

CHAPTER-3: RESEARCH METHODOLOGY

This Chapter contains the methods and procedures that were utilized to identify job satisfaction of Government and private hospital employees in Punjab. The chapter contains a discussion of the design of the study, a description of the population, a description of the research instrument, and the methods that were used to collect, analyze data and limitations.

3.1 SIGNIFICANCE OF STUDY:

A survey tells how employees feel about their jobs, what parts of their jobs their feelings are focused on, which departments are particularly affected and whose feelings are involved.

Job satisfaction surveys give management an indication of general levels of satisfaction in an organization. The surveys can act as a safety valve, an emotional release, a chance to get things off their chest for some employees whereas for others it gives employee a reason to feel better towards management. It can also help to discover the causes of indirect productivity problems, such as absenteeism or turnover and poor quality of work. A survey can help management to assess training needs and effectiveness of organizational reward system and one of the best use of job satisfaction survey is in the evaluation of the impact of organizational changes on employee attitudes.

3.2 NATURE OF THE STUDY:

The research design for this study was descriptive and analytical in nature. Descriptive studies are primarily concerned with finding out “what is” (Borg & Gall, 1983). It will emphasized on the factor affecting the satisfaction level of an employee working in a hospital.

3.2.1 Objectives of the Study:

The major objectives of the study are as under:

1. To assess level of job satisfaction among medical staff (doctors, nurses, laboratory technicians, administrative staff) of government and private sector.

2. To compare satisfaction level of medical staff working in the hospitals under study.
3. To identify and study the association variables which have a significant impact on the satisfaction level of both the hospital staff under study.
4. To determine the association between demographic variables and job satisfaction.
5. To identify prominent areas of dissatisfaction among the employees of hospitals under study.
6. To suggest measures for inducing greater satisfaction in above mentioned areas.

3.2.2 Hypothesis:

1. There is no significant relationship between job satisfaction level of government and private hospitals employees.
2. There is no significant difference in level of job satisfaction among different categories of staff working in a hospital.
3. There is no significant difference in job satisfaction level of medical staff working in government and private sector.
4. There is no significant association between demographic variables and level of job satisfaction.
5. There is no significant variation in variables related with job satisfaction among different categories of staff working in a hospital.

3.3 SCOPE OF STUDY:

The state of Punjab lies in Northern part of India. Population of Punjab is 28,884,179. There are 22 districts in Punjab. These are Amritsar, Barnala, Bathinda, Faridkot, Fatehgarh Sahib, Fazilka, Firozpur, Gurdaspur, Hoshiarpur, Jalandhar, Kapurthala, Ludhiana, Mansa, Moga, Mohali, Muktsar, Nawanshahr, Pathankot, Patiala, Rupnagar, Sangrur, Taran Taran. From 22 districts, 10 were selected and these were Amritsar, Faridkot, Jalandhar, Kapurthala, Ludhiana, Mohali, Nawanshahr, Patiala, Pathankot, Rupnagar. The participants for this study were selected for government and private hospital employees in Punjab. There are 22 districts in Punjab, out of these 10 were

selected randomly and from 10 districts, 2 public and 2 private hospitals were covered to attain the required sample size. From each hospital data collected by administrative staff-1, doctors-4, nurses-8, laboratory technicians-2. The total population of selected hospitals were 6000, from 6000 employees 600 were selected randomly.

Exclusion criteria- < 30 bedded hospital

Inclusion criteria- > 30 bedded hospital

3.4 SAMPLE SIZE:

$$\text{Sample Size} = 4pq/l*1$$

Where, p = Prevalence of the factor under study

$$q = 100-p$$

$$l = \text{Allowable Error}$$

In a previous study conducted (Alemshet Yami et al, 2011; Abida Sultana et al, 2009; Charlotte Pietersen, 2005; Hong Lu et al, 2007; Magne Nylenna et al, 2005; Sami Abdo Radman Al-Dubai et al, 2011; Duane Blaauw et al, 2013) in different settings, the satisfaction level of health professionals have been found to vary from 40percent to 80percent were satisfied with their job. So to calculate the required sample size of the study prevalence of job satisfaction was assumed to be 40percent. Thus using the formula

$$\text{Sample Size} = 4pq/l*1$$

Where, p = 40

$$q = 100-p = 100-40 = 60$$

$$l = \text{Assumed 10percent of prevalence} = 4$$

$$\text{Sample Size} = 4*40*60/4*4$$

$$= 600$$

3.5 STUDY TOOLS:

Individual data Sheet:

The Individual Data Sheet (Appendix A) was used to gather information about selected characteristics of the respondents. The selected variables and the definition for each are the following:

Gender: referred to the sex of the respondents. This variable was measured by asking respondents to select “male” or “female”.

Age: referred to the length of life for each respondent. Age was measured by asking the respondents to select the appropriate given age range.

Education: referred to an academic title conferred by a college or university upon the completion of studies. Degree was measured by asking the hospital employees to mark their highest degree from given options.

Years of experience: referred to the number of years experience as a hospital employee or tenure. This variable was measured by asking the respondents to select from a range of given figures indicating number of years they had been a hospital employee

Marital status: This variable was measured by asking respondents to select “single”, “married”, “divorced” or “widowed”.

Job status: referred to the status of the job whether permanent or temporary.

Minnesota Satisfaction Questionnaire:

Additionally, the 1977 Long-Form Minnesota Satisfaction Questionnaire (MSQ) was slightly modified in demographic variables and used to assess the population’s general job satisfaction level and to explain the 20 dimensions of the job that contribute to job satisfaction.

Description of the 1977 Long-Form MSQ

The MSQ was used primarily because it is a well-known instrument designed to measure job satisfaction. It is a gender impartial instrument that can be administered to either groups or to individuals. The instrument utilizes a 20- dimension Likert-type scale format and samples both intrinsic and extrinsic strengthening dimensions with a total of 100 items. It is self-administering with directions for the respondent appearing on the first page of the questionnaire. Directions for the rating scale are located at the top of each page. Although there is no time limit, completion of the MSQ is typically accomplished by a respondent within 15-20 minutes. Response choices for each item appear in blocks of 20, with items that comprise a dimension appearing in 20 item intervals. The MSQ scales which represent the twenty dimensions of the job in alphabetical order are as follows:

- 1.Ability utilization - The chance to do something that makes use of abilities.
- 2.Achievement - The feeling of accomplishment one gets from the job.
- 3.Activity - Being able to keep busy all the time.
- 4.Advancement - The chances for advancement on this job.
- 5.Authority - The chance to tell other people what to do.
- 6.Organizational policies and practices - The way organizational policies are implemented.
- 7.Compensation - Feelings about pay in contrast to the amount of work completed.
- 8.Coworkers - How one gets along with coworkers.
- 9.Creativity - The opportunity to try one's own methods.
- 10.Independence - The opportunity to work alone.
- 11.Moral values - The opportunity to do things that do not run counter to one's own conscience.
- 12.Recognition - Being recognized for a job well-done.
- 13.Responsibility - The freedom to implement one's judgment.
- 14.Security - The way a job provides for steady employment.
- 15.Social service - Being able to do things in service to others.
- 16.Social status - Having respect for the community.

17. Supervision--human relations - The relationship between supervisors and employees.
18. Supervision-technical - The technical quality of supervision.
19. Variety - The opportunity to do different things.
20. Working conditions - Physical aspects of one's work.

Development of the MSQ

The Minnesota Studies in Vocational Rehabilitation, better known as the Work Adjustment Project, began studying work adjustment problems relevant to vocational rehabilitation services in 1957. The development of instruments to assess the work adjustment potential of applicants for vocational rehabilitation, and the evaluation of work adjustment outcomes were its two main objectives.

These objectives are based on the Theory of Work Adjustment which uses the correspondence (or lack of it) between the work personality and the work environment as the principle reason for observed work outcomes (satisfactoriness, satisfaction, and tenure). Subsequently, work adjustment depends on how well an individual's abilities correspond to the ability requirements in work, and how well the individual's needs correspond to the reinforcers available in the work environment (Weiss, Dawis, England, & Lofquest, 1967).

Thus, the MSQ was developed as a measure of one of the primary indicators of work adjustment. It was constructed to sample both extrinsic and intrinsic reinforcement dimensions. The MSQ was developed when the first instruments in the Work Adjustment Project (Hoppock Job Satisfaction Blank, the Employee Attitude Scale, and 22 experimental items) resulted in adequate reliability but cumbersome scoring.

There were two versions of the long-form MSQ—a 1977 version and a 1967 version. The 1977 version, which was originally copyrighted in 1963, uses the following five response choices: very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, and very dissatisfied.

3.6 LONG-FORM MSQ RELIABILITY

Reliability is about the degree of accuracy of the data collected. It shows the consistency of the result. Many techniques can be used to see this consistency, the most commonly used technique is “Cronbach Alpha”. The same has been used in this study:

Table 3.1 : Cronbach Alpha

Reliability Statistics

Cronbach's Alpha	N of Items
.944	21

Sr. No.	Components	Cronbach Alpha
1	Ability Utilization	.941
2	Achievement	.939
3	Activity	.939
4	Advancement	.942
5	Authority	.944
6	Organizational policies and practices	.941
7	Compensation	.940
8	Co-workers	.939
9	Creativity	.942
10	Independence	.941
11	Moral values	.942
12	Recognition	.943
13	Responsibility	.940
14	Security	.942
15	Social service	.941
16	Social status	.940

17	Supervision-human relations	.941
18	Supervision-technical	.941
19	Variety	.943
20	Working conditions	.943
21	General satisfaction	.939

Data as shown in Table 3.1 Pilot study done on the 50 employees of the hospital to check the internal consistency reliability of the MSQ. This data suggested that the MSQ scales have adequate internal consistency reliability. For this study, Cronbach's Alpha test of internal consistency was used to measure reliability for each of the 20 dimensions measured on the MSQ. The coefficient for each dimension was: ability utilization, .941; achievement, .939; activity, .939 as estimated by the hoyn's analysis-of-variance method show reliability coefficients for all the groups were .944.; advancement, .942; authority, .944; organizational policies and practices, .941; compensation, .94; coworker, .939; creativity, .942; independence, .941; moral value, .942; recognition, .943; responsibility, .94; security, .942; social service, .941; status, .940; supervision human relations, .941; supervision technical, .941; variety, .943; working conditions, .943; and general satisfaction, .939. **The coefficient for each dimension was greater than 0.7, so no item deleted from the questionnaire.**

MSQ Validity:

The Manual for the Minnesota Satisfaction Questionnaire (Weiss et al., 1967) provides documentation about the instrument's construct, concurrent, and content validities. Construct validity evidence exists because the MSQ appears to meet conceptual expectations. Satisfaction was expected to be, and given the evidence is, "...a function of the correspondence between the individual's needs and the reinforcer system of the job...A high-need, high-reinforcement group would express most satisfaction and the high-need, low reinforcement group would express the least satisfaction" (Weiss et al., 1967, p. 17). Concurrent validity presence is based on the analysis of data for 25 occupational groups. The analysis includes tests of differences in satisfaction levels and group variabilities. The findings show that the MSQ can distinguish among groups from

different occupations. Content validity can be supported by the results of factor analysis. Two factors emerged through the analysis. The first factor is intrinsic satisfaction and second is extrinsic satisfaction. The intrinsic satisfaction factor includes the facets of achievement, activity, authority, organizational policies and practices, compensation, co-workers, independence, moral values responsibility, security, social service, social status. The extrinsic satisfaction factor includes all other facets.

3.7 DATA COLLECTION PROCEDURES

The source of data for this research was the responses made by participants on the Individual Data Sheet and the MSQ. Some of the participants covered by visited hospitals and others through mail. All the participants were requested to fill questionnaire at their convenient time and return back. . The use of these procedures resulted in a response rate of 93 percent.

All scores on the Individual Data Sheets and the MSQ were entered in the SPSS data base, and data pertaining to the objectives of this study were generated accordingly.

Demographic Analysis:

The purpose for this analysis was to show the personal and educational characteristics of the hospital employees who participated in the study. Data were gathered from scores on the Individual Data Sheet for the variables gender, age, degree, years of experience, marital status, and job status. The categories for each variable were assigned codes, and the codes were entered into the SPSS data base (i.e., for gender, male was assigned the code 1 and female was assigned 2). These scores indicated the number and percentage of employees who participated in the study. The numbers and percentages were disaggregated and tabulated by the six demographic variables.

Scale Analysis:

Computer generated data to assess the frequencies of response for each of the 5 response options on the MSQ Likert Scale were analyzed. The 5 options and the assigned weight for each were:

Weight Scale Option

- 1 Very Dissatisfied
- 2 Dissatisfied
- 3 Neither Satisfied Nor Dissatisfied
- 4 Satisfied
- 5 Very Satisfied

Each of the 21 job dimensions was reported and the frequencies of response for each scale option were tallied and tabulated.

General Job Satisfaction Analysis:

The General Job Satisfaction score for each respondent was obtained by summing the scores for 20 specific items on the MSQ. Each item represented one of the 20 job dimensions. These items included the following numbers: 24, 25, 28, 30, 35, 43, 51, 61, 66, 67, 69, 72, 74, 77, 82, 93, 96, 98, 99, and 100. Using the weighted scores described above, it was found that the mean general satisfaction score for the employees ranged from 1 to 5 (“very dissatisfied to “very Satisfied”). An analysis of the general satisfaction scores was also presented according to the six demographic variables selected for this study: gender, age, degree status, years of experience, marital status, and job status. These data show the degree of general satisfaction.

Analysis of 20 Dimensions:

The 20 dimensions analyzed in this study were: ability utilization, achievement, activity, advancement, authority, organizational policies and practices, compensation, coworkers, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision human relations, supervision technical, variety, and working conditions. There were 5 items on the MSQ in increments of 20 to assess

satisfaction for each of the 20 dimensions. 20 dimensions of the long form MSQ consist of the following items:

1. Ability Utilization - 7,27,47,67,87
2. Achievement - 19,39,59,79,99
3. Activity – 20,40,60,80,100
4. Advancement – 14,34,54,74,94
5. Authority – 6,26,46,66,86
6. Organizational policies and practices – 9,29,49,69,89
7. Compensation – 12,32,52,72,92
8. Coworkers – 16,36,56,76,96
9. Creativity – 2,22,42,62,82
10. Independence – 4,24,44,64,84
11. Moral values – 3,23,43,63,83
12. Recognition – 18,38,58,78,98
13. Responsibility – 17,37,57,77,97
14. Security – 11,31,51,71,91
15. Social service – 1,21,41,61,81
16. Social status – 8,28,48,68,88
17. Supervision--human relations – 10,30,50,70,90
18. Supervision-technical – 15,35,55,75,95
19. Variety – 5,25,45,65,85
20. Working conditions – 13,33,53,73,93

3.8 DATA ANALYSIS TOOLS:

Since we all know the raw data we collect from primary sources which may not be so meaningful in nature. In order to draw / infer some meaningful conclusion, we have to analyze the raw data. In this study we had collected raw data through questionnaire from 600 employees from which 560 employees responded. Following were the tools which we used to interpret the data:

Cronbach Alpha- To check the reliability of Questionnaire we used Cronbach Alpha, value of 21 factors in the study greater than 0.7 which shows greater reliability of the statements used in questionnaire; Descriptive analysis used i.e. **Percentages-** Percentages are used to express how large or small one quantity is relative to another quantity. The first quantity usually represents a part of, or a change in, the second quantity, **Mean-** It is used to find the average of the numbers: a calculated “central” value of a set of numbers, **Standard Deviation-** It is a measure of the dispersion of a set of data from its mean. The more spread apart the data, the higher the deviation; **KMO (Kaiser-Meyer-Olkin) test-** It is a statistic that indicates the proportion of variance in variables that might be caused by underlying factors. It is used to check the adequacy of samples and to assess the appropriateness of using factor analysis on data. If the value is less than 0.50 the results of the factor analysis won't be very useful; **Bartlett's test of sphericity-** It tests the hypothesis that correlation matrix is an identity matrix, which would indicate that variables are unrelated and therefore unsuitable for structure detection. It is used to check the significance of inter correlation among the statements of questionnaire; **Factor Analysis-** It is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors; **Eigen value-** It reflects the variance in all variables, which is accounted for by that factor. It may be computed as the sum of its squared factor loadings for all the variables. If a factor has a low eigen value, then it is contributing little to the explanation of variances in the variables and may be ignored; **Varimax rotation-** It seeks to maximize the variances of the squared normalized factor loadings across variables for each other; **Chi-Square-** It describes the magnitude of discrepancy between theory and observation. Since the data are more or less qualitative in nature, so chi square test has been applied; **t test-** It is used to compare the actual difference between two means of public and private hospital employees in relation to the variation in the data, **Correlation-**It is used to know the degree to which different variables are related, **Regression Analysis-**A statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) i.e. satisfaction level in our study and a series of other changing variables (known as independent variables)

i.e. intrinsic and extrinsic satisfaction variables, **Structural Equation Modelling (SEM)**- Structural equation modeling (SEM) has been applied for building and testing statistical models, which are often causal models. It is a hybrid technique that encompasses aspects of confirmatory factor analysis, path analysis and regression, which can be seen as special cases of SEM.

3.9 ORGANIZATION OF THE STUDY:

The present study is divided into eight chapters:

Chapter 1: This chapter deals with the introductory part of the study. It explains the concept, models, theories of Job Satisfaction, an overview of hospital industry and expenses done on the healthcare industry.

Chapter 2: This chapter portrays the review of related literature. It highlights various dimensions of the problem that have already been studied in the past by different research scholars and their conclusions and suggestions have also been mentioned.

Chapter 3: This chapter deals with the methodology. It consists of Objectives, Hypothesis, Data collection methods, Scope, Tools and Limitations of the study.

Chapter 4: This chapter shows the analysis of demographic variables.

Chapter 5: This chapter deals with the comparative analysis of job satisfaction between public and private hospital employees in this study

Chapter 6: This chapter shows the categorical analysis and model specification of the study.

Chapter 7: This chapter deals with the discussion. It shows results of our study in with the previous studies done on job satisfaction in hospitals.

Chapter 8: This chapter portrays with the findings, suggestions and conclusion of the study.

3.10 LIMITATIONS OF THE STUDY:

1. The limitation concerns the nature of the measures used. The measures included in this research will be based on the perceptions of the participants. Therefore, the

potential for data inaccuracies due to item misrepresentation or predisposition to certain responses on the part of participant does exist.

2. Subject's perception about job satisfaction was voluntary and was conducted at limited government and private hospitals. They may not represent staff working in the other settings of the country.
3. The instrument used in this study were first employed in Punjab. Even though content was validated and reliability was tested, their conceptual structures were not yet been determined in Punjab context.
4. Biasness on the part of respondents: Some respondents were not ready to reveal the true information.