QUALITY PERFORMANCE AND JOB SATISFACTION AMONG SELECT ENGINEERING COLLEGE LIBRARIANS IN INDIA: A SURVEY

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ABSTRACT

This study, investigates the level of job satisfaction among librarians of select engineering colleges in India. The questionnaire distributed to 700 respondents and the response rate was 66.57 per cent, containing 50 questions relating to job satisfaction and these converted into statements.The instrument assessed eleven key facets of job satisfaction with regard to various motivational factors and organizational characteristics. The responses received from the respondents to above variables is presented in the form of tables and analyzed with the help of different statistical methods.

The study found that nature of job as the main motivational factor to enter in to the profession to achieve academic satisfaction. The study also revealed that ICT is the highest motivating factor in increasing efficiency. 'Job profile' is ranked first among the 11 key facets. Female respondents are more satisfied with their job than the male. Level of job satisfaction differs with different age groups. Librarians' association with professional bodies has resulted in highest level of job satisfaction. It is observed that the level of job satisfaction increases with the increase in staff. It is highly significant to note here that the librarians enjoy high level of job satisfaction among automated libraries and moderate with the way ICT is used in providing library services to users, automation process of their library and working in digital library environment.

It is hoped that librarians working in engineering colleges under study to update their knowledge and new ICT skills and also seek change from the traditional library techniques to modern automated systems along with the training and enhancement of knowledge. The analysis reveals that the highest level of job satisfaction is achieved by the librarians with highest salary. The findings of the study will set forth to college managements to be provided with minimum scale of pay as per the provisions of AICTE and adequate career advancement schemes and also formulate adequate ICT training programmes and infrastructure for librarians, so as to promote zeal, dedication and commitment to work for the development of the libraries of engineering colleges under study with job satisfaction.

Keywords: Job Satisfaction, Engineering colleges, India.

Introduction

In an academic environment, library is one of the key and integral components for the pursuit of academic excellence and research activities and the librarian plays crucial role in bridging the link between two important components of library namely, users and resources. The basic philosophy and ideology of any library is to serve its users. Ranganathan's five laws of library science propagate and reinforce the philosophy of providing right information to right users at the right time. The effectiveness and efficiency of the service organization such as library is measured in terms of quality of its services rendered to its users, engineering college library is not an exception. The quality of service mainly depends upon the quality of workforce, which in turn directly depends on knowledge, adaptability and satisfaction level of the librarian. Every profession has got certain aspects conducive for job satisfaction. At the same time it has other aspects that lead to dissatisfaction, librarianship is no exception. If it is possible to isolate the factors of dissatisfaction, attempts can be made either to change the dissatisfying conditions or to reduce their intensity so as to increase the holding power of the profession. The service quality of the professionals mainly depends upon their commitment, willingness to work and mental satisfaction in the job that they perform. In industrial sectors a satisfied employee is productive employee of the organization. Similarly, in the library set up, a satisfied librarian is regarded as the productive professional. Satisfied librarian not only renders the quality service to the users, but also improves commitment to the library in which he/she is serving and contributes one's might to its image building.

Job Satisfaction

Job is an occupational activity performed by an individual in return for a reward. Satisfaction refers to the way one feels about events, people, rewards, relation and amount of mental happiness on the job. Job satisfaction is simply how people feel about their job and different aspects of it. It is the extent to which people like or dislike their jobs and person's attitude towards the job. The terms job satisfaction and job attitudes are typically used interchangeably. Both refer to affective orientations on the part of individuals toward work roles which they are presently occupying. Positive attitudes toward the job are conceptually equivalent to job satisfaction and negative attitudes towards the job are equivalent to job dissatisfaction. Job satisfaction is governed, to a large extent, by perception and expectations of the employees. Any discrepancy between aspirations and perceptions account for dissatisfaction. Several authors have stressed the significance and importance of job as a source of satisfaction. Apart from money, work also provides many other things to an individual such as sense of well being, doing something worthwhile, having some purpose in life and brings some status in the society.

Review of related literature

An extensive body of literature related to job satisfaction with motivation factors is reviewed. This article limits the literature concerning the job satisfaction of library and information science professionals.

Library and information science professionals are seen as un-ambitious people, whose satisfaction lies in helping others to achieve their goals. Fleck and Bawden (1995) made a study

designed to provide information on the perception of the library and information professional. Results show that LIS was highly regarded by its users but seen as fulfilling very much a service oriented and reactive function rather than a dynamic or proactive function. LIS professionals are regarded as being efficient, intelligent and helpful, possessing specialized knowledge, and undertaking a range of tasks beyond the routine and traditional. But, the job satisfaction in developing countries is lower than that of developed countries (Kaya, 1995). Unless librarians secure peer status through adherence to core academic standards, the emerging era of electronic information will see domination in the librarians influence over librarians' affairs. Librarians in organizations that support participatory management, open communication, opportunities for achievement and relationships built on honesty and trust are more satisfied and committed and less likely to leave (Burd,2003).

Library profession is a people oriented profession which cannot escape from the clutches of conflicts and "frustrations and age, mental status and years of experience have an impact on occupational role stress" (Sornam and Sudha, 2003). Satisfaction about nature of job can be increased through job environment, training on IT and good monetary gains. "Librarians of the colleges and other educational institutions should be provided training about the advanced information technology" (Srivastava & Srivastava, 2004). Findings of later studies indicate a strong relationship between job satisfaction and the nature of work (Garg,1999; Leckie and Brett,1997; Mirfakhrai,1991; Sierpe,1999; Voelck,1995; Togia, Koustelios &Tsigilis,2004; Lim, 2007) and "more optimistic, emotionally resilient, team minded, visionary in their work style and hard working are more likely to report higher level of job satisfaction" (Williamson et al, 2005) and have to develop certain basic qualities to meet the user expectations. It is essential to measure qualities and fitness for the job at regular intervals to ascertain ability of library professionals.

The assessment of employee attitudes such as job satisfaction has become a common activity in organizations (Spector, 1997) and "high among older workers than younger colleagues with more experience than with less experience" (Reenen, 1998). Research has shown that "younger workers seek flexible schedules, work/life balance, challenging work, and control over the work itself" (Beutell & Wittig-Berman, 2008). "The means of several dimensions of job satisfaction varied significantly by the staff variables of experience, education, position title, union representation and working directly with users" (Voelck,1995). "Salary was revealed as a mere consistent predictor of job satisfaction" (Hovekamp, 1995 & Lim, 2008). Libraries are often challenged to offer the kinds of work environments that these new professionals prefer" (Patillo, Morgan and Morgan, 2009). On the other hand, "Job satisfaction is about self-motivation, self-assessment and probably increase simply by putting things in motion" (Pors & Johannsen, 2002).

Several theories describe job satisfaction (e.g., content theories and process theories). "Content theories specify the particular needs that must be satisfied or the values that must be attained for individuals to be satisfied with their jobs" (Locke, 1976). Among the most influential theories are the Herzberg's (1966) two-factor theory and the need-based theories. According to the first theory, the presence of certain factors ("motivators"; e.g., achievement, increased responsibility, and recognition) leads to job satisfaction, whereas absence of another set of factors ("hygienes"; e.g., pay, status, working environment) leads to job dissatisfaction. The main shortcoming of the Herzberg's (1996) two-factor theory is that it predicts the same level of satisfaction for all

employees in the same or similar jobs and neglects the fact that people react to their jobs in different ways (Schneider & Locke, 1971; Soliman, 1970). On the other hand, "need-based theories focus on the individuals" (e.g., McClelland, 1961). These theories postulate that a job can be a source of satisfaction if it can fulfill several of the individual' needs that are important to them. Thus, "job satisfaction is a function of the extent to which one's needs are satisfied in a job" (Togia et al, 2004).

Required qualifications and job responsibilities have changed in all professional fields due to globalization, librarianship is not an exception. Osorio (1999) analyzes the required, preferred, desired qualifications and job responsibilities for science and engineering librarians. In terms of salaries, it was found that salaries did not increase proportionally with the increasing number of qualifications and responsibilities.

Many researchers have explored the institutional level of academic librarians as a factor contributing to higher levels of job satisfaction. The level of job satisfaction mainly depends upon the environment one works and the publication output depends upon the level of job satisfaction. For example, Edem and Lawal (1999) made a survey to determine the influence of job satisfaction on the publication output of Librarians and recognition had a significant influence on their publication output.

Automation increases efficiency of the library services which in turn helps library staff to introduce more and more innovative services. Bii and Wanyama (2001) examined the impact of automation on the job satisfaction among library staff of Margaret Thatcher Library, Moi University. Authors suggest that, to boost the staff member's job satisfaction, concrete plans for consistent structured in-house training, free access to the available software, additional systems staff, and centralized databases among others must be implemented. Librarians of the colleges should be provided training about the advanced information technology (Srivastava and Srivastava, 2004). After training librarians should be offered an opportunity to practice what they have learned. Academicians treat librarians in good esteem for their valuable services to them (Satija, et. al., 2003).

Library and information science (LIS) professionals have to develop certain basic qualities to meet the user expectations. It is essential to measure qualities and fitness for the job at regular intervals to ascertain ability of library professionals. The relationship between job satisfaction and employee's performance has always been discussed in organizational behavior and human resource management literature and the conducive and congenial physical, social, and psychological conditions present in the workplace have potential to enhance the job satisfaction of the library professionals (Mallaiah, 2008).

There is a need for contented and "well satisfied librarians to make libraries more service oriented to their clientele and the main organizational determinants influencing worker's job satisfaction" (Kaur, 2006). And establish sensible organizational structures, delegating authority, promoting teamwork practice, developing job descriptions and evaluation systems, "allowing employees' freedom of choice to perform job duties, providing employees with training opportunities and motivations" (Sheikha & Younis, 2006).

The studies cited in the literature review indicate that considerable work has been done in studying the job satisfaction among the librarians and library professional working in different type of libraries across the world. However, the research needs to be taken further to achieve the very objective of engineering college libraries in India and to recommend measures to raise the level of job satisfaction as it requires continuous attention, diagnosis.

Statement of the Problem

Librarian in an engineering college play a vital and varied roles in the life of the college, guiding students and faculty at the reference desk, instructing library research sessions and developing library collections. It is a truism to say that librarians in engineering college library wear many different hats and provide numerous services to patrons. The role of the librarians is significant as they become increasingly viewed as managers of both information and knowledge. Librarians do more than connect people to raw information. They use their expertise to help users to make sense of information and usually arrange search results and other information products into customized sets for their clientele. With the advent of ICT, the emphasis has shifted from micro document to micro piece of information. The medium of information storage has changed from clay tablets to paper and now to electronic and optical media. In such a digitized storehouse of information instead of user coming to the library, the library's vast collection is accessible and available at users desktop. Escalating prices of the documents, consortium approach etc. is making the role of professionals multifold and multidimensional in nature. To provide these types of exceptional services, the librarians should be knowledgeable and conversant with accessing the information through Internet and other modern technologies. However, these types of extraordinary, exceptional and quality services mainly depend upon the librarians' service orientation, willingness to serve, commitment to the profession and satisfaction.

The job satisfaction of librarians has diversified implications on library, its services and academic activities of its parent institution. Better are the librarians satisfied with their job, they promote service quality, build the efficiency and effectiveness in organizing resources and providing services. The periodical attention to the assessment and evaluation of key facets of job satisfaction and understanding of the future implications of the same would help to improve the service quality of the librarians. The good attention about the key facets of job satisfaction, such as healthy working condition, pay in accordance with their qualification and experience, provision to undergo training as and when required, promotion chances according to their experience and involvement in the decision making process etc. lead to the librarians job satisfaction. Hence, job satisfaction is an important aspect to be studied which determines the efficient functioning of the library in a significant way to provide better services to the clientele. In this context, the present study will explore the job satisfaction among the librarians of select engineering colleges and assess various factors that influence the job satisfaction, the key facets of job satisfaction and future implications of job satisfaction on the activities and service quality of the engineering college librarians in India.

Research Objectives

In the light of the aim of the study and the review of the literature, the following research objectives are set:

1. to assess the level of job satisfaction among librarians of select engineering colleges in India;
2. to elicit information on the level of job satisfaction of the Librarians under study with regard to motivational factors and key facets;
3. to gain an insight into the socio-demographic profile of the respondents in terms of institution, gender, marital status, age, length of service, salary, association with professional bodies, strength of the library staff, and library automation.
4. to recommend measures to raise the level of job satisfaction among librarians under study.

Engineering colleges in India are one of the best in the world. Some of the engineering colleges such as the seven Indian Institutes of technology (IIT) (now 16 IITs) have set great standards for technical education in India. Many engineering colleges in India offer such high standards of technical education. There are number of engineering colleges which were established and spread across all parts of India, particularly owned by private managements under the apex body of All India Council for Technical Education (AICTE).

Scope of the study

The scope of the present study is restricted to librarians of 700 select engineering colleges out of 2388 (as on 31/08/2009) from seven regions in India. 100 engineering colleges are selected from each region i.e. central, east, north, northwest, south, southwest, and west regions. However, an effort was make to include libraries of different organizational setup (e.g. Government, private, and autonomous) and sizes.

Research Methodology

The survey was conducted through a structured questionnaire circulated among 700 select engineering college librarians in India and 466 returned back, the response rate was 66.57%. A random sample method was used for selection of respondents (engineering college librarians) and interacting with them over email. These respondents were working in the engineering college library as a librarian during the survey period (18-28 December 2010). The responses received from the respondents are presented in the form of tables and analysed with the help of different statistical methods. The averages, namely arithmetic mean and median are used to study the concentration of respondents' opinion. Standard Deviation, Coefficient of Variation (CV) is used to study the dispersion of observations. In order to derive meaningful conclusions, the factor analysis has been carried out for all the variables using Principal Component Analysis as extraction method and Varimax Rotations for convergence. The data input was analyzed through SPSS (Statistical Package for Social Sciences) package.

Analysis of Data

The questionnaire was divided in to three parts, first part consist of general information i.e. organizational characteristics. The second part consists of motivational factors, and the third part consists of 11 key facets of job satisfaction, such as: institution, gender, marital status, age, length of service, salary, association with professional bodies, strength of the library staff, and

library automation. On the basis of the responses received through questionnaires the data is analyzed and interpreted, in the following sections:

General Information

Organizational Characteristics

Organizational characteristics of respondents do influence their job performance and satisfaction at workplace. The organizational characteristics such as nature of parent organization, its management structure, size, location do have control on the performance of the respondents in the organization and the type of the institution has been obtained as background information. This data supports the study of job satisfaction of librarians (Table I).

Table 1: Organizational characteristics

Type of Institution	Number	Percentage
Private Un-Aided	366	78.54%
Private Aided	44	9.44%
Government	36	7.73%
Autonomous	20	4.29%
Total	**466**	**100%**

Table 1 shows that 78.54 percent (366) respondents from Private un-aided, followed by 9.44 percent (44) respondents belong to private aided institutions, 7.73 percent (36) respondents from government institutions. Only 4.29 percent (20) respondents are from autonomous institutions. Thus, it can be inferred that the representation of respondents from private unaided institutions is more.

Motivational Factors
Motivational factors may be different but they all have something in common, they all involve mobilizing energy for action and also channelize that energy toward some goal. Motivation is the unifying aspect for human reactions: it cuts across all topics in industrial psychology. Employee motivation and attitudes may be positive or negative. Motivation is a stimulating condition, either external or internal or both by which a process of behaviour is initiated and continued until a state of equilibrium is restored.

Motivation for entering library science profession
Table 1: Motivation for entering library science profession

Motivational Factors	Respondents
Nature of job itself	110 (23.60%)
Chances of future promotions	84 (18.03%)
Domestic reasons	84 (18.03%)
Economic reasons	82 (17.60%)
Management / Supervisory reasons	66 (14.16%)
No other alternative was available	40 (08.58%)

Note: Figures in parentheses indicate the percentage.   (n=466)

Table 2 shows that 110 (23.6%) respondents entered library and information science profession quoted 'Nature of job' as the main motivational factor to enter in to the profession. This finding is also consistent with Togia et al, (2004), who found that librarians derive a great amount of satisfaction from the nature of their work, the sustained supervision, and conditions at work despite any differences in the cultural and socio-economic contexts in which they find themselves. Chances of future promotion and domestic reasons is indicated by 18.03 percent, and 17.60 percent respondents quoted due to economic reasons, 17.60 percent respondents indicated management / supervisory reason. Only 8.58 percent respondents say they entered in to this profession as there was no alternative for them. It is surprising to note here that more prevalent factors like economic reasons and chances of future promotions are not the major motivational factors for the respondents. Another positive reflection here is that majority of the respondents have chosen to enter this profession by their wish and not by chance.

Motivating persons to join the profession
Table 3 shows that 178 (38.2%) of the respondents are motivated by their parents to enter library and information science profession and 146 (31.3%) of the respondents by their friends. Librarians motivated 108 (23.2%) of the respondents and teachers motivated 34 (07.3%) of the respondents to join the profession of library and information science. It is seen from the data that parents and friends have an edge over librarians and teachers as motivating persons to join this profession.

Table 3: Motivating persons to join the profession n-466

Motivating Persons	Respondents
Parents	178 (38.2%)
Friends	146 (31.3%)
Librarians	108 (23.2%)
Teachers	34 (07.3%)

Motivating factors to improve qualifications
Table 4 shows that 61.37 percent of the respondents are motivated to achieve academic satisfaction, followed by 22.75 percent of the respondents are motivated to get higher pay scales, 10.08 percent respondents to get the promotions. Only 5.8 percent of the respondents do so for domestic reasons.

Table 4: **Motivating factors to- improve qualifications (n=466)**

Factors	Respondents
To achieve academic satisfaction	286 (61.37%)
To get higher pay scales	106 (22.75%)
To get promotions	47 (10.08%)
Domestic reasons	27 (5.8%)

It is observed that majority of the respondents improved their qualifications for achieving academic satisfaction. Once again, on the contrary promotions and higher pay scales are not indicated as motivating factor by respondents. This result is confirms findings by Edem and Lawal (1999). However higher pay scales as a motivating factor is nearly divided among respondents.

Importance of motivating factors for increasing efficiency
It is observed from Table V that for increasing efficiency, ICT (76.8%) is the highest motivating factor, where as the second highest motivating factor is job security (75.1%). Further, 'personal growth' has motivated 67.4% respondents, followed by working conditions 67%, recognition 66.5%, monetary gain 66.1%, self–esteem 62.7%, independence 58.4% and hours of work 55.4% respondents. Among all motivating factors supervisor is the least motivating factor for increasing efficiency with 37.3% respondents.

Table 5 : Motivating factors for increasing efficiency

Motivating Factors	Respondents
ICT	358 (76.8%)
Job security	350 (75.1%)
Personal growth	314 (67.4%)
Working conditions	312 (67.0%)
Recognition	310 (66.5%)
Monetary gain	308 (66.1%)
Self–esteem	292 (62.7%)
Independence	272 (58.4%)
Hours of work	258 (55.4%)
Supervisors	174 (37.3%)

Note: *Respondents are permitted multiple answers* (n=466)

It is interesting to note that respondents give near similar responses about personal growth, working conditions, recognition, and monetary gain as motivating factors for increasing efficiency.

Job Satisfaction
The questionnaire distributed to the respondents contained 50 statements relating to job satisfaction. Respondents are requested to indicate their level of satisfaction against each of these statements. Table VI presents the mean, standard deviation, CV and skewness of satisfaction statements on job satisfaction.

Table 6: Satisfaction Statements on Job Satisfaction (n=466)

Statements	Mean	Std. Deviation	CV	Skewness
Commitment and dedication towards my organization	3.84	1.0459	27.26	-0.809
Ability to use online resources	3.77	1.0275	27.24	-1.095
The kind of respect getting from faculty and students	3.73	0.8418	22.60	-0.493
The kind of knowledge and skills required to perform my duty	3.70	0.9408	25.46	-0.703
Working hours of my occupational position	3.68	1.0054	27.30	-0.587
The Principal's support / cooperation in library matters	3.64	0.9049	24.89	-0.691

The way my co-workers get along with each other	3.60	1.0378	28.82	-0.564
The status of my occupational position inside the organization	3.60	0.9379	26.08	-0.726
The chance to develop close friendship with my co-workers	3.55	1.0743	30.30	-0.654
The way ICT is used in providing library services to the users	3.35	1.0067	30.03	-0.419
The opportunity to make use of my abilities and skills	3.54	0.9328	26.34	-0.248
The nature of work of my occupational position	3.52	0.9195	26.13	-0.275
Working conditions at my occupational position	3.50	0.9244	26.40	-0.337
The chance to be responsible for planning my work	3.49	0.9383	26.86	-0.565
The feeling of being known in my professional community	3.49	0.8911	25.54	-0.17
The Kind of interpersonal relations and communications in my occupational position	3.47	0.8906	25.68	-0.659
The authority connected with my occupational position	3.47	0.9285	26.77	-0.476
The recognition I get for the work I do from the management	3.45	0.9459	27.45	-0.23
The personal relationship between me and my supervisor	3.44	1.0072	29.30	-0.658
The way ICT is used in the in house operations of the library	3.44	0.9411	27.34	-0.426
The feeling of job security in my occupational position	3.42	1.0643	31.11	-0.472
The opportunity for professional growth and development	3.39	1.0489	30.97	-0.487
The way my supervisor and I understand each other	3.39	1.029	30.31	-0.516
The chance to have other workers look to me for direction	3.39	1.0773	31.81	-0.485
Automation process of my library	3.39	1.1131	32.83	-0.629
The parity of scale of pay with that of teachers has enhanced my status	3.38	1.0848	32.08	-0.418
The opportunity in my occupational position for participation in the setting of goals	3.37	0.9383	27.85	-0.484
The kind of social recognition I get on this job	3.36	1.0122	30.12	-0.47
The physical surroundings where I work	3.36	0.9278	27.61	-0.353
The opportunity for personal growth and development	3.35	0.9171	27.36	-0.317
The feeling of self–esteem a person gets from being in my occupational position	3.34	0.8862	26.54	-0.534
The feeling of accomplishment I get from the job	3.33	1.0112	30.40	-0.438
The status of my occupational position outside the organization	3.34	1.0218	30.60	-0.572
Being able to receive adequate training when new technology is introduced relating to my job duties	3.34	1.0597	31.70	-0.284
The way my supervisor provides help on hard problems	3.31	1.0208	30.85	-0.503
The principal's supervision and guidance in library administration	3.30	1.0606	32.14	-0.319
Library policies and the way in which they are administered	3.26	1.0225	31.39	-0.339
The policies and practices toward employees of the library	3.15	0.9492	30.17	-0.205
The opportunity for independent action in my occupational position	3.14	1.0455	33.32	-0.21
The kind of facilities provided by the management	3.12	1.0057	32.23	-0.064
The way my boss takes care of complaints brought to them	3.12	1.0801	34.62	-0.179

by his/her workers				
The way my supervisor conducts regularly scheduled evaluations of my work	3.10	0.8943	28.82	-0.715
The opportunities for advancement on this job	3.06	0.9675	31.62	-0.351
Librarianship has been the most suitable career choice as for as status, recognition and monetary gratification are concerned	3.05	1.1531	37.84	-0.331
The pay for my occupational position	3.05	0.9615	31.55	-0.095
My salary in comparison with that of similar jobs in other libraries	3.00	1.1314	37.66	-0.171
Working in digital library environment	2.96	1.1938	40.31	-0.063
Getting proper financial rewards according to my professional qualifications	2.78	1.1341	28.82	-0.017
The promotions being given out	2.75	1.1363	32.14	0.004
Getting fair financial reward for my seniority	2.73	1.1438	24.89	-0.021

Key facets of Job Satisfaction

The above 50 satisfaction statements have been converted into key facet statements for the convenience of analysis. Grouping of 50 statements listed in the Table VI into 11 key facets of job satisfaction that resulted from the factor analysis are termed as key facets. The default Eigen values are ">1" and 13 iterations are chosen for convergence of variables in to meaningful factors and the statements falling under each of these key facets are mentioned in Table 7.

Table 7: Grouping of statements of job satisfaction into 11 key facets

Sr. No.	Key facets	Statements
1	Monetary Benefits	1. The pay for my occupational position. 2. My salary in comparison with that of similar jobs in other libraries. 3. Getting proper financial rewards according to my professional. 4. The kind of facilities provided by the management. 5. Getting fair financial reward for my Seniority. 6. The promotions being given out. 7. The opportunities for advancement on this job. 8. Librarianship has been the most suitable career choice as for as status, recognition and monetary gratification are concerned.
2	Recognition and Status	1. The kind of respect getting from faculty and students. 2. The recognition I get for the work I do from the management. 3. The kind of social recognition I get on this job. 4. The feeling of being known in my professional community. 5. The status of my occupational position inside the organization. 6. The status of my occupational position outside the organization. 7. The parity of scale of pay with that of teachers has enhanced my status. Being able to receive adequate training when new technology is introduced relating to my job duties. 9. Commitment and dedication towards my organization.

3	Supervisor	1. The way my supervisor conducts regularly scheduled evaluations of my work. 2. The way my supervisor provides help on hard problems. 3. The way my boss takes care of complaints brought to them by his/her workers. 4. The way my supervisor and I understand each other. 5. The personal relationship between me and my supervisor.
4	Library Management Policies	1. The opportunity for independent action in my occupational position. 2. The kind of interpersonal relations and communications in my occupational position. 3. Library policies and the way in which they are administered. 4. The policies and practices toward employees of the library. 5. The chance to be responsible for planning my work. 6. The opportunity in my occupational position for participation in the setting of goals.
5	Information and Communication Technology	1. Ability to use online resources. 2. The way information communication technology is used in the in house operations of the library. 3. The way information communication technology is used in providing library services to the users. 4. Automation process of my library. 5. Working in digital library environment.
6	Continued Professional Development	1. The feeling of job security in my occupational position. 2. The feeling of self–esteem a person gets from being in my occupational position. 3. The opportunity for personal growth and development. 4. The opportunity for professional growth and development. 5. Working hours of my occupational position.
7	Co-workers	1. The way my co-workers get along with each other. 2. The chance to develop close friendship with my co-workers. 3. The chance to have other workers looks to me for direction.
8	Nature of Work	1. The nature of work of my occupational position. 2. The opportunity to make use of my abilities and skills. 3. The feeling of accomplishment I get from the job.
9	Job Profile	1. The kind of knowledge and skills required to perform my duty. 2. Commitment and dedication towards my organization. 3. The authority connected with my occupational position.
10	Direction from the Authority	1. The principal's support / cooperation in library matters. 2. The principal's supervision and guidance in library administration.
11	Working Condition	1. Working conditions at my occupational position.

Ranking of Key Facets

To rank the key facets, average mean score for each key facet is calculated by taking into consideration the mean score of the individual statements that form a particular key facet. For example average mean score for the key facet 'Direction from the Authority' has been calculated by considering the mean scores of the statements 'The principal's support / cooperation in library matters' and 'The principal's supervision and guidance in library administration'.

Average mean score of the facet 'Direction from the Authority'	=	*Mean score of the statements 'The principal's support / cooperation in library matters' + 'The principal's supervision and guidance in library administration' / 2*

$$\text{i.e } \frac{3.64 + 3.30}{2} = 3.47$$

Therefore, average mean score of the key facet 'Direction from the Authority' is 3.47
Similarly, the average mean score has been calculated for other key facets stated in Table VI.
The mean score of key facets (Table VIII) in the descending order of their mean value.

Tables 8: Ranking of key facets of respondents' job satisfaction on the basis of the mean value of their ratings

Facets of Job Satisfaction	Mean	SD	CV
Job Profile	3.67	0.70	19.07
Co-workers	3.51	0.89	25.36
Recognition and Status	3.50	0.71	20.52
Working condition	3.50	0.92	26.29
Direction from the authority	3.47	0.89	25.65
Nature of Work	3.46	0.81	23.41
Continued Professional-Development	3.44	0.74	21.51
ICT	3.42	0.88	26.04
Library Management Policies	3.31	0.75	22.66
Supervisor	3.27	0.75	22.94
Monetary Benefits	2.94	0.85	29.11

(n=466)

Table 8 shows that 'job profile' is ranked first among the 11 key facets with mean value 3.67. This is followed by 'co-workers' in the second place (3.51). 'Working conditions', 'recognition and status' and 'direction from the authority' are ranked 3rd each and 5th with the average mean score 3.50, 3.50 and 3.47 respectively. The key facets 'nature of work', 'continued professional development' and 'ICT' are ranked 6th, 7th and 8th with the average mean value of 3.46, 3.44 and 3.42 in that order. Finally key facets like 'library management policies', 'supervisor' and 'monetary benefits' are ranked 9th, 10th and 11th respectively with the average mean value of 3.31, 3.27 and 2.94 in that order.

Thus, the lowest mean score (2.94) of the respondents' response is given to the key facet 'monetary benefits' and the highest mean score (3.67) is given to the facet 'job profile'. Therefore, the median score of the mean score towards these key facets of job satisfaction is 3.30. Thus, those key facets whose average mean value is above 3.30 shall be considered as the key factors that have given higher job satisfaction. And those key facets which are ranked below the median level 3.30 are considered as the facets that have given the lesser satisfaction to the majority of the respondents. Accordingly, nine facets that fall under the higher job satisfaction are 'job profile', 'co-workers', 'working condition', 'direction from the authority', 'recognition and status', 'nature of work', 'continued professional development', 'information and

communication technology' and 'library management policies'. Similarly, the two key facets, which have given lower job satisfaction, are 'supervisor', and 'monetary benefits'.

Gender and Job Satisfaction

The perception, on job satisfaction varies from individual to individual. The individual differences may be found among the male and female employees also. To validate this general phenomenon, the gender wise job satisfaction is cross-examined (Table IX).

Table 9: **Gender and Job Satisfaction**

Key Facets of Job Satisfaction		Male	Female
Job Profile		7.17	7.25
Nature of Work		7.07	7.00
Working condition		6.99	6.98
Continued Professional Development		6.95	6.61
Recognition and Status		6.89	6.87
Co-workers		6.82	7.28
Direction from the authority		6.75	7.31
ICT		6.64	6.37
Library Management Policies		6.61	6.57
Supervisor		6.47	6.46
Monetary Benefits		5.77	5.88
Average Mean	**(n=466)**	**6.74**	**6.78**

Table 9 reveals that female respondents (6.78) are more satisfied with their job than the male (6.74). The key facet 'co-worker' has given moderate job satisfaction among female librarians (7.28). Compared to all other key facets 'monetary benefits' has given less job satisfaction to both genders. From the results it may be inferred that the gender does have impact on the job satisfaction of the librarians. This finding also attested by study conducted by Franek and Vecera (2008) find no difference in job satisfaction due to gender, but there is a difference based on education.

Marital Status and Job Satisfaction

The marital status also brings certain positive and negative changes in human life styles in the society. It is believed that the martial status increases the personal and social responsibilities. These additional responsibilities do affect the working life of the employee. On the other hand, it is also said that the bondage of marriage enhances one's commitment and the responsibility to one's work and makes a full man. To validate these feelings the cross-examination of the martial status and job satisfaction are carried out (Table 10).

Table 10: **Marital Status and Job Satisfaction**

Key Facets of Job Satisfaction	Married	Unmarried
Job Profile	7.21	7.12
Direction from the authority	6.90	6.87
Co-workers	6.98	6.89
Continued Professional Development	6.83	6.97

Recognition and Status		6.91	6.58
Nature of Work		7.04	6.99
ICT		6.63	6.17
Working condition		6.98	7.08
Library Management Policies		6.56	6.82
Supervisor		6.45	6.62
Monetary Benefits		5.79	5.82
Average Mean	**(n=466)**	**6.75**	**6.72**

Table 10 reveals that married librarians (6.75) are more satisfied with their job than the unmarried (6.72). It is found that among married librarians, 'job profile' has given more job satisfaction. Similarly, 'monetary benefits' has given comparatively lower job satisfaction to married and unmarried librarians. Thus, it may be inferred that there is a strong co-relation between the marital status and job satisfaction.

Age Group and Job Satisfaction
The demographic factor like age of the respondent also influences the job satisfaction of the employee. As one grows old his / her life style also changes. The respondents are grouped into four groups on the basis of their age, like 'below 30 years', '30-40 years', '41-50 years', and 'above 50 years' (Table XI).

Table 11: Age Group and Job Satisfaction

Key Facets of Job Satisfaction		Age			
		Below 30(n=106)	30–40 (n=218)	41-50 (n=78)	Above 50(n=64)
Job Profile		7.05	7.01	7.67	7.80
Co-workers		7.05	6.99	7.21	6.84
Working condition		6.45	6.91	7.35	7.60
Direction from the authority		7.00	6.75	7.03	7.54
Recognition and Status		7.02	6.78	7.18	7.08
Nature of Work		7.00	6.80	7.58	7.46
Continued Professional Development		6.80	6.63	7.36	7.33
ICT		6.68	6.51	6.85	6.58
Library Management Policies		6.90	6.48	6.78	6.58
Supervisor		6.69	6.44	6.74	6.05
Monetary Benefits		6.28	5.57	6.07	5.89
Average Mean	**(n=466)**	**6.81**	**6.62**	**7.07**	**6.98**

Table 11 shows that the average mean value of job satisfaction of librarians aged 'below 30 years' is 6.81, '30-40 years' is 6.62, '41-50 years' is 7.07 and 'above 50 years' is 6.98.
Thus, the level of job satisfaction of librarians increases with age. The highest job satisfaction has been achieved by age group 'above 50' in Job profile (7.80). The same findings also attested by recent study conducted by Topper (2008), whereas age group '30-40 years' in Monetary benefits (5.57) has achieved lowest job satisfaction compared to all other age groups.

Length of Service and Job Satisfaction

As the length of service of an employee increases, the responsibility, duties, recognition, salary benefits, income, status etc. also increase. These factors have either positive or negative impact on the job satisfaction of the librarians. In this context, to understand the relation between length of service and job satisfaction, the respondents are segregated into four groups based on their years of experience like 'below 5 years', '5-10 years', '11-20 years' and 'above 20 years' experience.

The Table 12 presents the data relating to these groups and the average mean value of their response towards their job satisfaction shows that the average mean of respondents having 'below 5 years' job experience is 6.59, '5-10 years' is 6.75, '11-20 years' is 6.60 and 'above 20 years' is 7.18.

Table 12: Length of Service and Job Satisfaction

Key Facets of Job Satisfaction	Length of Service (years)			
	Below 5(n=78)	5–10 (n=208)	11-20 (n=100)	Above 20(n=80)
Job Profile	6.80	7.11	7.21	7.82
Co-workers	7.19	6.79	7.11	7.24
Working condition	6.38	7.20	6.38	7.79
Direction from the authority	7.01	6.63	6.94	7.69
Recognition and Status	6.72	6.89	6.88	7.15
Nature of Work	6.48	7.06	6.92	7.65
Continued Professional Development	6.59	6.80	6.79	7.37
ICT	6.41	6.70	6.21	6.95
Library Management Policies	6.53	6.69	6.30	6.81
Supervisor	6.43	6.61	6.29	6.46
Monetary Benefits	5.94	5.79	5.53	6.05
Average Mean (n=466)	**6.59**	**6.75**	**6.60**	**7.18**

From the data it can be observed that the level of job satisfaction among librarians with length of service between '11-20 years' is decreasing and the librarians with length of service 'above 20 years' is highest compared to all other groups. Therefore it may be inferred that level of job satisfaction differs with different age groups (Table XII).

Salary and Job Satisfaction

The job satisfaction of an employee also depends on one's income/earnings. The higher income earning helps the professionals to fulfill their personal and family obligations and desires (Table XIII).

Table 13: Salary and Job Satisfaction

Key Facets of Job Satisfaction	Salary (Rs.)					
	Less than 5000 (n=10)	5001-10000 (n=60)	10001-15000 (n=60)	15001-20000 (n=196)	20001-25000 (n=76)	Above 25000 (n=64)
Job Profile	7.21	6.41	6.54	7.27	7.37	8.04

Co-workers	8.23	6.79	6.60	6.81	7.32	7.21
Working condition	7.33	6.94	6.25	6.90	7.18	7.63
Direction from the authority	8.17	6.75	6.25	6.92	7.29	7.47
Recognition and Status	8.01	6.58	5.71	7.03	6.96	7.56
Nature of Work	7.17	6.04	6.38	7.28	7.00	7.91
Continued Professional- Development	6.57	6.62	5.83	6.88	7.05	7.87
ICT	6.83	6.31	5.46	6.58	6.85	7.41
Library Management Policies	6.25	6.42	5.95	6.70	6.98	7.03
Supervisor	6.87	6.41	5.97	6.45	6.83	6.72
Monetary Benefits	5.50	5.21	4.93	5.91	6.17	6.41
Average Mean (n=466)	**7.10**	**6.41**	**5.99**	**6.79**	**7.00**	**7.39**

Table 13 reveals that the mean value of the response by the librarians whose monthly salary is 'less than Rs.5000' is 7.10, 'Rs.5001-10000' is 6.41, 'Rs.10001-15000' is 5.99, 'Rs.15001-20000' is 6.79, 'Rs.20001-25000' is 7.00 and 'more than Rs.25000' is 7.39. The analysis reveals that the highest level of job satisfaction is achieved by the librarians with highest salary. On the same lines, the lowest level of job satisfaction is achieved by the librarians with the salary 'Rs.10001-15000'. It is interesting to note that the groups with lowest salary 'less than Rs.5000' and 'Rs.5001-10000' have achieved higher job satisfaction than the group with salary 'Rs.10001-15000'.

Association with Professional Bodies and Job Satisfaction
Librarian with the association of professional bodies can be more confident in administrating the library as he/she can be in touch with fellow professionals to get an idea or the solution if they face any problem in providing services. Professional bodies help librarians in updating their knowledge by conducting seminars and workshops on recent developments in library and information science field so that librarian can serve the library users quickly and efficiently which may in turn increase the level of job satisfaction (Table 14).

Table 14 Association with Professional bodies and Job Satisfaction

Key Facets of Job Satisfaction	Associated	Not Associated
Job Profile	7.41	6.98
Working condition	7.34	6.53
Nature of Work	7.25	6.73
Continued Professional Development	7.25	6.40
Recognition and Status	7.18	6.55
Co-workers	7.06	6.89
Direction from the authority	6.91	6.89
ICT	6.89	6.15
Library Management Policies	6.81	6.31
Supervisor	6.66	6.22
Monetary Benefits	6.10	5.45
Average Mean (n=466)	**6.99**	**6.46**

Table 14 shows that the average mean score of job satisfaction of librarians associated with professional bodies is 6.99 and not associated with professional bodies is 6.46. It is observed that among librarians, who are associated with the professional bodies have achieved more job satisfaction than the librarians who are not associated. Librarians' association with professional bodies has resulted in highest level of job satisfaction with key facets 'job profile' and 'working condition'. The key facet 'monetary benefits' has given lowest job satisfaction compared to other key facets for both groups.

Strength of the Library Staff and Job Satisfaction
It is believed that strength of the library staff do have positive impact on the job satisfaction of the librarian. More the library staff, better the librarian's performance. However in some cases, more library staff than the required may find it difficult to provide library services smoothly and efficiently due to lack of communication which in turn may leads to decrease in the level of librarian's job satisfaction. The ratings of responses of the librarians regarding strength of the library staff and job satisfaction (Table 15).

Table 15: Strength of the Library Staff and Job Satisfaction

Key Facets of Job Satisfaction	Strength of the Library Staff		
Below 5 5 - 10 Above 10			
	(n=196)	(n=202)	(n=68)
Job Profile	7.11	7.08	7.92
Co-workers	7.20	6.66	7.57
Working condition	6.60	7.09	7.80
Direction from the authority	6.83	7.01	7.25
Recognition and Status	6.85	6.70	7.57
Nature of Work	6.70	7.08	7.78
Continued Professional Development	6.40	6.86	7.98
ICT	6.33	6.36	7.81
Library Management Policies	6.58	6.34	7.37
Supervisor	6.55	6.20	7.20
Monetary Benefits	5.63	5.76	6.53
Average Mean (n=466)	**6.62**	**6.65**	**7.52**

Table XV shows that the average mean value of level of job satisfaction of the librarians with the library strength of 'below 5', '5-10' and 'above 10' are 6.62, 6.65 and 7.52 respectively. It is observed that the level of job satisfaction increases with the increase in staff. The librarian with the staff strength 'above 10' enjoys highest level of job satisfaction.

Library Automation and Job Satisfaction
The unprecedented growth and development of technology, particularly in the IT sector has thrown greater opportunities to library and information centers to play their role in the societal development. The libraries and information centres would utilize the benefits of IT advances to facilitate only when librarians realize and adopt them. This calls apart from other benefits, willingness to work, commitment to duties and job satisfaction among them. In order to provide efficient and quick library services to the readers, it is essential that the use of information and

communication technology (ICT) is inevitable. The automation has helped the librarians in managing more workload with less staff that too with more efficiency. It has given a positive effect on the staff performance as well as job satisfaction. This result confirms findings by Adio and Popoola (2010), who established the fact that modern theory and practice of job satisfaction to be highly committed to their career because they lack training in their chosen profession and their condition of service be improved upon.

Table 16: **Library Automation and Job Satisfaction**

Key Facets of Job Satisfaction	Automated (n=404)	Not Automated (n=62)
Job Profile	7.56	6.80
Co-workers	6.96	7.19
Working condition	7.05	6.64
Direction from the authority	6.97	6.61
Recognition and Status	6.98	6.38
Nature of Work	7.15	6.30
Continued Professional – Development	7.01	5.96
ICT	6.74	5.48
Library Management Policies	6.72	5.87
Supervisor	6.55	6.03
Monetary Benefits	5.91	5.17
Average Mean (n=466)	**6.87**	**6.22**

Table 16 reveals that librarians working in automated libraries (6.87) are slightly more satisfied than the librarians who are working in non-automated libraries (6.22). It is highly significant to note here that the librarians enjoy high level of job satisfaction with the key facet 'job profile' among automated libraries.

Implied Suggestions

1. The issues relating to key facet monetary benefits, on which majority of the librarians are not satisfied, need a special consideration. The minimum salary with other benefits, adequate promotional avenues and fair financial rewards according to seniority and professional qualifications are the important factors for motivating librarians. It is therefore, recommended that the librarians have to be provided with minimum scale of pay as per the provisions of AICTE and adequate career advancement schemes, so as to promote zeal, dedication and commitment to work for the development of the libraries of engineering colleges.

2. Salary accompanied by other benefits help individuals to lead a happy life. The salary that does not meet the minimum requirements of the individual and his/her family and also it is not on par with others who have equal qualification, experience and responsibilities leads to frustration and dissatisfaction. It leads to higher mobility, which in turn affects the proper functioning of the library. Therefore, it is recommended that the librarians should be paid adequately.

3. The promotional opportunities not only fulfill personal ambitions and requirements but also motivate the personnel to work more and take additional responsibility. Therefore, it is recommended that the government and managements should adopt and implement career advancement schemes initiated by regulatory bodies.

4. It is evident that frequent interruption from management in routine library functioning would create disturbance in smooth functioning of the library. Hence, librarians should be given independence in library functioning. However, management should provide general direction and required support in terms of resources for realizing the goals. It is further necessary that the management of respective institutions has to provide needed support and thereby help the librarians to gain the confidence in management.

5. It is necessary for each library to prepare its 'Library Manual', a written document indicating the mission, objectives, future plans and policies related to library services and staff. This manual must contain comprehensive policies about working conditions, performance evaluation and rewards of library staff. Therefore it is recommended that each library must have a library manual. This would certainly provide necessary order and direction to work towards achieving higher job satisfaction among librarians.

6. Training in today's dynamic world is essential for every employee so also to librarian. Information communication technology and its greater role in information storage and retrieval have brought pressure on librarians to update their knowledge and skills in these areas and seek change from the traditional library technique to modern automated system along with the training and enhancement of knowledge. It is desirable that each librarian should opt for continued professional development like enhancement of educational qualifications and movement to higher status / jobs.

7. To facilitate better service to users it is necessary that libraries need, not only adequate staff, but also the staff that has the knowledge, ability and skill to handle information resources and technologies. Therefore, it is recommended that management should provide adequate support staff with professional knowledge, skill and ability to handle the modern information tools. Further, management also should provide equipment and modern gadgets such as computers, multimedia tools, internet facility, fax and photocopying machine. Now a day these facilities are essential rather than the luxury for any service institution.

8. Due to multiplication of electronic resources, users find it difficult to locate the most appropriate database or resource to search for information relevant to their need. Even if they locate the right resources, since each service tends to have its own unique interface, they may struggle to search it effectively. This problem can be solved by developing library portals, which are transformational environments that address the problem of information glut by customizing information content to meet specific end-user needs. Engineering college librarians can bring unique perspectives, skills, expertise with content and their knowledge of copyright to the development of portals in their college campus portal planning and implementation. This trend is especially challenging for engineering college librarians, who were and continue to see themselves as the traditional keepers of knowledge, which until very recently was housed in many millions of books and journals that are rapidly becoming digitized. It is therefore recommended that engineering college librarians should acquire new skills required for developing and managing the digital libraries with portals as the library is one of the highly influenced service profession.

9. Association with professional bodies helps librarians in developing contacts with other professional fellows. This networking with fellow professionals is very critical in age of resource sharing. Librarians should proactively become members of professional associations like: Indian Academic Library Association (IALA), India Library Association (ILA), Indian Association of Special Libraries and Information Centres (IASLIC), Indian Association of Teachers of Library and Information Science (IATLIS), Bombay Science Librarian's Association (BOSLA), Karnataka Library Association (KALA), etc.

Conclusion

Every profession has got certain aspects conducive for job satisfaction. At the same time it has other aspects that lead to dissatisfaction, librarianship is no exception. If it is possible to isolate the factors of dissatisfaction, attempts can be made either to change the dissatisfying conditions or to reduce their intensity so as to increase the holding power of the profession. The service quality of the professionals mainly depends upon their commitment, willingness to work and mental satisfaction in the job that they perform. In industrial sectors a satisfied employee is productive employee of the organization. Similarly, in the library set up, a satisfied librarian is regarded as the productive professional. Satisfied librarian not only renders the quality service to the users, but also improves commitment to the library in which he is serving and contributes one's might to its image building. Lopez and Velho (1992) opined that librarian who could not get a sufficient wage to meet his needs is faced with the problem of maintaining a family, will be frustrated and becomes a misfit to the society. He later found out that the status of librarians in developing countries is not as defined as in developed ones because, sometimes, their promotion depends not on objective criteria but on the personal choices of the administrative arm. He, therefore, concluded that low wages and lack of status and social insecurity affect motivation of librarians. As a result, it is difficult to talk about job satisfaction where there is no motivation.

The present study reveals that the librarians of engineering colleges in India have achieved moderate job satisfaction in their present environment. Majority of the librarians, particularly in the unaided engineering colleges have expressed low level of job satisfaction with various issues. These issues primarily relate to salary, promotional opportunity and inadequacy of staff, etc. These factors lead to not only dissatisfaction among the librarians but a kind of negative look towards the institution and the job that they are performing. Their knowledge, energy and skills go waste rather than achieving desired goals. It is therefore necessary for the management concerned to look into these matters to take positive step to harness the human resources and their skill, knowledge and ability for the betterment of the library and their respective institutions.

Present research is significant because it is neglected area of study in India. It shed light on the current level of job satisfaction among engineering college librarians with regard to key facets of job satisfaction and other job satisfaction aspects and to prove the traditional notion about job satisfaction is that a happy worker is productive worker or a productive worker is a happy worker. Lastly, it should also be noted that this research has limitations. Since it surveyed only select 466 engineering college libraries, the respondents may not accurately represent the whole population. For future research, a broad study should include more engineering college libraries

and job satisfaction in digital environment aspects to be studied in a significant way to provide better services to the clientele.

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