

Research Article

Assessing Job Satisfaction Parameters for Enhancing Performance: A Study on Knowledge Workers

Vinita Srivastava¹, Rajiv R. Thakur²

¹Assistant Professor, Jaipuria Institute of Management, Noida, India.

²Professor, BIMTECH, Gr. Noida, India.

I N F O

Corresponding Author:

Vinita Srivastava, Jaipuria Institute of Management, Noida, India.

E-mail Id:

vinita.srivastava@jaipuria.ac.in

Orcid Id:

<https://orcid.org/0000-0002-4584-4181>

How to cite this article:

Srivastava V, Thakur RR, Assessing Job Satisfaction Parameters for Enhancing Performance: A Study on Knowledge Workers. *J Adv Res HR Organ Mgmt* 2019; 6(1): 16-26.

Date of Submission: 2019-01-09

Date of Acceptance: 2019-02-28

A B S T R A C T

The paper is positioned to identify the factors responsible for satisfaction and performance among knowledge workers, based on the information on factors affecting employee performance and methods used by institutes and colleges to motivate employees leading to satisfaction. Further, a cognitive model has been developed by the factors leading to satisfaction of knowledge workers. A structured questionnaire was adopted for collecting primary data amongst 192 knowledge workers working at various knowledge institutions in India. Knowledge workers included in the study are professors working in institutes and colleges. Questionnaire included items related to satisfaction, performance and demographic details of respondents. Further, confirmatory factor analysis has been used to measure factors leading to satisfaction and finally path analysis is done to validate the cognitive model. The study found that employee performance is dependent on career satisfaction, commitment, and job involvement. Methods used by institutions to motivate employees leading to satisfaction are found to be reward system, understanding of expectations, differentiation between knowledge workers and other staff, and managerial training. The findings of the paper suggest the implications for enhancing employee performance of the institutions, engaging knowledge workers in Delhi and NCR region and would suggest guidelines for stakeholders. The study paves way for further research on the subject in other hubs in India and other countries which have knowledge workers engaged in different institutions.

Keywords: Knowledge Workers, Enhancing Performance, Career Satisfaction, Commitment, Job Involvement, Reward System, Expectations, Differentiation

Introduction

A satisfied employee is deemed to perform better and contributes in the growth of organization. Performance on job on an employee is driven positively in a significant manner by the satisfaction drawn.¹¹ One of the significant drivers in ensuring operational performance of an employee

has been identified as job satisfaction. Job satisfaction is also considered as mediating between human resources practices (training and development, discipline and compensation system) and operational performance.⁶⁵ Studies have shown that behind organization's performance, there exist several factors in an organization such as strategy, turnover, teams, ethics and changes over a period of

time.²⁰ These factors identified behind the performance of organization get impacted by the job satisfaction of employees.^{24,32,52,54,61} Success of an organization largely depends on its personnel and the team of employees which work on the organizational goals.³ However engagement of employees is crucial for the success of organizations.⁴⁶ An engaged employee is found to be having additional satisfaction with the job and is happier in the organization. They are believed to be performing better on their jobs. Happy-productive worker hypothesis by Kluger and Tikochinsky³⁵ supports this belief.

Limited research and studies are found in reference of knowledge workers addressing the affiliation between satisfaction with job and performance of employees. While few of the studies focused on the influence of variables such as income, age, gender on job performance which are demographic,^{37,47,59} only few have studied the influence on job performance by job satisfaction.⁶⁹

This research endeavors to study the association of job satisfaction vis-a-vis performance.



Figure 1. Relationship between Job Satisfaction and Performance

The aim is to study the factors affecting employee performance amongst knowledge workers, namely, professors in institutes and colleges and also identify the methods by which institutions motivate their knowledge workers, leading to satisfaction. The paper also aims to understand the dependency of performance on satisfaction. The study focuses on professors in institutes and colleges in Delhi National Capital Region (NCR), India, which is a hub of institutes and colleges employing such knowledge workers in huge numbers. The main research questions of the paper are: a) Factors influencing performance and career satisfaction amongst knowledge workers, and b) Relationship between the identified elements of career contentment and performance. The results of this study are likely to have implications for all stakeholders in the knowledge society where knowledge is the key driver to the society's growth and welfare. Creation of relevant knowledge sets in multiplier effect in the growth of economy and human welfare and thus it is imperative that the knowledge workers who impart knowledge in the society should be a motivated workforce. A motivated and satisfied knowledge worker can perform better and thereby effectively create requisite and relevant knowledge in the society. The paper outlines implications and mentions guidelines for stakeholders for enhancing performance amongst knowledge workers. The

paper is organized as follows: literature review on the determinants of employee performance in knowledge workers is discussed in Section 2. Section 3 discusses the Research setting. And Section 4 provides a description of data used and the methodology applied. Results are discussed in Section 5. Conclusion and Implications is captured in Section 6.

Literature Review and Hypotheses Development Knowledge Worker

Knowledge is considered as the vital resource for any developing country.⁴¹ Workers who possess knowledge are categorized as knowledge workers and there is a regular and continuous need for enhancing knowledge through continuous learning.⁴⁵ Formal education, analytical and theoretical knowledge, and a habit of life-long learning are pre-requisites of a knowledge worker.¹⁸ Seats of learning provide platforms for knowledge creation and create new knowledge. Universities and colleges universally on the globe are found to be such seats of learning. These universities and colleges are drivers of change creating new knowledge and enabling the workers to apply them in different contexts of their applications.⁷ Teachers, researchers, professionals practicing medicine, law, consultancy, and many others in services sector like information technology, R&D firms, etc., are put under the definition of knowledge workers who engage themselves mostly on cognitive activities.^{6,19} (Helton, 1988; Kelly, 1990). Knowledge workers are found to be engaged in works which do not repeat themselves nor are they repetitive.

Job Satisfaction

Workers' attitude towards their jobs defines job satisfaction (JS).⁴⁹ Job and job-related experiences of an employee affect the wellness of employees working in an organization.⁴⁰ Job satisfaction is considered as a state which is internal to employees which depends on the experiences which are related or unrelated to jobs. Depending on the experiences it may be favorable or not so favorable. Studies equate job satisfaction with customer satisfaction in an organization, important for its performance.¹² Definition of Job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences."³⁸ In a research in USA, which conducted a survey with the faculty, it was found that since the faculty were neither paid well nor given recognition, there was a trend amongst the faculty to earn outside the institution. The number of faculty earning outside was fairly large up to 50%. As an outcome, the commitment of faculty to the institution was questionable and concerns were raised regarding quality. A different study in Greece showed that while the job itself satisfied the faculty, there were dissatisfaction levels with regards to pay and

career growth opportunities.¹ The study also revealed that characteristics like age, gender, etc., predicted job satisfaction and its various aspects. A study done on Irish primary school teachers show a similar conclusion. Twenty-two percent of variances in their job satisfaction were explained by demographic variables and reasons like teaching self-efficacy, perceived stress, self-esteem.²¹ An association between engagement of employees and job satisfaction was established in another research done in Slovenia and was found positive. It was found that the teachers working at colleges demonstrate reasonable extent of satisfaction about the instruction setting, material and incentives received and high levels of organizational commitment.² Employee involvement provides employee's chance to affect decisions and actions with respect to their jobs. In today's competitive world, where institutions look for key competitive advantage to succeed, engaged and enthusiastic employees can be the one such source of competitive advantage.⁶⁷ An employee who is involved can influence decisions and actions, and thereby bring positive advantages to the organization.

Historically, there have been studies focusing on recording scales for measuring job satisfaction. Cook et al.¹⁴ recorded 249 such scales. The other scales are questionnaire developed by Andrew and Withey, Minnesota Satisfaction Questionnaire (MSQ), the McCloskey/Mueller Satisfaction Scale (MMSS), the Measure of Job Satisfaction (MJS), and Organizational Job Satisfaction Scale (OJSS).⁵⁷

Influencers of Job Satisfaction

Job satisfaction among knowledge workers can be influenced by reward system; understanding of expectations; intrinsic motivation; and managerial competence and knowledge.⁵¹ Organizations have been successfully achieving job satisfaction and employee motivational needs by ways of employee involvement and rewards.⁴ Desired behaviors of employees enabling high superior quality of service and commercial benefits to the organization can be ensured by employee satisfaction with the reward systems.⁵ In the study on the influence of pro-family programs³⁶ on organizational commitment and job satisfaction, the result presented a positive relationship. Many researchers have classified various facets of job satisfaction. One of the categories was suggested by Smith et al.⁶² which suggests JS consisting of the classifications based on pay, promotions, working with colleagues leading to satisfaction, with task and satisfaction with supervision. While in some studies, JS is considered to be precursor to organizational commitment (OC),^{23,42} several studies show that OC causes JS.^{31,70} Attempts in other studies have been made to explore the association between JS and the constituents of OC developed by Meyer and Allen.³⁹ Intrinsic motivation of employees has an effect on their

job contentment.⁶⁴ Intrinsic motivation happens when internal factors within a person activate or energize a goal-oriented behavior within an individual (Deci & Ryan, 1985). Employees' intrinsic motivation influences their job satisfaction. Kaur and Singh³⁴ in their study show that the level regarding job satisfaction is influenced by personal competence of employees and the relationship is positive. Cherrington et al.¹⁰ mention additionally that satisfaction is reflected when performance is suitably rewarded. Present study deals with intrinsic motivation, reward system, understanding of expectations, and knowledge and managerial competence as influencers of job satisfaction.

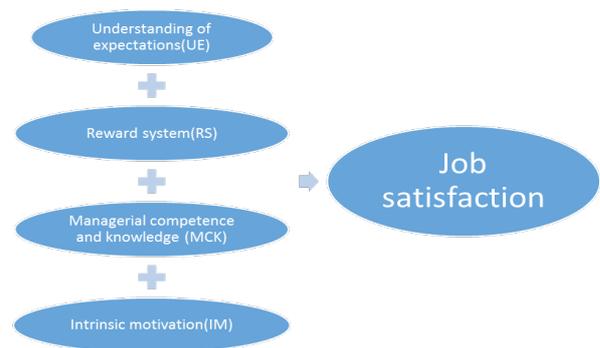


Figure 2. Influencers of Job Satisfaction
Job Performance

Job performance (JP) is a word which refers to the worth of work of a member of staff.⁸ In one of the studies conducted in Malaysia, it was found that enhanced independence and work-life equilibrium has an important role in influencing job performance.²⁹ Teaching performance has been synonymous with teaching effectiveness in higher education. Students have different perceptions on information and computers in business. A study was conducted in USA by Judith and Khalid³⁰ which measured these differences in perceptions. The study also measured the understanding gained after studying a specific subject and the consequence of the subject instructor on the perception of the students. There have been studies measuring relationships between effectiveness in teaching and productivity of research by measuring teaching effectiveness. Teaching effectiveness was measured using students' evaluation.³⁰

Influencers of Job Performance

Organizational commitment (OC) has an important influence on performance.²⁸ OC can be understood in terms of the degree to which an employee engages with his or her firm.²² Relatively, the identification of individual with and extent of engagement in an organization is what defines OC.⁵³ Henkin and Singleton¹⁶ also describe it as a desire of an employee to commit to and be loyal to the organization. What impacts organizational commitment can be a moot question to

explore. Job satisfaction is one which has an effect on organizational commitment.^{22,27} Relation between JS and performance as well as between OC towards organization has been studied.^{43,66} Authors in the present study have studied career satisfaction, OC, and job involvement as influencers of job performance (Fig. 3).

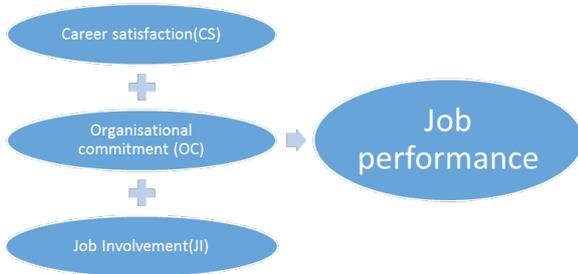


Figure 3. Influencers of Job Performance

There exists an emotional identification with their job by employees. Employees also identify themselves in their cognitive way.^{15,48} Greatly involved personnel find their jobs relevantly linked with their self-identities, self-interests, and their own life aims.⁴⁴ Personnel who are involved with their jobs more, their likelihood of reciprocating to the benefits and supports from the organization is more. This involvement pushes them towards additional efforts so that the organizational goals are accomplished.³³ Employees with tall levels of JI show higher affective commitment towards the institution which increases in-role and extra-role performance.^{13,17} Such involved employees show strong identity with tasks, associate significance to tasks, and identify strongly with job autonomy.⁹ Individuals who are highly involved in job are satisfied with their jobs, are dedicated to their employer, their careers and their

profession. It is also found that for involved employees jobs are intertwined with self-identity and their own life goals.⁴⁴ There is a positive influence of the support from the organization on employees' performance.⁵⁵ Satisfaction in job or career is related to the satisfaction levels in terms of remuneration, advancement in career, alignment with career goals, and self-skill building.⁵⁰ JI and JS of employees have a decisive impact on work performance.⁶⁰

Research Context

The study was based on the questionnaire designed to gather one-time individual data through a structured questionnaire. The scale used by Petroni and Pierligi⁵¹ has been adopted for doing the current study. The study conducted by Petroni was based on engineers but the authors in the current research intended to study satisfaction and performance relationship among teachers. A strong association between employees' JS and job performance has been emphasized in various studies.^{26,63} Current study is also attempting to study the same relationship but in the perspective of the individual variables of job satisfaction which influence determinants of job performance. Job performance among knowledge workers can be measured by career satisfaction, OC and JI. Job satisfaction among knowledge workers can be influenced by reward system; understanding of expectations; intrinsic motivation; and managerial competence and knowledge.⁵¹ On the basis of above literature review following hypotheses were proposed, as given in Fig. 4.

H1, H2, H3, H4: Inadequate understanding of expectations, lack of managerial competence, inadequate reward system and lack of intrinsic motivation negatively influence CS, OC, and JI.

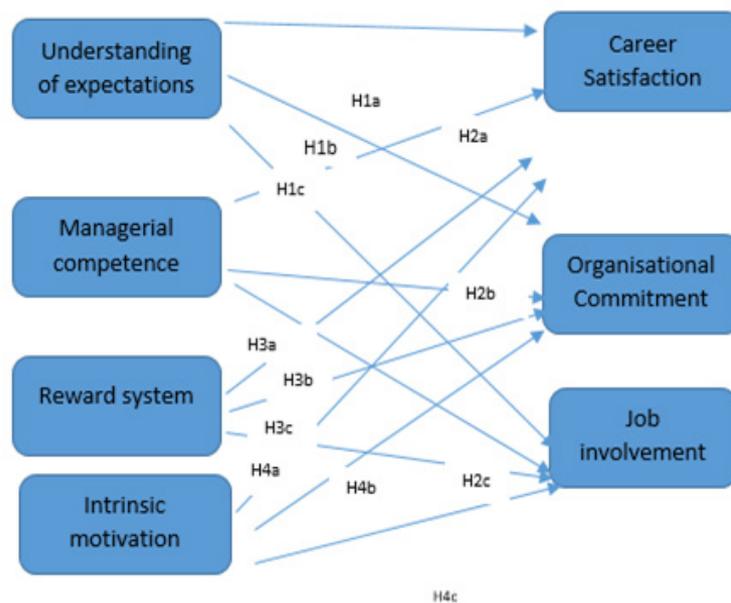


Figure 4. Research Framework

Methodology

The questionnaire

Based on information from the literature on socioeconomic variables that can potentially influence performance and satisfaction, respondents were asked to fill in a questionnaire related to their age, gender, qualification, organizational tenure, income and parameters influencing performance and satisfaction. The questionnaire was administered face to face through personal visits in colleges. Personal visits were conducted to make sure that complete and truthful information was given by respondents. Participants were updated about the purpose of the study and given sufficient time to fill out the questionnaire. They were assured about the confidentiality of the data, which was to be used for academic purposes only. Five hundred respondents were contacted and a total of one hundred and ninety-two completed and usable questionnaires could be obtained, which is a response rate of approximately thirty- nine percent. Table 1 presents the demographic profile of respondents

Population and Sample:- The population under investigation is a cohort of professors in institutes and university, in and around Delhi and NCR. The professors teaching in these institutions are being categorized into PhDs and Non PhDs. Professors were contacted through convenience sampling. As observed in Table 1 of respondents’ characteristics, approximately 70% of the respondents are PhDs. Regarding the age profile, about 69% are older than 28 years of age. Around 63% of the respondents have organizational tenure of more than five years. Around 70% of the respondents were males and rest were females. The paper studies the linkages between job satisfaction and performance. Multiple regression analysis was conducted with three dimensions of performance as independent variables and JS as dependent variable.

Results and Discussion

Respondents were asked to rate items related to performance and satisfaction on a scale of 5-point Likert scale, where 1 stands for very low credibility and 5 stands for very high credibility. Total 39 items were rated by respondents. Table 2 shows reliability score for all 39 items as well as KMO test for sampling adequacy.

Table 2. Reliability and KMO Test for Sampling Adequacy (All 39 Items)

Cronbach’s Alpha	0.797
KMO	0.779
Significant	

Factor Analysis for Performance

To evaluate the dimensionality of the scales used, two scales were separately submitted to exploratory factor analysis (EFA). The 13 items of the scale to measure performance and 26 items of the scale of satisfaction were subjected to principal components’ analysis (PCA) using SPSS. The factor matrices were rotated using Varimax, rotation where no restrictions were placed on the number of factors to be extracted.

Before performing PCA, data suitability for factor analysis was assessed for both the scales. Kaiser-Meyer-Olkin (KMO) index of sampling adequacy and Bartlett’s Test of sphericity were checked for both the scales. The KMO index ranges from 0 to 1, with 0.50 suggested as the minimum value for a good factor analysis⁶⁸ and the Bartlett’s Test of Sphericity should be statistically significant ($p < .05$) for factor analysis to be considered appropriate.²⁵

KMO value of the scale was 0.779, thus exceeding the recommended value of 0.5 and Bartlett’s Test of Sphericity ($p = .000$) reached statistical significance. Thus, both showed enough adequacies of data to support the factor analysis.

Table 1. Demographic Profile of Respondents

n=192

Approximate Monthly Household Income (Rs.)	Percentage	Education(Highest Qualification)	Percentage	Organizational Tenure	In Years
Rs. 100000	37.0	PhD	78.1	More than 15	14.1
Rs. 80000–100000	20.8	Postgraduate	21.9	10–15	14.6
60000–80000	17.2	Age (in years)	Percentage	5–10	33.9
40000–60000	21.9	Above 58	5.7	0–5	37.5
Below 40000	3.1	48–58	10.9	Gender	Percentage
		38–48	13.0	Male	68.8
		28–38	39.1	Female	31.2
		18–28	31.3		

PCA revealed the presence of three components with Eigen values exceeding 1, explaining 23.497%, 20.423%, and 15.697% of the variance respectively. Collectively, the three factors accounted for 59.617% of the total variance.

Based on the results reported in the "Rotated Factor Matrix", the following factor structure emerged:

- **Factor 1:** All the five items related to career satisfaction clearly loaded on Factor 1. So, this factor was named as career satisfaction (CS).
- **Factor 2:** All the five items of organizational commitment Factor 2. Based on content analysis of the items which loaded on this factor, it was named as organizational commitment (OC).
- **Factor 3:** Only three items loaded on Factor 3. This factor was named as job involvement (JI).

These three factors collectively accounted for 59.6% of the variance. Further, to ensure the reliability of the scale consisting of three dimensions of performance, their Cronbach's alpha coefficients were calculated which are presented in Table 3.

For Satisfaction dimensions scale, KMO (0.888) and Bartlett's Test of Sphericity ($p=.000$) both showed enough adequacies

of data to support the factor analysis. As stated earlier, Eigen value of greater than '1' was the criterion for retention of a factor. On the basis of this "Eigen value greater than 1 heuristic", four factors were extracted that account for 53.234% of the total variance. Table below displays the rotated factor matrix for influencers for satisfaction, based on a factor loading of 0.5. Based on the results reported in the "Rotated Factor Matrix", the following factor structure emerged:

- **Factor 1:** All the six items of Inadequate understanding of expectations (IUE) dimension loaded on Factor 1. Based on a content analysis of the items which loaded on this factor, it was named as IUE.
- **Factor 2:** Seven items related to lack of intrinsic motivation (LIM) clearly loaded on Factor 2. Thus, this factor was named as LIM.
- **Factor 3:** All the five items related to inadequate reward system (IRS) loaded on Factor 3. This factor was named as IRS.
- **Factor 4:** Three items were loaded on factor 4. This factor was named as lack of managerial training and competence (LMTC).

Table 3. Factor Extraction: Rotated Component Matrix^a

	Component		
	1CS	2OC	3JI
I am satisfied with the status achieved.	.753		
I am happy with the success achieved in career.	.729		
I am satisfied with pay level.	.729		
My current organization has been instrumental in my progress in achieving career goals	.702		
I am satisfied with rate of promotion.	.548		
I am willing to put an effort beyond that required.		.791	
I am loyal to my organization		.765	
I have pride in belonging to the organization	.500	.673	
I am in agreement with the organization's practices and policies		.668	
There is overlapping between the organization's and personal values		.566	
There is overlapping between personal life interests and job interests			.892
I have a sense of professional pride			.796
I have achieved personal goals through the job	.411		.687
Reliability	0.769	0.783	0.762
Variance explained	23.497	20.423	15.697

Table 4.Satisfaction Dimensions: Rotated Component Matrix^a

	Component			
	1 IUE	2 LIM	3 IRS	4 LMTC
There exists vague criteria for productivity evaluation	.836			
There exists vague criteria for effectiveness evaluation	.834			
There exists a vague criteria for promotion and advancement	.821			
There exists superior authority of non-professionals in my organization.	.793			
There exists vague definition for job description	.767			
Low efforts are put up to develop subordinates' skills and potentials	.626			
Organization promotes low creativity culture		.748		
I feel satisfied with low professional achievement		.745		
There exists low challenge in my role.		.691		
Low ingenuity is promoted in my organization		.643		
People are habitual of getting less discretion over the way they are supposed to accomplish the task assigned.		.584		
There exists low perceived fitting of individual contribution into global picture		.544		
Environment is less flexible here.	.416	.540		
There exists excessive association of incentives to hierarchical advancement			.778	
I feel excessively structured and formalized reward systems are not effective			.724	
Organizational mechanisms are excessively focused on rewarding compliance rather than achievement			.551	
I find mismatch between opportunities granted to managerial and technical roles			.501	
There is low emphasis on status rewards			.458	
There exists provision for automatic advancement to managerial position				.784
There is lack in identifying managerial potential in technical professionals				.675
There are no policies for managerial training for technical professionals				.642
Reliability	0.919	0.864	0.766	0.658
Variance explained	20.217	16.285	10.203	6.529

The next step involved investigation of the linkages between the four factors of JS and the three dimensions of performance. Multiple regression analysis was conducted with performance factors as independent variables. Autocorrelation, i.e., correlation of error terms across observations, was not evident; when checked, as the Durbin-Watson statistic was within the acceptable range of 1.5 to 2.5 indicating independence of observations. Table 5 reports the results of regression.

to be negatively associated to career satisfaction and organizational commitment. Management shall find out ways and means of clearly laying down their expectations from their employees. Proper communication channels and forum shall be put in place for sharing expectations. Inadequate reward system is found to be negatively associated with organizational commitment. The current context is knowledge workers, thus it is important for the organizations to make them part of, reward system

Table 5. Regression Coefficients

	CS (Career Satisfaction)	OC (Organizational Commitment)	Jl (Job Involvement)	DW (Durbin Watson)
IUE (Inadequate understanding of expectations)	-0.25 (H1a accepted)	-0.31 (H1b accepted)	NS (Not significant) H1c not accepted	1.62
IRS (Inadequate reward system)	NS (H3a not accepted)	-0.216 (H3b accepted)	NS (H3c not accepted)	2.15
LIM (Lack of intrinsic motivation)	-0.274 (H4a accepted)	NS (H4b not accepted)	NS (H4c not accepted)	1.74
LMTC (Lack of managerial training and competence)	-0.259 (H2a accepted)	NS (H2b not accepted)	NS (H2c not accepted)	2.14
	IUE, LIM and LTM are negatively related to CS.	IUE is negatively related to CS and OC.	Not significant	Adequate

An inadequate understanding of expectations is found to be negatively associated to career satisfaction and organizational commitment. Inadequate reward system is found to be negatively associated with organizational commitment. Lack of intrinsic motivation is found to be negatively associated with career satisfaction. Higher the motivation amongst employees for their job, more satisfied they will be with their jobs. Lack of managerial training and competence was found to be negatively associated to career satisfaction.

Conclusion and Implications

Satisfied employees demonstrate better performance and propel the engine of growth of any organization. There are many factors which can help us identify the factors influencing performance and satisfaction among knowledge workers. The study focusses on knowledge workers in higher educations and deliberates on factors which influence performance and career satisfaction amongst them and also focuses on the relationship between the identified factors of career satisfaction and performance.

It was found that if expectations are clearly defined from the management, it will lead to higher career satisfaction and better commitment of employees towards the organization. An inadequate understanding of expectations is found

designing, to enhance organizational commitment. Lack of intrinsic motivation is found to be negatively associated with career satisfaction. People tend to be more satisfied in context of a challenging and pro-creativity environment. Organizations shall attempt at making the job and job environment interesting and promote genuity to keep the knowledge workers motivated. Failure to differentiate between knowledge workers and other skilled employees was not found to be significantly associated with any of the performance parameters. This must be because in education sectors the skilled workers are not promoted to managerial cadre as in the case of engineers. Lack of managerial training and competence was found to be negatively associated to career satisfaction Knowledge workers shall be well oriented before giving them any administrative role, this will keep them satisfied.

The findings of this research are likely to have implications for all stakeholders; the government, universities, institutes and students. Motivated professors can only deliver their best in their classrooms. More support shall be provided in reducing ambiguity related to reward system and appropriate understanding of knowledge workers' expectations shall be established. The study shall help in contributing to create a more conducive environment for these knowledge workers.

References

- Koustelios AD. Personal characteristics and job satisfaction of Greek teachers. *International Journal of Educational Management* 2001; 15(7): 354-58.
- Younes B, Falah OM. job satisfaction among faculty members at community colleges and its relationship to organizational commitment from their point of view. *Journal of Global Economics, Management & Business Research* 2017; 9(3): 113-21.
- Almatrooshi B, Singh SK, Farouk S. 2016 Determinants of organizational performance: A proposed framework. *International Journal of Productivity and Performance Management* 2017; 65(6): 844-59.
- Ali BC, Ozlem A, Gaye K. The mediating effect of rewarding on the relationship between employee involvement and job satisfaction. *Human Factors & Ergonomics in Manufacturing & Service Industries* 2017; 27(1): 45-52.
- Beck-KralaTarczoń, Masłyk. Employee satisfaction with tangible and intangible rewards in health care sector. *Polish Journal of Management Studies* 2017; 16(2): 17-27.
- Beaumont PB, Hunter LC. Managing knowledge workers: The human resource dimension. London: *Short Run Press* 2002.
- Bosetti L, Walker K. Perspectives of UK vice-chancellors on leading universities in a knowledge-based economy. *Higher Education Quarterly* 2010; 64(1): 4-21.
- Caillier JG. Factors affecting job performance in public agencies. *Public Performance & Management Review* 2010; 34(2): 139-65.
- Chen CC, Chiu SF. The mediating role of job involvement in the relationship between job characteristics and organizational citizenship behavior. *The Journal of Social Psychology* 2009; 149(4): 474-94.
- Cherrington DL, Reilz HJ, Scott WE, Jr. Effects of reward and contingent reinforcement on satisfaction and task performance. *Journal of Applied Psychology* 1971; 55: 531-36.
- Chien-Hung Wu, I-Shen Chen, Jia-Chern Chen. A study into the impact of employee wellness and job satisfaction on job performance. *International Journal of Organizational Innovation* 2017; 10(2): 253-69.
- Clare L. Comm, Dennis FX Mathaisel. A case study of the implications of faculty workload and compensation for improving academic quality. *International Journal of Educational Management* 2003; 17(5): 200-10.
- Cohen A. Relationships among the five forms of commitment: An empirical analysis. *Journal of Organizational Behavior* 1999; 20(3): 285-308.
- Cook JD, Hepworth SJ, Wall TD et al. The Experience of Work. London: *Academic Press* 1981.
- Cropanzano R, Howes JC, Grandey AA et al. The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior* 1997; 18(2): 159-80.
- Dee JR, Henkin AB, Singleton CA. Organizational commitment of teachers in urban schools: Examining the effects of team structures. *Urban Education* 2006; 41(6): 603-27.
- Diefendorff J, Brown D, Kamin A et al. Examining the roles of job involvement and work centrality in predicting organizational citizenship behaviors and job performance. *Journal of Organizational Behavior* 2002; 23(1): 93-108.
- Drucker PF. The age of social transformation. *The Atlantic Monthly*. 1994; 274(5): 53-80.
- Drucker PF. The next society: A survey of the near future. *The Economist* 2001; 361(8246).
- Erdogan B, Enders J. Support from the top: supervisors' perceived organizational support as a moderator of leader-member exchange to satisfaction and performance relationships. *Journal of Applied Psychology* 2007; 92(2): 321-30.
- Reilly E, Dhingra K, Boduszek D. Teachers' self-efficacy beliefs, self-esteem, and job stress as determinants of job satisfaction. *International Journal of Educational Management* 2014; 28(4): 365-78.
- Fu W, Deshpande SP. The impact of caring climate, job satisfaction, and organizational commitment on job performance of employees in a China's insurance company. *Journal Business Ethics* 2013; 124(2): 339-49.
- Fu W, Deshpande SP, Zhao X. The impact of ethical behavior and facets of job satisfaction on organizational commitment of Chinese employees. *Journal of Business Ethics* 2011; 104(4): 537-43.
- Gebler D. Is your culture a risk factor? *Business and Society Review* 2006; 111(3): 337-62.
- Hair JF, Anderson RE, Tatham RL et al. Multivariate Data Analysis. New Jersey: *Prentice Hall* 1998.
- Hira A, Waqas I. A Study of job satisfaction and IT's impact on the performance in the banking industry of Pakistan. *International Journal of Business and Social Science* 2012; 3(19): 174-80.
- Huang CC, You CS, Tsai MT. A multidimensional analysis of ethical climate, job satisfaction, organizational commitment, and organizational citizenship behaviors. *Nursing Ethics* 2012; 19(4): 513-29.
- Jamal M. Job stress, job performance and organizational commitment in a multinational company: An empirical study in two countries. *International Journal of Business and Social Science* 2011; 2(20): 20-29.
- Johari J, Fee Yean Tan, Zati Iwani Tjik Zulkarnain. Autonomy, workload, work-life balance and job performance among teachers. *International Journal of Educational Management* 2018; 32(1): 107-20.

30. Simon JC, Soliman KS. An alternative method to measure MIS faculty teaching performance. *International Journal of Educational Management* 2003; 17(5): 195-99.
31. Kacmar MK, Carlson DS, Brymer RA. Antecedents and consequences of organizational commitment: A comparison of two scales. *Educational and Psychological Measurement* 1999; 59(6): 976-94.
32. Kaarst-Brown ML, Nicholson S, Von Dran GM et al. Organizational cultures of libraries as a strategic resource. *Former Departments, Centers, Institutes and Projects* 2004; 53(1): 33-53.
33. Kahn W. Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal* 1990; 33(4): 692-724.
34. Kaur S, Singh S. Exploring relationship among spiritual quotient, personal competence and job satisfaction of employees: An empirical study. *Journal of Management Research* (09725814). 2017; 17(1): 187-200.
35. Kluger AN, Tikochinsky J. The error of accepting the 'theoretical' null hypothesis: The rise, fall, and resurrection of commonsense hypotheses in psychology. *Psychological Bulletin* 2001; 127: 408-23.
36. Bae KB, Yang G. The effects of family-friendly policies on job satisfaction and organizational commitment: A panel study conducted on South Korea's public institutions. *Public Personnel Management* Mar 2017; 46(1): 25-40. 16p.
37. Lemieux T, MacLeod WB, Parent D. Performance pay and wage inequality. *The Quarterly Journal of Economics* 2009; 124(1): 1-49.
38. Locke EA. The nature and causes of job satisfaction. In *Handbook of Industrial and Organizational Psychology*, Chicago: *Rand McNally* 1976; 1297-1350.
39. Meyer JP, Allen NJ. A three-component conceptualization of organizational commitment. *Human Resource Management Review* 1991; 1(1): 61-90.
40. Miao RT. Perceived organizational support, job satisfaction, task performance and organizational citizenship behavior in China. *Journal of Behavioral and Applied Management* 2011; 12(2).
41. Millar CC, Choi CJ. Development and knowledge resources: A conceptual analysis. *Journal of Knowledge Management* 2010; 14(5): 759-76.
42. Mowday RT, Porter LW, Steers RM. Employee-organization linkages: The psychology of commitment, absenteeism, and turnover. New York: *Academic Press* 1982.
43. Moynihan DP, Pandey SK. Finding workable levers over work motivation comparing job satisfaction, job involvement, and organizational commitment. *Administration & Society* 2007; 39(7): 803-32.
44. Mudrack PE. Job involvement, obsessive-compulsive personality traits and workaholic behavioral tendencies. *Journal of Organizational Change Management* 2004; 17(5): 490-508.
45. Emanoil M, Alexandra S. Knowledge workers – The modern workers prototype in present and future organization. *Annals Of The University Of Oradea, Economic Science Series* 2013; 1(2): 572-580.
46. Mehrzi NA, Singh SK. Competing through employee engagement: A proposed framework. *International Journal of Productivity and Performance Management* 2016; 65(6): 831-43.
47. Ng, TWH, Feldman DC. The relationship of age to ten dimensions of job performance. *Journal of Applied Psychology* 2008; 93(2): 392-423.
48. O'Driscoll MP, Randall RM. Perceived organizational support, satisfaction with rewards, and employee job involvement and organizational commitment. *Applied Psychology: An International Review* 1999; 48(2): 197-209.
49. Otken AB, Ucar D. Perceived organizational support and organizational commitment: The mediating role of organizational based self-esteem. *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi* 2010; 25.
50. Kong H, Cheung C, Song H. From hotel career management to employees' career satisfaction: The mediating effect of career competency. *International Journal of Hospitality Management* 2012; 31(1): 76-85.
51. Petroni A, Pierligi C. Motivation strategies for knowledge workers: Evidences and challenges. *Journal of Technology, Management Innovation* 2008; 3(3): 21-32.
52. Poon JML. Effects of performance appraisal politics on job satisfaction and turnover intention. *Personnel Review* 2004; 33(3): 322-34.
53. Porter LW, Steers RM, Mowday RT et al. Organizational commitment, job satisfaction and turnover among psychiatric technicians. *Journal of Applied Psychology* 1974; 59(5): 603-09.
54. Recardo R, Jolly J. Organizational culture and teams", *SAM Advanced Management Journal* 1997; 62(2): 4-7.
55. Rhoades L, Eisenberger R. Perceived organizational support: A review of the literature. *Journal of Applied Psychology* 2002; 87(4): 698-714.
56. Vaillancourt RP. Performance evaluations for-profit and nonprofit U.S. hospitals since 1980. *Nonprofit Management & Leadership* 2003; 13(4).
57. Saane ZV, Sluiter JK, Verbeek JH et al. Reliability and validity of instruments measuring job satisfaction: A systematic review. *Occupational Medicine* 2003; 53: 191-200.
58. Svetlana S. Identifying factors affecting motivation and loyalty of knowledge workers. *Economics and Management* Kaunas University of Technology,

- Lithuania. 2007.
59. Semadar A, Robins G, Ferris G.R. Comparing the validity of multiple social effectiveness constructs in the prediction of managerial job performance. *Journal of Organizational Behavior* 2006; 27(4): 443-61.
 60. Sheau-Hwa Chen, Po-Yu Liu. Effects of internal marketing, organizational commitment, job involvement and job satisfaction on work performance: A study of the elderly care institutions in Taiwan. *Marketing Review/Xing Xiao Ping Lun* Sep 2012; 9(3): 277-301.
 61. Smith DC. What can we expect from performance management activities that we cannot expect from performance measurement? *Journal of Policy Analysis and Management* 2009; 28(3): 512-14.
 62. Smith CA, Kendall LM, Hulin CL. The Measurement of satisfaction in work and retirement: A strategy for the study of attitudes. Chicago: *Rand McNally* 1969.
 63. Spector PE. Job satisfaction: Application, assessment, courses, and consequences. *Sage Publications, Inc.* 1997.
 64. Brown S, Huning T. Intrinsic motivation and job satisfaction: The intervening role of goal orientation. *Proceedings of the Academy of Organizational Culture, Communications and Conflict.* 2010; 15(1).
 65. Uddin, Mohammad Jamal, Miah, Muhammad Abdus Shaheed, Rahman, Mohammad Mizanur et al. Mediation role of job satisfaction on Hrm-operational performance relationship: A three-way moderation effect by gender. *Journal of Developing Areas* Summer 2017; 51(3): 437-52. 16.
 66. Valaei N, Rezaei S, Ismail WKW. Examining learning strategies, creativity, and innovation at SMEs using fuzzy set qualitative comparative analysis and PLS path modeling. *Journal of Business Research* 2016; 70.
 67. Anton V, Miro S, Mari V. An analysis of the relationship between job satisfaction and employee engagement. *Economic Themes* 2017; 55(2): 243-62. 20.
 68. Williams B, Brown T, Onsmann A. Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine* 2010; 8(3).
 69. Yang C-L, Hwang M. Personality traits and simultaneous reciprocal influences between job performance and job satisfaction. *Chinese Management Studies* 2014; 8(1): 6-26.
 70. Yucel I, Bektas C. Job satisfaction, organizational commitment and demographic characteristics among teachers in Turkey: Younger is better? *Procedia - Social and Behavioral Sciences* 2012; 46: 1598-1608.