Chapter III

METHODOLOGY
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Methodology

The aim of the present investigation was to study the “influence of occupational stress and human resource practices on psychological well-being and organizational commitment on the sample of bank employees working in public and private sector”. So certain concrete steps were undertaken, in chapter-1 comprehensive description of meaning and concepts of the variables studied were highlighted and next, in the preceding chapter-2 review of relevant literature were presented. And thereafter, methodology opted for the investigation is being presented in the proceeding chapter-3.

In any discipline whether it is social science, science or commerce, methodology plays a leading role in carrying out the research study systematically and objectively. Research as defined by Redman and Mory (1923) is “a systematized effort to find out the solution of the problem.” These efforts require certain method to be followed properly. Methodology is a total sum of these steps/techniques being carried out by researches in order to find out the real dynamics operating for any problem and behavioural outcome. Mounton and Marais (1993) defined methodology as “the logic of application of scientific methods to the investigation of the phenomena.” It is a kind of decision making process in which researcher has to select appropriate problem, sampling techniques, measuring instruments, and data analysis methods suitable for selected problem. The objectivity of scientific investigation is contingent upon the accuracy of research methodology adopted by the researcher. So, for any research work the methodology part is very important because the sound foundation of research is depends on its sound methodology.
Objectivity in any research cannot be obtained unless it is carried out in a very systematic and planned manner. Methodology refers to systematic research and planning. Scientific investigation involves careful and proper adaptation of research design, use of standardized tools and tests, sampling techniques, sound procedures for collecting data, its careful study and tabulation and then, finally application of appropriate statistical tests. These steps basically enhance the predictive value of findings, thus, the findings may be generalized to predict the behaviour of population from which the sample has been drawn.

In the light of above facts and the nature of the present research problem, the following steps were taken for enhancing the efficacy and objectivity of the research endeavour.

**Sampling**

Sample is the small portion of the population. It is not possible for any behaviour researchers to cover the whole population so a portion which represents the whole population is selected for research investigation. Mohsin (1984) 

consistent that sample is the small part of the total existing events, object or the information whereas sampling is the process through which a small portion of the population is selected. Kerlinger (1983) believes that “sampling is taking any portion of a population or universe.” Thus, sampling is a small portion of population selected for observation. By making keen observation of the appropriate sample, it is possible to draw reliable inferences or make generalizations of the possible information as a whole from where the sample is drawn.
The bank is a big organization in India, a lot of studies have been conducted on different levels of bank employees but the survey of literature on influence of occupational stress and human resource practices on organizational commitment and psychological well-being have shown that domain specific occupational stress and HR practices, simultaneously have not found to be studied among public and private sector bank employees frequently, in relation to organizational commitment and especially psychological well-being. So, it was decided to take bank employees for present investigation. For this purpose employees of public (n=150) and private (n=150) sector banks by using the purposive random sampling, were taken. The public sector banks are those banks which are governed by the government where as the private sector banks are those banks which are governed by the non-government organization. Managers of each bank were approached and requested for co-operation from their employees to fill up the questionnaire. They were convinced that their responses will be kept confidential. Without their willingness and co-operation it is very difficult to take reliable data. Many of them were not ready to give their responses. For private sector employees, median age for the group was 37 years, the median length of tenure was 13 and 87% were married having 4 (mean) number of dependents while among public sector bank employees, median of age was 43, median length of tenure was 15 and 93% were married having 5 (mean) number of dependents. Data was collected only on male population.
Table 3.1 showing the break-up of the sample

<table>
<thead>
<tr>
<th>Groups</th>
<th>( n )</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Sector Banks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 State Bank of India</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>2 Canara bank</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3 Punjab National Bank</td>
<td>25</td>
<td>150</td>
</tr>
<tr>
<td>4 Bank of Baroda</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>5 Syndicate bank</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>Private Sector Banks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 ICICI Bank</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2 HDFC Bank</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>3 IDBI Bank</td>
<td>25</td>
<td>150</td>
</tr>
<tr>
<td>4 J &amp; K Bank</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>5 ABN Amro Bank</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>300</td>
</tr>
</tbody>
</table>

Description of tools

In behavioural sciences, measurements are considered a very complex task but an inevitable means to understand human experiences and behaviour. Among the various methods used in behavioural sciences, especially in psychology, questionnaire method in understanding or gaining information about certain issues and problems is considered as most convenient method. Pertaining to questionnaire, it is imperative to mention that without ascertaining the efficacy of tools, reliable results cannot be obtained. Therefore, standardization of the psychological test involves item analysis, ascertaining reliability and validity. In this regard, it is immensely important to mention that whatever the tools have been used in the quest of studying the present problem, the psychological tools were standardized before administration. The description of various tools used in this investigation is being given below:
Occupational Stress Index

In order to understand the level of employees' occupational stress, the investigator used the Occupational Stress Index developed by Srivastava and Singh (1981), consisting of 46 items, each to be noted on a 5 point scale ranging on a continuum of strongly agree, agree, uncertain, disagree and strongly disagree. Out of 46 items, 28 items were "true" and rest 18 were "false" keyed. Items were keyed related to almost all relevant contents of job life which cause stress, namely, role overload, role ambiguity, role conflict, unreasonable group and political pressure, responsibility for person, under participation, powerlessness, poor peer relations, intrinsic impoverishment, low status, strenuous working conditions, and unprofitability. The reliability of the Occupational Stress Index determined by the computation of alpha co-efficient that was 0.90. The internal consistency of the test was 0.93 determined by the odd even method. Index of homogeneity and internal validity of individual items was determined by computing point bursarial co-efficient of correlation. The value of co-efficient of co-relation is ranged from 0.36 to 0.59.

Human Resource Practices Scale

Shawkat and Ansari (1998) developed a 40 item scale based on 12 dimensions, i.e., forecasting human resource need in organization; training; organizational climate; (team building, trust building); organizational change (technological system); fairly liberal management functions; employee-management relations; total quality management; appraisal system; recognition; flexibility; co-operation; and competition. Response were measured on Likert type 5 point scale by measuring
the presence of Human Resource Practices by assigning ‘1’ to the minimum
degree; ‘2’ to above minimum but below moderate; ‘3’ to moderate; ‘4’ to above
moderate but below maximum and ‘5’ to the statement when it is present to the
maximum degree. In this way the total score ranged from 40-200. Higher the total
score, maximum HR practices being applied in the organization. Out of 40 items,
5- items were negatively phrased and hence, these items were scored in reverse
direction. This scale is reported highly reliable (r=0.78) and valid (r=0.79). Split
half reliability and congruent validity are established.

Organizational Commitment Scale

Organizational Commitment scale was developed by Shah and Ansari (1998)
which consisted of 15 items and three dimensions namely affective, continuance
and normative. Dimensions were taken from Mayer and Allen (1991). For each
dimension 5 items are selected that finally totaled to 15 items, each items were
measured on seven point scale ranging on a continuum of strongly disagree,
moderately disagree, slightly disagree, undecided, slightly agree, moderately
agree, strongly agree. In the scale two items were negatively phrased hence, their
scoring is simply reversed. The total scores ranged from 15-105, higher the scores
more the employee’s commitment vice versa. Chi square value of each item
confirmed the significance. The split half reliability coefficient (r=.80) & congruent
validity (r=.76) both were highly significant.

Psychological Well-Being Scale

A questionnaire named Psychological Well-Being developed by Bhogly and Jai
Prakash (1995) consisted of 28 items with the alternative response category –yes
and no and 13 dimensions including meaninglessness, somatic symptoms, selflessness, positive affect, daily activity, life satisfaction, suicidal ideas, personal control, social support, tension, wellness, general efficiency and satisfaction. Ten items were negatively scored, rest were positive, ranged from 0 to 1. Positive keyed items were given “1” towards “yes” and in negative keyed “1” intended for “no”. The total score gave the estimation of the psychological well-being e.g., the higher the score the greater the psychological well-being. The alpha coefficient and split-half coefficient were found to be .843 and .910 respectively. Test retest coefficient was found to be .717. In terms of validity it correlates well, both with subjective well-being scale (r=.622) and with general well-being scale (r=.484).

Biographical Information Blank

Apart from the questionnaire, Biographical Information Blank (B.I.B) was also prepared by the researcher to record various demographic informations of the respondents such as name, age, sex, religion, qualification, number of dependents, salary, city and total work experience in the present position.

Statistical Analysis

Once data collected from respondents, then it requires certain kind of statistical treatment to reduce long wide-ranging scores into intelligible and interpreted form, in order to understand the results very easily and conveniently. So statistical methods are very important as Kerlinger (1983) pointed out that “statistics, via its power to reduce data to manageable forms and its power to study and analyse variance enable scientists to attach probability estimates to the inferences they draw from data”. Statistics, using probability theory and mathematics, simply makes a
process more exact. In other words it is to say that through statistics we always make inferences, attach probability to various outcomes or hypothesis, and make decisions on the bases of statistical reasons. Selection of appropriate statistics is very important objective for the study which helps in fulfilling the objectives and drawing precise and accurate inferences.

In order to present data in more intelligible and interpreted form investigator had used "Multiple Regression Analysis" through SPSS. It is the means of studying the influences of several independent variables simultaneously on the dependent variable. It forms linear composite of explanatory variables in such a way that it has maximum correlation with the criterion variable (Kothari, 1987). The objective of the analysis is to make a prediction about dependent variables based on its-covariance with all the concerned independent variables. This technique is appropriate when we have single metric criterion variable, which is supposed to be the function of other independent variables. Moreover, Multiple-Regression Technique relates each individual factor of independent variable to the dependent variable in a manner which also takes interactive effects in to account (Kothari, 1987). There are many methods of Multiple Regression Analysis such as enter, forward, backward, step-wise and remove. In the present study 'Step Wise Multiple Regression Analysis' was used in which the investigator adds the individual contributors of each explanatory variable into the prediction equation, computing simple correlation first, then by calculating partial correlation. In Multiple Regression a subset of IVs is developed which is useful in predicting DV and to eliminate those IVs that don't provide significant prediction to this basic set. This process continues until no more useful informations are gleaned from.
further addition of variables. In the present research, investigator took a set of independent variable i.e., occupational stress, HR practices and their dimensions, in order to examine their influence on dependent variable i.e., organizational commitment and its 3 dimensions and psychological well-being as a whole respectively. The present analyses include Model summary, ANOVA and Coefficient tables. Model summary indicate number of predictors of the model in which, multiple correlation ('R') is the correlation of observed and expected value and 'R square' is the contribution of predictor variable to the criterion variable by adding the previous values gradually. 'R square change' is the actual contribution of the predictor variable to the criterion variable separately. The real co-variance and magnitude of independent variables which is contributed to the dependent variable is also determined by 'R square change'. And 'F value' from ANOVA predicts the influence of independent variable on the dependent variable whereas, significant predictors were statistically confirmed by their statistical ‘t’ values and beta value from the coefficient table shows the direction of influence by its sign. V's are used in tables to indicate variable, name of the variable associated with number is clearly given in table 5.1 (findings at a glance).