Impact of Management Education on Students' Value Systems: A Longitudinal Study

The impact of MBA education on value systems was studied using a sample of 165 students. Results show that self-oriented values like a comfortable life and pleasure become more important and others-oriented values like being helpful and responsible become less important over two years. Also, gender and functional specialization appear to moderate the impact. Management education is traditionally seen as a means to facilitate learning of job-related behaviors in order to improve performance. The focus has been on teaching facts, modifying attitudes and behaviors, and developing skills. Attention has been devoted to analyzing whether knowledge that is imparted in business schools should focus more on theory or on applications (Huff, 2000). Human values as a component of management education continue to be a fairly ignored domain of investigation. The emphasis of education has generally been more on knowledge production than on value inculcation. Values have been fairly ignored by management education programs, most probably because values in general are relatively more difficult to influence or modify. Values, however, form the core of our personality, and influence the choices we make, the people we trust, the appeals we respond to, and the way we invest our time and energy (Posner & Schmidt, 1992). It is necessary that values be given their due importance within the function of management education.

In this age of rapidly changing business environment, leadership is more important than ever. The present organizational focus on revitalizing and transforming organizations to meet competitive challenges ahead has been accompanied by increasing interest among researchers in studying transformational leadership. Such leadership is necessary for quickly identifying new market opportunities and for developing appropriate competencies within organizations. Over the last two decades, considerable literature has accumulated on transformational leadership (Bass, 1998). There exists a relationship between transformational leadership behaviors and various outcomes measured at the individual and organizational level.

Studies that have looked at the outcomes of transformational leadership have not, however, attempted to distinguish clearly between different categories of outcomes and the role of moderating variables in enhancing such differentiation. Particularly, no
attempt has been made to analyze the moderating role played by the duration of relationship between leader and follower. For example, it might take less time to have an impact on affective outcomes than on cognitive outcomes. Burns (1978, p. 249) drew a clear distinction between heroes who satisfy followers’ immediate emotional wants and ideologues who bring about lasting change in values. Authentic transformational leadership would require an enduring change in followers’ values and self-concept; a mere change in followers’ affective outcomes would be pseudo-transformational leadership (Bass and Steidlmeier, 1999).

I report in this paper a study that looked at the differential effects of transformational leadership on followers’ cognitive and affective outcomes, depending on the duration of relationship between leader and follower. Congruence between the terminal value systems of leader and follower, follower’s identification with organization, attachment to the organization, and affective component of organizational commitment are the outcomes that were studied. The objective of this study was to show that relationship duration enhances the effect of transformational leadership on terminal value system congruence and identification, but not on attachment and affective commitment.

**Theory and hypotheses**

With the increasing importance of knowledge as a corporate asset in today’s dynamic environment, and with the technological and social changes constantly affecting organizational functioning, transformational leadership is becoming more relevant than ever. The purpose of truly effective leadership is to transform the whole person rather than merely make some cosmetic changes in the follower. Only such a total transformation could help retain the all-important human asset in the organization.

*Transformational leadership*

Burns (1978, p. 20) defined transformational leadership as occurring “when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality”. Transformational leaders thus serve as an independent force in changing the makeup of followers’ motive base through gratifying their motives. Bass (1985) built on Burns (1978) work and described transformational leadership in terms of the impact that it has on followers; followers feel trust, admiration, and loyalty towards the leader. Transformational leaders motivate followers to do more than the latter originally expected to do. Transformational leaders also change the organizational culture (Bass, 1985). Transformational leadership consists of four interrelated factors – idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1998). Idealized influence could be further divided into two sub-factors – idealized influence attributed and idealized influence behavior.

Authors have been using the terms transformational leadership and charismatic leadership as synonyms or as identical twins (Conger, 1999). According to Conger and Kanungo (1994), charismatic leaders critically evaluate the existing situation or status quo and keeping in mind the environment, they formulate a strategic vision and then articulate it such that it motivates the followers. Kuhnert and Lewis (1987) claimed that transformational leaders hold a sense of moral obligation to the organization as an end value, which in turn is also adopted by followers.
Changing Value Systems

Value systems tend to form early in life and are very stable. Major longitudinal studies of values have in general showed their remarkable stability (Rokeach & Ball-Rokeach, 1989). Lubinski, Schmidt, and Benbow (1996) observed that in a sample of gifted adolescents, values were remarkably stable over a 20-year period. Dominant value orientation either remained unchanged, or moved to an adjacent value. Oliver (1999) found that the overall personal value structure of the American manager did not change in three decades.

Values are enduring beliefs, and therefore are very difficult to change. One who values obedience is unlikely to start believing that it is preferable to be disobedient than obedient. Value systems, however, can be changed with relatively greater ease. Change in value system requires rearrangement of the relative importance given to various values. For example, one who values pleasure more than self-respect could be convinced over a period of time that self-respect is more important than pleasure. Studies have demonstrated that the relative importance of different values to a person can be changed (Rokeach, 1973; Schwartz & Inbar-Saban, 1988). Ball-Rokeach, Rokeach and Grube (1984) made an effort to change the rankings of the equality, freedom, and aesthetics values, utilizing a broadcast television program. Rankings of the targeted values changed for those who watched, thus suggesting that adult socialization, such as that which occurs through the media, or through organizational processes, can in fact change values in a meaningful way.

The method of value self-confrontation can be used to change people’s value systems and thereby their behavior. This method has been applied successfully to influence such behaviors as contributing money to social welfare programs, and supporting anti-pollution measures. Schwartz and Inbar-Saban (1988) demonstrated that people’s behavior can be changed by changing the value priorities underlying that behavior. Using an experimental manipulation, they found that an increase in the relative importance of wisdom over happiness (both terminal values) resulted in a significant amount of weight loss. The first step in value self-confrontation is to get people to become aware of their value systems. Learning that there is a contradiction between one’s value priorities and one’s ideal self-conception as a moral or competent person gives rise to self-dissatisfaction with one’s value rankings. The ideal self-conception is based on the value system of a positive reference group. In order to reduce self-dissatisfaction, people change their value systems and consequently their value-related attitudes and behaviors. They try to make these elements more consistent with the self-conception as moral and competent persons that they have learned to prefer.

It is thus possible to change value systems over a period of time using an appropriate intervention. The MBA program is one such intervention. Management education revolves around social issues and interpersonal relationships in a way that could conflict with business students’ pre-existing values (Rynes & Trank, 1999). The MBA program, besides exposing students to a wide range of perspectives, also adopts an application-oriented approach that could result in students questioning some of their existing beliefs. The two years of education as an MBA student would therefore result in a change in value system. This being an exploratory study, I did not hypothesize any specific nature or direction of change, but only expected an overall change in value system at the end of two years.

Value system

Rokeach (1973, p. 5) defined a value as “an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence”. A belief concerning a desirable mode of conduct is an instrumental value and a belief concerning a desirable end-state of existence is a terminal value. For example, the belief that being honest is preferable to being dishonest is an instrumental value, and the belief that freedom is preferable to slavery is a terminal value. A set of rank-ordered values is called a value system. Values are heavily intertwined and therefore looking at a person’s values separately and independently of one another cannot meaningfully explain attitudes and behaviors. Only the rank ordering of values or the value system can capture the unique value configuration of an individual (Rokeach and Ball-Rokeach, 1989). Several studies have demonstrated empirically how values affect personal and organizational effectiveness (Meglino and Ravlin, 1998). Blickle (2000) found that work values predicted the frequency of use of influence strategies measured one year later.

Studies have demonstrated that the relative importance of different values to a person can be changed (Rokeach, 1973; Schwartz and Inbar-Saban, 1988). Ball-Rokeach et al. (1984) demonstrated a change in value rankings through a broadcast television program. The method of value self-confrontation can also be used to change peoples’ value systems (Schwartz and Inbar-Saban, 1988). Learning that there is a contradiction between one’s value priorities and one’s ideal self-conception gives rise to self-dissatisfaction. The ideal self-conception is based on the value system of a positive reference group or person like a leader. In order to reduce self-dissatisfaction, people change their value systems.

Value system congruence between leader and follower could be defined as the extent of agreement between the leader’s value system and the follower’s value system. Value congruence between employees and their supervisors has been found to be significantly related to employee satisfaction and commitment (Meglino et al., 1989). Posner (1992) found that perceived value congruence was directly related to positive work attitudes. Weiss (1978) found that people aligned their values with the values of their leader if they perceived their leader to be competent and successful.

Burns (1978) held that transformational leadership involves the uncovering of contradictions among values and between values and practice, and the realigning of values in followers. The leader has an important role to play in transmitting values (Kouzes and Posner, 2002). Congruence in values between leader and follower forms the strategic and moral foundation of authentic transformational leadership (Bass and Steidlmeier, 1999). Transformational leadership is a relationship wherein leaders’ and
followers’ purposes, which might have started out as separate but related, become fused, leading to greater leader-follower congruence in value hierarchies.

The vision of a transformational leader serves as a unifying force that facilitates the convergence of leader’s and follower’s thoughts, beliefs, and values (Kirkpatrick and Locke, 1996). Jung and Avolio (2000) found that transformational leadership was positively related to the extent to which followers agreed with leaders’ values. Krishnan (2004) found that transformational leadership was positively related to value system congruence between leader and follower. Transformational leadership focuses on the joint purposes of leader and follower, and often results in transforming those purposes. Only terminal values pertain to end-states of existence, and so the leadership that focuses on purposes will be related only to terminal values and not to instrumental values. Krishnan (2002) found that transformational leadership was positively related to leader-follower value system congruence in the case of terminal values. Therefore:

**HI.** Transformational leadership would be positively related to leader-follower terminal value system congruence.

**Identification with organization**

Shamir (1991) reviewed the existing literature on motivation and concluded that it had an individualistic utilitarian bias at odds with the concept of transformational leadership, which emphasizes transcending self-interest for the sake of the collective. An individual’s motivation to do a task would be enhanced to the extent that: job-related identities are salient in the person’s self-concept, actions required in the job are consistent, or can be performed in a manner consistent with the person’s self-concept; and career opportunities on the job are congruent with the person’s possible selves. Human beings are not only goal-oriented, but also self-expressive, and are motivated to maintain and enhance their self-esteem and self-worth.

Shamir et al. (1993) offered an explanation of the process of leader influence over followers in terms of leader behavior implicating the self-concept of followers. Specifically, charismatic leadership is an interaction between leaders and followers that results in making the followers’ self-esteem contingent on the vision and mission articulated by the leader. We do things because of what we are; by doing them we affirm and establish our identity. The self-concept based theory thus links transformational leadership and motivational mechanisms of followers through the followers’ self-concept.

Lord and Brown (2001) noted that powerful leadership effects are realized only when values and self-identities form coherent patterns. The social identity theory argues that the self-concept is comprised of a personal identity encompassing idiosyncratic characteristics, and a social identity consisting of salient group classifications. Ashforth and Mael (1989) described social identification (sense of group or collective identification) as the perception of oneness with some human aggregate, which leads to the belief that the fate of the group is one’s own. Self-concept includes the social identity of the individual, and social identification leads to activities that are congruent with the identity. Bass et al. (2003) found that the relationship of leadership to performance was partially mediated through the unit’s level of potency and cohesion.

The followers of transformational leaders experience a total and unqualified belief in and identification with the leaders and their mission. Kark and Shamir (2002)
proposed that transformational leadership influenced two levels of follower self-concept – the relational and the collective self, thus fostering personal identification with the leader and social identification with the organizational unit. Shamir et al. (1998) found that a leader’s emphasis on collective identity was related to subordinate’s level of identification with the leader. Shamir et al. (2000) found that staff members’ (inner circle’s) identification with the unit fully mediated the relationship between the leader’s emphasis on collective identity and soldiers’ (outer circle’s) identification with the unit. Kark et al. (2003) showed that transformational leadership was positively related to both followers’ dependence and their empowerment and that personal identification mediated the relationship between transformational leadership and followers’ dependence on the leader, whereas social identification mediated the relationship between transformational leadership and followers’ empowerment. Hence:

\[ H2. \text{ Transformational leadership would be positively related to follower’s identification with the organization.} \]

**Affect toward the organization**

Social identification will be reflected in attachment to the social unit and the desire to continue membership in that unit. According to Porter et al. (1974, p. 604), commitment is a “strong belief in and acceptance of the organization’s goals and values, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership”. Commitment consists of three distinct components – affective, normative, and continuance. “Affective commitment refers to an employee’s emotional attachment to, identification with, and involvement in the organization … Normative commitment reflects a feeling of obligation to continue employment” (Meyer and Allen, 1991, p. 67). Continuance commitment develops “as employees recognize that they have accumulated investments…that would be lost if they were to leave the organization, or as they recognize that the availability of comparable alternatives is limited” (Meyer et al., 1993, p. 539).

According to Meyer et al. (1993, p. 67), “employees with a strong affective commitment remain with the organization because they want to, those with a strong continuance commitment remain because they need to, and those with a strong normative commitment remain because they feel they ought to do so”. Finegan (2000) illustrated that the best predictor of commitment was the employee’s perception of the work environment. Luthans et al. (1987) showed that demographics, such as age, education, and tenure, had a significant impact on organizational commitment. They also found that the more a leader structured a situation, the more committed employees were to the organization. Pillai et al. (1999) found that leaders fostered organizational commitment through the fairness of procedures they employ. Jaros (1995) showed that affective commitment is the most important of the three components of organizational commitment in predicting turnover intentions. Affective commitment is associated with more positive work attitudes (Allen and Meyer, 1996) and a greater likelihood of engaging in organizational citizenship (Meyer and Allen, 1991).

Studies have found that transformational leadership enhances organizational commitment of followers (Goodwin et al., 2001; Judge and Bono, 2000). Bycio et al. (1995) studied 4,000 registered nurses and found that transformational leadership had positive relationship with affective commitment that was significantly larger than that with continuance or normative commitment. Barling et al. (1996) used a pretest-posttest
control-group design and found that training managers in transformational leadership enhanced the organizational commitment of their subordinates. Contextual factors such as the nature of the industry to which an organization belongs might also affect the effect of transformational leadership on commitment (Chanda and Krishnan, 2003).

**H3.** Transformational leadership would be positively related to follower’s attachment and affective commitment to the organization.

**Duration of leader-follower relationship**

Burns (1978, p. 244) drew a clear distinction between heroes and ideologues. He defined “heroic leadership to mean the following: belief in leaders because of their personage alone, aside from their tested capacities, experience, or stand on issues; faith in the leaders’ capacity to overcome obstacles and crises; readiness to grant to leaders the powers to handle crises; mass support for such leaders expressed directly – through votes, applause, letters, shaking hands – rather than through intermediaries or institutions”. The bond between idolized leader and follower is generally an affective and emotional one. While emotional needs in leader and follower may be deeply involved, no central purpose or collective intent other than short-run psychic dependency and gratification unites them. Idolized heroes are not “authentic leaders because no true relationship exists between them and the spectators—no relationship characterized by deeply held motives, shared goals, rational conflict, and lasting influence in the form of change” (Burns, 1978, p. 248).

According to Burns (1978), ideological leaders, in sharp contrast with the idolized hero, dedicate themselves to explicit goals that require substantial social change and to organizing and leading movements that pursue these goals. The ultimate success of ideological leaders “is tested not by peoples’ delight in a performance or personality but by actual social change measured by the ideologists’ purposes, programs, and values” (Burns, 1978, p. 249). The crucial quality of ideology is that it combines both what one believes and how one came to hold certain beliefs. Ideology could be thought of as a set of major values and modes of cognition and perception. An ideological movement united behind high moral purpose and united by conflict with opposing ideologies is a powerful causal force and change agent.

The leaders’ ultimate role in social change depends largely on their ideological leadership, including the degree to which they make their appeal as idol and hero serve their purposes and those of their followers. Truly transformational leadership ultimately requires making hero-worship serve the needs and purposes of ideology (Burns, 1978). It might be easier and might take less time to address the emotional side of followers, but transformational leadership is not complete without the enduring change in values and identities. The leadership that stops only at the hero level and does not proceed to the ideological level is pseudo-transformational (Bass and Steidlmeier, 1999). The effect of transformational leadership on followers’ cognition would be greater if the followers have a longer duration of relationship with the leader, while duration may not make any significant difference in the impact of transformational leadership on followers’ affect. I therefore add:

**H4.** The duration of leader-follower relationship would enhance the effect of transformational leadership on leader-follower terminal value system congruence and follower’s identification with the organization.
Method
Data for this study were collected from the principal and 144 teachers of a prominent high school in western India. The school has 200 teachers and 4,000 students. The current incumbent had taken over as the school principal five years before the data were collected. She was recruited from outside the school, although she had prior experience as a teacher in other schools. The principal answered the value survey to capture her value system. The teachers answered the transformational leadership questionnaire on their principal; they also answered the value survey to capture their value systems, besides answering questions on their identification with the school, and attachment and affective commitment to the school. It was made clear to the respondents that all responses will be confidential.

Demographic details of sample
Data were collected from 174 teachers. Of them, 30 had spent less than one year with the school and were therefore excluded because they would not have had enough opportunities to know the principal. Of the finally used sample of 144 teachers, 130 were females and 14 were males. Their median age was 36 years, the range being 24 to 57. The minimum number of years they had spent with the school was one, the maximum was 33, and the median was six. Their total work experience including their tenure at the current school ranged from 1.5 to 33 years, with a median of ten.

Measures
Transformational leadership. The most widely used scale to measure factors in transformational leadership is Multifactor Leadership Questionnaire (MLQ) (Tejeda et al., 2001). The Bass and Avolio (1995) short version of the MLQ was used to measure transformational leadership of the principal as perceived by each teacher. Transformational leadership is a dyadic relationship and the score would hence vary from teacher to teacher. Five factors of transformational leadership – idealized influence attributed, idealized influence behavior, inspirational motivation, intellectual stimulation, and individualized consideration – were measured through four items per factor. The respondents were asked to answer the MLQ by judging how frequently their principal displayed the behaviors described in the questionnaire, using a five-point scale (1 = Not at all; 2 = Once in a while; 3 = Sometimes; 4 = Fairly often; 5 = Frequently, if not always). There was a significant ($p < 0.01$) positive correlation between the five transformational leadership factors. The mean of the five factors was taken as the score for transformational leadership. The Cronbach alpha for the 20 items was 0.87.

Value system. I used Rokeach’s (1973) Value Survey for measuring the value system of the principal and the teachers by respectively requesting them to fill it. This is the most commonly used instrument for measuring value system (Krishnan, 2002). It has two lists of values arranged alphabetically – one consisting of 18 terminal values and the other consisting of 18 instrumental values. Each value is presented along with a brief definition in parenthesis and respondents are asked to arrange the values in each set in order of importance to and as guiding principles in their life, thereby recording their value systems.

Similarity between two profiles can be calculated by treating the two sets of observations as two vectors. The index of similarity would then be given by the cosine
of the angle between the two vectors, which is the same as the Pearson product-moment correlation between the vectors. The correlation between the rank ordering obtained from a teacher and the rank ordering of the school principal was calculated for each teacher (Meglino et al., 1989; Rokeach, 1973). The correlation coefficient was increased by one unit and the sum then divided by two to get the index of congruence between the value systems of leader and follower. This adjustment was done to get rid of the negative correlation coefficients. For each teacher respondent, I obtained two scores for the index of congruence – an index of terminal value system congruence and an index of instrumental value system congruence.

Identification, attachment, and affective commitment. The four items used by Shamir et al. (1998) were slightly modified and used to capture identification with the organization. The items used were:

1. I identify strongly with the other teachers in my school.
2. The values of most of the teachers in my school are similar to my values.
3. My school is like a family to me.
4. I feel loyal toward other teachers of my school.

The four items used by Shamir et al. (1998) were slightly modified and used to capture attachment to the organization. The items used were:

1. Sometimes I regret that I am a part of this school.
2. If I could, I would like to shift to another school in the area.
3. All in all, I am glad to belong to this school.
4. I am not particularly proud to tell other people that I belong to this school.

The first, second, and fourth items were reverse-scored. The slight modifications to the identification and attachment scales were done by replacing the words “employees” and organization” with “teachers” and “school” respectively, to reflect better the sample studied and thereby enhance validity of findings. Affective commitment was measured using the six-item scale of Meyer et al. (1993). The respondents were asked to judge how strongly they agreed or disagreed with each statement in the questionnaire, using a five-point scale (1 = Strongly disagree; 2 = Disagree; 3 = Neither disagree nor agree; 4 = Agree; 5 = Strongly agree). The Cronbach alphas for the identification, attachment, and affective commitment items were 0.55, 0.67, and 0.71 respectively.

Results
Table I presents descriptive statistics (means and standard deviations) for and correlations between all variables in the study – transformational leadership, terminal and instrumental value system congruence, identification with organization, attachment to the organization, and affective organizational commitment. It also presents reliability coefficients for the variables other than congruence. Each variable was constructed by computing the mean of the items comprising the scale. Transformational leadership was not significantly related to terminal value system congruence. Therefore, H1 was not supported. The trend was however in the expected direction, though the correlation failed to reach significance. Transformational leadership was significantly positively related to identification with organization,
It is interesting to note that management education reduces the relative importance for self-respect and increases the relative importance for being intellectual in the case of female students, while there is no change in both these value rankings in the case of male students. Male students, on the other hand, give greater importance to being ambitious, while there is no such change in the case of female students. It is also worth noting that women, as compared to men, give self-respect a higher rank while entering the MBA program, but not while leaving the program, and give being ambitious a lower rank while leaving the program but not while entering the program. Coming again to HR versus non-HR students, a world at peace goes down in importance only for HR students and being ambitious increases in importance only for non-HR students. Gender and function also appear to interact in the case of both self-respect and being ambitious. Maximum decrease in importance for self-respect is seen in the case of female non-HR students, and maximum increase in importance for being ambitious is seen in the case of male non-HR students. These findings suggest that if business schools are interested in shaping the values of students, they will have to probably deal with both the genders and the various functions separately.

**Conclusion**

Demands of the corporate world on business schools have been constantly changing and have of late become more exacting. The findings of this study provide some preliminary evidence on the changes in value system that is caused by management education. The changes do not appear to be in a direction that business organizations would want. Business schools need to look at these trends and take steps to address students' value systems in a more effective way. The objective of management education should be to take students to a higher plane by transforming their value systems and lifting them to their better selves (Burns, 1978). As further research provides greater support, identifying the key values that business schools should focus upon would become easier.

**References**


---

**Table 1**

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Transformational leadership</td>
<td>4.04</td>
<td>0.47</td>
<td>(0.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Terminal congruence</td>
<td>0.66</td>
<td>0.13</td>
<td>0.14*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Instrumental congruence</td>
<td>0.58</td>
<td>0.12</td>
<td>0.09</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Identification</td>
<td>3.57</td>
<td>0.62</td>
<td>0.39****</td>
<td>0.03</td>
<td>0.10</td>
<td>(0.55)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Attachment</td>
<td>4.25</td>
<td>0.68</td>
<td>0.27****</td>
<td>0.12</td>
<td>0.03</td>
<td>0.36****</td>
<td>(0.67)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Commitment</td>
<td>4.01</td>
<td>0.60</td>
<td>0.34****</td>
<td>0.05</td>
<td>0.04</td>
<td>0.38****</td>
<td>0.59****</td>
<td>(0.71)</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Tenure</td>
<td>7.63</td>
<td>6.47</td>
<td>-0.16*</td>
<td>-0.16*</td>
<td>-0.13</td>
<td>-0.01</td>
<td>0.08</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Age</td>
<td>37.75</td>
<td>8.18</td>
<td>-0.21**</td>
<td>-0.08</td>
<td>-0.19**</td>
<td>-0.09</td>
<td>0.05</td>
<td>-0.07</td>
<td>0.61****</td>
</tr>
</tbody>
</table>

**Notes:** *p < 0.10; **p < 0.05; ***p < 0.01; ****p < 0.001; N varies from 142 to 144. Cronbach alphas are in parentheses along the diagonal.
attachment to the organization, and affective commitment. Thus, H2 and H3 were supported.

The effect of relationship duration could be analyzed by dividing the sample into two sub-samples (high and low on relationship duration) and then comparing these. Those whose tenure in the organization was not less than that of the leader comprised the high duration sub-sample and the rest comprised the low duration sample. As mentioned earlier, the current incumbent had taken over as the school principal five years before the data were collected. Therefore, I divided the sample of 144 teachers into two sub-samples—those who have been teaching at the school for five or more years (relationship duration coded as 2; n = 89), and those who have been with the school for four years or less but more than one year (relationship duration coded as 1; n = 55). Analysis of variance did not show any significant (p < 0.05) difference across the two sub-samples in any of the variables studied. Thus, the duration of leader-follower relationship did not significantly affect any of the variables. Organizational tenure and age were, however, significantly (p < 0.001) higher in the high duration sub-sample than in the low duration sub-sample.

H4 on the moderating role of leader-follower relationship duration was tested using regression analyses. Terminal value system congruence was modeled against transformational leadership, the dichotomous relationship duration variable (coded as 1 if the leader-follower relationship was for four years or less, and 2 if it was for five years), and the product of transformational leadership and the dichotomous duration variable. The hypothesized moderating effect of relationship duration would obtain support if the product term were significant in the regression model. The entire process was then repeated for identification with organization, attachment to the organization, and affective commitment. The product term was significant (p < 0.05) in the case of terminal value system congruence and identification, but not in the case of attachment and affective commitment. The regression results are presented in Table II. Thus,

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>Parameter estimate</th>
<th>Parameter estimate</th>
<th>Parameter estimate</th>
<th>Parameter estimate</th>
<th>Model R²</th>
<th>Model F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal congruence</td>
<td>Transformational leadership</td>
<td>-0.16</td>
<td>-1.68*</td>
<td>-0.47</td>
<td>-2.19**</td>
<td>0.11</td>
<td>2.15**</td>
</tr>
<tr>
<td>Identification</td>
<td>Transformational leadership</td>
<td>-0.41</td>
<td>-0.99</td>
<td>-2.08</td>
<td>-2.22**</td>
<td>0.55</td>
<td>2.40**</td>
</tr>
<tr>
<td>Attachment</td>
<td>Transformational leadership</td>
<td>0.74</td>
<td>1.55</td>
<td>0.93</td>
<td>0.85</td>
<td>-0.17</td>
<td>-0.65</td>
</tr>
<tr>
<td>Commitment</td>
<td>Transformational leadership</td>
<td>0.27</td>
<td>0.65</td>
<td>-0.32</td>
<td>-0.34</td>
<td>0.13</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Notes: * p < 0.10; ** p < 0.05; *** p < 0.01; **** p < 0.001

Table II. Regression for testing interaction with duration