

ORGANIZATIONAL COMMITMENT OF INFORMATION TECHNOLOGY PROFESSIONALS: ROLE OF TRANSFORMATIONAL LEADERSHIP AND WORK-RELATED BELIEFS

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Abstract: *Impact of transformational leadership and five work-related beliefs (work ethic, Marxist, organizational, leisure ethic, and humanistic) on affective, continuance, and normative commitment was studied using 34 manager-subordinate pairs from information technology (IT) and 44 pairs from manufacturing organizations in India. Analyses of variance show that normative and continuance commitment, transformational leadership, and three beliefs—work ethic, Marxist, and organizational—are less in IT than in non-IT sector. Continuance and normative commitment continue to be lower even after controlling for beliefs. Transformational leadership appears to have no direct effect on commitment in non-IT and no effect at all in IT sector.*

One of the biggest challenges that Information Technology (IT) organizations have been facing over recent years is the ability to attract and retain quality human resources. Several surveys have shown high staff turnover rates in the IT industry. The highest turnover rates were reported in India (16 percent), China and Switzerland (14 percent), the U.S. and Canada (10 percent) (Pastore, 2000). Industry attrition rates are highest amongst employees having between one and five years of experience. With the fast pace of technological development in the sector, there are new technologies coming up all the time. If the current firm does not provide the wherewithal to learn these, employees job-hop to another firm that does. The mobility is more because higher numbers of jobs are available at this level of skill and experience. As a result, the Indian IT industry, especially for employees at the lower end of the software skill spectrum, faces an employee turnover rate of as high as 25 to 30 percent.

Employee turnover is affected largely by employees' organizational commitment. An

assessment of Meyer and Allen's (1991) three-component model of organizational commitment by Jaros (1995) showed that an employee's affective commitment to the organization was the most important component of organizational commitment in predicting turnover intentions. Jaros (1995) claimed that each component of commitment is significantly and negatively correlated with turnover intentions and an employee's affective commitment to the organization is the most important component of organizational commitment in predicting turnover intentions. Lee and Mowday (1987) found that organizational commitment explained a significant proportion of incremental variance in intention to leave.

In this age of accelerating attrition rates, leaders are more important than ever. An effective leader can enhance an employee's organizational commitment. Over the last two decades, considerable literature has accumulated on transformational leadership (Bass, 1998). The present organizational focus on revitalizing and transforming organizations to meet competitive

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challenges ahead has been accompanied by increasing interest among researchers in studying transformational leadership. Such leadership is necessary for optimal subordinate satisfaction, commitment, and performance. There exists a relationship between transformational leadership behaviors and various outcomes measured at the individual and organizational level. In addition to transformational leadership, work beliefs of an individual could also affect his or her organizational commitment. Studies have shown a positive relationship between work beliefs and commitment (Finegan, 2000; Oliver, 1990).

We report in this paper a comparative study that looked at individuals' organizational commitment in the IT and non-IT sectors. This study analyzed the impact that a transformational leader has on employees' commitment to the organization and hence their willingness to continue to work in the organization. In addition, it took into account the work-related beliefs typical to every individual and analyzed how these work beliefs were related to organizational commitment and transformational leadership. The impact of transformational leadership and work beliefs on the organizational commitment of employees was analyzed separately for the IT and non-IT sectors.

Theory and Hypotheses

With the increasing importance of knowledge as a corporate asset in today's dynamic environment, it is becoming imperative for organizations to be able to increase the level of commitment and attachment that employees feel toward their organization and to be able to retain the all important human asset in the organization. This is especially true for the IT sector where the attrition rates are one of the highest.

Organizational Commitment

According to Porter, Steers, Mowday, and Boulian (1974: 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." Researchers have recommended restricting the definition to the attachment resulting from, or based on, an employee's compliance (conformity driven by rewards and punishments), identification (a desire for affiliation), and internalization (individual's congruence with organization's goals and values) (Hunt & Morgan,

1994). Also important in conceptualizing organizational commitment is the advocacy of multiple commitments view. According to Reichers (1985: 469), "organizational commitment can be accurately understood as a collection of multiple commitments to various groups that comprise the organization."

Components of commitment. Until recently, commitment has typically been defined as a one-dimensional concept (Meyer, Allen, & Smith, 1993). O'Reilly, Chatman and Caldwell (1991) recognized the multidimensional nature of commitment. Meyer and Allen (1991) presented compelling evidence to suggest that commitment comprised 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 & Allen, 1991: 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: 539).

Antecedents of organizational commitment. Finegan (2000) illustrated that the best predictor of commitment was the employee's perception of the work environment. Pearson and Chong (1997) on studying 286 nursing staff of a large Malaysian hospital reported that the task content properties of identity, significance, and autonomy as well as the interpersonal task attribute of dealing with others were significant contributors of organizational commitment. Becker (1992) said that the foci of commitment (the individuals and groups to whom an employee is attached) were important determinants of commitment to an organization. Hunt and Morgan (1994) showed that global organizational commitment was a key mediating concept and several constituency-specific commitments such as commitment to top management and commitment to supervisor have important outcomes for organizations because they lead to, bring about, or result in global organizational commitment. Luthans, Baack, and Taylor (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.

Effects of organizational commitment. According to

Meyer et al. (1993: 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) claimed that with all three types of commitment, the employee is committed to the organization but for different reasons, and accordingly, each type of commitment produces different effects. Affective commitment is associated with more positive work attitudes (Allen & Meyer, 1996) and a greater likelihood of engaging in organizational citizenship (Meyer & Allen, 1991). In contrast, studies have found either no relationship between continuance commitment and performance, or a negative one (e.g., Konovsky & Cropanzano, 1991). Siders, George, and Dharwadkar (2001) found that commitment to an organization was positively related to objective job performance that is rewarded by the organization, more specifically to sales volume. Wong, Hui, and Law (1995) found that commitment predicted both satisfaction and turnover intention. Organizational commitment has a direct bearing on the employees' intention to leave the organization. Keeping in mind the high attrition rates in the IT sector, we hypothesized:

Hypothesis 1. Organizational commitment would be lower in the IT sector than in the non-IT sector.

Transformational Leadership

Burns (1978: 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 had on followers; followers felt trust, admiration, and loyalty towards the leader. Transformational leaders motivated followers to do more than the latter originally expected to do. Transformational leaders also changed the organizational culture (Bass, 1985).

Factors of transformational leadership. Transformational leadership consists of four interrelated factors—charismatic leadership, inspirational leadership, intellectual stimulation, and individualized consideration (Bass, 1998). Charismatic

leadership could be further divided into two factors—attributed charisma and idealized influence behavior. Charismatic leaders provide subordinates with more meaning for their work and arouse enthusiasm, excitement, emotional involvement, and commitment to the group's objectives. Inspirational leader behaviors include action-orientation, confidence building, and inspiring belief in the cause, which often leads followers to be committed, involved, loyal, and ready to exert extra effort. Intellectual stimulation helps employees emphasize rational considerations and challenge old assumptions. Individualized consideration implies developing employees and coaching them.

Authors have been using the terms transformational leadership and charismatic leadership as synonyms or as identical twins (Conger, 1999). According to Conger and Kanungo (1998), 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. Shamir, House, and Arthur (1993) theorized that charismatic leadership transforms followers' self-concepts and thereby motivates them. Shamir, Zakay, Breinin and Popper (1998) found that a leader's emphasis on collective identity was related to subordinate's level of identification with the leader.

According to Hater and Bass (1988), transformational leadership factors added to the prediction of work group performance (the performance of the group of subordinates directly reporting to the manager) beyond that of transactional leadership factors. Kuhnert and Lewis (1987) claimed that transformational leaders held a sense of moral obligation to the organization as an end value, which in turn was also adopted by subordinates. Pillai, Schriesheim, and Williams (1999) found that leaders foster organizational commitment through the fairness of procedures they employ.

Context and transformational leadership. While transformational leadership is potentially applicable to most organizational situations, the emergence and effectiveness of such leadership may be facilitated by some contexts and inhibited by others (Pawar & Eastman, 1997). Waldman, Ramirez, House, and Puranam (2001) found that CEO charismatic leadership enhanced performance only under conditions of perceived environmental uncertainty. Shamir and Howell (1999) argued that charismatic

leaders are more likely to emerge and be effective when the tasks of organizational members are challenging and complex and require individual and group initiative, responsibility, creativity, and intense effort; and when performance goals are ambiguous and extrinsic rewards cannot be strongly linked to performance.

In the IT sector, telecommunication technologies provide managers with easy means of monitoring and controlling their subordinates' behaviors. Thus, they may strengthen the organizational situation, and reduce the scope for the emergence of transformational leaders. Furthermore, the IT sector uses technologies which may be seen as introducing more distant and cold means of communication between leaders and potential followers, thereby hindering the identification, trust-building, and emotional processes involved in charismatic leadership (Shamir & Howell, 1999). Hence, we hypothesized:

Hypothesis 2. Transformational leadership would be lower in the IT sector than in the non-IT sector.

Transformational leadership and organizational commitment. Bycio, Hackett, and Allen (1995) studied 4000 registered nurses and found that transformational scales had positive relationships with affective commitment that were significantly larger than those involving continuance commitment or normative commitment. Moreover, inspirational aspects of transformational leadership enhanced affective commitment but not the other facets of commitment. They showed that higher levels of transformational leadership were associated with subordinates' organizational commitment, irrespective of the commitment measure used. Barling, Weber, and Kelloway (1996) used a pretest-posttest control-group design and found that training managers in transformational leadership enhanced the organizational commitment of their subordinates. We therefore hypothesized:

Hypothesis 3. Transformational leadership would be positively related to organizational commitment.

Work-Related Beliefs

Authors have used the two terms work values and work beliefs interchangeably. Work values, according to Dose (1997: 227-228), "are evaluative standards relating to work or the work environment by which individuals discern what is right or assess the importance of references." Zytowski (1970: 176)

defined work values as "a set of concepts which mediate between the person's affective orientation and classes of external objects offering similar satisfaction." Work values are goals that one seeks to attain to satisfy a need; the needs may be satisfied by more than one kind of activity or occupation. Organizational researchers use the term work values to encompass a variety of notions ranging from business ethics to work preferences. Dose (1997) proposed that work values vary along two dimensions: (a) whether the value held exhibits a moral element, and (b) the degree of social consensus regarding the importance or desirability of the particular value. Elizur (1984) used smallest space analysis to analyze work values, and argued that two basic facets were needed to describe the domain of work values: modality of outcome (the importance of various work outcomes to the individual) and system performance contingencies (the importance of performance-reward contingencies and system rewards to the individual). Work values have been investigated as preferences for the type of work or work environment individuals would like or consider important in job decisions (Dose, 1997).

Work belief systems. Buchholz (1997: 571-572) stressed on the existence of five belief systems—work ethic, organizational, Marxist, humanistic, and leisure ethic. First, work ethic is considering work as being good in itself and as bestowing dignity upon a person. Second, organizational belief system is where "work takes on meaning only as it affects the group or organization for which one works and as it contributes to one's status and rise in the organizational hierarchy." Third, Marxist-related beliefs implied that "productive activity or work is basic to human fulfillment." Fourth, humanistic belief is that work should be taken seriously as the way in which individuals discover themselves and fulfill themselves as human beings. Lastly, leisure ethic is considering work to have no meaning in itself and claiming that meaning could only be found in leisure.

Antecedents of work beliefs. Niles (1999) conducted a study to examine the structure and relative importance of work-related beliefs in contrasting cultural and religious settings. The results showed that most religions and most cultures had a common concept of a work ethic when it was defined as a commitment to hard work and to excellence. Hard work was seen as an end in itself and even as morally right. However, what did not appear to be universal seemed to be a belief that there was a direct relationship between hard work and success.

According to Shome, Ratan, and Bhardwaj (1997), the strength of the organizational belief system also depended on the individual's understanding of the organizational ethos.

Effects of work beliefs. Pryor and Davies (1989) claimed that there existed a moderate relationship between work beliefs and general work preferences. In addition, Shome et al. (1997) found that people with a stronger work ethic were more willing to compromise and hence this denoted a positive and healthy environment in the organization. Studying 90 managers from a public sector undertaking, they found that middle level managers showed a stronger organizational belief system as compared to junior managers. Saks, Mudrack, and Ashforth (1996) found that work ethic was indirectly related to intentions to quit and turnover in the case of temporary service employees.

Organizational commitment and work beliefs. Oliver (1990) conducted a study in an employee-owned firm in the United Kingdom, and found that both organizational rewards and work values showed significant relationships to commitment. The study revealed a direct impact of work values on the level of commitment. Participatory and instrumental values made the most impact on the commitment index. According to Finegan (2000), affective, normative, and continuance commitment were each predicted by different clusters of values. It was found that the greater the similarity between personal values and organizational values, the greater the affective commitment. Individuals who valued adherence to convention were more likely to score high on normative commitment. Given that normative commitment describes the feelings of obligation a person has to remain with an organization, it is perhaps not surprising that people who value obedience, cautiousness, and formality are more likely to be normatively committed. Shome et al. (1997), while examining the relation between conflict resolution style and belief about work, found that people with a stronger work ethic had a stronger commitment to their organizational goals. Saks et al. (1996) showed that work ethic was directly related to organizational commitment. Hence, we had:

Hypothesis 4. The intensity of work ethic would be positively related to organizational commitment.

Transformational leadership and work beliefs. Burns (1978) said that the first task of leadership was to bring consciousness to the followers' sense of their own

needs and values. He said that a transformational leader has the capacity to transcend the claims of the multiplicity of everyday wants and needs and expectations, to respond to the higher levels of moral development, and to relate leadership behavior to a set of reasoned, relatively explicit, conscious values. A transforming leader appeals to the higher more general values that express follower's more fundamental and enduring needs. Shamir et al. (1993) argued that charismatic leadership would make followers see work as intrinsically valuable, since work provides an opportunity for them to express themselves. It is by first affecting work ethic that transformational leadership would enhance commitment indirectly. Hence, we hypothesized:

Hypothesis 5. Transformational leadership would be positively related to the work ethic of follower.

Hypothesis 6. The relationship between transformational leadership and organizational commitment would cease to exist after controlling for work beliefs.

Method

Questionnaires were distributed to employees of two organizations in the IT sector and one organization in the manufacturing sector. One of the organizations in the IT sector specializes in delivering high-quality, cost-effective solutions for businesses with intensive information processing needs and employs over 3,900 IT professionals at ten development centers in India and multiple customer locations in the U.S. and Europe. The second IT sector organization is the software division of one of the leading iron and steel companies of India. The organization surveyed in the manufacturing sector is located in a major industrial town in Eastern India. The organization is a 50:50 joint venture between an automobile manufacturer, and a U.S.-based company that manufactures fuel-efficient, low emission, environment-friendly diesel engines. It has over 900 employees consisting of around 125 managers and over 750 associates.

To minimize the risk of relationship inflation due to common source biases, data about leader behavior was obtained from a different source than that for data about subordinates' beliefs and attitudes. Hence, a leader-follower dyad was used where the superior completed the questionnaire on transformational leadership and his or her immediate subordinate completed the questionnaires on work beliefs and organizational commitment. The respondents from the

IT sector were project leaders and their immediate subordinates. In the manufacturing sector, managers and their immediate subordinates, the associates, were chosen as respondents. Respondents were not asked to give any form of identification. It was made clear to the respondents that all responses will be anonymous. The questionnaires measured transformational leadership of the leaders, work beliefs of the followers and the followers' commitment to the organization.

Demographic Details of Sample

The final sample for the study comprised 78 pairs of leaders and followers—34 from the IT sector, and 44 from the manufacturing sector. The median age of the respondents in the superior category was 31 years and they had on an average 11 years of work experience. On the other hand, the median age of the subordinates was 26 years and their tenure in the organization was 3 years on an average. More than 50% of the superiors were graduates. Out of the 55 subordinates who provided data related to academic qualifications, 36 were graduates and 12 had completed their post graduation and the remaining had professional diplomas. Most of the subordinates had been working under the same superior for two years.

Measures

Organizational commitment. Affective, normative, and continuance commitment were measured using Meyer, Allen, and Smith's (1993) 18-item commitment scale. This scale has been widely used in the field and has median reliabilities (assessed using coefficient alphas) across many studies of .85 for affective commitment, .73 for normative commitment, and .79 for continuance commitment (Allen & Meyer, 1996). A detailed discussion of the construct validity of this scale is found in Allen and Meyer (1996).

Work beliefs. The belief system questionnaire as developed by Buchholz (1977) was used to measure the intensity of five types of work-related beliefs held by the follower. The five types of work beliefs are work ethic, organizational belief system, Marxist-related beliefs, humanistic belief system, and the leisure ethic. The respondents were asked to judge how strongly they agreed or disagreed with each statement in the questionnaire, using a seven-point scale (1=Strongly disagree; 2=Disagree; 3= Somewhat disagree; 4=Neither disagree nor agree; 5= Somewhat agree; 6=Agree; 7=Strongly agree). The leisure ethic scale was

not found to be reliable and hence an item ("the trend towards more leisure is not a good thing") was deleted, which led to an increase in reliability and a resultant alpha of 0.51.

Transformational leadership. The most widely used scale to measure factors in transformational leadership is Multifactor Leadership Questionnaire (MLQ). The Bass and Avolio (1991) version of the MLQ was used to measure transformational leadership of the supervisor. Five factors of transformational leadership—attributed charisma, idealized influence behavior, inspirational leadership, intellectual stimulation, and individualized consideration were measured. Respondents were asked to answer the MLQ by judging how frequently they displayed the behaviors described in the questionnaire, using a five-point scale (0=Not at all; 1=Once in a while; 2=Sometimes; 3=Fairly often; 4=Frequently, if not always). There was a significant positive correlation between the five transformational leadership factors, the correlation being not less than 0.70 ($p < 0.001$). The mean of the five factors was taken as the score for transformational leadership.

Results

Table 1 presents descriptive statistics (means and standard deviations) for and correlations between all variables in the study—three types of organizational commitment, five types of work beliefs, and transformational leadership. It also presents reliability coefficients for all the variables. Each variable was constructed by computing the mean of the items comprising the scale. The table also presents the correlations between transformational leadership and the three dimensions of commitment after controlling for all the five work beliefs.

Analysis of variance was done to test if means of the variables are different across IT and non-IT sectors. The results are given in table 2. Normative and continuance commitment were significantly less in the IT sector as compared to the non-IT sector. There was no significant difference in affective commitment across the two sectors. Hence, our hypothesis 1 was partly supported. The mean of transformational leadership in the IT sector was 4.05 as compared to the non-IT sector where it was 4.39 ($F=10.65$, $p < .01$, from table 2). Hypothesis 2 which said that transformational leadership would be lower in the IT sector as compared to the non-IT sector was hence supported.

Table 1
Descriptive Statistics and Correlations ^a

| Variable | Mean | s.d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|------|------|---------|--------|--------|--------|--------|--------|-------|--------|-------|
| 1. Affective commitment | 4.80 | .92 | (.54) | | | | | | | | |
| 2. Continuance commitment | 4.59 | 1.29 | -.07 | (.82) | | | | | | | |
| 3. Normative commitment | 4.99 | .84 | ***.42 | ***.56 | (.56) | | | | | | |
| 4. Work ethic | 5.57 | .92 | *-.24 | ***.54 | ***.43 | (.61) | | | | | |
| 5. Marxist-related beliefs | 4.55 | .82 | ***-.44 | ***.71 | **.33 | ***.58 | (.67) | | | | |
| 6. Organizational belief system | 5.85 | .63 | .15 | ***.52 | ***.61 | ***.42 | ***.39 | (.66) | | | |
| 7. Leisure ethic | 4.10 | 1.09 | ***-.37 | **.34 | .12 | **.35 | ***.52 | *.28 | (.51) | | |
| 8. Humanistic belief system | 6.05 | .54 | -.05 | .14 | .09 | **.31 | .18 | ***.51 | *.28 | (.79) | |
| 9. Transformational leadership | 4.24 | .48 | †-.21 | ***.42 | **.32 | ***.43 | ***.44 | **.29 | **.32 | ***.37 | (.96) |
| 10. Transformational leadership after controlling for work beliefs | - | - | -.01 | .18 | .24 | - | - | - | - | - | - |

^a n=78. Alphas are in parentheses along the diagonal. † p < .10. * p < .05. ** p < .01. *** p < .001.

Table 2
Analysis of Variance across IT and Non-IT Sectors

| Variable | IT Sector (N = 34) | | Non-IT Sector (N = 44) | | F |
|------------------------------|--------------------|------|------------------------|------|----------|
| | Mean | s.d. | Mean | s.d. | |
| Affective commitment | 4.84 | 1.11 | 4.76 | .76 | .16 |
| Continuance commitment | 3.74 | 1.19 | 5.25 | .94 | ***39.51 |
| Normative commitment | 4.62 | .95 | 5.28 | .62 | ***13.88 |
| Work ethic | 5.00 | .84 | 6.01 | .72 | ***32.44 |
| Marxist-related beliefs | 4.00 | .63 | 4.97 | .71 | ***40.20 |
| Organizational belief system | 5.50 | .63 | 6.12 | .50 | ***24.29 |
| Leisure ethic | 3.75 | .92 | 4.36 | 1.15 | †6.46 |
| Humanistic belief system | 5.97 | .55 | 6.12 | .53 | 1.40 |
| Transformational leadership | 4.05 | .43 | 4.39 | .47 | **10.65 |

† p < .10. * p < .05. ** p < .01. *** p < .001.

We did an analysis of covariance to see if continuance commitment and normative commitment varied across the IT and non-IT sectors after controlling for transformational leadership and the five types of beliefs, taking one at a time. Analysis of covariance assumes that the slope of the covariate by independent variable is the same for all levels of the independent variable (Scheffe, 1959). We tested for heterogeneity of slopes by modeling continuance commitment and normative commitment separately against each of the six covariates (transformational leadership and the five beliefs), sector, and the product of sector and covariate.

Except in the cases of continuance commitment modeled against leisure ethic, continuance commitment modeled against transformational leadership, and normative commitment modeled against work ethic, there was no significant difference in the covariate by sector relationship as a function of sector. We therefore did the analysis of covariance excluding those three cases. Least squares means of continuance commitment were significantly lower for IT professionals than for non-IT employees, after controlling for work ethic, Marxist-related beliefs, organizational belief system, and humanistic belief

system one at a time. Similarly, normative commitment was significantly lower for IT professionals than for non-IT employees, after controlling for Marxist-related beliefs, leisure ethic, humanistic belief, and transformational leadership one at a time.

Transformational leadership was significantly positively related to continuance commitment and to normative commitment (from table 1). However, it did not show a significant relationship with affective commitment. Separate correlations by sector were calculated and the results are reported in table 3. Transformational leadership did not show any significant relationship with organizational commitment in the IT sector. In the non-IT sector, transformational leadership was related negatively to affective commitment and positively to continuance commitment and normative commitment. Therefore, hypothesis 3 was supported only in the case of normative and continuance commitment, and only in non-IT sector.

and only in non-IT sector. Though not hypothesized, some correlations were also seen between the other work beliefs and commitment. In the IT sector, affective commitment was related negatively to Marxist belief and positively to organizational belief. Continuance commitment was positively related to Marxist belief and organizational belief. Normative commitment was positively related to organizational belief. In the non-IT sector, affective commitment was negatively related to Marxist belief and leisure ethic. Continuance commitment was positively related to work ethic, Marxist belief, and leisure ethic. Normative commitment was positively related to work ethic, Marxist belief, and organizational belief.

There was a significant positive correlation between transformational leadership and all the five work beliefs for both sectors together (from table 1). Looking at each sector separately, transformational leadership did not show any significant relationship with any of the work beliefs in IT sector (from table 3).

Table 3
Correlations in the IT and Non-IT sectors

| (N=78) | Affective commitment | | Continuance commitment | | Normative commitment | | Transformational leadership | |
|--|----------------------|---------|------------------------|--------|----------------------|--------|-----------------------------|--------|
| | IT | Non-IT | IT | Non-IT | IT | Non-IT | IT | Non-IT |
| Work ethic | †-.32 | -.20 | .14 | ***.54 | .03 | ***.62 | -.02 | ***.57 |
| Marxist related beliefs | *-.42 | ***-.64 | *.38 | ***.73 | -.10 | *.38 | .06 | **46 |
| Organizational belief system | **44 | .12 | *.36 | †.29 | **51 | ***.53 | -.12 | **39 |
| Leisure ethic | -.22 | ***-.53 | -.14 | ***.52 | -.19 | .21 | -.17 | ***.48 |
| Humanistic belief system | .06 | -.17 | -.07 | .22 | -.02 | .11 | .19 | **46 |
| Transformational leadership | -.09 | *-.34 | -.01 | ***.56 | .07 | **38 | | |
| Transformational leadership after controlling for work beliefs | -.01 | -.13 | .07 | †.31 | .29 | .10 | | |

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Work ethic was significantly negatively related to affective commitment and significantly positively related to normative and continuance commitment for both sectors together (from table 1). Looking at each sector separately, work ethic did not show any significant relationship with organizational commitment in the IT sector (from table 3). In the non-IT sector, work ethic was significantly positively related to continuance and normative commitment, but not to affective commitment. Therefore, like hypothesis 3, hypothesis 4 was also supported only in the case of normative and continuance commitment,

In the non-IT sector, transformational leadership was significantly positively related to all the five work beliefs. This showed that hypothesis 5, which related transformational leadership and work ethic, was supported only in the non-IT sector.

For testing our hypothesis 6, we controlled for the five work beliefs and looked at the relationship between transformational leadership and organizational commitment. The results of the partial correlation are also included in table 1 (for both sectors together) and table 3 (for each sector separately).

Analyzing sector-wise, it was found that in the non-IT sector, the zero order correlations between transformational leadership and commitments that were significant ceased to be significant after controlling for all the five work beliefs. In the IT sector, the relationship between transformational leadership and organizational commitment remained non-significant before and after controlling for work beliefs. Hence, hypothesis 6 was supported in the case of only the non-IT sector.

We used regression analysis with forward option with the three types of organizational commitment as the dependent variables, and the five work beliefs and transformational leadership as the independent variables. This was done separately for the two sectors. Regression analysis with the forward-selection technique (Judge, Griffiths, Hill, Lutkepohl, & Lee, 1985) begins with no variables in the model. For each independent variable, it calculates F statistics that reflect the variable's contribution to the model if it is included. The variable that would produce the largest F statistic is added to the model. The evaluation process is repeated with the variables remaining outside the model. Once a variable is entered into the model, it stays. Thus, variables are added one by one to the model until no remaining variable produces a significant F statistic.

The regression analysis with forward option revealed that in the IT sector, increasing the intensity of organizational belief system would best predict affective commitment. Affective commitment would be further enhanced if Marxist-related beliefs were decreased. Continuance commitment on the other hand would be best predicted by Marxist related beliefs and could be further increased by increasing organizational belief system. For normative commitment, organizational belief system was the best predictor. In the non-IT sector, affective commitment could be increased by reducing Marxist-related beliefs. Increasing Marxist-related beliefs as well as transformational leadership would result in increased continuance commitment. For increasing normative commitment, one would have to enhance work ethic. Increasing organizational belief system and reducing humanistic belief system would also enhance normative commitment in the non-IT sector.

Discussion

The results of this study reveal that employees' commitment to the organization varies across sectors.

Employees in the manufacturing sector, which was used to represent the non-IT sector, exhibit a higher organizational commitment as compared to employees in the IT sector. Another interesting finding is that transformational leadership also varies sector-wise. A transformational leader appears to have an insignificant role to play in the present IT scenario. In addition, the results demonstrate that, in both the sectors, organizational commitment is best explained by the work beliefs. Hence, by targeting work beliefs one can change the organizational commitment of the employees. Transformational leadership does not directly enhance organizational commitment in either of the two sectors and can do so only by suitably modifying the work beliefs. The relationship between organizational commitment and work beliefs is therefore, of paramount importance.

This study has direct implications for today's industrial world. Turnover rates are skyrocketing, and employees are moving from one organization to another in rapid succession taking with them the entire organizational learning. To curtail this huge loss of human capital, it is necessary for an organization to know which work beliefs to tap to increase employees' attachment to the organization and the motivation to work for the organization. The human resource management professionals have a daunting task ahead of them.

In the IT sector, the organizational belief system plays a significant role in predicting an employee's organizational commitment. Enhancing the organizational belief system can increase affective commitment. Employees feel more emotionally attached to and involved in the organization if steps are taken to ensure that they perceive that their work affects the organization. Increasing their sense of ownership and empowering them can therefore help in this case. In addition, they should feel that if their work serves the group's interest it will result in their own success. Hence, a reward system with a transparent performance-reward relationship should be put in place, such that the employee's work would contribute to their status in the organization and rise in the organizational hierarchy. Moreover, to increase the feeling that working in a group is best, organizations can make use of symbols. In addition, a sense of identification with the organization can be cultivated if employees are given stock options. These measures will increase the intensity of affective commitment that employees feel towards the

organization. Affective commitment can also be impacted positively by modifying Marxist-related beliefs such that employees feel that they are being able to fulfill themselves as creative and social individuals and are not being exploited.

Increasing Marxist-related beliefs can enhance continuance commitment. Employees need to be made to feel that they would have a lot to lose if they leave the organization. Moreover they should feel that all their past investment and time would be wasted if they left the organization. Charting out an attractive career path for them can do this. The amount of control that they exert in decision-making should be increased and more participative management should be put in place. Employees should have a greater say in designing their career paths. Organizing work in groups and teams can further enhance organizational belief system, which will increase continuance commitment.

Normative commitment reflects a feeling of obligation to continue employment on the part of the employee. Increasing the intensity of organizational belief system can help in developing normative commitment. Organizational belief system implies that the employees' believe that their success in the organization depends on the degree to which they conform to the norms of the organization. Therefore, they attempt to assimilate the critical norms and values of the organization and are more committed to it. A sense of obligation towards the employer can be instituted by putting in place group norms that emphasize that the employee owes a great deal to the organization and leaving the organization is not a right thing to do. The organization could establish a culture whereby employees would experience a deep sense of guilt at the prospect of leaving the organization. Moreover, mechanisms to alienate people who are not committed and do not exert effort in the organization can be put in place. Strong group norms and a culture which compels employees to exert maximum effort and to feel that it is wrong to desert the organization and its people is a means of impacting organizational belief system such that it increases normative commitment.

A transformational leader goes beyond the transactional needs and responds to the moral development of the follower and as such appeals to and also effectively influences the more general values of the follower. However, in the present scenario, transformational leadership does not seem to play an important role in influencing work beliefs or

organizational commitment of followers in the IT sector. This could be because in the IT sector, the channels of communication are impersonal and there is not much interaction between the leader and the follower. Communication channels such as emails abound which do not help a leader much in inspiring the followers. On the other hand, they hinder the identification, trust building, and emotional processes involved in charismatic leadership. The lack of personal interaction might have the same effects as being geographically distant. Howell and Hall-Merenda (1999) found that transformational leadership produced higher follower performance in close versus distant situations.

The role of a transformational leader if developed in the IT sector such that the leader enhances the employees' work beliefs, would increase organizational commitment. Kirkpatrick and Locke (1996) conducted experiments that showed that a leader's vision was most strongly related to attitudes and these attitudes played an important role, inducing outcomes such as organizational commitment. One can increase effectiveness of transformational leadership in the IT sector by increasing leader-follower interaction. This can be done by means of mentorship programs. Gatherings of project teams with their leaders could also be organized, which the leaders can use to generate enthusiasm and involvement with the organization or the project teams' cause. In addition, study circles can be arranged. This carries much value in a sector like IT that depends on constant updating of skills and wherein it is necessary for the employees to keep abreast with the current happenings. Therefore, these study circles can be forums used by leaders to encourage employees to challenge old assumptions and drive them to learn more and hence intellectually stimulate them.

The absence of relationships between humanistic beliefs and commitment in the IT sector perhaps suggests that the importance of humanistic beliefs might be more evident at higher levels in the organization. The followers in the sample surveyed for the purpose of this study consisted primarily of employees at levels lower than that of the executive cadre and as such, humanistic beliefs may not be of much importance to them. For those not belonging to senior levels, fulfillment of lower needs and wants is possibly of greater significance as compared to being given the opportunity to discover and fulfill themselves as human beings.

Limitations and Suggestions for Future Research

There exist limitations stemming from the size as well as the nature of the sample. Since the sample of respondents is relatively small, this study needs to be replicated across a larger database of respondents to confirm the findings. A study that includes firms across different sectors like service or banking instead of being limited to only the IT and manufacturing sectors could shed more light on the variance in work beliefs and transformational leadership as a consequence of the nature of the industry. In addition, transformational leadership that can be observed at a given point of time should set in motion effects for some time in the future. In this case however, being a cross-sectional study, both transformational leadership and commitment were measured at the same time. A longitudinal study wherein commitment is measured subsequent to measuring transformational leadership could throw more light. Future research could also study the effect of specific organizational variables such as structure, environmental characteristics of that particular industry, etc., and quantify how much variance amongst the work beliefs and the effects of transformational leadership in the different sectors is caused as a result of differences in each of these organizational variables. Moreover, the belief systems used in this study might have undergone some modifications with other belief systems such as educational belief system, where work is seen as providing a continuous learning experience, coming into the picture. Hence, an attempt could be made to develop a theoretical framework incorporating any changes in belief systems concerning work.

Conclusion

Despite some limitations, this study makes some important contributions and has significant organizational implications. In summary, this study provides the link between commitment to an organization and work beliefs and the role of a transformational leader in changing work beliefs as well as enhancing organizational commitment. It brings out the fact that work beliefs are the immediate antecedents of organizational commitment. More importantly, this study brings out the differences in work beliefs, organizational commitment, and transformational leadership across IT and non-IT sectors. Results of the current investigation point to the importance of realizing the differences resulting from the nature of the organization so that these can be taken into account while formulating policies

related to human resource management. It also demonstrates that the role of a transformational leader in the IT industries should be made more effective to modify work beliefs such that they enhance organizational commitment. Hence, it highlights the untapped potential of transformational leadership in the IT sector and its importance in enhancing organizational commitment and eventually reducing employee turnover.

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