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Impact of Job Satisfaction on Job Performance of IT Professionals: With Special Reference to Sri Lanka

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Abstract

Job Performance of employees lays the foundation to achieve desired organizational goals and objectives. Individual employee's job performance is influenced by various combinations of factors. Thus, this research study seeks to examine the impact of Job Satisfaction on Job Performance of Information Technology (IT) Professionals specifically Software Engineers. The study examined whether Job Satisfaction in terms of Pay, Promotion, Supervision and Work itself dimensions has an influence on Job Performance. The research study employed a deductive research approach. The survey method was used as a research strategy and the questionnaires were used in data collection. The statements of the questionnaire were measured using five point likert scale. Simple Random Sampling was used and the data collected from 203 respondents were extensively used to derive conclusions. The data was analyzed using Mean score, Standard Deviation, Correlation analysis and Regression analysis. All hypotheses were substantiated and it was found that 16.9% of Job Performance was affected by Job Satisfaction altogether with Pay, Promotion, Supervision and Work itself. Also it was discovered that there were positive relationships among Job Performance and the four Job Satisfaction dimensions. Even though employee Job Satisfaction has a considerable influence on Job Performance of IT Professionals, this study encourages further investigating on finding additional factors which may affect.

Keywords: *Job Performance, Job Satisfaction, Pay, Promotion, Supervision, Work it self*

1. Introduction

In today's global context many organizations are facing intensive challenges to improve the employee's job satisfaction and as a result, improve their organizational commitment to gain competitive advantage as well as maintain retention of their key employees. Great interest of organizational topics that related to attitude and behavior such as organizational commitment, job satisfaction and job performance has been sparked by its potential benefits to individuals and organizations. According to Steinhaus & Perry (1996) cited in (Samad, 2011) committed and satisfied employees are unlikely to indicate low performance and are normally highly productive who identify with organizational goals and organizational values. Organizations that are successful in the industry realize that employee retention is very essential in order to achieve market leadership and growth in the market place. People are the most important resources/assets of any organization, thus employees are company's livelihood. How they feel about the work they are doing and the results received from that work directly affect an organization's performance and eventually its stability. Generally, employees will be more satisfied when they feel that they are rewarded fairly for the work they have done by making sure the rewards for them are genuine contributions to the organization and consistent with the reward policies. Apparently monetary gain is simply one aspect of these rewards; additionally these rewards may also include a range of benefits and perks. Employees with higher job satisfaction are important since they believe that the organization has a valuable future in the long term and the employer will acknowledge and reward their work. Therefore, those employees are more dedicated to

the organization, have higher retention rates and also likely to have higher productivity (efficiency & effectiveness). On the other hand individual and group performances are the key to achieve organizational performance. Hence, the performance of the organization can be identified at three levels, thus individual level, group level and organizational level (Gibson et al., 1979). Organizational performance depends upon individual and group performance. Organizations consist of people performing jobs alone and with others. From this explanation by Gibson et al., (1979) it can be understood that the individual performance is the heart of organizational performance and that the individual job performance is related to individual employee job satisfaction since it is apparent that individual job satisfaction ultimately lead to the organizational performance as well.

The general consensus across industries and organizations is that the loss of skilled IT Professionals is expensive. Estimates of cost of replacing technology workers range from roughly 1.5 times their annual salaries to 2.5 times annual salaries (Longnecker & Scazzero, 2003). In addition to the cost of replacing experienced IT staff, turnover takes its toll on productivity and morale though disruptions of projects, heavier workload, and negative impact on team cohesion. Industry experts propose that the cost of losing a scientist or engineer can be three to six the cost of losing a manager (Kochanski & Ledford, 2001). Some sources view high turnover as an inevitable consequence of the tremendous demand for technology skill.

Moving beyond from assessing job satisfaction and job performance of traditional manufacturing and service based organizations, this research aimed at finding out the impact of job satisfaction on job performance of Information Technology service providing sector. This is specially a significant concern in IT industry where specialist training and retention are highly important. This study purposely focused only on software developers/engineers as opposed to IT employees in general due to the critical nature of their work. Apparently the factors leading to job satisfaction and impact to the job performance in this field are poorly understood; therefore, this study was designed to further understand the relationship between job satisfaction and job performance among IT Professionals. It was evident that employee dissatisfaction not only leads to poor performance but for the employee turnover as well. The knowledge worker turnover behavior in which only 6% satisfied with their current job with the current employer while 24% intended to leave the current employer, if they get a better job offer from another IT company in Sri Lanka and being a lucrative global industry, another 24% intended to leave, if they get a job offer or a permanent residency in a foreign country (Jinadasa & Wickramasinghe, 2009). Hence this research was conducted based on a well-recognized pioneering global IT Company[1] in Sri Lanka, who cater to both local and international markets and over 15 years of industry experience and their current head count in Sri Lankan office exceeds 650 including software engineers. It is evident that to obtain great performance, the organization needs satisfied and committed employees. If the employees are not satisfied that may directly affect their work output and performance and may further create an unstable situation. Considering those mentioned facts, it is important to assess any association between job performance and job satisfaction of IT Professionals. Hence the main intention of this research was to investigate how IT Professionals/Software Engineers job satisfaction could be affected to their respective job performance in different ways thus organization can come across with possible solutions. For instance longer the companies keep their employees the less need there would be for additional expenditure to train new employees. Thus in IT industry training and skill development is highly crucial to the employee performance as well to the organizational performance.

The general objective of this study is to measure the impact of job satisfaction on employee job performance of the IT Professionals (Software Engineers). Further this study was attempted to achieve the following objectives;

1. To measure the level of job satisfaction among IT Professionals (Software Engineers)
2. To identify the relationship between job satisfaction dimensions (Pay, Promotion, Supervision and Work itself) and employee job performance

1 For confidential reasons the exact organization name will not be disclosed

2. Literature Review

Job Satisfaction and Job Performance were the main factors discussed in this study, hence literature was emphasized on providing theoretical background for the study and it facilitates to conceptualize the research context.

2.1 Job Satisfaction

Job Satisfaction is one of the main attitudes that can influence human behavior in the work place. Job Satisfaction is the degree to which individuals feel positively or negatively about their jobs (Woods & Weasmer, 2008) and it is generally recognized as a multifaceted construct that includes employee feelings about a variety of both intrinsic and extrinsic job elements. Therefore, organizational behavior researchers are eager to analyze, understand and measure job satisfaction and its consequences for people at work (Woods & Weasmer, 2008). Job satisfaction may be affected by emotion related personality traits because job satisfaction has been equated with a pleasurable emotional state (Locke, 1976). Personality traits are relevant for job choice and for being selected and promoted by the organization (Hogan, 1971). Also job satisfaction results from a person's view of their job. This is based upon work environment conditions such as the mentality of seniors/supervisors, company policies and process, working conditions and additional benefits (Gibson et al, 1979). Workers will have high job satisfaction when they have positive attitudes toward such job factors such as the work itself, recognition and opportunity for advancement (DuBrin, 1997). There are five job dimensions representing the most important aspects that affect an employee job satisfaction. These include the work itself, pay, promotion opportunities, supervision and co-workers (Luthans, 2002). Thus Pay, Promotion, Supervision and Work Itself were taken as the dimensions of job satisfaction of this research study.

2.2 Payment

Employees job satisfaction is strongly linked to the company's pay system (Greenberg & Baron, 1995). The overall objective is to reward people fairly, equitably and consistently in accordance with their value to the organization in order to further the achievement of the organizations strategic goals (Armstrong and Murlis, 1998). A fair and equal pay system would encourage job satisfaction (Lawler, 1981). Further, he says things such as bonuses and annual salary increments would more encourage employee job satisfaction. For the purpose of this study, pay is defined as the employee pay, which is adequate for their normal expenses. Hence compensation is the main indicator of the dimension of payment. Apart from that it covers bonus and salary increments also. The employee is satisfied with the pay and pay is provided according to the working experiences and equal to the work done. Several practical studies have found a strong positive link between employee payment and job performance (Baron & Armstrong, 1998; Robbins & Decenzo, 2005). Aspects consider under payment are illustrated in table 01.

2.3 Promotion

Lack of promotions and other job enhancements, such as training, have a more adverse effect on job satisfaction than even excessive amounts of work or low pay (Shields & Ward, 2001). An employee's career growth and status would encourage them to seek out promotions (Locke, 1976). With respect to that, promotions can be considered as a tool by management for increasing employees' motivation and job satisfaction levels. Position advancements, generating positive moral among employees and ensuring job security had a great potential of creating employee job satisfaction (Gouws, 1995). It should be noted that those who may receive promotions in an unfair manner, perhaps through known connections are likely to create rifts among the genuine workers. This in turn can create job dissatisfaction. In the context of this study, promotion is defined as the fair chance for the employee to get promoted. Advancement, morale, value and security were considered as the indicators of the dimension promotion. Positive promotion aspects elevate levels of job satisfaction and that will increase the employee job performance (Gouws, 1995). Aspects consider under promotion were illustrated in table 01.

2.4 Supervision

Good supervision is the key to maintaining high job satisfaction levels. In instances where supervisors engage employees in tasks which involve higher levels of responsibility, employees are likely to feel more valued thereby gaining a notion of achievement and success (Glicken, 2005). According to Trempe et al, (1985) employees who receive respect and consideration from their seniors are more satisfied than employees who experience otherwise. Apart from that employees such as technical teams would expect technical supervision of their work; continuous basis technical supervision and support could generate satisfaction especially among knowledge workers in different types of organizations. For the context of this study, supervision can be defined as how the supervisor treats the employee in terms of praise, the employee's good work, seeking the advice from the employee, understanding the nature of the employee's work as well as giving the employee enough supervision and at the same time portraying good an example to the workers. Therefore the supervision dimension under job satisfaction variable was tested using the indicators of supervision of human relations and supervision of technical relations. An effective supervisor provides assistance to staff employees in meeting their personal and professional goals within the environment of the division and the institution. This will generate employee satisfaction and result in high performance. There are several practical studies that have found a strong positive relationship between supervision and job performance (Winston and Creamer, 1997). Aspects consider under supervision were illustrated in table 01.

2.5 Work Itself

The work itself refers to the working environment of the workers and their perception about the job itself that they are responsible for. Oxford Advance Learner's Dictionary (1995), defines the work itself as "what is done by somebody". Similarly the work itself also refers to the working environment of the workers and their perception about the job itself that they are responsible for. Cohen et al. (1999) identifies that ability to utilization, achievement, activity, authority, creativity, independence, responsibility and variety are the main indicators of employee work itself. And also in his research, he mentioned that work itself and its indicators have a positive relationship with employee job performance. The job or work will give the employee a sense of achievement and responsibility. The work itself refers to the working environment of the workers and their perception about the job itself that they are responsible for. The definition of the work itself for this study is how the employee perceives their current work as fun, comfortable, challenging or respected by others. Indicators tested under the dimension work itself were ability to utilization, achievement, activity, authority, creativity, independence, responsibility, and variety. A lot of early studies (Cohen, 1999; Randall and Cote, 1991) have found that work itself is an important and influential casual factor, which has a positive relationship with organizational employees work performances. Aspects consider under work itself were illustrated in table 01.

Table 01: Operationalization of Job Satisfaction

Dimension	Aspects
Pay	Compensation
	Bonus
	Salary Increments
Promotion	Advancement
	Moral Value
	Security
Supervision	Supervision-Human Relations
	Supervision-Technical
Work Itself	Ability to Utilization
	Achievement
	Activity
	Authority

	Creativity
	Independence
	Responsibility
	Variety

2.6 Job Performance

Job performance is the accomplishment of those tasks that comprise a person's job (Porter & Lawler, 1968). This definition by Porter and Lawler was considered as the working definition of the research study. Locke, Frederick, Buckner, and Bobko based on their research, has suggested that performance was a function of employees' ability, acceptance of goals, level of the goals and the interaction of the goal with their ability (Gordon, 1993). The traits, behavior and results are the dimensions of job performance of an employee (Opatha, 2002). These three dimensions were taken for evaluating performance of software engineers in this research study. Indicators tested under the dimension 'traits' were job knowledge, cooperation, dependability, interpersonal relations and communication skills. Planning work, organizing work, quality of work, punctuality, attendance and speed were the indicators of the dimension 'behavior'. The dimension 'results' were measured using the two indicators. They were efficiency achievement and completion of work on schedule. Aspects consider under job performance were illustrated in table 02.

Table 02: Operationalization of Job Performance

Dimension	Aspects
Traits	Job knowledge
	Cooperation
	Dependability
	Interpersonal relations
	Communication skills
Behaviour	Planning work
	Organizing work
	Quality of work
	Punctuality
	Attendance
	Speed
Results	Efficiency achievements
	Completion of work on schedule

3. Conceptual Framework

The conceptual model of this research study has 5 major variables, of which four were independent and one was the dependent (Figure 01). The independent variables were Pay, Promotion, Supervision and Work Itself. The dependent variable was Job Performance. Each independent variable was tested separately to explore its impact to the dependent variable.

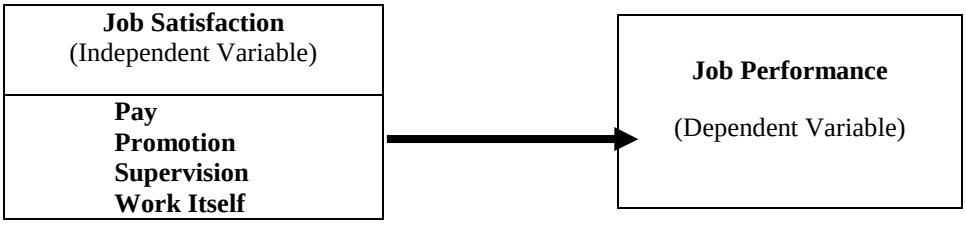

Figure 01: Conceptual Framework

3.1 Hypotheses

Based on the above conceptual framework and previous literature, the researcher developed the following hypotheses to be tested in this research study.

H1: There is a significant relationship between pay and job performance of IT Professionals.

H2: There is a significant relationship between promotion and job performance of IT Professionals.

H3: There is a significant relationship between supervision and job performance of IT Professionals.

H4: There is a significant relationship between work itself and job performance of IT Professionals.

H5: There is a significant impact of Job Satisfaction on Job Performance of IT Professionals.

4. Research Methodology

Purpose of this study was hypothesis testing as this study was conduct to establish and explain the relationship between job satisfaction and job performance. The type of the investigation was correlational since the study has conducted in noncontrived settings. The unit of study in this research was an individual. Specifically, IT professionals since the data were gathered from software engineers of a well recognized global IT Company in Sri Lanka.

The study was conducted with the help of self administered questionnaires which prepared according to the measures of above mentioned dimensions. Five point likert scale was used to weight from strongly disagree to strongly agree and the questionnaires were distributed personally, mailed to the respondents, and electronically distributed. Total software engineers working in the mentioned company was the population of this research study. There were 430 software engineers working in this organization and 203 employees were selected to the sample by using simple random sampling technique. The questionnaire method was chosen for data collection purpose assuming anonymity of the respondents. Collected questionnaires claimed to have 97% response rate. The sample frame was described in the table 03. The collected data was analyzed by statistical data analysis package, SPSS version 20.0.

Table 03: Sample Frame

Population No. of Software Engineers			**Sample**			**Questionnaires Collected**		
Total	Male	Female	Total	Male	Female	Total	Male	Female
430	287	143	203	131	72	196	130	66

4.1 Reliability

The external reliability of the instruments used to collect data was examined by Test – Retest method. This test was carried out using 20 software engineers with two weeks' time interval. As shown in the Table 04, the coefficients of the Test-retest of the instruments indicate that each and every instrument had a high external reliability.

Table 04: Test-Retest Coefficient

	Instrument	Test-Retest Coefficient
1	Job Performance	0.958
2	Pay	0.922
3	Promotion	0.987
4	Supervision	0.976
5	Work Itself	0.804

The inter item consistency reliability was examined with Cronbach's Alpha test. The results of Cronbach's alpha test were given in the Table 5, which suggest that the internal reliability of each and every instrument was satisfactory.

Table 05: Cronbach's Alpha

	Instrument	Cronbach's Alpha
1	Job Performance	0.914
2	Pay	0.804
3	Promotion	0.908
4	Supervision	0.896
5	Work Itself	0.867

5. Analysis

5.1 Univariate Analysis

Frequency distribution analysis was carried out for the independent variables of job satisfaction (pay, promotion, supervision and work itself) and the dependent variable, job performance. Number of respondents, mean and standard deviation were considered in this frequency distribution analysis.

Table 06: Overall Frequency Distribution of Independent Variables

Dimension	Mean Score	Standard Deviation
Pay	3.2551	0.69417
Promotion	3.4158	0.73854
Supervision	3.2551	0.82869
Work Itself	3.1333	0.57916

The mean values of the distribution for pay, promotion, supervision and work itself consecutively 3.2551, 3.4158, 3.2551 and 3.1333, which showed that all these variables which used to measure job satisfaction of the software engineers were significant.

Table 07: Overall Frequency Distribution of Dependent Variable

Dimension	Mean Score	Standard Deviation
Job Performance	3.4885	1.01977

According to the table 07, the mean value of the distribution was 3.4885 and the standard deviation was 1.01977 which showed job performance of the software engineers was significant.

5.2 Bivariate Analysis

The bivariate analysis include the regression and correlation analysis which was used to investigate the impact of job satisfaction on job performance, and the relationship between pay, promotion, supervision work itself on job performance. Using Pearson Product Movement Correlation with two tailed test of significance, the correlation analysis was applied to investigate the relationships. Using the regression analysis, the impact of the variables were investigated.

Table 08: Pearson's Product Movement Correlation Analysis

		Pay	Promotion	Supervision	Work Itself	Performance
Pay	Pearson Correlation	1	.330**	.326**	.167*	.287**
	Sig. (2-tailed)		.000	.000	.019	.000
	N	196	196	196	196	196
Promotion	Pearson Correlation	.330**	1	.398**	.583**	.292**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	196	196	196	196	196
Supervision	Pearson Correlation	.326**	.398**	1	.514**	.323**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	196	196	196	196	196
Work Itself	Pearson Correlation	.167*	.583**	.514**	1	.226**
	Sig. (2-tailed)	.019	.000	.000		.001
	N	196	196	196	196	196
Performance	Pearson Correlation	.287**	.292**	.323**	.226**	1
	Sig. (2-tailed)	.000	.000	.000	.001	
	N	196	196	196	196	196

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

According to the table 8, Pearson correlation between job performance and pay was 0.287, which was a positive relationship between job performance and pay. The relationship was statistically significant at 0.01(0.000 < 0.01) level (2-tailed). Thus H1 was accepted, as there was statistical evidence to claim that job performance and pay was significantly related. Pearson correlation between job performance and promotion was 0.292, which showed positive relationship. The found relationship was positive and weak. The relationship was statistically significant as correlation was significant at 0.01 (0.000 < 0.01) level (2-

tailed). Thus H2 was accepted, as there was statistical evidence to claim that job performance and promotion was significantly related.

Pearson correlation between job performance and supervision was 0.323, which showed a positive relationship between job performance and supervision. Even though found relationship was positive, but was weak. The relationship was statistically significant as correlation was significant at 0.01 level (0.000 < 0.01) (2-tailed). Thus H3 was accepted, as there was statistical evidence to claim that job performance and supervision was significantly related. Pearson correlation between job performance and work itself was 0.226, which showed a positive relationship between job performance and work itself. Though relationship was weak. The relationship was statistically significant as correlation was significant at 0.01 level (0.000 < 0.01) (2-tailed). Thus H4 was accepted, as there was statistical evidence to claim that job performance and work itself was significantly related.

Table 09: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.409[a]	.167	.150	.94018

a. Predictors: (Constant), Pay, Promotion, Supervision, Work it self

The simple regression analysis was carried out to measure the total impact of independent variables (Job Satisfaction - pay, promotion, supervision and work itself) on dependent variable (Job Performance). According to Table 09, among the various factors that influence the job performance, the job satisfaction dimensions of pay, promotion, supervision and work itself affect 16.7% of the variance of job performance. In other words job satisfaction has 16.7% impact on job performance of the software engineers. Thus the H5 was accepted, as there was a 16.7%% impact of decision making on job satisfaction which significant at 0.000 (0.000 < 0.01).

6. Conclusion

This study discovered that the level of job satisfaction dimensions (pay, promotion, supervision and work itself) of the software engineers were satisfied with the job they performed and also there were positive correlations exist between the job performance and each of the four job satisfaction dimensions (table 08). There can be a lot of factors that can create a performance drop of the software engineers. Some of them can be organizational commitment, job involvement, work environment conditions, work ethics, proper skills set, hygiene and motivational factors, etc. Among those various factors that influence the job performance, the job satisfaction dimensions of this study (pay, promotion, supervision and work itself) affect 16.7% of the variance of the job performance of software engineers. Thus, it should pay considerable attention to the software engineer's job satisfaction and a change in satisfaction dimension brings a significant change to the job performance. The employee job performance can be improved by changing the job satisfaction dimensions in a desirable manner. Consequently, the job performance of the software engineers will increase when they are satisfied. The management of the organization should try to maximize software engineer's job satisfaction attributes in order to obtain better results.

There are several recommendations which can be provide based on the findings of the study. This study was based on software development and services organization; hence the majority of the employees were software engineers, in other words knowledge workers. It is very important to have avenues for employee growth in an organization where the majority of employees are educated. Educated employees are reluctant to stay in the same position and most of them would much prefer to pursue opportunities to climb up in the career ladder. Thus, opening opportunities to move up in the career ladder and having proper succession planning are two very important strategies for an IT companies where almost all of the software engineers

are educated and are at least having a degree. Most of the employees value the recognition and appreciation that they receive from their superiors, quite often even more than their pay and other financial incentives. Based on this research study, it was shown that software engineers value supervision and promotion over pay. Hence recognize and appreciate top performers is a key to enhance employee satisfaction and consequently the job performance.

According to this research study, it was evident that having proper human resource practices are essential to obtain superior performance from employees. Thus, human resource practices such as succession planning, rewards and recognition, pay management etc. need to be closely monitored and/or implemented in order to maximize employees' performance. When the employees bond with the company emotionally, they tend to work harder and work on their own without having instructions from superiors. One of the ways to create emotional commitment is to have good superior subordinate relationship and ensure that superiors value the employee's contribution. Employees might have good ideas and sometimes they are reluctant to initiate them, since they fear that if they fail the management will blame them. Thus, they hesitate to take risks and carry out new work, which may be greatly unproductive to the company. Therefore, management of the company should encourage employees/software engineers to take new initiatives on their own and to stand by their side even if these initiatives may sometimes lead to failure.

Most of the subordinates look up to their superiors as role models within the workplace. When the superiors are highly involved in their jobs, their subordinates tend to follow in their footsteps. Therefore, superiors should behave in a responsible and respectable manner and act as a good example for their subordinates. This will help to improve job involvement of employees and it will reflect employee job performance in a positive manner. According to this study, job satisfaction impacts 16.9% on job performance and job satisfaction is just only one factor that influence on employee job performance in the organization. It was suggested that further research studies should be carried out in order to uncover the impact of other dimensions of job satisfaction (other than pay, promotion, supervision and work itself) on job performance.

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