Power of Involvement over Rewards for Retention Likelihood in IT Professionals

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Abstract—Retention in the IT profession is critical for organizations to stay competitive and operate reliably in the dynamic business environment. Most organizations rely on compensation and rewards as primary tools to enhance retention of employees. In this quantitative survey-based study conducted at a large global bank, we analyze the perceptions of 575 information technology (IT) software professionals in India and Malaysia and find that fairness of rewards has very little impact on retention likelihood. It is far more important to actively involve employees in organizational activities. In addition, our findings indicate that involvement is far more important than information flow: the typical organizational communication to keep employees informed.

Keywords—fairness of rewards, information flow, information involvement, retention

I. INTRODUCTION

RECRUITING and developing IS human resources is one of the most important issues in information systems management [1], [2]. Retention continues to be a critical challenge for IT leadership in most organizations, especially in Asia where outsourcing businesses keep growing even during weak global economic climate [3]. The typical response to enhance retention is to review benefits and salaries and ensure that they are competitive to market conditions. This line of thinking has only resulted in artificially inflating salary structures to a point where increases of 25% every six months are common. We believe that this pattern is not sustainable and in fact has done little to increase retention in most organizations. When looking at alternatives, the literature often talks about the role of communication in making sure employees are informed about and involved with the day-to-day activities of the organization [4], [5], [6].

However, the relative importance and dynamics which communication and involvement play in enhancing the retention of employees and their relative importance is not clear compared to the incentives and compensation that is paid to the employees. It is precisely these questions that motivated this research study which was conducted at the offshore software centers of a large global bank. At one center the

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employees are mostly Indian, while at the other center in Malaysia, the work force are primarily Chinese. 575 responses were collected through an online survey to test our model. Findings followed by discussions and practical implications are also presented in this paper.

II. THEORETICAL FRAMEWORK AND HYPOTHESES

Retention of employees is critical for organizations to maintain a source of competitive advantage, and the loss of talented employees can be detrimental to businesses [7]. Companies use various strategies to retain employees and reduce turnover intention, including incentive compensation and improving job satisfaction [7], [8]. Employees' perceptions of their organizations, such as the perception of fairness of rewards, have great influence on their decisions to retain or leave the firm [9]. Various studies have shown a positive relationship between the perception of the fairness of rewards and the retention of IT professionals [10], [11], [12], [13]. Therefore, we hypothesize:

H1: Fairness of rewards is positively associated with retention.

Information flow is defined as "sufficient information to do one's job, communication about changes, and contact with other work areas" [4]. The culture of an organization has an influence as to how employees feel about staying with the organization. Communication is also major part of the culture. In particular, how management shares information with employees (downward flow) is considered particularly important when it comes to employees developing a sense of attachment to the organization. We will refer to this top-down form of communication as "push" communication.

Many studies have shown that most people in the organization want improved communication and that such improvements are correlated to job satisfaction and commitment [14], [15], [16]. In another study, reference [17] concluded that benefits obtained from quality internal communication include improved productivity, higher quality of service and products, increased level of innovation, and reduced costs. In addition, reference [18] found a positive correlation between employee perceptions of communication and job satisfaction that, in turn, was correlated with overall organizational effectiveness. Reference [19] further suggested that effective communication could improve perceived

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organizational support, that is, employees were more likely to perceive fairness of rewards if they got enough information about their jobs. We therefore hypothesize:

H2: Information flow is positively associated with fairness of rewards.
H3: Information flow is positively associated with retention.

The combination of H1 and H2 shows the mediating role of fairness of rewards in creating a positive effect regarding information flow on retention. H3 posits the direct effect of information flow on retention. According to the clarification of conditions and decision points for mediational type inferences provided by [20], we present H1, H2 and H3 to clearly emphasize mediating relationships without the confusion of indirect effects.

Involvement is defined as "the input of ideas and participation in decision making; thoughts and ideas count and workers are encouraged by management to offer them" [4]. Another important aspect of organizational culture is the level of involvement of employees in making suggestions, openly sharing opinions, and having overall say in decisions that affect their work. We shall call this type of active involvement culture of an organization as "pull" communication. Pull in the sense that employees are engaged in a dialogue amongst themselves and with the management and are pulling meanings as they make sense of the push communication that may be directed from the top. Being listened to and involved in the outcome of discussions and communication is what makes pull communication different and perhaps more powerful in giving employees a sense of ownership and belonging to the organization.

Communication between employees and management has been found to be critical to employee retention with an organization. However, we argue that engagement with the job and the company are also important as employees try to find a deeper meaning to their day to day work activities [21]. Employees having a voice is an important factor in employee retention [22]. Involvement of managers and supervisors is also associated with enhanced perception of fairness in general and rewards in particular [23].

Importance of employee involvement has been shown to make a positive contribution in retention [24]. Organizational practices are a good proxy for employee involvement [25] and so can help anticipate future retention issues that the organization may face. Involvement is indeed critical for future organization success. Therefore, we hypothesize:

H4: Involvement is positively associated with fairness of rewards.
H5: Involvement is positively associated with retention.

The combination of H1 and H4 shows the mediating role of fairness of rewards to the positive effect of involvement on retention. H5 posits the direct effect of involvement on retention.

In summary, we propose the theoretical framework (as Figure 1 shows) to study the role of information flow and involvement on fairness of rewards and retention, with four interrelated components.
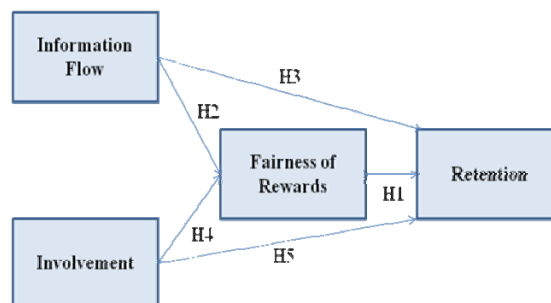

Fig. 1 Conceptual Model of Fairness of Rewards on the Impact of Information Flow and Involvement on Retention

III. METHOD

A. Research Setting, Data Sources and Sampling

Two software development centers of a large global bank were surveyed online. We obtained complete responses from 577 employees in two sites, for a response rate of 30%. A comparison of the responses from two sites revealed no significant mean differences for study variables. The demographic information of the respondents is summarized in Table 1. After checking the data consistency and homogeneity, we retained 568 individual responses for further analysis.

TABLE I
DEMOGRAPHIC PROFILE OF SURVEY PARTICIPANTS

	Gender			Background			Job Status	
	Site 1	Site 2		Site 1	Site 2		Site 1	Site 2
Male	65.0	85.4	Native	70.0	99.7	Full-time	79.2	98.5
Female	35.0	14.6	Foreigner	30.0	0.3	Contractor	20.8	1.5

	Age			Level of Education	
	Site 1	Site 2		Site 1	Site 2
<25	12.9	14.6	High school	0.8	0.0
25-30	44.6	36.6	Diploma	6.7	1.8
31-35	22.9	31.1	College degree	75.4	42.1
36-40	12.5	9.8	Master or above	17.1	56.1
41-50	6.7	7.0			
>50	4.0	0.9			

Note: All numbers are in percentages.

B. Measurement and Operationalization

For all study constructs, we directly adapted the scale items from the literature. The Appendix lists the operational items we used for each construct, and Table 2 provides the univariate statistics for the constructs and the intercorrelations among them.

TABLE II
DEMOGRAPHIC PROFILE OF SURVEY PARTICIPANTS DESCRIPTIVE STATISTICS
AND INTERCORRELATIONS FOR THE STUDY CONSTRUCTS

	1	2	3	4	Mean	s.d.
1. Retention	1.00				5.14	1.11
2. Fairness of rewards	.33*	1.00			4.05	1.66

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| 3 Involvements | .53[*] | .34[*] | 1.00 | | 4.89 | 1.14 |
| 4. Information flow | .43[*] | .30[*] | .53[*] | 1.00 | 4.40 | 1.31 |

[*] Correlation is significant at the 0.01 level. All the constructs are measured by seven-point likert scale.

Eight items from [4] were used to measure information flow and involvement. Following Moore's study [12], we used two items to measure fairness of rewards. These two items which were originally part of the five items distributed justice scale drawn from Niehoff and Moorman [26] and specifically addressed fairness of rewards.

According to reference [27], retention is a multidimensional construct rather than a single variable. Job satisfaction and retention have been found to be closely related in several studies [28], [29]. Our factor analysis revealed that in certain situations they may in fact be measuring the same things, so we decided to create a new composition called retention that incorporates job satisfaction along with intention to quit and a desire to remain as a single measure to reflect retention likelihood. Rather than actual retention, we are interested in determining the retention likelihood of employees. The intention to quit construct is reverse-coded, so it essentially transforms into intention to stay. Taken together, we feel they reflect retention likelihood in a much more robust manner. With IT professionals in particular (which is all of our sample data), job satisfaction has been found to be related to turnover and performance [30]. Also, employees with high job satisfaction have little desire to leave their jobs [30].

Correlation between low job satisfaction and high turnover is well established, so it is reasonable to combine the two to create a new measure for retention likelihood. In fact, involvement has been established closely to affective commitment to the organization, explaining why it can have a significant impact on retention [32]. Low commitment makes it difficult to build an association with the organization and hence reflects low retention possibility.

Interesting work continues to be a strongest attractor and retainer in the labor marker [33]. Job dissatisfaction is consistent with forming an intention to quit, and employee morale typically combines job dissatisfaction with turnover intention. So it is appropriate to combine them together to collectively reflect turnover likelihood, and our analysis further shows them to be close enough to be combined.

C. Method of Analysis

The analytical approach involved measurement assessment of key constructs and testing the hypothesized model. For the subjective measures, a combination of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) procedures were used to assess the psychometric properties. We explicitly focused on the evidence for the convergent and discriminant validity of the study constructs.

IV. FINDINGS

A. Measurement Analysis

We estimated a fully disaggregated measurement model with the key observed indicator to ensure that the measures corresponded only to their hypothesized constructs and evidenced acceptable reliability and validity.

A confirmatory factor analysis of the study constructs using AMOS software yielded the following fit statistics (see Table 3): $\chi 2$ = 156.57, d.f. = 81, p < 0.01; NFI = 0.97; NNFI (TLI) = 0.98; CFI = 0.99; RMR = 0.03; RMSEA = 0.041 (90% confidence interval = .03 - .05). On statistical, absolute, and relative fit, as well as substantive grounds, the posited measurement model provides a good fit to the data. Table 3 provides further support for the convergent and discriminant validity of the constructs. The estimated loadings for the relationship between individual indicants and their underlying construct are, without exception, large and significant (t-value > 14.0, p < .01). In addition, the reliability estimates are large and significant, ranging from .85 to .91., with an average reliability index of .88, which exceeds the conventional .70 criterion. In terms of discriminant validity, the variance extracted not only exceeds the average variance shared but also exceeds .50, the threshold value that reference [34] recommend. In a word, the preceding evidence provides robust support for the convergent and discriminant validity of study constructs.

TABLE III
FACTOR LOADING AND MEASUREMENT PROPERTIES OF VARIOUS
CONSTRUCTS USED

Construct/Item	Loading[a]	t-Value	Composite Reliability[c]	Variance Extracted[d]
Retention likelihood			0.89	0.57
JS1	0.81	--[b]		
JS2	0.76	19.38		
JS3	0.78	19.83		
ITQ1	0.76	19.26		
ITQ2	0.75	18.83		
DTQR1	0.68	16.49		
Fairness of rewards			0.91	0.85
FOR1	0.90	--[b]		
FOR2	0.94	16.88		
Involvement			0.85	0.59
COMI1	0.58	14.74		
COMI2	0.69	18.89		
COMI3	0.86	25.56		
COMI4	0.90	--[b]		
Information flow			0.86	0.67
COMF1	0.87	--[b]		
COMF2	0.86	22.74		

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COMF3	0.72	18.93		

[a] The estimates are standardized coefficients (all $p < 0.01$) and t-values from maximum likelihood solution using AMOS 16.0.
[b] The corresponding coefficient was fixed to set the metric of the latent construct.
[c] Estimated composite reliability in line with Fornell and Larcker (1981).
[d] Estimated variance extracted by the corresponding latent construct from its hypothesized indicators in line with Fornell and Larcker (1981).

B. Hypothesized Model Analysis

Our empirical results are summarized in Table 4. All the hypotheses are supported.

TABLE IV
ESTIMATED COEFFICIENTS FOR THE HYPOTHESIZED MODEL

	Dependent Variables	
	Fairness of rewards[a]	Retention likelihood
Independent Variables		
Information involvement	.35 (.05) ***	.50 (.03)***
Information flow	.18 (.06) ***	.13 (.04)***
Fairness of rewards	-	.08 (.03)**
Control Variables		
Gender		-.06 (.02)*
Education		.06 (.02)**

[a] The results reported are unstandardized coefficients following by standard error in parentheses.
*** Coefficients significant at $p = .001$.
** Coefficients significant at $p = .01$.
* Coefficients significant at $p = .05$.

Involvement is positively related to fairness of rewards (β = .35, p < .01), which is positively related to retention likelihood (β = .08, p < .01). Thus, H1 is supported. In addition, involvement has a significant direct effect on retention likelihood (β = .50, p < .01) after controlling for the effect of fairness of rewards, so H5 is supported. Based on reference [35], the mediation hypothesis is supported if both the antecedent -> intervening and the intervening -> outcome coefficients are significant. Therefore, the results support H4 in which fairness of rewards partially mediates the relationship between involvement and retention likelihood.

Similarly, information flow is positively related to fairness of rewards (β =.18 p > .10), and also directly relates to retention (β = .13, p < .01). So H2 and H3 are supported. The results indicate that an increasing emphasis on information flow enhances retention likelihood, and fairness of rewards partially mediates the relationship between involvement and retention likelihood.

To further confirm that involvement has a closer relationship with retention, we build a constrained model by fixing the relationship between involvement and retention and between information flow and retention. The difference of χ2 between the original model and the constrained model is 34.87 with 1 degree of freedom, reflecting that the constrained model is significantly different from the original model, so involvement has significantly much stronger effect on retention likelihood than information flow.

V. DISCUSSIONS

We believe that recognition and reward are over rated as a means for enhancing retention [21]. Our results show the fairness of reward had a very low impact on retention compared to employee involvement. Considering that management often focuses on rewards as a primary tool to increase retention, our findings have important practical implications.

Our findings are consistent with the results obtained by earlier studies [36] that high employee involvement in work practices enhance employee retention. In fact, organizations can take deliberate actions to enhance job embeddedness [37] to enhance retention since it would enhance job satisfaction. As reference [38] point out, the key to retention does not rely on the size of the awards dedicated to retaining the employees and focus must move away from tangible benefits towards their growth and development needs.

Both information flow and involvement have a significant positive relationship with fairness of reward but the impact of involvement is far greater than that of information flow. In other words, as long as employees are involved, the flow of information from the top is not that critical. Involvement generates a sense of reward that contributes more towards the sense of fairness than the feeling to being well informed. But since fairness of reward is not that critical for retention to begin with, the relationship of involvement on fairness of rewards, which was thought to be great in terms of the effect size, is not that important on retention.

The most interesting finding is the fact that both information flow and involvement also have a direct impact on retention independent of the effect they have through fairness of rewards. When it comes to the direct effects as well, involvement has far greater impact on retention than information flow does. This makes involvement (pull) far more important than information flow (push) when it comes to enhancing retention of employees. This is consistent with other studies that have shown involvement to have a positive organizational impact on employees including on job satisfaction [39].

VI. PRACTICAL IMPLICATIONS

To enhance retention likelihood, organizations' focus must change their attention towards adjusting reward structures to make sure employees feel they are being fairly compensated for their efforts. In addition, management typically employs various communication strategies to push company information down to employees so that they are well informed. This type of communication often overloads employees with too much information to a point that they start tuning out most of the channels of communication (email, portals, town hall, newsletters, streaming videos etc. etc.). Our study shows that neither fairness of rewards nor push communication has a major impact on retention likelihood. On

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the other hand, pull communication, largely driven through employee involvement, has a far greater direct and indirect (through reward perception) on retention likelihood. In fact, if companies want to focus on one thing, it should be finding ways to involve employees in their day-to-day work activities and listening to their ideas and suggestions. Pull will go a long way to enhance retention likelihood.

APPENDIX

Unless otherwise noted, we measured the following items on a seven-point Likert scale where 1 = "strongly disagree" and 7 = "strongly agree." The items marked with [O] were removed from the analyses because of poor internal consistency with their respective scales. The items marked with (R) were reversed to keep the consistency with other measures.

A. Information Flow [4]

COMF1: I get enough information to understand the big picture here.

COMF2: When changes are made the reasons why are made clear.

COMF3: I know what's happening in work sections outside of my own.

COMF4: I get the information I need to do my job well. [O]

B. Involvement [4]

COMI1: I have a say in decisions that affect my work.

COMI2: I am asked to make suggestions about how to do my job better.

COMI3: This organization values the ideas of workers at every level.

COMI4: My opinions count in this organization.

C. Retention Likelihood [27], [40], [41]

JS1: All in all, I am satisfied with my job.

JS2: In general, I do not like my job. (R)

JS3: In general, I like working here.

ITQ1: I frequently think of quitting my job. (R)

ITQ2: I am planning to search for a new job during the next 12 months. (R)

ITQ3: If I have my own way, I will be working for this organization years from now. [O]

DTR1: All things considered, I have a desire and intent to remain with this organization.

D. Fairness of Rewards [12], [23]

FOR1: I think my level of pay is fair.

FOR2: Overall, the rewards I receive here are quite fair.

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