraversion; no statistically significant correlations with respect to neuroticism, openness to experience, and agreeableness were apparent. A moderate negative association of passive-avoidant leadership styles was found with respect to conscientiousness followed by a relatively weak positive association with respect to neuroticism, a relatively weak negative association with respect to extraversion, and no significant correlation with respect to openness to experience and agreeableness. Working experience showed a relatively weak positive association with both transformational and transactional leadership styles and no significant relationship with passive-avoidant leadership styles.

A regression model was constructed for each of the

Table 5
Summary of Significant Differences for Personality Domains and Leadership Styles in the Sample's Demographics

Personality domains and leadership styles	Demographic variables				
	Gender	Age	University	Working experience	Career
Neuroticism	Females more	No	No	No	No
Extraversion	Females more	No	No	No	Engineering less
Openness to experience	No	31 to 58 more	No	No	No
Agreeableness	No	41 to 58 more	<i>Consortium</i> less	No	No
Conscientiousness	No	31 to 58 more	No	5 to 40 more	No
Transformational leadership styles	No	31 to 58 more	No	11 to 40 more	No
Transactional leadership styles	No	41 to 58 more	No	11 or 40 more	No
Passive-avoidant leadership styles	No	No*	No	No*	No

Note. **No** indicates that no significant differences were found. **More** indicates more frequent behavior. **Less** indicates less frequent behavior.

***No** after the second ANOVA using more categories for both demographic variables.

three dependent variables using, as independent variables, the five domains of personality and working experience. The significance for each of the obtained *F* statistics was less than .001, which meant that the regression models were appropriate. The adjusted *R*² values showed that the models explained about 43.1% of the variation in transformational leadership styles, about 22.7% of the variation in transactional leadership styles, and about 22.4% of the variation in passive-avoidant leadership styles.

Table 7 shows the regression coefficients for transformational leadership styles. The standardized coefficients demonstrate that the most important effect was that of conscientiousness, nearly followed by the effect of extraversion. The other effects, in order of importance, were neuroticism, being negative; openness to experience, being positive; and working experience, also being positive. At a significance level of 1%, the only nonsignificant effect was agreeableness.

Table 8 demonstrates the regression coefficients for transactional leadership styles. The standardized coefficients show that the most important effect was that of conscientiousness, followed by the effect of extraversion and working experience. At a significance level of 1%, neuroticism, openness to experience, and agreeableness presented nonsignificant effects on transactional leadership styles.

Table 9 shows the regression coefficients for passive-avoidant leadership styles. The most important effect was that of conscientiousness, being negative, followed by the effect of neuroticism, being positive; and extraversion, being negative. At a significance level of 1%, openness to experience, agreeableness and working experience in-

dicated nonsignificant effects on passive-avoidant leadership styles. The following conclusions can be stated with respect to the proposed hypotheses:

1. The results support a significant negative relationship between neuroticism and transformational leadership styles and a significant positive relationship between neuroticism and passive-avoidant leadership styles. No significant correlation was found between neuroticism and transactional leadership styles.
2. The results support a significant positive relationship between extraversion and transformational and transactional leadership styles and a significant negative relationship between extraversion and passive-avoidant leadership styles.
3. The results support a positive relationship between openness to experience and transformational leadership styles. No significant correlations were found between openness to experience and the two other leadership styles, namely, transactional and passive-avoidant leadership styles.
4. The results indicated that no significant correlations were apparent between agreeableness and each leadership style, namely, transformational, transactional, and passive-avoidant leadership styles.
5. The results support a significant positive relationship between conscientiousness and transformational and transactional leadership styles and a significant negative relationship between conscientiousness and passive-avoidant leadership styles.
6. The results support a significant positive relationship between working experience and transformational

Table 6
Correlations Between Transformational, Transactional, and Passive-Avoidant Leadership Styles and the Big Five Domains and Working Experience

Personality domains	<i>r</i> TL	<i>r</i> TcL	<i>r</i> PA
Neuroticism ^a	-.214** (<i><.001</i>)	-.071 .119	.267 ** (<i><.001</i>)
Extraversion ^a	.400** (<i><.001</i>)	.152** .001	-.166** (<i><.001</i>)
Openness to experience ^a	.201** (<i><.001</i>)	.034 .459	.025 .588
Agreeableness ^a	-.002 .973	.027 .560	.011 .817
Conscientiousness ^a	.426** (<i><.001</i>)	.430** (<i><.001</i>)	-.354** (<i><.001</i>)
Working experience	.174** (<i><.001</i>)	.223** (<i><.001</i>)	.064 .152

Note. *N* = 479 valid cases. Significance values are indicated in parentheses. TL = transformational leadership; TcL = transactional leadership; PA = passive-avoidant.

^aThe personality domains scores are the varimax-rotated factor scores.

***p* < .010 level, one-tailed.

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Table 7
Regression Coefficients for Transformational Leadership Styles

Model	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Significance
	<i>B</i>	<i>SEB</i>	β		
Constant	2.933	.029		102.468	<.001
Neuroticism ^a	-.089	.014	-.217**	-6.297	<.001
Extraversion ^a	.164	.014	.402**	11.643	<.001
Openness to experience ^a	.080	.014	.196**	5.680	<.001
Agreeableness ^a	-.008	.014	-.019	-.542	.588
Conscientiousness ^a	.166	.014	.406**	11.542	<.001
Working experience	.007	.002	.105**	2.941	.003

^aThe personality domains scores are the varimax-rotated factor scores used to reduce multicollinearity problems.

***p* < .01 level, two-tailed.

Table 8
Regression Coefficients for Transactional Leadership Styles

Model	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Significance
	<i>B</i>	<i>SEB</i>	β		
Constant	2.761	.040		69.301	<.001
Neuroticism ^a	-.037	.020	-.076	-1.899	.058
Extraversion ^a	.076	.020	.155**	3.862	<.001
Openness to experience ^a	.013	.020	.027	.661	.509
Agreeableness ^a	.001	.020	.002	.043	.966
Conscientiousness ^a	.196	.020	.401**	9.783	<.001
Working experience	.012	.003	.151**	3.624	<.001

^aThe personality domains scores are the varimax-rotated factor scores used to reduce multicollinearity problems.

***p* < .01 level, two-tailed.

Table 9
Regression Coefficients for Passive-Avoidant Leadership Styles

Model	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Significance
	<i>B</i>	<i>SEB</i>	β		
Constant	.561	.033		17.222	<.001
Neuroticism ^a	.105	.016	.264**	6.544	<.001
Extraversion ^a	-.065	.016	-.164**	-4.066	<.001
Openness to experience ^a	.008	.016	.020	.496	.620
Agreeableness ^a	-.002	.016	-.006	-.144	.886
Conscientiousness ^a	-.148	.016	-.373**	-9.085	<.001
Working experience	.007	.003	.100	2.388	.017

^aThe personality domains scores are the varimax-rotated factor scores used to reduce multicollinearity problems.

***p* < .01 level, two-tailed.

and transactional leadership styles. No significant correlation was found between working experience and passive-avoidant leadership styles.

7. The personality domains of neuroticism, extraversion, openness to experience, and conscientiousness and working experience were the independent variables that seemed to exert significant influences with respect to transformational leadership styles.
8. The personality domains of extraversion and conscientiousness and working experience were the only independent variables that seemed to exert significant influence with respect to transactional leadership styles.
9. The personality domains of neuroticism, extraversion, and conscientiousness were the only independent variables that seem to exert significant influence with respect to passive-avoidant leadership styles.

Discussion

Personality and leadership are the aspects that have earned most attention among researchers with respect to finding possible relationships. Most studies of personality and leadership were developed in the United States, and a few others were developed in countries such as Norway, Australia, Singapore, and Canada; no such studies have been performed in developing countries. Previous studies in the United States of America were focused primarily on researching the relationships between the five personality domains and leadership styles, namely, transformational and transactional leadership styles, and leadership outcomes (Bono & Judge, 2004; Judge & Bono, 2000; Judge et al., 2002).

Judge et al. (2002) performed a qualitative review of the trait perspective in leadership research followed by a meta-analysis using 222 correlations from 73 samples. The extraversion domain was found to be the most consistent variable related to leadership emergence and leadership effectiveness. "Leadership emergence refers to whether (or to what degree) an individual is viewed as a leader by others, who typically have only limited information about that individual's performance" (p. 767). Neuroticism, extraversion, openness to experience, and conscientiousness were considered useful traits for explaining leadership.

Bono and Judge (2004) developed a meta-analysis of the relationship between personality and ratings of transformational and transactional leadership behaviors. The meta-analysis studied 384 correlations from 26 independent studies. The extraversion domain was the strongest and most consistent variable related to transformational leadership styles and, as a trait, showed robust relations with both leadership outcomes and leadership behaviors despite the weak results obtained. The other four personality trait correlations with transformational leadership

styles were quite modest. Bono and Judge also emphasized that transactional behaviors, namely, contingent reward and active management-by-exception, are taught in MBA and management training programs, thus supporting the nurture position that leadership might be learned.

D'Alessio (2006) found that the strongest association with transformational leadership styles was for extraversion followed by conscientiousness, which presented higher correlations than those found in previous studies (Table 10), and suggested the use of self-report as a possible reason. The three studies developed by Bono and Judge (2004), Judge et al. (2002), and D'Alessio (2006) ranked extraversion as the domain with the strongest association with transformational leadership styles, while the current study ranked conscientiousness as the domain with strongest association with transformational leadership styles. Conscientiousness was the most consistent predictor domain for the three leadership styles, having a positive relation to transformational and transactional leadership styles and a negative relation to passive-avoidant leadership styles. This was followed by extraversion in the same direction with the three styles but being strongly correlated only with transformational leadership styles. The results of this research for each leadership style are summarized in the following paragraphs in relation to each personality domain.

For neuroticism, this sample showed low values with a mean of 64 out of a maximum score of 192, a moderately negative correlation with transformational leadership styles, no significant correlation with transactional leadership styles, and a moderately positive correlation with passive-avoidant leadership styles. Costa and McCrae (1992) concluded, "The most pervasive domain of personality scales contrasts adjustment or emotional stability with maladjustment or neuroticism" (p. 14). A leader needs to be emotionally stable, and low neuroticism is predictive of leadership potential. Neurotic persons are unlikely to exhibit transformational leadership behaviors or idealized influence, inspirational motivation, and intellectual stimulation (Bono & Judge, 2004). Neurotic persons lack self-confidence and self-esteem (McCrae & Costa, 1991), and self-confidence is an essential characteristic of transformational leadership (Bass, 1990) that enables a leader to challenge the status quo and take the risk to transform organizations. The low scores for neuroticism among the sample exhibited a moderately negative correlation with transformational leadership styles, a moderately positive correlation with passive-avoidant leadership styles, and no association with transactional leadership styles, thus suggesting the sample's self-confidence in their managerial roles and a potential to capture followers' attention.

For extraversion, the sample showed relatively high values, a moderately strong positive correlation with transformational leadership styles, a moderately positive correlation with transactional leadership styles, and

Table 10
Comparison of Correlations Between Personality Domains and Transformational Leadership

Personality domain	Judge et al. (2002)	Bono and Judge (2004)	D'Alessio (2006)	Current study
Neuroticism	-.24	-.17	-.19	-.21
Extraversion	.31	.24	.43	.40
Openness to experience	.24	.15	.20	.20
Agreeableness	.08	.14	.06	-.002
Conscientiousness	.28	.13	.39	.44

Note. Studies by Judge et al. (2002) and Bono and Judge (2004) were meta-analyses.

a moderately negative correlation with passive-avoidant leadership styles. Extraversion, as opposed to introversion, describes a tendency to be friendly, social, assertive, active, upbeat, energetic, optimistic, and talkative and describes individuals who emerge as leaders in groups (Costa & McCrae, 1992). This sample showed a mean of 129 out of a possible 192 points, thus indicating people with typical social characteristics. Peruvian managers frequently tend to exhibit the extravert personal characteristics typical of Latin American people. "Extraverts will tend to exhibit inspirational leadership.... they are likely to generate confidence and enthusiasm among followers. Extraverts also may score high on intellectual stimulation, as they tend to seek out and enjoy change" (Bono & Judge, 2004, p. 902).

For openness to experience, the sample scored relatively high values and a moderate positive correlation with transformational leadership styles, and no significant correlation with transactional and passive-avoidant leadership styles was evident. Openness to experience describes a tendency to be creative, imaginative, perceptive, thoughtful, nonconforming, unconventional, lateral in thinking, curious, and imaginative, and the measure displays a correlation with intelligence and intellectual stimulation (McCrae, 1994, 1996). This sample showed a moderate correlation between openness to experience and transformational leadership and scored a mean of 110 out of 192 points, suggesting that these managers may show interest in uncovering new managerial opportunities and visionary conditions for their organizations' futures. Bono and Judge (2004) stated that individuals high in openness to experience are likely to high have high scores in intellectual stimulation because being open to experience is related to intellectuality. Creativity is an important skill associated with effective leaders and is associated with individuals who have high scores in openness to experience.

For agreeableness, this sample showed relatively high values with a mean of 115 out of a possible maximum of 192, and no association was found with transformational, transactional, and passive-avoidant leadership styles. Agreeableness describes kind, gentle, modest, altruistic, and trustworthy individuals (Costa & McCrae, 1992). Agreeable persons value affiliation, avoid conflict, and are

modest and kind, which is not characteristics of charismatic leaders. "The modesty and kindness of agreeable individuals is not the hallmark of charismatic leaders. Nonetheless, they may score high in idealized influence and [can] be seen as role models because of their trustworthiness and consideration for others" (Bono & Judge, 2004, p. 903). Mount, Barrick, and Stewart (1998) concluded, "Emotional stability and agreeableness are more strongly related to performance in jobs that involve teamwork, than in those that involve dyadic interactions with others" (p. 145). Agreeableness might emerge as an important trait for subordinates' ratings because subordinates usually value agreeable leaders (Judge & Bono, 2000).

For conscientiousness, this sample showed high values and a moderately strong positive relationship with both transformational and transactional leadership styles and a moderately strong negative association with passive-avoidant leadership styles. Conscientiousness describes purposeful and determined individuals; tenacity and persistence are both characteristics of the measure and display correlations with overall job performance and leader effectiveness. They are cautious, deliberate, self-disciplined, and well-organized people and tend to have a strong sense of direction and work hard toward their established visions and goals (Costa & McCrae, 1992). Costa and McCrae suggested a link between conscientiousness and contingent reward because persons with high scores in conscientiousness are cautious and self-disciplined, tend to be neat and well organized, and are unlikely to exhibit passive-avoidant leadership behaviors. This sample showed very high values for conscientiousness with a mean of 141 out of a possible 192 and a strong association with each style of leadership. Conscientiousness is the dominant personality domain for the sample, followed by extraversion.

A review of the 30 personality facets shows that many of them have something in common with the traits of transformational and transactional leadership behaviors as described by many authors. To analyze the significant personality facets for predicting leadership styles further, regression analyses using the 30 facets for each leadership style were performed. Transformational leadership was shown to be significantly influenced by vulnerability

(N6), assertiveness (E3), activity (E4), ideas (O5), trust (A1), modesty (A5), competence (C1), and achievement striving (C4) at a significance level of 5%. Transactional leadership was shown to be significantly influenced by vulnerability (N6), values (O6), and achievement striving (C4) at a significance level of 5%. Passive-avoidant leadership was influenced by assertiveness (E3), values (O6), modesty (A5), and self-discipline (C5) at a significance level of 5%. It should be noted that the reliability of the facet O6 was low and its effects should be further studied. Table 11 presents these results.

Extraversion and conscientiousness were the dominant domains of the sample. According to Costa and McCrae (1992), E3 indicates dominant, forceful, and socially ascendant people who often become group leaders; E4 indicates people who are energetic and vigorous in their movement and attempt to keep busy; C1 indicates capable, sensible, prudent, and effective people; and C4 indicates people who have high aspiration levels and work hard to achieve their goals.

The relationship between personality and leadership behaviors has been investigated in other developed countries, but using different types of instruments. Hetland and Sandal (2003), using Cattell's 16 PF for personality and the MLQ rater instruments, both translated into Norwegian, studied transformational leadership behaviors in Norway. They concluded that "the superiority of transformational leadership documented in a number of studies also gen-

eralizes to a Norwegian context...the relatively weak associations with personality give rise to optimism that these leadership behaviours may be learned" (p. 167).

The analyses suggested that more frequent transformational and transactional leadership behaviors were demonstrated as participants' working experience increased which is closely related to participants' age as well. Weak but significant correlations were found between working experience and both transformational and transactional leadership styles. That was not demonstrated with the passive-avoidant behavior.

The cultural aspects of globalization, both the similarities and differences with respect to leadership, need to be explored. Kornor and Nordvik (2004) in Norway, using the NEO-PI-R, translated into Norwegian, and the Change, Production, and Employee (CPE) for leadership, found that conscientiousness and extraversion were the strongest predictors of the CPE total score. They emphasized the importance of self-reports for personality and leadership, stating, "The extensive use of self-report in personality and leadership research testifies that researchers in these areas have moved far away from the behaviorist doctrine that only objective observations of behavior are acceptable data for psychology" (p. 53) and concluding that "people tend to be consistent in their self-reports regardless of context and that leadership styles are related to personality traits" (p. 54).

McCormack and Mellor (2002) in Australia, using the

Table 11
Significant Personality Facets in Predicting Leadership Styles

Domains facets	TL		TcL		PA	
	β	r	β	r	β	r
Neuroticism						
N6: Vulnerability	-.140*	-.498**	-.160*	-.317**		
Extraversion						
E3: Assertiveness	.183**	.521**			-.141*	-.351**
E4: Activity	.108*	.449**				
Openness to experience						
O5: Ideas	.090*	.310**			.119**	.014
O6: Values			-.117**	-.129**		
Agreeableness						
A1: Trust	.144**	.358**				
A5: Modesty	-.105*	-.268**			-.126*	.025
Conscientiousness						
C1: Competence	.113*	.478**				
C4: Achievement striving	.120**	.440**	.160**	.368**		
C5: Self-discipline					-.284**	-.469**
R^2	.491		.286		.309	
Adjusted R^2	.457		.238		.263	

Note: R^2 and adjusted R^2 results from the regression analyses performed for each leadership style and the 30 facets of personality. TL = transformational leadership; TcL = transactional leadership; PA = passive-avoidant.

* $p < .05$ level, two-tailed.

** $p < .01$ level, two-tailed.

NEO-PI-R and the Australian Army Evaluation and Development Report-Officers (EDRO) for leadership, found that effective leaders in the Australian Army were characterized by high conscientiousness and openness to experience and by low extraversion. Neuroticism and agreeableness were not found to be related in their findings. Bradley et al. (2002) in Canada, using their own military instruments in English and French for both personality and leadership, concluded, "Measures of personality are associated with leadership development in the military" (p. 92). Lim and Ployhart (2004) examined personality, transformational leadership, and team performance under conditions similar to typical and maximum contexts from 39 combat teams from an Asian military sample. Transformational leadership fully mediated the relationship between leader personality and team performance in typical contexts.

The military environment studied (Bradley, et al., 2002; Lim & Ployhart, 2004; McCormack & Mellor, 2002) is a special one in which differentiating between leadership and command is a difficult task because of the vertical structure and the clearly disciplined formation of those organizations. Use of raters, especially subordinates, in a military environment needs to be carefully considered, in spite of confidentiality. This is also true in a private organization, but to a lesser extent.

Investigations performed in Norway, Australia, Canada, and Singapore suggested relationships between personality domains and leadership styles in which extraversion and conscientiousness were the most consistent predictors of transformational leadership behaviors. Bass (1998) emphasized that although transformational leadership is more important than transactional leadership, the best leaders are both transformational and transactional. Analysis of the results in this research showed a strong correlation between these two leadership styles ($r = .526$), and conscientiousness and extraversion were consistent positive predictors of both transformational and transactional leadership behaviors.

Hetland and Sandal (2003) concluded that the superiority of transformational leadership documented in different studies is generalizable to a Norwegian context, and they called for further research into cultural similarities and differences. The current research appears to be the first attempt to perform such research in a developing country in which personal characteristics of human beings that are crafted over a lifetime have been related to transformational, transactional, and passive-avoidant leadership styles. The characteristics associated with transformational leadership styles are important for improving organizations in the competitive global arena. Bass (1990) stated that to be effective in crisis conditions, leaders must be transformational to transform crises into challenges.

Limitations and Delimitations

Costa and McCrae (1997) indicated, "Every social scientist knows that questionnaires are fallible instruments, subject to an intimidating array of biases and distortions. Respondents may answer at random, or may misunderstand items, or deliberately lie, or agree indiscriminately to any assertion presented to them" (pp. 87-88). The following limitations were taken into consideration in this research: (a) This study was limited to managerial MBA students who agreed to participate; (b) this study was limited to active managerial MBA students who entered the program between October 2003 and March 2006; and (c) the validity of the study was limited to the reliability of the instruments used. Instruments were provided in Spanish by official United States vendors.

The study was confined to surveying 500 managerial MBA students at a leading graduate business school in Lima. These students were admitted to the managerial MBA program after a rigorous admission process, and students had in common the goal of being awarded a high-quality MBA degree. The sample of managers used in this research was composed of individuals attending the managerial MBA program and came from many different types of organizations: private and public; small, medium, and large; and manufacturing and service, among others. Most previous studies have been based on participants who came from the same organization. The research methodology for this investigation may be replicable in other countries and among different cultures and is applicable to diverse types of institutions.

Implications

The results of the current investigation have provided some indications that life and work experience might play a role in the development of leadership behaviors. Leadership behaviors are shown to be a combination of transformational and transactional styles in managerial activity, as suggested by Bass's (1985) postulate that leaders are both transformational and transactional or neither. Educational settings, such as universities attended for undergraduate and especially graduate studies, favor the possibility that leadership behaviors are learned.

Some personality domains show important influences on leadership styles in several studies. Openness to experience is a domain that needs to be studied further because leaders provide stimulation that is more intellectual to followers and because it is the only domain related to intellectuality. Managers who have high scores for challenging visions and strategic objectives are required by corporations wanting strategic-minded leaders in developing countries.

The study of contingent reward behaviors deserves special attention in future research. In spite of not having reported those results in this document, an exploratory

factor analysis was performed for the nine leadership dimensions, and it was observed that the five transformational leadership dimensions and contingent reward had their highest loadings on the first factor. Because this study is cross-sectional, it does not allow for drawing conclusions about causal relationships. The next step is to perform a longitudinal study with part of the sample used in this research in order to find possible causal relationships in the diverse array of leadership behaviors. The longitudinal study results may provide insights about whether an MBA program could nurture participants' leadership behaviors. The methodology used is broadly generalizable to similar studies in other developing countries as well as in developed countries.

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Footnotes

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