This study explores pay satisfaction-related issues of software professionals in India, specifically assessing the impact of different dimensions of pay satisfaction on intent to leave. Since satisfaction with pay is an emotional/affective reaction and is likely to be influenced by personal and environmental factors, the study explores some social psychological processes like leader-member exchange, justice, and voice that are likely to impact pay satisfaction of these professionals. Using a sample of 306 software professionals drawn from various organizations, the study tests the various hypotheses.

Three broad trends emerge from the data:

- First, process dimensions of pay satisfaction are better predictors of the professionals’ intention to leave the organization.
- Second, distributive justice predicts both the amount and process dimensions of pay satisfaction whereas procedural justice predicts only the process dimensions.
- Finally, the hypothesis that LMX leads to voice which leads to procedural justice which in turn leads to satisfaction with the process dimensions of pay satisfaction found support from the data and the strength of relationships was stronger for structure and administration dimension as compared to raises dimension of pay satisfaction.

The findings suggest that though pay levels are important, the HR Department needs to make additional efforts towards the processes through which pay and raises are determined as these processes might provide the crucial advantage for retaining software professionals in an environment where salary levels are competitive. Additionally, since both the pay-related processes and procedural justice are important, these processes need to be both effective and fair. Though fairness in appraisal and pay-related processes can be built through various HR systems like participation (voice), the results show that these processes will be effective only if they are implemented well by the immediate leader. The results have implications for leadership development and training on appraisal and pay-related processes. Unless the leaders are trained appropriately and made aware of the social psychological processes that go on in a team, the design of systems by the HR Department may not be effective.

Since distributive justice is an important predictor of pay satisfaction, comparison with relevant others plays an important role in pay satisfaction. The HR Departments in these organizations need to identify pay levels that compete in the market. Indians are shown to have a familial identity and value the opinions of their kith and kin; hence, acknowledging and incorporating the inputs of social comparison person (family and friend) might provide more useful insights into how these professionals perceive distributive justice.
The growth and sustenance of IT industry in India rests largely on the IT knowledge pool, so much so that it is considered to be the chief driver of the industry for the year 2004-2005 (NASSCOM, 2005). The professionals employed in the sector grew by 150,000 during the last year. The growth in the IT industry in India is putting demands not only on hiring IT professionals but also on retaining them, as the turnover in the industry is very high, ranging between 20 and 40 per cent in some organizations (Atlas, 2005). The HR managers in these firms face a difficult challenge and respond to it by designing innovative rewards (financial as well as non-financial) and compensation systems. Pay and compensation are considered essential for competing in the labour market (Agarwal and Ferratt, 2001); consequently, companies are increasingly using pay as a tool for attracting talent in India (Rekhi, 1994). Pay also happens to be an important reason for employee turnover (Hom and Griffeth, 1995); therefore, IT companies in India spend a substantial amount of their budget on pay. NASSCOM (2003) reports that the median pay for all the levels (level 1 to level 7) of IT professionals (in an IT firm) is quite high. In the 1990s, the wages of the software professionals, in India, were at a premium compared to the other industries (Athreya, 2002). Thus, besides being an important motivator, pay also constitutes a substantial cost to the company. The main focus of this study is on understanding pay satisfaction-related issues of IT professionals in India.

The study makes many significant contributions. First, to the best of our knowledge, this is the first study that assesses pay satisfaction, along with its correlates, for software professionals in India. Secondly, it assesses the impact of different dimensions of pay satisfaction on intent to leave, as researchers have shown the intention to leave to be a good predictor of turnover (Cotton and Tuttle, 1986; Gerhart, 1990). Third, since satisfaction with pay is an emotional/affective reaction and is likely to be influenced by personal and environmental factors, the paper explores some social-psychological processes that are likely to impact pay satisfaction of these professionals. In issues involving distribution and exchange of rewards, justice perceptions become important. Viewing pay satisfaction as consisting of amount and process dimensions, provides a scope for assessing the differential impact of distributive and procedural justice on these dimensions, which is assessed in the paper. Finally, based on the project team nature of IT organizations, the role of unique leader-member relations in a work group is highlighted. The study explores how the quality of leader-member exchange of each subordinate leads to different levels of voice (participation), which impacts the procedural justice perceptions, in turn resulting in satisfaction with process dimensions of pay.

MULTI-DIMENSIONAL NATURE OF PAY SATISFACTION

Pay satisfaction, an important predictor of turnover and intent to leave (Hom and Griffeth, 1995), is an emotional/affective response to pay. It can be understood as an outcome of the gap between what is desired and what a person gets (Lawler, 1971). Most of the studies, prior to Heneman and Schwab (1985), treated pay satisfaction as a one-dimensional construct where general satisfaction with pay was assessed as this gap (e.g., Weiss, et al., 1967; Smith, Kendall and Hulin, 1969). In the Indian context too, Bordia and Blau (1998) used it as an indicator of pay level satisfaction in public and private sector organizations. NASSCOM (2003) reports that IT firms in India focus not only on actual pay and benefits but also on the processes by which these are determined. These processes are considered important components of pay satisfaction. Hence, assessing pay satisfaction through a one-dimensional measure is not likely to provide a complete picture of satisfaction with pay.

Heneman and Schwab (1979) identified four independent dimensions of pay satisfaction: levels, benefits, raises, and structure and administration which were used subsequently to develop a psychometrically sound scale that measured these four dimensions of pay satisfaction (Heneman and Schwab, 1985). Pay level refers to the current compensation package that the individual gets. Benefits consist of indirect pay. Raises refer to the changes in the pay levels of the individual in terms of increments/increases. Finally, structure refers to the pay structure within the organization and the relative worth of different jobs and their compensation packages, pay policies, and other structural issues. Dyer and Theriault (1976), based on the work of Goodman (1974), proposed that pay satisfaction may be viewed as the combined effect of perceived equity and perceived adequacy of the pay system administration. Some other researchers (e.g., Miceli and Lane, 1991; Williams, Malos and Palmer, 2002) too have suggested and used level and system dichotomy to understand pay satisfaction and have provided support for the role of pay system adminis-
tration in pay satisfaction (Folger and Konovsky, 1989; Heneman, Greenberger and Strasser, 1988; Miceli, et al., 1991; Weiner, 1980). Das and Akhilesh (1993, 1997) have used this distinction in their study of pay satisfaction of R&D professionals working in manufacturing firms in India. This conceptual dichotomy may be applied to Heneman and Schwab’s (1985) conceptualization as well. In their conceptualization, pay level assesses satisfaction with take-home pay, size of the current salary, take-home salary, and overall level of pay. It therefore focuses only on the amount of outcome and can be treated purely as an outcome dimension of pay. Similarly, benefits dimension of pay satisfaction too assesses the number of benefits, their value, and amount that the organization spends towards benefits and hence, this too represents outcome. Raises dimension of pay satisfaction looks at not only the amount of raises but also the processes involved in performance evaluation, and in linking pay with performance through which raises are determined. This dimension can thus be seen as representing both outcomes as well as processes. Structure and administration predominantly looks at the structure and process of determining pay as mentioned above and can be taken as representing the process dimension. Since pay satisfaction is an important predictor of the intent to leave (DeConinck and Stilwell, 2004), our first objective is as follows:

Objective 1: To assess the impact of different dimensions of pay satisfaction on the software professionals’ intent to leave.

Previous research (Budhwar, 1999; Budhwar and Deborah, 2001; Budhwar and Sparrow, 1997) has identified national, contingent, organizational strategies, and HR policies as four sets of variables that impact HR practices. These level factors do significantly impact the design of HR policies. However, their implementation intra-organizationally depends on social and psychological processes that occur at the group level where leader (line manager) plays a significant role, sometimes formally, but more frequently informally.

Next, we look at the psychological processes through which satisfaction with different dimensions of pay occurs. As mentioned earlier, in situations where benefits are exchanged or distributed, issues of justice become salient. Understanding pay satisfaction through justice provides an insight into the perceptual processes that lead to pay satisfaction.

Justice and Pay Satisfaction

Justice research, both in the legal/political (Thibaut and Walker, 1975) as well as in the organizational context, has shown that distributive and procedural justice perceptions have differential impact on evaluation of the outcomes and of the people and processes responsible for the outcomes. Distributive justice is concerned with the perceived fairness of the outcomes, and their quality and quantity (Folger and Cropanzano, 1998). Distributive justice perceptions of pay are understood in terms of equity theory (Adams, 1965), which explains perceptions of justice on the basis of social comparison process where the individual compares his/her rewards (in this case, pay) with others and if the rewards are seen as equitable, they lead to satisfaction, otherwise to dissatisfaction. Based on the concept of ‘referent’ (comparison other), researchers have presented categories of comparison standards (Goodman, 1974; Lawler, 1986), which could be from within the organization, outside the organization or the individual’s self-expectations. These comparison persons provide the benchmarks against whom one’s own pay is assessed. Distributive justice explains how individuals react to the amount of compensation they get. Most of the previous research linking pay satisfaction with distributive justice has treated pay satisfaction as the amount (outcome) that people get and have found support for a strong relationship (McFarlin and Sweeney, 1992; Folger and Konovsky, 1989) between pay satisfaction and distributive justice. Procedural justice focuses on the perceived fairness of the processes that are used for making decisions about the outcomes (Alexander and Ruderman, 1987; Cropanzano and Schminke, 2001) and may be considered as important as the outcomes themselves (Folger and Cropanzano, 1998). The two concepts of justice are shown to be independent where individuals perceive them as different (Thibaut and Walker, 1975; Sheppard and Lewicki, 1987); and they lead to different consequences (Alexander and Ruderman, 1987; Lind and Tyler, 1988; Folger and Konovsky, 1989; Moorman, 1991; Scarpello and Jones, 1996; Tremblay, Sire and Pelchat, 1998). According to Scarpello and Jones (1996), procedural justice (fair compensation procedures) might be a mechanism for aligning the interest of the agents with that of the principal, under the agency theory framework. Past research, linking justice with pay satisfaction has shown that though distributive justice is more directly related to specific
outcomes like pay satisfaction, procedural justice better predicts organizational outcomes like commitment and citizenship behaviour (Folger and Konovsky, 1989; Greenberg, 1990; Sweeney and McFarlin, 1993). Tremblay and Roussel (2001) hypothesized a significant impact of procedural justice on pay satisfaction but their results too did not support this hypothesis and showed distributive justice to be a predictor of pay satisfaction. However, Tremblay, Sire and Balkin (2000) showed a positive impact of procedural justice on benefits, but no impact on pay satisfaction. This is probably because pay satisfaction in these studies has been conceptualized in terms of outcomes only. Conceptualizing pay satisfaction as multi-dimensional and consisting of process components as well, provides an opportunity for linking it directly with procedural justice. Procedural justice, in the context of pay satisfaction, assesses the individuals’ reactions to the processes through which compensation is determined. Distributive justice focuses on the ends and procedural justice on the means (Sweeney and McFarlin, 1993). Hence, our first two hypotheses are as follows:

H1: Distributive justice will predict satisfaction with outcome (amount)-related dimensions of pay, i.e., levels, benefits, and raises.

H2: Procedural justice will predict satisfaction with the process-related dimensions of pay, i.e., raises and structure and administration.

Distributive and procedural justice perceptions are direct indicators of pay satisfaction, which result from some social psychological processes that go on in the work group. These feelings of justice or injustice are influenced by the individual’s “relationships with others, the benefits they give and receive in those relationships, and the manner in which those exchanges take place” (Molm, Peterson and Takahashi, 2003). Different organizational forms lead to the possibility of unique interactions and social processes and may influence these relationships in a unique way. Exploring these relationships, provides insight into the formation of justice perceptions.

Leader-Member Exchange in IT Organizations

Folger and Konovsky (1989) found that the interaction with the supervisor, prior and subsequent to raise determination, was related to satisfaction with the level of raises received. The role of the immediate leader in justice perceptions and pay satisfaction has been highlighted in other researches too (e.g., Alexander and Ruderman, 1987). Let us examine the nature of IT organizations and the kind of leader-member relationships that need to be explored.

IT/ software organizations are project-based, which implies two things. First, the roles and responsibilities of the professionals are not fixed by the organization; instead, they get defined each time a member joins a team. The fact that the roles get defined each time a new project starts increases the scope for negotiability on the roles. Second, since the team leader is responsible for the overall completion of the project, the leader becomes the most important role set for determining the roles and responsibilities for every member of the group. Graen (1976) and his colleagues (e.g., Graen and Scandura, 1987) have contended that negotiability on the roles leads to the formation of a unique relationship between a leader and a member. This unique relationship develops as the subordinate negotiates his/her role under a leader, such that some members collaborate closely with the leader on unstructured tasks and others maintain a contractual relationship. This leads to a differentiated work group where different subordinates have different quality of relationship with the leader. Negotiability on the roles and the importance of the leader in determining roles and responsibilities in IT organizations makes these groups more amenable to differentiation. How the group gets differentiated may be understood using the LMX/VDL framework of leadership. The LMX or VDL theory of leadership (Dansereau, Graen and Haga, 1975) proposes that the nature of exchanges and the quality of interaction of a leader vary across different subordinates in the work group. Two extreme interactions have been variously labelled as trusted assistants and hired hands (Dansereau, Graen and Haga, 1975), the informal assistants and the ordinary members (Graen, 1976), the IN/OUT group relationships (Graen and Cashman, 1975) or high and low quality relationships. This quality of interaction is central to leader-related interactions in the work group.

LMX, Voice, and Procedural Justice

LMX is shown to impact supervisory ratings of job performance (Duarte, and Goodson, 1994; Graen and Novak, 1982), autonomy (Scandura, Graen and Novak, 1986) and frequency of promotions of the subordinates (Wakabayashi, Graen, Graen and Graen, 1988) among other employee outcomes. In a study of 390 R&D pro-
fessionals (who also work in project teams), Das and Bhaduri (1997) found that differential job responsibilities of the team members in a project team had an impact on pay expectation. The low and high quality of exchanges vary in terms of decision latitude given to the subordinate (Dansereau, Graen and Haga, 1975), the leader’s communication (Baker and Ganster, 1985), and the level of trust in and empowerment of the subordinates (Gomez and Rosen, 2001). Earlier conceptualizations of LMX assessed it in terms of negotiating latitude which is the amount of say that different members have in the decision-making processes of the leader (e.g., Graen and Cashman, 1975; Graen, Cashman, Ginsburgh and Schiemann, 1977; Graen and Schiemann, 1978). The nature and amount of communication and the voice that different members have in the decision-making processes of the leader vary across subordinates as a function of the quality of interaction with their leader. Voice has also been identified as an important predictor of procedural justice.

While studying justice and its antecedents, Tyler (Tyler, 1987; Tyler and Caine, 1981; Tyler, Rasinski and Spodick, 1985) and his colleagues identified control over the decision-making processes or ‘voice’ (Folger, 1977) as an important factor in determining procedural justice as well. This control has been studied in terms of the say that people have in the decision-making processes; it is any form of input that they are able to make into the decision processes (Tyler and Lind, 1992). It is the opportunity given to the employee in various decisions that concern him/her. Studies have shown that people want to have a voice and tend to view procedures providing voice opportunity as fairer than those that restrict it (Kanfer, Sawyer, Earley and Lind, 1987; Tyler, Rasinski and Spodick, 1985). Thus, if people have a say in the decision-making processes related to pay, they are likely to perceive them as fair and are, consequently, likely to be satisfied with it too. Voice in performance appraisal can be in the form of taking input prior to the evaluation, two-way communication in the appraisal interview, and a scope for challenging the final evaluation (Folger and Konovsky, 1989; Greenberg, 1987). Though many studies show a positive relationship between voice (participation) and attitude towards and perception of the appraisal (Burke and Wilcox, 1969; Dipboye and dePontbriand, 1981; Landy, Barnes and Murphy, 1978; Landy, Barnes-Ferrell and Cleveland, 1980), there are others who do not find support for this (e.g., Greller, 1975; Hillery and Wexley, 1974). One explanation for this could be in terms of the implementation of voice mechanisms. Though the systems for building voice into the appraisal process is designed by the Human Resource (HR) Management Department, its implementation lies with the immediate superior (leader). As mentioned earlier, the amount of voice that different members have in a group depends on the quality of interaction that they have with their leader. Our next hypothesis, hence, is as follows (see Figures 1 and 2):

H3: LMX will lead to voice which will lead to procedural justice and which in turn will lead to satisfaction with raises and structure and administration dimensions of pay.

METHODOLOGY

Data were collected on a structured questionnaire from professionals working in software organizations. Over 40 software organizations and 700 professionals working in these organizations were contacted using the alumni network of a premier management school in India. A total of 306 professionals, belonging to 30 software organizations, constituted the sample of the study. All the organizations employed more than 100 software professionals and recruited them from engineering and business schools. Out of a total of 306, 260 were males and 46 were females. About 42.4 per cent (129) of the respondents were between the age group of 20 to 25 years and 50.3 per cent (154) were in the age group of 26 to 31 years. In all, about 92.5 per cent of the sample was between the age group of 20 –31 years. A young sample is representative of the actual software professional population. The average experience of the respondents was 2.384 (SD 2.67) years with the minimum being 1 year and maximum 24 years (one respondent). Care was taken to include only those respondents who had worked with the leader for over six months, to make sure that the subordinates were in a position to assess the quality of interaction (LMX) with their supervisors. Data were collected on a structured questionnaire consisting of the scales on pay satisfaction, LMX, justice, voice, and intent to leave besides some demographic details like their age, gender, and tenure with the organization. Respondents were asked not to give any form of identification to ensure anonymity of their responses.

For structural equation modeling, missing data was deleted using list-wise deletion method, and the sample
for this was reduced to 295. Of these, 250 were males and 45 were females. In this sample too, about 92 per cent were in the range of 20 to 31 years. Mean tenure in the organization was 2.38 years (SD 2.70).

**Measures**

Pay satisfaction was assessed through the 18-item scale developed by Heneman and Schwab (1985). Of these, four items corresponded to level, benefits, and raises dimensions of pay satisfaction and six items constituted the structure and administration dimension. The respondents were asked to rate as to how satisfied were they with each of them on a five-point scale (1=very dissatisfied, 2=dissatisfied, 3=neither satisfied nor dissatisfied, 4=satisfied, 5=very satisfied). Since distributive justice in our study is defined in terms of rewards and pay, it was assessed by using the three-item scale used by Price and Mueller (1986). The respondents were asked to rate the rewards on a five-point scale (1=very poor, 2=poor, 3=about right, 4=good, 5=very good).

Procedural justice was measured using the six-item scale used by Niehoff and Moorman (1993) which was based on the one used by Moorman (1991). This scale assessed the gathering of accurate and unbiased information, employee voice, and an appeals process in appraisal and pay-related decisions. The respondents were asked to rate the statements in terms of how often were they true for them (1= never, 2= almost never, 3 = sometimes, 4= usually, 5 = always).

LMX was assessed using a 10-item scale by Bhal and Ansari (1996). They developed a two-dimensional scale of LMX, based on the conceptualization given by Dienesch and Liden (1986). The two dimensions were perceived as contribution and affect. The scale consisted of 10 items with 5 items each of perceived contribution and affect. The respondents were asked to rate the statements on a five-point scale (1=not at all true; 5=very true) as to how true were the statements to their relationship with their supervisor.

Since the focus of the study was on pay satisfaction, we were interested in assessing participation (voice) in decisions that influenced pay. Since both levels and raises are linked to performance evaluation, assessing voice in performance evaluation could be considered as voice in the pay-related decision-making process. For this reason, voice was assessed using the three items used by Dulebohn and Ferris (1999). The response was assessed on a five-point scale (1=strongly disagree, 2=disagree, 3=neutral, 2 = agree, 1 = strongly agree).

The intent to leave was assessed using one-item. The respondents were given the following question: ‘Which of the following statements most clearly reflects your feeling about your future with this employer/organization?’ The response varied at five levels: 1 = definitely will leave; 2=probably will leave; 3= uncertain; 4=probably will not leave and 5=definitely will not leave. This item was reverse scored, such that a high score on it meant high intention to leave.

The final score for each dimension was taken by taking the mean of the items comprising that dimension. Since intent to leave was assessed through one item, the score on that item constituted the final scale.

**ANALYSIS AND RESULTS**

The reliability of all the scales was assessed through Cronbach’s coefficient alpha. The reliability coefficients and correlations among the study variables are contained in Table 1.

The first objective of the study was to assess the impact of different dimensions of pay on intent to leave. For this purpose, intent to leave was regressed on the four dimensions of pay satisfaction using the simultaneous entry method. This method enables to ascertain whether one dimension of pay satisfaction explains variance in intent to leave after accounting for the effects of the other three dimensions. The model was significant at 0.000 level (R square=0.122), the beta coefficient of levels dimension of pay satisfaction was -0.026 (t = -0.260, p < 0.795) that for the benefits dimension was 0.097 (t = 1.041, p < 0.299); for raises dimension it was -0.204 (t = -1.984, p <0.048) and that for the structure and administration dimension was -0.217 (t = -0.2338, p < 0.020). The two process dimensions of pay satisfaction, raises and structure and administration significantly impact the software professionals’ intent to leave whereas levels and benefits do not.

Hypotheses 1 and 2 were again tested using regression analysis where each of the four dimensions of pay satisfaction was regressed independently on distributive and procedural justice. Results are contained in Table 2. It can be seen that procedural justice predicts only raises and structure dimensions of pay satisfaction; distributive justice predicts all the four. While Hypothesis 1 finds partial support, Hypothesis 2 gets full support from the data.

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To test Hypothesis 3, two models were tested using structural equation modeling. As mentioned earlier, the missing data were deleted and thus the final sample for this analysis was 295. Model 1 tested the LMX—voice—procedural justice—pay satisfaction (raises) relationship while Model 2 tested LMX—voice—procedural justice—pay satisfaction (structure and administration) relationship. Beside $X^2$, three measures were used to assess the fit of the structural models, the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI) (Joreskog and Sorbom, 1984; Bentler and Bonnett, 1980), and normed fit index (NFI). Values above 0.90 for GFI, AGFI, and NFI indicate a good model fit.

$X^2$ for Model 1 was 39.198 with df of 5. Although a significant $X^2$ indicates a difference between the hypothesized and observed structure, this is often the case with large samples (Bentler and Bonnett, 1980). Other goodness of fit indices were used to assess the model. GFI was 0.952, AGFI was 0.856, and NFI was 0.876. The path coefficients for this model are contained in Figure 1. The model found some support from the data as some of the fit indices (GFI) provide support while others do not. Further, some support to the model comes from the path coefficients (standardized estimates) of the hypothesized paths, where all the paths are significant and three out of four paths are highly significant.

$X^2$ for Model 2 was 26.39 with df of 5. Again, we look at the goodness of other fit indices. GFI was 0.967, AGFI was 0.902, and NFI was 0.927. The path coefficients are contained in Figure 2. Thus Model 2 finds better support from the data as compared to Model 1.

**DISCUSSION**

This study explored some issues related to pay satisfaction of the IT professionals in India. The first objective was to assess how satisfaction with different dimensions of pay determines their intention to leave the organization. Second, the impact of procedural and distributive justice was assessed on different dimensions of pay satisfaction. Finally, the social and psychological processes that lead to satisfaction with the process dimensions of pay were explored wherein leader-member exchange — voice — procedural justice link was assessed for its impact on raises and structure and administration dimensions of pay satisfaction.

Three broad trends emerge from the data. First, the process dimensions of pay satisfaction are better predictors of the professionals’ intention to leave the organization. Second, distributive justice predicts both the amount and the process dimensions of pay satisfaction.
whereas procedural justice predicts only the process dimensions. Finally, the hypothesis that LMX leads to voice which leads to procedural justice which in turn results in satisfaction with the process dimensions of pay satisfaction found support from the data and the strength of relationships was stronger for the structure and administration dimension as compared to the raises dimension of pay satisfaction. Next, we look at each one of these trends in detail.

The result of the first objective establishes the significance of the pay-related processes in the software professionals’ intent to leave. The nature of compensation, in general, and in the IT industry in particular, has undergone a lot of changes in the recent times. The organizations are not only adding newer components to the pay system; they are also devising newer mechanisms to administer them, thus providing enough emphasis on both the amount as well as the process dimensions of pay. Heneman and Schwab (1985), by identifying different dimensions of pay, suggested that the employees respond not only to the level of their pay but also to the system that is used for determining and delivering pay. This is further supported by other empirical research (e.g., Judge, 1993; Miceli and Lane, 1991). There is precedence in the compensation literature where this distinction is made between the level and the system components of pay and their differential impact on employee attitudes is supported. Our study, too, provides support for this distinction. The results show that the software professionals’ satisfaction with the process dimensions of pay is more likely to influence their intention to quit. However, it may not be taken to mean that the amount dimension is insignificant as distributive justice in our study is a strong predictor of all the dimensions of pay satisfaction. It implies that simple improvement in pay levels may not be a guarantee for improved pay satisfaction and employee retention, unless their perception of pay system administration is improved. For the software professionals in India, too, the process component is gaining significance, as the pay levels are very competitive. NASSCOM-Hewitt Total Rewards Study (2003) reports that 90 per cent of the organizations use labour market data to determine pay and compete closely on pay levels and 93 per cent of the companies have instituted systems of linking pay to performance and have a regular cyclical performance management process. The study also confirms that the process components of pay are gaining increasing significance.

Next, we proposed two hypotheses that were con-
cerned with the impact of procedural and distributive justice on satisfaction with different dimensions of pay. According to Hypothesis 1, distributive justice was expected to predict satisfaction with three outcome dimensions of pay—levels, benefits, and raises but the results reveal that distributive justice predicts all the four dimensions. Procedural justice was hypothesized (Hypothesis 3) to predict only the two process dimensions and the results supported this hypothesis completely as procedural justice predicted the raises and structure and administration dimensions of pay satisfaction. It may be said that though procedural justice does predict satisfaction with processes, distributive justice predicts both the amount as well as the process dimensions. The results are much in line with some of the earlier work where distributive justice is shown to be a predictor of pay satisfaction (McFarlin and Sweeney, 1992; Folger and Konovsky, 1989). Distributive justice perceptions involve an assessment of internal, external, and individual equity (Lawler, 1989) and the assessment of these equities seem to be an important factor in pay satisfaction. However, procedural justice too is a predictor of process dimensions of pay satisfaction. Results show that procedural justice, too, can predict pay satisfaction, provided it is viewed not only in terms of the amount but also the processes involved in pay administration.

Finally, we explored the linkage of leader-member exchange to satisfaction with process dimensions of pay through voice and procedural justice. Though both the models found support from the data, there was a stronger support for structure and administration dimension. It may be because it is purely a process dimension whereas raises also have aspects of outcomes. Though voice, justice perceptions, and pay satisfaction have been studied in the context of formal human resource management practices (Sheppard, Lewicki and Minton, 1992), incorporating LMX, it provides a scope for assessing the role of informal leader-related interactions in understanding the process of pay satisfaction. Past researches have shown that in many cases, employees are either reticent in using formal voice mechanisms (even when the organizations provide for them) (Krone, 1992; Lewin, 1987) or they prefer to use informal mechanisms (Kolb and Putman, 1992). The nature of leader-member relations provides an explanation for why this is likely to happen. In the LMX framework, unique relationships between a leader and the members develop based on the social exchanges in the initial phases of role development by the members (Graen, 1986; Graen and Scandura, 1987). In the early stages, there are active exchanges of contributions and inducements between the leader and the member and at this stage it is likely that perceived justice leads to trust between a leader and a member. However, once the role of the subordinate is routinized and a relationship is established in a leader-member dyad, it is characterized by certain features like voice, informal communication, and trust. In our study, we have included the perceptions of those subordinates who have worked with their leader for a reasonable period of time and the relationship is crystallized in the leader-member dyad. At this stage, the perceived justice of various leader-related activities (pay-related processes) is likely to be determined by the various dimensions of leader-member relations, like voice. Our results suggest that there is evidence for the hypothesized link between LMX, voice, procedural justice, and pay satisfaction with process dimensions.

Limitations and Future Research

Though this study provides useful insights into the studied relationship, the results may be viewed in the light of possible limitations. One limitation of the study is the use of self-report measures. Obtaining data from other sources could enhance generalizability of the findings. Also, since the data was cross-sectional, direction of causality is assumed, not tested. Thus, inclusion of longitudinal studies and others ratings of behaviour and attitudes could provide support for current findings. Longitudinal studies are also likely to provide insight into how dyadic relationships in a software project team grow over a period of time. All the data collected through self-reports is likely to be influenced by social desirability response bias. Although this bias cannot be ruled out, some researches have shown that social desirability may not be a source of bias in measuring organizational perceptions (Moorman and Podsakoff, 1992; Spector, 1987).

The operationalization of intent to leave could be another limitation of the study. One-item was used to assess it. Though this item, along with others, has been used as a measure of continuance commitment by Mowday, Steers and Porter (1979), assessing the intent to leave through a larger scale would strengthen the study results.

Finally, the four dimensions of pay satisfaction are
correlated. However, if the dimensions predict different criteria or are predicted by different variables, then they can be viewed as separate constructs (Cronbach and Meehl, 1955) even if they are empirically correlated (McCornack, 1956). In our study too, the different dimensions of pay satisfaction showed unique and different associations.

**Practical Considerations**

Since the IT industry is highly competitive and is also knowledge-based, using human resources efficiently is a major task confronting these organizations. For this, they have to not only focus on the HR systems, but also have to understand and respond to the social and psychological processes that make these systems effective or otherwise.

Our findings suggest that though pay levels are important, the HR Department needs to make additional efforts towards the processes through which pay and raises are determined as these processes might provide the crucial advantage for retaining software professionals in an environment where salary levels are competitive. Additionally, since both the pay-related processes and procedural justice are important, these processes need to be both effective and fair. Though fairness in appraisal and pay-related processes can be built through various HR systems like participation (voice), our results show that these processes will be effective only if they are implemented well by the immediate leader. The results have implications for leadership development and training on appraisal and pay-related processes. Unless the leaders are trained appropriately and made aware of the social and psychological processes that go on in a team, the design of the systems by the HR Department may not be effective.

Since distributive justice is an important predictor of pay satisfaction, comparison with relevant others plays an important role in pay satisfaction. The HR Department in these organizations needs to identify pay levels that compete in the market. Identifying the comparison others whom these professionals use as benchmarks and using them in the pay determination would improve the perception of distributive justice. Most of the organizations use internal and external (professionals in similar positions in other organizations) comparison others while determining pay levels. Indians are shown to have a familial identity and value the opinions of their kith and kin (Roland, 1988). Hence, acknowledging and incorporating the inputs of social reference groups (family and friends) might provide more useful insights into how these professionals perceive distributive justice.

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Anything that you cannot relinquish when it has outlived its usefulness possesses you, and in this materialistic age a great many of us are possessed by our possessions. We are not free.

— Peace Pilgrim