CHAPTER III

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This chapter includes the research design, tools and the procedure adopted in conducting the study. It also discusses how the respondents were selected for the primary study (from which data were used in the present study), instruments used, how the data were collected, and how the data were analyzed for the current study. The study made an attempt to investigate the impact of Self-efficacy and Psychological strain on Decision making styles. In addition, the impact of various demographic variables (sector, job tenure, level, gender, age, marital status, family size, working hours and the number of employees reporting) on self-efficacy, psychological strain and decision making styles of the managerial employees were analyzed.

Research Design

The research was developed as a study that used 2X2X2 factorial design. The study is designed to investigate the effects of Sector (at two levels- Public and private), Tenure (at two levels- Short Job Tenure and Long Job Tenure) and Level (at two levels- Middle level and Lower level) upon Self-efficacy, Psychological strain and Decision making styles of managerial employees.

Population

The middle and lower level managers working in public sector (Andhra Bank, Andhra Pradesh State Finance Corporation (APSFC), Bharat Heavy Electricals Limited (BHEL), Bharat Sanchar Nigam Limited (BSNL), Hindustan Shipyard Limited (HSL), Indian Immunologicals Limited (IIL), Oil and Natural Gas Corporation (ONGC), South Central Railways (SCR), State Bank of India (SBI) and Visakhapatnam Steel Plant(VSP) and private sector (Andhra Pradesh Paper Mills Limited, Andhra Sugars...
Limited, Apollo Health Street, Arabindo Pharma, Capital IQ, GE Capital, GMR Energy Limited, ICICI Bank, Mahindra Satyam and Microsoft India) in the state of Andhra Pradesh constituted the population of the study.

Participants

The first unit of the sample was “Organization” and the last unit of the sample was the “Permanent managerial employees” who have completed a minimum of one year experience in the respective organization. First stage, twenty best performing organizations were chosen from both Public and Private sectors in the state of Andhra Pradesh using purposive sampling. Initially 700 managerial employees were selected from the 20 select organizations based on systematic sampling. Out of the 700 participants, 450 participants responded (64.28%) to the survey. Of those participants, 50 (>10% missing) were excluded due to missing data. The remaining 400 participants were included in the study. Among 400 managerial employees participated in the study, 69% were men and 31% were women, 80% were married and 20% were unmarried. The age of the total participants varied from 21 to 59 years, with a mean age of 38.2 years. The below inclusion and exclusion criteria were followed.

Inclusion criteria for Organizations consists of (1) Organizations which were listed in NSE or BSE; (2) Organizations established before 2000 and (3) Organizations having different managerial levels. Inclusion criteria for participants consists of (1) Permanent employees; (2) Employees who had a minimum of one year experience in the position concerned; (3) Middle and lower level managerial employees and (4) Employees willing to participate in the study. Exclusion criteria for Participants consists of (1) Employees who had less than one year experience in the position concerned; (2) Temporary employees and (3) Employees who are not working in middle and lower managerial levels.
Table 1

*Distribution of participants in the sample of the investigation*

<table>
<thead>
<tr>
<th>Sector</th>
<th>Middle level</th>
<th></th>
<th>Lower Level</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LJT</td>
<td>SJT</td>
<td>LJT</td>
<td>SJT</td>
<td></td>
</tr>
<tr>
<td>Public Sector</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Private Sector</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>400</td>
</tr>
</tbody>
</table>

Note: LJT = Long Job Tenure, SJT = Short Job Tenure

Table 2

*Socio-Demographic features of sample*

<table>
<thead>
<tr>
<th>Groups</th>
<th>Age M (SD)</th>
<th>Working Hours M (SD)</th>
<th>Gender</th>
<th>Marital Status</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>Married</td>
<td>Nuclear family</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Unmarried</td>
<td></td>
</tr>
<tr>
<td>G1</td>
<td>47.70 (6.98)</td>
<td>48.36 (14.11)</td>
<td>13</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>G2</td>
<td>38.32 (10.11)</td>
<td>47.16 (15.35)</td>
<td>17</td>
<td>33</td>
<td>39</td>
</tr>
<tr>
<td>G3</td>
<td>37.70 (10.09)</td>
<td>51.22 (15.72)</td>
<td>25</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td>G4</td>
<td>47.78 (6.88)</td>
<td>43.68 (16.35)</td>
<td>13</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>G5</td>
<td>30.28 (2.76)</td>
<td>48.70 (15.06)</td>
<td>17</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>G6</td>
<td>42.14 (5.82)</td>
<td>50.54 (15.57)</td>
<td>12</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>G7</td>
<td>28.68 (3.86)</td>
<td>46.20 (15.73)</td>
<td>16</td>
<td>34</td>
<td>27</td>
</tr>
<tr>
<td>G8</td>
<td>33.04 (6.85)</td>
<td>51.74 (20.83)</td>
<td>11</td>
<td>39</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>38.21 (9.84)</td>
<td>48.45 (16.26)</td>
<td>124</td>
<td>276</td>
<td>323</td>
</tr>
</tbody>
</table>

Note: G1 = Short Job Tenure (SJT) middle level managerial employees in public sector, G2 = Long Job Tenure (LJT) middle level managerial employees in public sector, G3 = Short Job Tenure (SJT) lower level managerial employees in public sector, G4 = Long Job Tenure (LJT) lower level managerial employees in public sector, G5 = Short Job Tenure (SJT) middle level managerial employees in private sector, G6 = Long Job Tenure (LJT) middle level managerial employees in private sector, G7 = Short Job Tenure (SJT) lower level managerial employees in private sector, G8 = Long Job Tenure (LJT) lower level managerial employees in private sector, N=400
Instruments

Three instruments were used to collect the data for the current study. These were the Self-efficacy Scale (Sherer et al., 1982), Personal Strain Questionnaire (PSQ) which was developed by Osipow (1998) and General Decision Making Style (GDMS) questionnaire (Scott & Bruce, 1995). All the tools are appended in Appendix- I A-C. The tools used for the study are described below in detail.

Self-efficacy Scale

The Self-efficacy Scale is a self-report measure (Appendix-I A) designed to measure general self-efficacy as well as social self-efficacy (Sherer et al., 1982). Self-efficacy scale is a 5-point scale with 30 items. This five point scale measured Self-efficacy in terms of frequency ranging from strongly disagree to strongly agree that varied the score from 1 for strongly disagree to a score of 5 for strongly agree. The scale divided into two sub scales namely General self-efficacy scale (17 items), Social self-efficacy scale (6 items) and seven filler items. General self-efficacy scale has both positive and negative items. The item numbers 2, 4, 15, 16, 23 and 27 are positively scored and items 3, 7, 8, 11, 12, 18, 20, 22, 26, 29 and 30 which are negative items the scores are reversed. To obtain the total score of the scale, scores of items are added. The scale yields a maximum score of 85 and a minimum score of 17. Social self-efficacy scale has both positive and negative items. The item numbers 10, 19, and 28 are positively scored and items 6, 14, and 24 which are negative items the scores are reversed. To obtain the total score of the scale, scores of items are added. The scale yields a maximum score of 30 and a minimum score of 1. The Filler items are not scored. These are summed up to produce the general and Social Self-efficacy Subscale scores. The General and Social Self-efficacy subscale scores are not summed up to give an overall score.
Sherer et al. (1982) reported that the Cronbach’s alpha coefficient for General self-efficacy was .86 and .71 for Social self-efficacy in the original scale validation of their study. In the present study, the Cronbach’s alpha coefficient for General self-efficacy is .80 and .60 for Social self-efficacy are reported.

**Psychological strain Questionnaire**

The Psychological Strain of the respondents was measured by using the Personal Strain Questionnaire (PSQ) which was developed by Osipow (1998). The Personal Strain Questionnaire embraces 40 items related to four different types of strains namely: (a) Vocational Strain (B) Psychological Strain (C) Interpersonal Strain and (D) Physical Strain. The present study measures only the Psychological strain of middle and lower level managers by using 5-point Psychological strain scale (Appendix-I B) of Personal Strain Questionnaire. This five point scale measured Psychological strain in terms of frequency ranging from ‘rarely or never to ‘is most of the time’ that varied the score from 1 for ‘rarely or never’ to a score of 5 for ‘is most of the time’’. Examples items designed to assess Psychological strain are “Lately, I am easily irritated”, “Lately, I have been depressed”, “Lately, I have been feeling anxious”. The Psychological strain scale has both positive and negative items. The item numbers 1, 2, 3, 5, 6, 7 and 8, are positively scored and items 4, 9, and 10 which are negative items, for which the scores are reversed. All item scores were summed up to obtain a total score on Psychological strain. The scale yields a maximum score of 50 and a minimum score of 10. Osipow (1998) noted Cronbach’s alpha coefficient of .93 for Psychological strain scale. In the current study, alpha coefficient is .67 for Psychological strain scale.
General Decision Making Style (GDMS) Questionnaire

Decision making style was measured using Scott and Bruce (1995) General Decision making Style measure (see Appendix-I C). This five point scale measured Decision making styles in terms of frequency ranging from “strongly disagree to strongly agree” that varied the score from 1 for “strongly disagree” to a score of 5 for “strongly agree”. The General Decision Making Style (GDMS) is consist of five subscales: Rational, Intuitive, Dependent, Avoidant, and Spontaneous decision making styles. Each scale has five items.

1. Rational decision making style is described as a “logical and structured approach to decision making” (Item Nos. 4, 7, 11, 13 and 25)

2. Intuitive decision making style is described as a “tendency to rely upon intuitions, feelings and sensations” (Item Nos. 1, 3, 12, 16 and 17)

3. Dependent decision making style is described as the “need of assistance and support of others” (Item Nos. 2, 5, 10, 18 and 22)

4. Avoidant decision making style is described as an “attempts to postpone and avoid decisions” (Item Nos. 6, 14, 19, 21 and 23) and

5. Spontaneous decision making style is described as the “tendency to make decisions in an impulsive way” (Item Nos. 8, 9, 15, 20 and 24).

The total score of all the five decision making styles was obtained by adding the item score of the Decision making style and the score ranges from 5 to 25. Scott and Bruce (1995) noted Cronbach’s alpha coefficients ranging from .68 to .94 for GDMS questionnaire. In the current study, alpha coefficient is .729 for GDMS questionnaire.
**Individual data form**

This part includes questions such as Sector, Job Level, Job Tenure, Age, Gender, Marital Status, Type of family, Number of working hours per week and Number of subordinates reporting (see Appendix-I D).

**Statistical analysis**

The analysis of the study is quantitative in nature which used various descriptive statistical tools (e.g. Mean and Standard Deviation) and inferential statistical tools (Analysis of Variance (ANOVA), Duncan’s Multiple Range Test (DMRT), Correlation and Multiple Regression). The data were analyzed by using IBM SPSS for windows, version 20.0.

**Variables Studied**

In the light of the hypotheses formulated, the following variables are studied.

**Sector:** The managerial employees who are working in public and private sector companies were considered in the study.

**Job level:** The job level is classified into middle and lower level managerial employees of different organizations.

**Middle level managerial employees:** Middle level managerial employees deal with goal setting and department-level decision making and reports to a higher level of managers within the organization. They need to summarize weekly or monthly information horizontally across functional lines in the organization.

**Lower level managerial employees:** Low-level managerial employees (supervisors) directly manage the workers and take responsibility for the day-to-day operations of the
business. They need daily information from the employees below them, and they report summaries of the data to the next level of management.

**Job Tenure:** The job tenure is further classified into Short Job Tenure (SJT) and Long Job Tenure (LJT). The managerial employees who have less than five years of experience is considered as Short Job Tenure (SJT) and the managerial employees who have more than or equal to five years of experience is considered as Long Job Tenure (LJT).

**Self-efficacy:** General self-efficacy is defined as “one’s belief in one’s overall competence to effect requisite performances across a wide variety of achievement situations”. It captures differences between individuals and their tendency to view themselves as capable of meeting task demands in a broad array of contexts (Eden, 2001). Social self-efficacy refers to “individual’s belief that they are capable of initiating social contact and developing new friendships” (Gecas, 1989). Social self-efficacy relates to an individual’s belief about his/her socialization abilities to make him/her to have better interpersonal relations. The Social self-efficacy is a motivational state and General self-efficacy is a motivational trait.

**Psychological Strain:** Psychological strain is defined as a “situation in which some characteristics of the work situation are thought to cause problematic psychological symptoms or to cause risk factors making poor health more likely” (Burke, 1986).

**Decision Making Style:** Rational decision making style, Intuition decision making style, Dependent decision making, Avoidant Decision making style and Spontaneous decision making style.

**Demographic:** Personal (Gender, Age, Marital Status, Family type) and Job related (Sector, Job Tenure, Level, Working hours and Number of employees reporting).
Procedure

The investigator personally contacted the organizations and requested the cooperation needed from them. The organizations who were willing to participate in the study were included in the sample. 20 companies agreed to grant permission and extended their cooperation. Oral consent was received from the manager of the concerned organizations. After completion of this formality, data collection was initiated.

Pilot study

The pilot study was conducted on 100 participants drawn from the six companies out of 20 companies included in the sample. The investigator contacted the participants and explained the purpose of the study. The basic information was obtained with respect to participants experience in the concerned position and those who fulfilled the inclusion criteria were considered for the pilot study. The data of the pilot study were analyzed to finalize the tools for the final study.

Main Study

The main study was carried for about three months, each participant took 15 to 20 minutes to complete the survey. The investigator collected 20 samples from each organization. 10 from long job tenure managers and 10 from short job tenure managers. The responses were coded and entered into IBM SPSS for windows, version 20.0.