CHAPTER 3

RESEARCH METHODOLOGY

3.1 AREA OF THE STUDY

This study concentrates on spiritual quotient and its impact on employee’s work environment and their job performance in IT sector which has not been considered in the earlier studies. The present study has taken sample from IT sector in Chennai in order to narrow down the research. Not many researches on spiritual quotient have been associated or shown its relationship towards IT industry people and their effects on employee’s work environment and job performance. Thus, in the present study a descriptive research design has been employed.

3.2 RESEARCH DESIGN

Research design have been taken as descriptive because in the present study the researcher wants to know or understand about the opinion of the employees of IT industry in Chennai with respect to the title of this study (Influence of spiritual quotient on work environment and job performance) and to understand their level of awareness (known, unknown, somewhat known) towards spiritual quotient, and the level of spiritual quotient (low, medium, high) among employees in IT industry also the work environment and job performance of employees are studied. Among the different ways of descriptive design such as observational, case study and survey, for the present study the survey type of descriptive research design have been undertaken.
3.3 SAMPLING PROCEDURE

Based on the company’s financial and employee growth rate from top 5 companies like HCL, iGate Patni, Mahindra Satyam, Infosys and Wipro during the period (2008-2012), a sample size of 500 employees has been taken for this research study. A stratified random sampling technique have been used to select the employees randomly, where, from each of the five companies 100 employees among all the categories in each company’s is taken as respondents for the research study. Initially a pilot study has been done with a sample of 50 respondents. After the responses from the employees the questionnaire have been examined and revised for the study.

3.4 DATA COLLECTION

Data was collected using the primary and the secondary sources.

3.4.1 Primary Data:

The primary data has been collected through the questionnaire, where, 522 questionnaires out of 563 questionnaires were accepted from all categories of employees in the IT industry. After scrutinizing it has been rounded off to 500. All the questionnaires have been filled with valuable information which was completely useful for study. All the items in the scale are framed using 5 point Likert scale with the value ranging from 1 to 5 where, 1 explain (strongly disagree), 2 explain (disagree), 3 explain (neutral), 4 explain (Agree), 5 explain (strongly agree). And the SPSS computer programme has been used for the data analysis.

3.4.2 Secondary Data

Literatures related to spiritual quotient, work environment, job performance have been taken from using various journals/publishers like Taylor & Francis, Wiley, Springers with respect to the research study.
3.5 RELIABILITY

The reliability for various components of questionnaire was tested through computing Cronbach’s Alpha and the results are presented in Table 3.1.

**Table 3.1 Cronbach’s Alpha - Reliability Coefficient**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>No. of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Quotient</td>
<td>17</td>
<td>0.86</td>
</tr>
<tr>
<td>Job Performance</td>
<td>16</td>
<td>0.84</td>
</tr>
<tr>
<td>Work Environment</td>
<td>15</td>
<td>0.82</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>48</strong></td>
<td><strong>0.84</strong></td>
</tr>
</tbody>
</table>

*Source: Primary & Computed Data*

From the above table, it represents that the 0.84 value of Cronbach’s alpha of the scale for overall questionnaire which indicates an acceptable level of internal consistency. Where, the Cronbach’s alpha varies from 0.82 for work environment to 0.86 for spiritual quotient. Therefore, the results illustrates that the various components of questionnaire were also found to be in the acceptable level of internal consistency.

3.6 VALIDITY

The validity for various components of questionnaire was tested through computing average inter-item correlation and the results are presented in Table 3.2.

**Table 3.2 Average Inter-Item Correlation - Validity Coefficient**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>No. of Items</th>
<th>Average Inter-Item Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Quotient</td>
<td>17</td>
<td>0.82</td>
</tr>
<tr>
<td>Job Performance</td>
<td>16</td>
<td>0.80</td>
</tr>
<tr>
<td>Work Environment</td>
<td>15</td>
<td>0.78</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>48</strong></td>
<td><strong>0.80</strong></td>
</tr>
</tbody>
</table>

*Source: Primary & Computed Data*
From the above table, it represents that the 0.80 value of average inter-item correlation coefficient for overall questionnaire was found to depict an excellent level of reliability. And, the average inter-item correlation coefficient ranges from 0.82 for spiritual quotient to 0.78 for work environment which illustrates excellent validity.

3.7 STATISTICAL TECHNIQUES

3.7.1 Frequency and Percentage Analysis

Frequency and percentage analysis have been performed for the all the socio-economic variables and with all the other variables.

3.7.2 Analysis of Variance (ANOVA) Test

In order to build a multiple comparison an ANOVA analysis is used. There are two types of ANOVA such as one-way and two-way ANOVA. In the present study one-way ANOVA has been performed. In ANOVA F-distribution is used to obtain the p-value. To find the difference between the two variables ANOVA have been used, the hypothesis showing the significant difference between the variables is said to be accepted when the significance value is less than 0.01 and 0.05, whereas null hypothesis is rejected. And, in vice versa when the significant value is greater than 0.05, the null hypothesis is accepted.

3.7.3 Chi-Square

Since the data’s utilized in the present study have been careworn from the sample of respondents using stratified random sampling the chi-square analysis is performed in order to compare the observed data with the data that is to be obtained with respect to the specific hypothesis of the study. To find the association among the two variables chi-square have been used, the hypothesis showing the significant association is said to be accepted when the significance value is less than 0.01 and 0.05, whereas null hypothesis is rejected. And, in vice versa when the significant value is greater than 0.05, the null hypothesis is accepted.
3.7.4 Regression

To measure the relationship between one dependent variable and one or more independent variable, multiple regressions is used. In regression the coefficient of multiple determinations $R^2$ and adjusted $R^2$ values have been determined. And, if the F value is significant at 1% level it indicates that the model is significant. Also, when the significance value is less than 0.01 and 0.05 means the variables are positively influencing whereas, if the significance value is said to be greater than 0.05 it means the variables are negatively influencing.

3.7.5 Exploratory Factor Analysis.

Factor analysis entails examination of the interdependence relationship hence it is termed as interdependence technique. In the factor analysis the fundamental dimensions would delineate the correlation between the set of variables. Among the factor analysis the exploratory factor analysis is used for the present study to lessen the data into small set of precise variables, also to investigate the essential theoretical formation of the phenomena. Under exploratory factor analysis, the principal component factor analysis method is used to reduce the set of variables in to small factors and to generate compound scores for these factors in order to use in the consequent analysis. In order to scrutinize the null hypothesis that has assumed a statistic test called bartletts test of sphericity have been performed. The factor analysis appropriateness has been measured by considering the index value to be between 0.5 and 1, and it is said to be inappropriate if the index value are below 0.5. Hence the factor analysis appropriateness is measured using Kaiser-Meyer-Olkin which is said to be the sampling adequacy measure.
3.7.6 **Correlation**

Correlation is said to be a statistical measure where two or more variables oscillates together. The change in one variable causes the change in the other variable, similarly if the oscillation in one variable envisages a similar kind of oscillation in another variable. This shows whether there exist a positive or negative correlation depending on the increase and decrease of another variable.

Pearson correlation is done to find the relationship between two variables and the pearson coefficient is same as correlation coefficient of linear regression, it helps to find whether the variables values (r) are between -1 to +1, when a (r) value of +1 is obtained it shows that the variables are positively correlated, and the (r) value of -1 is obtained it shows that the variables are negatively correlated, and the no correlation exist among the variables when the values does not range between -1 to +1 that is when r is 0, where pearson correlation sample are indicated by r.

3.7.7 **Structural Equation Modeling**

The arousal of structural equation model has been from the presumed cause-effect supposition that has been made about the reality. In the present study the structural relationship among the factors contributing to the dimensions of spiritual quotient, work environment and job performance of IT industry has been explained using the standardized structural path coefficients and the figure that depicts the model of the present study, plus the model fit parameters that portrays the chi-square statistic fit, the Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), the Root Mean Residual (RMR) and the Root Mean Square Error of Approximation (RMSEA) has been performed to indicate the perfect or the excellent fit, where values from 0 to 1 indicates the good fit.
3.8 LIMITATIONS

The present study throws light only on IT employees in Chennai; in future the respondents can be taken from different parts of the world, so that the level of awareness towards spiritual quotient can be judged in a broader perspective. In the present study only very few employees are somewhat known about the level of awareness towards spiritual quotient. The sample that is considered in the present study is only from IT industry; in future the research can be focused by concentrating on other sectors under IT, like ITES, BPO and KPO. Also, if possible the number of respondent can be increased and data can be collected from various sectors of the same industry, for example some respondent from IT, some from BPO and KPO and some from ITES.