

Exploring ‘Employee Satisfaction’ as a Quality and Productivity Enhancement Tool for IT Sector of Pakistan

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Preface:

This research paper is written during the study of course; ‘Software Quality Management’, offered at CASE, Islamabad, taught by: Mr. Ali Ahsan in Fall 2007. The motivation of this research paper comes from one of the research question that is part of Mr. Ali Ahsan’s PhD Thesis.

Abstract:

Purpose - This research addresses the factors concerning ‘Employee Satisfaction’ that impact quality of work done and productivity in software organization in Pakistan. The research reveals employee satisfaction as an integral factor for organizations in Pakistan for obtaining competitive advantages in terms of both quality and productivity. Employee satisfaction is an attribute pertinent to the workforce, which proves to be a valuable asset for the development of any sector. It is intended that findings of this research can be used to bring improvements in the work being done in the IT industry. This may serve as a valuable contribution in uplifting the IT economy of Pakistan.

Methodology - This research focuses on the factors that cause employee satisfaction or dissatisfaction. Initially factors affecting employee satisfaction were identified from the literature review. After this the relationship of employee satisfaction with quality and productivity was analyzed for organizations in Pakistan. A questionnaire was used in order to collect necessary data. This questionnaire highlighted the factors that are source of satisfaction or dissatisfaction. The questions used in the surveying tool, concerned general level of satisfaction of employees and the belief of top level managers and policy makers about the role of employee satisfaction on quality and productivity. It was ensured that questions were easy to understand, short and less time taking. The survey presented a range of options from 1 to 10 to employees for collecting their feedback. Lowest range depicted strong dissatisfaction and was given a ‘1’ weight age. Whereas highest range depicted strong satisfaction corresponding and was given a ‘10’ weight age. In addition to these questions having a range of options; general questions were also asked from employees in order to obtain understanding for their views. In order to carry out a meaningful, understandable and in-depth statistical analysis, questions were designed in a format that the response could then be easily translated into statistical figures for subsequent analysis.

Findings - *Ahsan, Sajid and Wasim (2008) quote: “Pakistan’s IT industry is currently one of the top performers as compared to other industrial sectors within Pakistan^[10]. As per the findings of Ahsan (2008), despite the fact that Pakistan’s IT industry is competitive, its true potential is yet to be unfolded. Ahsan (2008); states that Pakistan’s so called competitive IT industry has to be in lined with the international performers (Particularly South Asian economies). A simple proof of this statement can be obtained from the fact that Pakistan’s general economy is 1/5th of Indian economy. This must be true for IT sector of both the economies as well, which, unfortunately is not the case as because Pakistan’s IT sector is currently 1/27th of the Indian IT Sector^[10]. Ahsan (2008) believes that partial reason of this unwanted difference may be revenue models, business practices and political situations of the two countries. Other than these Ahsan (2008) believes that several soft issues^[11] are also responsible for this industrial difference. Out of the soft issues*

'motivation' is one such important factor."^[12](Note: When Ahsan (2008) says 'Competitive', it is with respect to other industries within Pakistan)

Argument given by Ahsan, Sajid and Wasim (2008) related to the role of motivation as an imperative soft issue for revitalizing workforce can also be reproduced for the discussion concerning the role of 'Basic Employee Satisfaction' as an organization productivity and quality enhancement tool. Employees, being an integral asset of the organizations, impact organizations in accomplishment of their objectives. The impact of employee satisfaction in software industry of Pakistan is relatively less known but plays significant role. This paper analyzes the major causes of employee satisfaction and the impact of employee satisfaction on quality and productivity dimensions in the software organizations in Pakistan. Much of the literature reveals that factors like for instance pay^[1], career growth, encouragement, feedback, job interest and work environment influence employee satisfaction directly^[2] and therefore affect quality and productivity in one way or another. This paper argues that management in Pakistan's IT organizations should focus on factors affecting the employee satisfaction and manage workforce accordingly.

Limitations - Most of the discussion has been restricted to the factors, already identified in previous research [1], [3], [4], [5], [7], [8], [9] and literature. Survey is conducted only for the IT organizations in Islamabad.

Originality / Value - As said earlier, findings of this research can be used to bring improvements in the work being done in the IT industry. This may serve as a valuable contribution in uplifting the IT economy of Pakistan.

Keywords - Employee Satisfaction, Quality, Productivity.

Paper Type - Research Paper

Abbreviations and Acronyms – IT ~ Information Technology, Organizations ~ IT Organizations within Pakistan, Sector ~ Industry, Industry ~ IT Industry

Introduction:

With the changing IT consumer behavior towards quality and speedy solution, IT organizations now focus a lot on quality and productivity as key surviving tools. This paper argues that the quality and productivity in IT organizations of Pakistan relate directly to 'Employee Satisfaction'. Employee satisfaction has been a major concern for many researchers. Several research studies illustrate the relationship between employee satisfaction and productivity but findings are contradictory. Some prove the positive relationship (Dunnette, Campbell, & Jaastad (1967), Locke, (1969, 1976), King (1970)) while others find no relationship (Bray field & Corckett (1955), Vroom (1964))^[1]. According to Richmond, McCroskey and Davis (1982), "moderately satisfied employees may be more productive than dissatisfied employee; extremely satisfied employees may form the type of work group known as the "happiness for lunch bunch" (Mc Croskey, Larson & Knapp, 1971) and be more of a social group than a work group, hence lowering productivity".^[1] Despite the growing focus of international organizations on quality and productivity enhancement, we rarely find any necessary information; analyzing the impact of employee satisfaction on quality and productivity (Information concerning software industry is nearly does not exist. Also, the situation is even worse for Pakistan's IT industry).

Research Scope:

This research examines and presents views of various employees in IT industry of Pakistan concerning their satisfaction level. The impact and correlation of employee satisfaction on quality and productivity of organizations is also studied in this research. Findings and conclusions are drawn after statistical analysis. Recommendations are provided to manage employee satisfaction in organizations in order to be more productive.

Research Questions:

Research questions of this paper are a small subset of questions identified by Ahsan (2008) in his PhD research report^[10]. The questions which are addressed in this paper are as follows (but not limited to); a) What is the general level of satisfaction of employees in Pakistan's IT Industry? b) Is there any affect of satisfaction on quality and productivity within IT organizations of Pakistan? c) What are causes / factors of employee satisfaction?

Data Collection Method:

Data was obtained from research papers, internet, dissertations, journal articles and books. Further, the relevant information was obtained from a survey conducted in 13 IT organizations in Islamabad having more than 40 employees. 33 questionnaires were obtained from employee in these organizations. Interviews were conducted from the high officials. Before distributing the questionnaires, each individual was given understanding of the research.

Data Analysis Method:

In order to analyze data, both qualitative and quantitative methods were used. Moreover, statistical tools were applied on the data for concluding results. These tools include the following:

For Qualitative Analysis:

'Brainstorming' and 'Cause and effect Diagram' were used.

For Quantitative Analysis:

Histogram, 'Bar Graphs', Correlations and Scatter Plots were used.

Analysis of data helped segregation of the factors that lead to employee satisfaction and dissatisfaction, along with the effect of employee satisfaction on quality and productivity. Following factors (independent variables) were analyzed in relation to satisfaction of employees (dependent variable): individual quality of work, commitment level^[6], pay^{[1],[2]}, career growth^{[9],[6]}, work environment^[3], supervisor's attitude^{[3],[5]}, empowerment^[3], feedback^[3], performance evaluation^[6], well defined job responsibility^[3], interest level with the job^[3], process quality, organizational quality^[7], employee moral and work ethics^[4], availability of resources, communication level^[3], trainings^[6], absenteeism^{[3],[4]}, turnover^{[3],[2]}, organization standard, quality of work output by the organization^{[7],[8]}, customer satisfaction^[8], relation with co-workers^[3] and productivity of the organization^[1].

Factors, showing no impact were discarded from the study after analysis and only those factors were further scrutinized that depicted either positive or negative impact. The data was also compared to previous research and studies so that considerable results could be concluded.

General Analysis:

The statistical analysis leads to the following observations:

Employee's experience is hardly related to employee satisfaction level (correlation: 0.248).

Individual employee satisfaction has significant direct relationship with broad (collective) satisfaction level found within organizations (correlation=0.85). This depicts that the overall satisfaction level of employees in organization increase with the increase in the satisfaction level of individual employees and vice versa.

Evidence has indicated, that dissatisfaction from pay is reduce level of performance (Bretz & Thomas (1992))^[3]. The survey analysis depicts that employees having higher pays are more satisfied (correlation=0.79) and their satisfaction level grows if they are given competitive salary packages (correlation=0.56).

A positive relationship exists between employee's interest in job and his / her satisfaction (correlation: 0.49). Although, this relationship is positive, but as compared to other factors, it doesn't show a high impact contributing towards the satisfaction of the employees.

Moving on with our discussion employees taking leaves, due to lack of interest in their work has weak correlation to their satisfaction level (correlation= -0.124) and similar is the relationship of unsatisfactory job

environment with individual satisfaction (correlation=-0.243). This depicts that employees in Islamabad IT organizations are satisfied with the work they do and the environment provided to them. The reasons for their leave are negligibly either sickness (correlation=0.18) or personal problems (correlation=0.08).

Research reveals that manager's use of leadership behavior influence employee satisfaction and output given by employee and productivity of the organization. The survey conducted, covered few attributes of leadership involving empowerment, encouragement of innovative ideas, ease level of communication irrespective of the designation, fairness in performance evaluation process and feedback given in response to job performance. Results depict positive influence of all these attributes on employee satisfaction. Amongst all these leadership factors provided to the employees from management, encouragement (correlation=0.6), feedback (correlation= 0.69) and performance evaluation (correlation=0.73) show significant and direct impact on satisfaction of employees.

Elaboration of job responsibility influences the satisfaction of employees (correlation=0.56) directly. Similarly organization's objectives definition affect satisfaction (correlation=0.5).

The graph in Figure 1 represents the opinion given by employees that 'Professional Development'^[6] influences their satisfaction level. This graph is left skewed depicting the fact that employees do consider career growth as their satisfaction need in an organization. This research reveals that professional development is one of the factors leading to the better productivity of the organization.

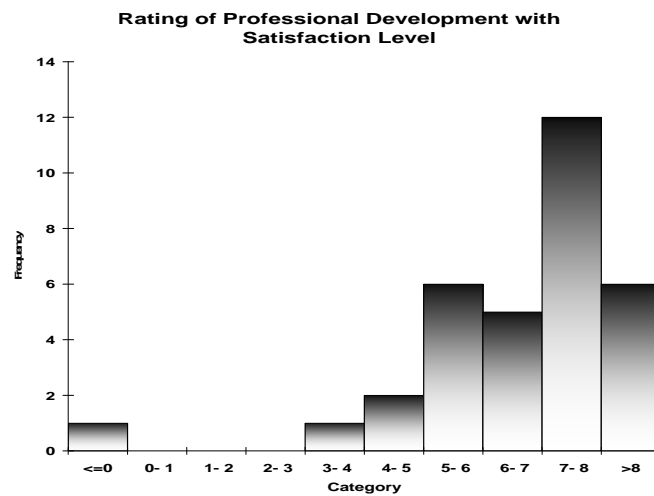


Figure (1): Histogram Depicting Rating of Professional Development with Satisfaction Level

The graph in Figure 2 shows the effects of work environment on employee satisfaction is left skewed depicting employee belief that work environment has strong influence on employee satisfaction.



Figure (2): Histogram Depicting Rating of Work Environment with Employee Satisfaction

Continuing further, employee satisfaction directly impacts the quality of work produced by the organization, (correlation=0.8) thereby, depicting that if employees are satisfied, quality work will be produced. Consequently, employee will be more satisfied by the organization, but if they are not satisfied, quality will be affected negatively. Moreover the analysis also shows, that too much process quality negatively affects the employee satisfaction (correlation=-0.083).

Employee satisfaction directly impacts the productivity of the organization (correlation=0.71) thereby depicting that the organizations that have more satisfied employees are highly productive and organization with dissatisfied employees as less productive.

Literature review depicts that training is one of the four factors leading towards productivity of the organization. About 81% of the sample gives a strong view of the positive impact of training on the output of work they perform, while the rest gave the view that it does affect work output in a normal way. Further, the survey covered three attributes of training; involving current training status of the organization, effective training helping the employees in performing their job well and awareness of technology. The results of the survey show weak relationship with employee satisfaction which means, that proper and effective training is hardly given in the organizations within Islamabad, whereby people are made aware of the new technologies.

Here, it is also important to mention that analysis in this research shows that 94% employees from sample think that satisfaction level directly affects employee ethics and dissatisfied employees are more likely to show unethical behavior in organizations. Only 6% employee thinks that satisfaction has no effect on employee morale and ethics.

The external factors which we have not considered in this research but employee thinks that can effect employee satisfaction, are government policies, transport, good projects, company strength, social and economic values, political instability, natural disaster, location, vendor management, weather, and family issues (Figure 3).

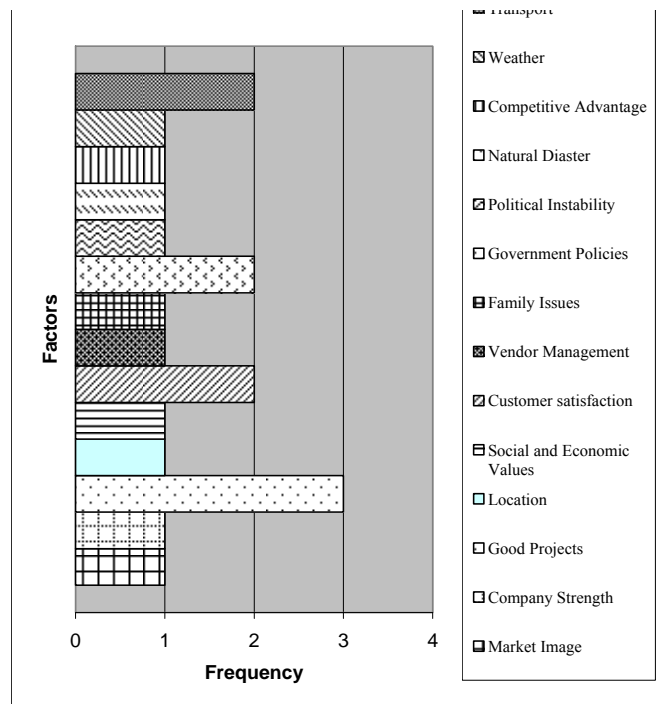


Figure (3): Simple Bar Graph for External Factor that Affect Satisfaction

The research survey for this paper focused on two major areas i.e., Quality and productivity being influenced by employee satisfaction. Whereby some novel areas are also put forward by the employees during the survey including teamwork, motivation, policies, innovation, family and social life and employee loyalty (Figure 4 clarifies).

With the discussion above, research reveals that generally employees also think that if the employer at organizational level provides factors like job assignment according to employee's interest, effective communication, succession planning, beneficent HR policies, better compensation packages, job security, working environment and timely feedback, then they can increase employee satisfaction.

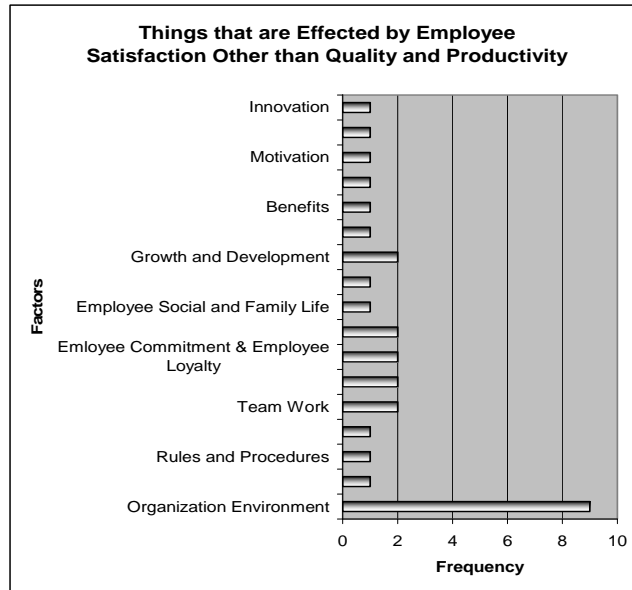


Figure (4): Simple Bar Graph for things that are affected by Employee Satisfaction

Similarly, at government (industrial), individual, managerial and social level, they should improve educational facilities, drive out fear and should undertake innovative projects (Figure 5).

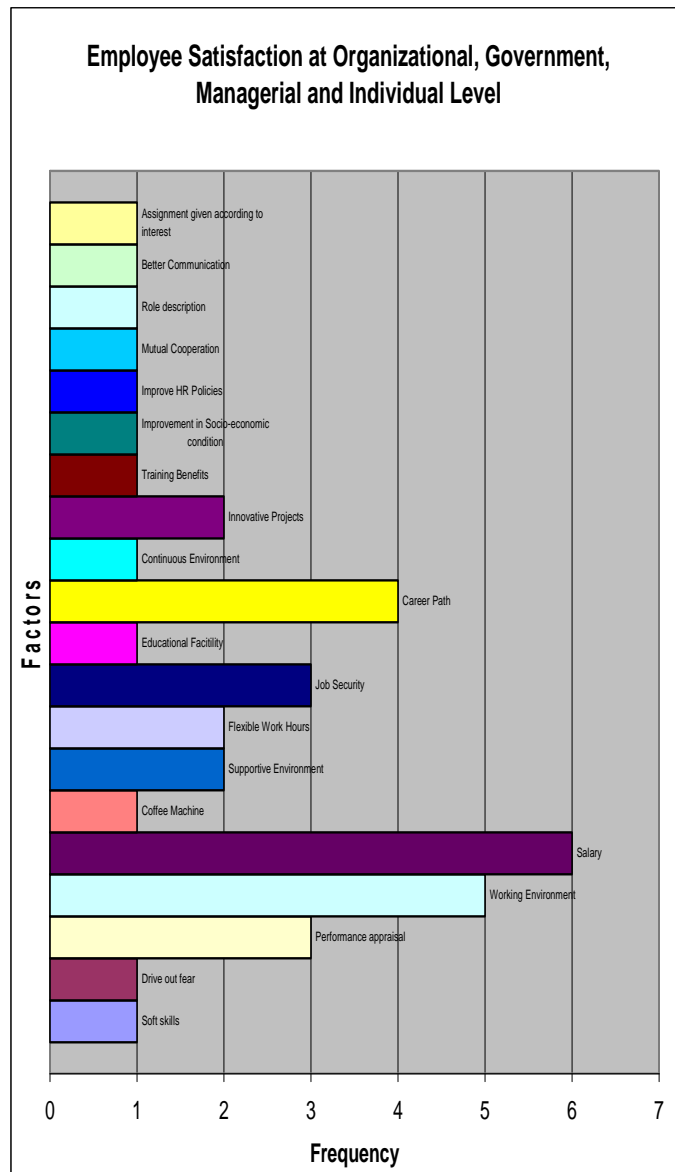


Figure 5: Simple Bar Graph for Suggestions from employee as what need to be done at different level in order to increase employee satisfaction.

Conclusion:

The study provides support for some key factors serving as stimulators for employee satisfaction. These factors are pay, job interest, leadership (encouragement, feedback, and performance appraisal), career growth, working environment, broadly defined job responsibility, organizational objectives and trainings. These factors if not provided, result in dissatisfaction of employees. In addition to this some new factors have been identified which were not made part of the survey initially but came across on employees feedback. These factors include government policies, transport, good innovative projects, company strength, social and economic values, political instability, natural disaster, location, vendor management, weather, and family issues. Further, it is concluded that employee satisfaction serves as a stimulus for the organizational quality and productivity. Therefore, it is proved that employee satisfaction impacts positively on software quality and productivity. In brief, if the factors highlighted are given proper consideration, the productivity and quality of organization will increase.

Recommendations:

Pakistan is lagging behind in IT with respect to other South Asian countries particularly India. Management should be made aware about the significance of employee satisfaction, as being an input agent towards their organization's productivity and quality, which leads to competitive advantage apart from getting return on investment.

Career growth should be focused by defining career paths for an employee, within an organization, so that employees should feel secure; career wise, and can be more productive. Competitive salary packages should be given along with a better environment to work. Job assignment must be done according to employee's interest because if an employee does not like his job, he will not be able to deliver quality in his work. Trainings should be properly planned and conducted with proper evaluation of the outcomes in learning of employees and enhancement of their job skills. Learning new tools and technology provides competitive advantage to the organizations by assisting employees in quality, development and working efficiently. Processes should be there but they should also consider the needs and satisfaction of employees in performing them, as employees are an important asset to the organization, therefore, standards should be designed in a way that shouldn't be a hindrance towards employee satisfaction and work output.

References:

- [1] Virginia P. Richmond, James C. McCroskey, and Leonard M. Davis, (1982), "Individual differences among employees, Management Communication style, and Employee satisfaction: Replication and extension", *West Virginia University Human Communication Research Winter 1982, Vol 8, No-2 170-188*.
- [2] Michael G. Aamodt, Undated, "*Applied Industrial / Organizational Psychology*", 4th edition—Thompson/Wadsworth Publishers.
- [3] Steven C. Currall Jones School of Management and Departments of Psychology and Statistics Rice University, Annette J. Towler Institute of Psychology Illinois Institute of Technology, Timothy A. Judge Warrington College of Business University of Florida and Laura Kohn Department of Psychology Rice University, Undated, Pay Satisfaction and Organizational Outcomes.
- [4] Locke, 1976 cited in Brief, A. P., & Weiss, H. M. (2001). "Organizational Behavior: Affect in the Workplace". *Annual Review of Psychology*, 53, 279-307, p. 282.
- [5] Yair Berson and Jonathan D. Linton, (2005), "An Examination Of The Relationships Between Leadership Style, Quality, And Employee Satisfaction In R&D Versus Administrative Environments".
- [6] Robert L. Mathis and John H. Jackson, (2006), "*Human Resource Management*", Eleventh Edition South Western: Thomson.
- [7] Robert C. Woods, (2002), "Managing to Meet Employee Expectations: Quality Improvement Tools Narrow the Gap between Employee Expectations and Company Resources". *Journal Title: Human Resource Planning. Volume: 16. Issue: 4. Publication Year: 1993. Page Number: 13+*, COPYRIGHT 1993 Human Resource Planning Society; COPYRIGHT 2002 Gale Group.
- [8] Amanda Pyman, Brian Cooper, Julian Teicher and Peter Holland, Undated. "A Comparison of the Effectiveness of Employee Voice Arrangements in Australia".
- [9] John W. Lounsbury^{1,3}, Lauren Moffitt², Lucy W. Gibson³, Adam W. Drost³ and Mark Stevens³, (2007), "An Investigation Of Personality Traits In Relation To Job And Career Satisfaction Of Information Technology Professionals", *Journal of Information Technology (2007) 22, 174–183*.
- [10] A. Ahsan, *OD as a Revitalization Tool for IT Industry of Pakistan* [unpublished], PhD Thesis, Accessed Jan 2008.
- [11] A. Haider, (2004), "Software Productivity: The impact of Soft Factors, Proceedings of International Conference on Software Engineering and Applications", *IEEE & Foundation University, Islamabad, Pakistan*.
- [12] Muhammad Wasim Bhatti, Ali Ahsan & Ali Sajid, (2008), "Required Level of Motivation to Revitalize the Workforce in software Industry of Pakistan", *7th WSEAS Int. Conf. on Software Engineering, Parallel and Distributed Systems (SEPADS '08)*, University of Cambridge, UK.

Bibliography:

- [1] Bellott, F. K., & Tutor, F.D. (1990). "A Challenge To The Conventional Wisdom Of Herzberg And Maslow Theories", *Nineteenth Annual Meeting of the Mid-South Educational Research Association*, New Orleans, LA.
- [2] (2006) The website. [Online]. Available From:<http://motivationcentre.blogspot.com/2006/03/alderfersterg-theory.html>.
- [3] Herzberg, F., Mausner, B. and Snyderman, B. B. (1959). "*The Motivation to Work*" (2nd ed.). New York: John Wiley & Sons.
- [4] Scott J. Behson, Fairleigh Dickinson University, Erik R. Eddy, The Group for Organizational Effectiveness, Inc. Steven J. Lorenzet, Rider University, Undated, "The Importance Of The Critical Psychological States In The Job Characteristics Model: A Meta-Analytic And Structural Equations Modeling Examination".
- [5] Robert W. Renn and Robert J. Vandenberg, (1995), "The Critical Psychological States: An Underrepresented Component In Job Characteristics", *Journal of Management*.