



STUDY OF TURNOVER INTENTIONS OF IT PROFESSIONALS: THE CASE STUDY SOFTWARE HOUSES, HYDERABAD, PAKISTAN

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Abstract:

IT Industry is characterized by changes in the technologies and software thus putting pressure on the employees to upgrade their skills, Industry faces higher rates of employee turnover; which brings problems for organizations where IT Professionals are employed, IT Industry have high Employee turnover due changes in the Technologies. The Turnover brings hidden costs to the firms i.e lower morale, loss of corporate memory, disruption in work schedule, loss of competitive advantage, and transfer of their tacit knowledge to the competitors. In this study we have studied turnover intentions among employees of the IT firms using contextual model adopted from Lee (2000) this contextual model is applied to Hyderabad Software House, Sindh, Pakistan. IT professionals were surveyed through questionnaires. The dependent variable is Turnover Intentions, other variable (Independent) such as job satisfaction, role ambiguity, role conflict, motivating potential score. This research has identified that the role variables (i-e: role conflict, role ambiguity) have no influence on job satisfaction and that motivating potential has a positive influence on the Job satisfaction of Information Technology professionals. Turnover intentions (dependent variable) are predicted by Job Satisfaction of IT



Professionals. Recommendations are then made for employers to introduce policies and programs, which may bring out positive changes in the Job of IT professionals by taken into account the factors of motivation.

Keywords: —Turnover Intentions, Job Characteristic Model, Job Satisfaction, Motivation

I. INTRODUCTION

Employees are asset of an organization and their turnover is a source of discomfort. GRI (Global Reporting Initiative) has recognized Employees as being an asset to the organization and consider it to be the major indicator of performance and include it in its sustainability guidelines. (GRI, 2002). Costs (selection, recruitment, induction are considered as direct costs), indirect costs incurred by the organization are impact of turnover on existing employees, cost of learning , loss of HRM and low morale due to frequent Turnover of Employees (Dess & Shaw, 2001).

Turnover of employees may make the organizations to lose their competitive advantage, since employees possess tacit knowledge which they may transfer to other organizations (Zawacki, 1993). The term turnover intentions is defined as “The attitudinal, decisional and behavioral processes preceding actual behavior” (Khatri et al., 2000). While turnover means “Leaving an organization involuntarily” (Morrel et al., 2004).

Rehman et.al (2008) has studied the turnover intentions of IT Professionals at Islamabad and Rawalpindi. Turnover of Information Technology Staff reduces morale, quality, increases costs and delay’s client’s projects. This study has adopted the model from Lee (2000) which captures the influence of external environment, since technology changes makes the work of Information Technology Professionals obsolete. Hence Information Technology Professionals remain under constant pressure upgrade their skills in order to remain competitive.

II. LITERATURE REVIEW

Ghapanchi and Aurum (2010) conducted research past studies on IT Professional’s Turnover Intentions and identified broad factors such as Environmental, Organizational, Psychological, Job related and individual factors as antecedents to turnover intentions. Individual factors were Job Performance, Career orientation, education, gender and age. Organization factors were benefits, remunerations, organizational culture and HRM practices. While Job related factors included motivating potential, role ambiguity, role conflict ,role conflict, role ambiguity, motivating potential Psychological factors included organizational commitment, and perceived job concern and job satisfaction. Environmental factors external to the workplace such as friends family, technology advancement. And job alternativeness.



Thatcher *et al.* (2006) studied the relationship between antecedent of turnover intentions, intrinsic motivation and consequences of IT professionals in the United States from 260 IT professionals. In their study they found that motivating factors such as pay satisfaction, feedback, task significance and task identity were not related to intrinsic motivation. Intrinsic motivation was found to be positively related to satisfaction arising from supervision, autonomy and skill variety. They further found that intrinsic motivation mediated its influence on turnover intentions through organizational commitment and is positively related to Job Satisfaction.

Rehman *et al.* (2008) conducted study on IT Professionals in Islambad and Rawalpindi, using relationship between independent variables (Organizational Commitment, perceived alternative opportunities and Job Satisfaction,) on turnover intentions.

Lacity *et al.* (2008) studied turnover intentions using interviews on investment in current organization, organizational commitment, job attraction, organizational alternatives. They found that social norms i.e family pressure to be in the same city and organizational feelings were more important while organizational commitment was not important factor in predicting turnover intentions

Lim (2008) studied job satisfaction of IT Professionals working in the university libraries in USA, He found that MLS degree holders is negatively correlated with Job satisfaction, while other factors such as job autonomy, promotion opportunities, feeling of acceptance are positively correlated with job satisfaction. Dhar and Dhar (2010) studied relationship between job stress and turnover intentions and found that pressure learn new skills, role ambiguity, family conflicts have more impact on turnover intentions.

Lee (2004) in his study found that IT professionals who are more socially affiliated have lower turnover intentions, family support is directly correlated to job satisfaction, however, social support from friends and family have no impact on turnover intentions, he found that social affiliation and job satisfaction mediate their influence on turnover intentions.

Lee (2000) developed a contextual model to study the turnover intentions of IT professionals. The model incorporated the contextual information i.e assumptions that IT professionals are working in the changing field, therefore they have upgrade their skills and they have great need for growth which ultimately affects the turnover intention of IT professionals. His model consisted of Turnover intentions, growth need strength, motivating potential, job satisfaction. He found that motivating potential is positively correlated with job satisfaction, Job satisfaction is negatively correlated with role ambiguity and no relationship was found between role conflict and job satisfaction. While growth need strength mediated its influence through job satisfaction on turnover intentions.

This research is motivated by the fact that there are few research studies in the context of pakistan on it professional's turnover intentions with the exception of rehman *et al.* (2008). moreover, past research (muliawan *d.a et al.*,2009; mobley, 1982; falkenburg and schyns *et al.*,2007) have studied only traditional aspects i.e organizational commitment, job hopping and motivational behaviors (lee, 2000).

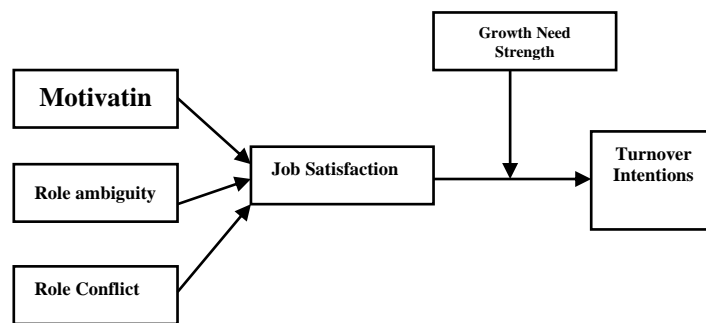


influence of external environment and growth need of it professionals have not been researched. increase in the turnover intentions of it professionals has encouraged researchers to study it professional's turnover intentions. the aim of this research study is to study the relationship between motivation, turnover intentions and job satisfaction of it professionals, this study would shed light on the reasons for turnover intentions and how to motivate them to stay on the job.

III. RESEARCH FRAMEWORK

For the purpose of data collection both hard and soft copies of the questionnaire were distributed among the IT professionals working in the different software houses located in Hyderabad, Sindh, Pakistan. The questionnaire consisted of variables such motivating potential, growth need, role ambiguity, role conflict, job satisfaction and turnover intentions.

In the present research Contextual model to study turnover intentions of IT professionals has been adopted from adopted from Lee (2000), This model posits that contextual factors such as growth need strength have strong impact on the turnover intentions of IT professionals, these professionals are working in the field where change is the norm, they are to master new skills to meet the demands of changing field of IT Industry.



Source: Adopted from Lee (2000)

The variables in the model include motivation, job satisfaction as independent variables, these variables influence the behavior and feelings of employees (Fried and Ferris, 1987). The motivating potential is a summary variable having five dimensions i.e task significance, task identity, autonomy, skill variety and feedback. The role variables i.e role ambiguity measures un-clarity of behaviors for a given role, while role conflict is a mismatch between perceived behavior and the role sender (Ketz and Kahn, 1978). According to Hackman & Oldham (1975.) Job characteristic model, workers response to their jobs is based on growth need Turnover intention is defined as “an attitudinal, decisional and behavioral processes preceding voluntary turnover” (Sager et al., 1998; Khatri, 2000). While Job satisfaction is seen as a “satisfaction derived from different aspects of the job and work situation” (Falkenburg and Schyns, 2007).



A. Data collection

Data was collected through questionnaire survey after initial pilot study to ascertain any difficulties in filling the questionnaire, feedback received from the respondents was positive and no difficulty was reported in understanding the questionnaire. 60 copies of the questionnaire were distributed in hard and soft form only 29 questionnaires were filled by the respondents.

Questionnaire survey was used for three reasons to validate the research model, sensitive information related to the was asked anonymously, third sample of population was homogenous. In this study a self-administered survey was used to for the collection of data. I used this method for three reasons.

B. Research Instruments

1. Motivation Potential Score

Summary index variable Motivating potential has five dimensions i.e feedback, autonomy, skill variety, task identity and task significance (Hackman and Oldham, 1975). This variable has been adopted from JDS Survey, this variable has extensively been used in organizational behavior research, this variable has established psychometric properties, it rating is based on five-point Likert scale.

2. Job Satisfaction

All items are based on five-point likert scale in this measure. Newstrom and Davis (1994) defines job satisfaction is “a set of favorable and unfavorable attitudes with which, employees view their work, it is the amount of agreement between employee expectations and the actual benefits the job provides”. Job satisfaction is defined as the the degree of satisfaction achieved and meeting personal needs by working in the organization (Weiss et al., 1967). It is also the state of mind, , attitudes ,reactions and feelings about a job (Boye et al., 1994; Schulz & Schulz, 1994). Loke (1976) define as a “pleasurable state of mind resulting from a job’s experience”.

3. Turnover Intentions

This measure is based on four items as adopted from Mobley *et al.* (1978) and Lee (1996). This measure uses five-point Likert scale. Some studies have used one year for measuring turnover intentions (Aranya and Ferris, 1984; Shore *et al.*, 1990). In this study respondents were asked turnover intentions within a six months period..

Ajzen and Fishbein (1980) argue turnover intentions should be measured within a reasonable time frame which is more reliable predictor of turnover intentions.

4. Role ambiguity and Role Conflict

The items role ambiguity and role conflict have originally been adapted from (Rizzo and Lirtzman, 1970). These items have been validated extensively in the previous studies (Lee, 1996). These are usually used for measuring role related stress (Tubre and Collins, 2000). The measured reliability score have ranged from 0.78 to 0.82 from these items. Role ambiguity was measured using six items and role



conflict was measured using eight items, Seven point rating scale was used, 1 represented “strongly disagree” while 7 represented “strongly agree”.

5. Growth Needs Strength

The idea of growth needs strength has been taken from (Cited from Lee, 2000) hierarchy of needs theory, this theory states that when basic needs or physiological needs are satisfied it becomes necessary to fulfill higher-order needs such growth needs, growth needs strength is concerned with the personal development and realizing one’s potential.

C. Questionnaire design

The questionnaire has two parts , first part asked demographic questions , while rest of the questions pertains to different variables as already defined, both soft and hard copies of the questionnaire were sent to the IT professionals.

D. Data Analysis Techniques

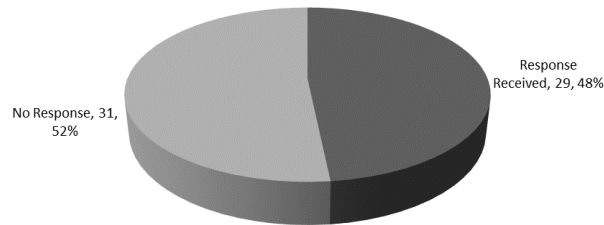
Over 60 copies of the questionnaire were sent to IT Professionals , only 29 responses were received (48%). Response rate were lower than expected. Data was coded in the SPSS, Descriptive statistics, correlations measure, Cronbach’s alpha and Hierarchical regression analysis was used for hypothesis testing. Findings are explained in the next section.

IV. RESULTS AND DISCUSSIONS

The main aim of the research was to study the turnover intentions of IT Professionals using contextual model of Lee(2000), this model incorporates influence of external environment as well as variables related to organization and Job and their impact on Turnover intentions.

Rate of Response

The IT Professionals were contacted in the Software Houses, Only few of these software houses are registered under Pakistan Software Export Board. Total of 60 questionnaires were distributed to IT Professionals through personal visits and emails. However, only 29 ((Fig 5) of them chose to participate in the study and rest of them did not respond.



These software houses are located in Hyderabad City, Latifabad and Qasimabad. Majority of them are providing Multimedia Graphics, Software Design and Development and web hosting services

4.2 Demographics of the Respondents

The demographic profile of the respondents is given on the table, they include age, job experience, job title salary, gender and education.

I Age			
20-25	14		(48.28%)
26-30	10		(34.48%)
>30	4		(13.79%)
Missing	1		(3.45%)
II Sex			
Male	20		(68.97%)
Female	8		(27.59%)
Missing	1		(3.45%)
III Marital Statu			
Unmarried	10		(55.17%)
Married	17		(41.38%)
Missing	1		(3.45%)
IV Education			
Diploma	2		(6.9%)
Bachelors	14		(48.28%)
Masters	17		(41.38%)
Total	29		(96.55%)
Missing	1		(3.45%)
V Salary			
Less than 10,000	4		(13.79%)
10,000-20,000	17		(37.93%)



	20,000-30,000	1	(41.38%)
	Greater than 30,000	2	(6.9%)
VI	Total Experience		
	< 2 years	1	(41.38%)
	2-5 years	8	(27.59%)
	5-10 years	4	(13.79%)
	> 10 years	4	(13.79%)
	Missing	1	(3.45%)
VII	Job Title		
	Computer Operator	1	(3.45%)
	Developer	2	(6.9%)
	Graphics Designer	1	(3.45%)
	IT Assistant	2	(6.9%)
	IT Manager	1	(3.45%)
	Jr. Developer	1	(3.45%)
	Php Developer	1	(3.45%)
	Programmer	10	(34.48%)
	Senior Developer	1	(3.45%)
	Team Leader	1	(3.45%)
	Web Designer	5	(17.24%)
	Web Develop	2	(6.9%)

As seen in the table majority of the respondents are male (68.9%) with age group of (20-25), females only make up only 27.59% of the total respondents,. More than 55% of these respondents are unmarried and young (55%). Majority of respondents have Bachelors Degree (48.28%), followed by Masters (41.38%). Salary reported by respondents Rs. 10,000 -20,000 by (38%) and 20,000 to 30,000 (41%),rest of respondents have salaries either below 10,000 (13.7%) or above 30,000 (6.9%).

Study has found that most of the IT Professionals possess job experience less 2 years (41.58%), while 27.59% have 2-5 years of experience (27.9%). Almost 34.45% of respondents are programmers , followed by Web Designers (17%), as majority of firms surveyed are providing web Hosting & Designing services Reliability of the Scale

All variables in the model have shown internal consistency of using cronbach's Alpha's have more than 0.70 recommended level. Therefore, this model is measuring the same phenomena. Cronbach Alpha for Job Satisfaction is 0.72 , though it was show to be lower in previous studies (Lee, 2000 &



2004 ;, Muliawan and Green, 2009) Role variable shave reported alpha value of 091 and 0.82 which consistent with the already published literature. Alpha value for growth need strength is 0.84, while turnover intentions has alpha value of 0.67 below minimum acceptable value again it doenst affect the model Lee (2000).

A. 4.4 *Descriptive Statistics*

The table shows the descriptive statistics for all constructs from the data collected, the mean for motivating potential score (126.18) is below the moderate level of 171, means there is little potential in the current job. Mean score for job satisfaction (5.69) is well above the moderate level of 4, as IT professionals are quite satisfied with their jobs, while role variables have shown moderate to low level of conflict and ambiguity of IT professionals. While growth need strength (Mean=5.22) one of the basic assumption of this study is quite strong, thus confirming the previous studies that IT professionals working in rapidly changing industry which requires up gradation of skills on continuous basis. The mean value for turnover intentions (3.40) is also quite low means IT professionals have little intentions to leave their current jobs.

Variable	Mean	Standard Deviation	Cronbach Alpha
MPS	126.18	96.15	----
JS	5.69	1.17	0.72
RC	3.27	1.91	0.82
RA	4.74	1.91	0.91
GNS	5.22	1.61	0.84
TI	3.40	1.64	0.67

4.5 *Correlation Analysis*

The table shows the Pearson correlation coefficient among the variables. Motivating potential score shows the correlation between job satisfaction $r=0.419$ significant at $p<0.05$ which is a strong and positive relationship, it means more motivation for IT professionals with more job satisfaction. Role conflict shows negative but negligible relationship with job satisfaction, role ambiguity shows a positive but weak relationship (0.228), both role variables have no significant relationship with job



satisfaction. Growth need strength has shown quite significant ($p < 0.01$) and strong relationship with job satisfaction. This study also finds negative relationship significant at ($p < 0.05$) of turnover intentions with job satisfaction is consistent with the previous studies.

Table No.

Variables	MPS	JS	RC	RA	GNS
JS	.419*				
RC	.048	-.113			
RA	.121	.228	.386*		
GNS	.562**	.678**	-.006	.316*	
Turnover Intentions	-.089	-.377*	.253	-.023	-.203

* $p < 0.05$; ** $p < 0.01$. Source=Own compilation

All variables except role conflict have shown negative correlation with turnover intentions, all variable except job satisfaction shows quite strong and negative relationship ($-0.37, p < 0.05$).

V. CONCLUSIONS

IT professionals show very high level of turnover the turnover of these professionals' forces IT firms to change half their IT staff every two years and in some cases this turnover became 20% turnover in the US in 2008. IT professional's turnover is associated with very high costs such as lower staff morale, disruption to work schedule and loss of corporate memory (Meares and Sargent, 1999). The study by Abdel-Hamid(1989) found that turnover can increase the duration and cost of development of a software by 40%-60%, companies can lose competitive advantage, and transfer of tacit knowledge to other companies (Zawacki, 1993). This study aimed to study turnover intentions of IT professionals in the context of Pakistan using contextual model at Hyderabad, Sindh.

The main assumption in this research was that the growth need strength plays important role in turnover intentions which was not supported by this research, though this study found strong correlation between growth need strength and job satisfaction. This might suggest other factors such as overall employment situation in the IT Industry, demographic factors, and terms of employment might play a major role in turnover intentions. This research has contradicted previous research that job satisfaction has an interaction effect on turnover intentions with growth need strength (Lee, 2000).



Motivating potential score was found to be significantly related to job satisfaction, therefore, motivation factors were found to be important determinants of job satisfaction for IT professionals in the context of Pakistan, by increasing skill variety, task significance, task identity, feedback and autonomy for IT professionals the satisfaction with job could be increased and turnover can be decreased.

Another important finding which is consistent with previous research studies is that job satisfaction is a main predictor of turnover intentions (Mobley and Griffeth *et al.*, 1979). which has been confirmed in this study Although others variables may have interaction effect, but job satisfaction has main effect on turnover intentions or it is the key variable in determining turnover intentions.

The results obtained from the data that role ambiguity is not in the hypothesized direction and has no effect on job satisfaction, which has contradicted the previous research, while role conflict though in the hypothesized direction is still not supported by this research, role conflict other interpretation is that it might have marginal effect on job satisfaction (Kemery *et al.*, 1985). Therefore, this research finds that role variables have no effect on job satisfaction of IT professionals; other factors could influence the job satisfaction of IT professionals, i.e. training opportunities, boss-subordinate relationship, and relationship with other colleagues etc.

Although this research was conducted at Hyderabad, it was possible to reach the respondents easily still the rate of response is not sufficient, second in this study used cross-sectional data. Only one contextual factor was used in this study i.e. growth need strength, there may be other contextual factors such as perceptions about the jobs in IT industry that could affect the relationship between job satisfaction and turnover intentions.

1) 5.2 Policy Recommendations

Employees are social capital of any organization; specially in the rapidly changing field of Information Technology, High turnover has certain drawbacks for any organization, these may be direct or indirect, selection, recruitment and induction is a direct cost of hiring an employee (Staw, 1980), while direct costs involves influence of turnover on existing employees, decrease in the employee morale, cost of learning and loss of social capital (Dess and Shaw, 2001). For decreasing the IT professional's turnover following recommendations are made.

5.2 Recommendations IT firms/Software Houses

- It is recommended that Management should Survey Employees on Job Satisfaction in order improve it.
- Different programmes for training and up gradation of skills should be introduced by the software firms in order to lower the turnover intentions keeping in view of the latest trends in the market and latest technologies introduced. Motivation is much important , the factors such task significance, task



identity , variety in skills, feedback, autonomy of the IT Professionals may be given much attentions in order to increase motivation on the job.

- All IT professionals must be given clearly defined tasks to avoid conflicting priorities.

The recruitment of IT Professionals should be based on opportunities for growth , trainings, skill up-gradations to reduce the turnover intention or actual turnover

VI. RECOMMENDATIONS FOR FUTURE RESEARCH

- This study has focused on only the contextual factors , future researchers should include other factors such perception about the Job Market, TOR of Job Contract in order to better understand the turnover intentions of IT Professionals.
- This study has surveying IT Professionals only in Hyderabad, through questionnaire survey, however, to better understand the IT Industry in Pakistan, this study can be extended to other parts of Country using Interviews as well. Future researchers should include other factors such as Firm Performance in terms of growth, sales and its relative position in the market. IT Firms growth in terms of growth prospects, and its relevant position in the market.



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