# CHAPTER IV

# RESEARCH RESULTS

Chapter four explains the results of the study, which begins with a description of the general characteristics of the respondents. Followed by discussions on the eight dichotomies of managing styles of the respondents before capturing the two main combination types of managing styles. The purpose is to combine the four most preferred styles (dichotomies) to be the preferred managing style, and then the four lesser-preferred styles (dichotomies) designated as the lesser-preferred managing style of the respondents as measured using the MBTI psychometric assessment profile as the research instrument.

Next, will be discussing the managerial performance using the four indicators of managerial performance measurement. Finally, examining into managing styles contribute to the prediction of managerial performance.

## 4.1. Characteristics of the Respondents

The researcher has distributed 500 sets of questionnaire for this study. Of these, only received 261 responses that is 52.20 percent response rate. The researcher then looked at the responses in order to determine if the respondents are all in either managing position or/and having staff reporting to them. After screening through them, only obtained 215 usable responses from the field, which 82.38 percent usable rate.

**Table 4:1 Demographic Profile of the Respondents**

| Profile Description | Frequency | Percentage |
|---|---|---|
| Gender | | |
| Male | 156 | 72.60 |
| Female | 59 | 27.40 |
| Total | 215 | 100.00 |
| Age Group | | |
| Below 29 years old | 51 | 23.70 |
| 30 to 39 years old | 95 | 44.20 |
| 40 to 49 years old | 60 | 27.90 |
| 50 years old and above | 9 | 4.20 |
| Total | 215 | 100.00 |
| Ethnic Group | | |
| Malays | 95 | 44.20 |
| Chinese | 92 | 42.80 |
| Indian and Others | 28 | 13.00 |
| Total | 215 | 100.00 |
| Level of Education | | |
| Degree and Above | 140 | 65.10 |
| Diploma and Below | 75 | 34.90 |
| Total | 215 | 100.00 |
| Management Work Experience | | |
| Below 2 years | 39 | 18.10 |
| 2 to 11 years | 108 | 50.20 |
| 12 to 21 years | 59 | 27.40 |
| 22 years and above | 9 | 4.20 |
| Total | 215 | 100.00 |

The data collected represents the demographic profile of the respondents as illustrated in Table 4.1. There are 156 males (72.60 per cent), and 59 females (27.40 per cent). This shows that the majority of the responses are male. Based on age, the largest proportion of respondents is from 30 to 39 age group (44.20 per cent). This is followed by the 40 to 49 (27.20 per cent), the below 29 age group (23.70 per cent) and those above 50 years old (4.20 per cent).

Majority of the respondents are Malays (44.20 per cent), followed by Chinese (42.80 per cent). The Indian respondents and other ethnics form a small fraction of the sample (4.20 per cent). These figures are representative of the ethnic composition of the population in Kuala Lumpur and Klang Valley, with 41.70 per cent of the population being Malays, followed closely by the Chinese, 39.70 per cent and Indian and other ethnics, 18.60 per cent (Universe Report 1999, Retail Measurement Services by AC Nielsen).

The education level of the respondents on the whole is high. About 65.10 per cent of the respondents are degree holders and above and only 34.90 per cent with Diploma and below. In term of management work experience, the largest fraction falls into 2 to 11 years group (50.20 per cent), followed by the 12 to 21 years group and those with 22 years and above.

## 4.2. Managing Styles of the Respondents: The Eight MBTI Dichotomies

In this study, the respondents were asked to indicate their preferences on a five-point Likert scale. However, in the subsequent analysis, the researcher collapsed the data into three categories in order facilitate clarity for analysis measures as illustrated in Table 4.2.

### 4.2.1. Reliability Test

The reliability test was conducted using Cronbach's alpha coefficients as a measure of internal consistency; that is, do all the 93 items within the instrument measure the same thing? Number of respondents is 215. In this test, the alpha is at 0.7316 that is close to 1 shows that the internal consistency is good (George and Mallery, 2001).

Table 4.2 exhibits the eight MBTI dichotomies of the managing styles of the respondents. The study finds that 76.30 per cents of the respondents prefer Extraversion as opposed to only 30.20 percent are Introversion. Followed by 54.00 per cent of them prefer Sensing to Intuition (29.80 per cent). About 77.20 per cent prefers Thinking to Feeling (29.30 per cent). There are 83.80 per cent has preference for Judging over Perceiving (25.10 per cent).

**Table 4.2: Eight MBTI Dichotomies of the Managing Styles of the Respondents.**

| | Frequency | Percentage | Cumulative Percentage |
|---|---|---|---|
| Extraversion: Strongly Disagree/ Disagree | 39 | 18.10 | 18.10 |
| Neither Agree nor Disagree | 12 | 5.60 | 23.70 |
| Strongly Agree/ Agree | 164 | 76.30 | 100.00 |
| Introversion: Strongly Disagree/ Disagree | 140 | 65.10 | 65.10 |
| Neither Agree nor Disagree | 10 | 4.70 | 69.80 |
| Strongly Agree/ Agree | 65 | 30.20 | 100.00 |
| Sensing: Strongly Disagree/ Disagree | 86 | 40.00 | 40.00 |
| Neither Agree nor Disagree | 13 | 6.00 | 46.00 |
| Strongly Agree/ Agree | 116 | 54.00 | 100.00 |
| Intuition: Strongly Disagree/ Disagree | 134 | 62.30 | 62.30 |
| Neither Agree nor Disagree | 17 | 7.90 | 70.20 |
| Strongly Agree/Agree | 64 | 29.80 | 100.00 |
| Thinking: Strongly Disagree/ Disagree | 39 | 18.10 | 18.10 |
| Neither Agree nor Disagree | 10 | 4.70 | 22.80 |
| Strongly Agree/ Agree | 166 | 77.20 | 100.00 |
| Feeling: Strongly Disagree/ Disagree | 142 | 66.00 | 66.00 |
| Neither Agree nor Disagree | 10 | 4.70 | 70.70 |
| Strongly Agree/Agree | 63 | 29.30 | 100.00 |
| Judging: Strongly Disagree/ Disagree | 23 | 10.70 | 10.70 |
| Neither Agree nor Disagree | 12 | 5.60 | 16.30 |
| Strongly Agree/ Agree | 180 | 83.70 | 100.00 |
| Perceiving: Strongly Disagree/ Disagree | 149 | 69.30 | 69.30 |
| Neither Agree nor Disagree | 12 | 5.60 | 74.90 |
| Strongly Agree/ Agree | 54 | 25.10 | 100.00 |

Table 4.2 infers that most of the Malaysian managers' managing styles are bended toward Extraversion (E) than Introversion (I), Sensing (S) than Intuition (N), Thinking (T) than Feeling (F) and Judging (J) than Perceiving (P). These preferences resemble the MBTI opposite bi-polar of the four- paired dichotomies. Those are E – I, S – N, T – F and J – P as shown in Table 4.3.

**Table 4.3: Correlations of the Eight MBTI Dichotomies**

| | Pearson Correlation | Significant (2-tailed) |
|---|---|---|
| Between Extraversion and Introversion | - 0.605** | 0.00 |
| Between Sensing and Intuition | - 0.393** | 0.00 |
| Between Thinking and Feeling | - 0.323** | 0.00 |
| Between Judging and Perceiving | - 0.349** | 0.00 |

** Correlation is significant at the 0.01 level (2-tailed).

Number of respondents: 215.

(Pearson correlation is at 1.00 between Extraversion and Extraversion, Introversion and Introversion, Sensing and Sensing, Intuition and Intuition, Thinking and Thinking, Feeling and Feeling, Judging and Judging, Perceiving and Perceiving. The variables are perfectly correlated with itself.)

All the four paired-dichotomies are having negative or inversed correlations with significant level of 0.00 (which means zero per cent that these opposite correlations are to happen by chance). In other words, more preference to Extraversion, Sensing, Thinking and Judging managing styles mean lesser using introversion, Intuition, Feeling and Perceiving styles of managing and vice-versa.

Table 4.2 shows that Malaysian managers are more Extraversion with lesser Introversion style. This means that they are energized from the outer world of people through interaction with people and activity-based or action-based style of management. Conversely, they are less favourable to Introversion style of managing which stimulation is from within through the inner world of thoughts

and reflections with "maybe-action-based management" using inner resources and internal experiences (Page, 1998).

Malaysian managers also display clear preference to Sensing style as opposed to intuition managing style. They manage by preference in using information that is real, factual and see the present approaches thus trusting their five senses – sight, sound, touch, taste and smell. They may seem to be materialistic and literal-minded to subordinates. As opposed to Intuition style that is by way of "sixth sense" or insight or future possibility methods in their daily live as a manager. They may look like a fickle and impractical dreamer to their subordinates (Page, 1998).

They also prefer Thinking style rather than Feeling approach to managing that depicts that strong liking to use logical analysis and making decision using their head including cause-and-effect reasoning with concerned over principles such as truth, justice and treating everyone as equally. Subordinates see them as cold and condescending manager. Conversely, they are not in favour of using personal values and empathy thus making decision using their heart with concerned on relationships, harmony and treating everyone as an individual as those using Feeling type of managing style. Their subordinates understand them as fuzzy-minded and emotional manager (Briggs Myers, 1998 and Page, 1998).

Judging style is the most widely used among the Malaysian managers with 84.70 per cents agreed to it, as opposed to Perceiving style with only 25.10 per cent in favour are in preference of it. Malaysian managers like a structured and planned style of managing, which are very decisive, controlling and orderly in approach. At times, subordinates will see this style as demanding, rigid and uptight in management. In the contrary, they do not prefer to flexibility, adaptability, spontaneous and discovering surprises, which to them are disorganized, messy, irresponsible approach (Page, 1998).

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## 4.3. Managing Styles of The Malaysian Manager: Combination of Two Styles.

Table 4.2 also illustrates that Malaysian managers' preferred combinations of two styles. The Extraversion and Sensing combination managing style, which is an action-oriented realists where knowledge is important for its practical uses as opposed to Introversion and Intuition combination that is a thoughtful innovators where knowledge is important for its own sake, like self development.

They also prefer Thinking and Judging combination, they are a logical decision makers and effective in implementers of policies if they respect their leader. Conversely, less prefer Feeling and Perceiving combination which is seen as supportive coaches depicting as warm, flexible and encouraging managers with collegial relationships and consensus in decisions (Briggs-Myers, 1998).

## 4.4. Managing Styles of the Malaysian Managers with Combination of Four styles toward Two Main Preferred Types of Managing Styles.

The study also infers that most of the Malaysian managers' managing styles are bended toward preferred combination of Extraversion with a mean score of 2.58 than Introversion (1.65), Sensing (2.14) than Intuition (1.67), Thinking (2.59) than Feeling (1.63) and Judging (2.73) than Perceiving (1.56) as shown in Table 4.4. In sum, table 4.4 presents two main types of managing styles of the Malaysian managers represented by the four-letter MBTI type. The more-preferred type is ESTJ style of managing and the lesser-preferred type is INFP managing style of the respondents.

What are the significant differences of ESTJ and INFP types of managing styles? According to Briggs-Myers (1998), ENTJ type of managers is practical, realistic, matter-of-fact, decisive and quick to implement decisions. They organize projects and subordinates to get things done with focus on getting results in the most

efficient way possible. Always taking care of details and have clear set of logical standards, systematically follow them and want others to do so. They are known to be forceful in implementing their plans.

**Table 4.4: Managing Styles of the Malaysian Managers with Combination of Four styles toward Two-Main Preferred Types of Managing Styles.**

|  | E | I | S | N | T | F | J | P |
|---|---|---|---|---|---|---|---|---|
| Number of valid cases | 215 | 215 | 215 | 215 | 215 | 215 | 215 | 215 |
| Mean | **2.58** | 1.65 | **2.14** | 1.67 | **2.59** | 1.63 | **2.73** | 1.56 |
| Mode | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |
| Minimum | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Maximum | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

*Where,

E      = Extraversion

I      = Introversion

S      = Sensing

N      = Intuition

T      = Thinking

F      = Feeling

J      = Judging

P      = Perceiving

**Mean scores are based on a three-point scale where 1 = Strongly Disagree/ Disagree, 2 = Neither Agree nor Disagree and 3 = Strongly Disagree/ Agree. (The scale has been collapsed from five categories to three categories.) The higher the mean score, the more preference the respondent is in choosing of their managing style.

In the converse, the INFP type of managing style is idealistic, loyal to their values and to people who are important to them. They want the external life that is

congruent with their values. Can be catalysts for implementing ideas because of their strong curiosity and quick to see possibilities. They are very people oriented as they seek to understand subordinates and to help them fulfil their potential. They are only adaptable, flexible and accepting as long as they values are not threatened (Myers Briggs, 1998).

Can these differences in ESTJ and INFP types of managing styles contribute to the prediction of managing performance? In this pragmatic world of globalization, many Malaysian managers are trained to enhance their strengths and overcome their major weaknesses through training facilitators and providers to meet their goals and objectives, and enhanced managerial performance. Therefore, for managing styles to act as a predictor to managing performance will be a very inconclusive dogma. The researcher will provide the answers to this statement in subsequent analysis measures.

Today's Malaysian managers are no longer as merely caretakers and traditional number-crunching administrative managers as described by Abdullah (1993). According to Reddin (1992), they have improved their managerial effectiveness through either changing situations or using the right management styles. The ENTJ managers also illustrate this. For example, Wan Azmi and Teh Hong Piow have become entrepreneur-manager type (*Malaysian Savvy*, 2001). The Malaysian managers are becoming a leadership group as described by Drucker (1999), which combines management and entrepreneurship in the last two decades.

## 4.5. Managerial Performance of the Respondents

Table 4.5 exhibits the managerial performance of the respondents with all means below 1.50. The mean below 1.50 indicates that the respondents have answered 'Yes' to all the managerial performance indicators. In term of Set Targets and Goal Achievements, about 84.20 per cent said that they accomplished it.

Followed by Job Promotion (83.70 per cent), Potential Candidate for Advancement (77.70 per cent) and Performance Bonus or Incentives (60.90 per cent). These figures seem to represent closely to the respondents managing styles as shown in Table 4.2. Is there a correlation between managing styles of the respondents and their managerial performance? Yes, as shown in table 4.6.

**Table 4.5: Managerial Performance of the Respondents**

| Managerial Performance | Frequency | Percentage | Cumulative Percentage |
|---|---|---|---|
| **Job Promotion** | Yes | 180 | 83.70 |
| | No | 35 | 16.30 |
| | Total | 215 | 100.00 |
| | Mean | 1.16 | |
| **Performance Bonus Or Incentives** | Yes | 131 | 60.90 |
| | No | 84 | 39.10 |
| | Total | 215 | 100.00 |
| | Mean | 1.39 | |
| **Set Targets and Goals Achievements** | Yes | 181 | 84.20 |
| | No | 34 | 15.60 |
| | Total | 215 | 100.00 |
| | Mean | 1.16 | |
| **Potential Candidates for Advancement** | Yes | 167 | 77.70 |
| | No | 48 | 22.30 |
| | Total | 215 | 100.00 |
| | Mean | 1.22 | |

* Mean scores are based on a two-point scale where 1 = Yes and 2 = No.

## 4.6. Hypotheses Testing and Results on Managing Styles as Predictor to Managerial Performance.

To recap, the results of the study to accept alternative hypotheses when correlation is equals to −1 to +1 as shown in H1 and level of significance is equal or less than 0.05.

H1: There is a correlation between managing styles and managerial performance. That is $r = -1$ to $+1$

H2 to H5: Managing styles contribute to the prediction of managerial performance with level of significance at equal or less than 0.05.

However, to accept null hypothesis if correlation is equal to zero and statistically significant level is above 0.05 as shown below.

HO1: There is no correlation between managing styles and managerial performance when is $r = 0$.

HO2 managing styles do not predict managerial performance at $p > 0.05$.

### 4.6.1. Correlation Between Managing Styles and Managerial Performance

Table 4.6 exhibits that there is positive correlation between managing styles and managerial performance except for Intuition managing styles. That is $0 < r < 1$. This means that the more predominant the managing styles, the better managerial performance and vice-versa. Even though the correlation values are closer to zero, which signifies the weaker the tendency of relationship, but it statistically significant using Pearson Chi-Square ($p < 0.05$) to proceed with the analysis to test hypothesis two to five as shown in Table 4.7.

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**Table 4.6: Correlation Between Managing Styles and Managerial Performance**

| Managing Style | | Job Promotion | Performance Bonus or Incentives | Set Targets and Goals Achievements | Potential Candidate for Advancement |
|---|---|---|---|---|---|
| E: | Phi | 0.097 | 0.272 | 0.250 | 0.258 |
| | Sig.* | 0.367 | 0.000 | 0.001 | 0.001 |
| I: | Phi | 0.123 | 0.338 | 0.271 | 0.204 |
| | Sig.* | 0.197 | 0.000 | 0.000 | 0.011 |
| S: | Phi | 0.83 | 0.260 | 0.195 | 0.140 |
| | Sig.* | 0.474 | 0.001 | 0.017 | 0.120 |
| N: | Phi | 0.115 | 0.027 | 0.119 | 0.125 |
| | Sig.* | 0.244 | 0.926 | 0.221 | 0.187 |
| T: | Phi | 0.286 | 0.342 | 0.299 | 0.348 |
| | Sig.* | 0.000 | 0.000 | 0.000 | 0.000 |
| F: | Phi | 0.214 | 0.414 | 0.313 | 0.395 |
| | Sig.* | 0.007 | 0.000 | 0.000 | 0.000 |
| J: | Phi | 0.248 | 0.280 | 0.228 | 0.249 |
| | Sig.* | 0.001 | 0.000 | 0.004 | 0.001 |
| P: | Phi | 0.296 | 0.212 | 0.121 | 0.152 |
| | Sig.* | 0.000 | 0.008 | 0.209 | 0.083 |

* Correlation is significant at the 0.05 level.

*Marginally significant at the 0.01 level.

Phi = Phi Coefficient

Number of valid cases = 215

**Table 4.7: Cross-Tabulation between Managing Styles and Managerial Performance**

| Managing Style | | Job Promotion | Performance Bonus or Incentives | Set Targets and Goals Achievements | Potential Candidate for Advancement |
|---|---|---|---|---|---|
| E: | % | 84.76 | 68.29 | 89.02 | 83.54 |
| | Total % | 76.28 | 76.28 | 76.28 | 76.28 |
| | Sig. ** | 0.367 | 0.000 | 0.001 | 0.001 |
| I: | % | 76.92 | 36.92 | 70.77 | 66.15 |
| | Total % | 30.23 | 30.23 | 30.23 | 30.23 |
| | Sig. ** | 0.197 | 0.00 | 0.00 | 0.011 |
| S: | % | 81.90 | 56.03 | 81.90 | 75.00 |
| | Total % | 53.95 | 53.95 | 53.95 | 53.95 |
| | Sig. ** | 0.474 | 0.001 | 0.017 | 0.120 |
| N: | % | 87.50 | 59.38 | 82.81 | 73.44 |
| | Total % | 29.77 | 29.77 | 27.99 | 27.99 |
| | Sig. ** | 0.244 | 0.926 | 0.221 | 0.187 |
| T: | % | 87.95 | 69.88 | 89.77 | 84.54 |
| | Total % | 77.21 | 77.21 | 77.21 | 77.21 |
| | Sig. ** | 0.000 | 0.000 | 0.000 | 0.000 |
| F: | % | 71.43 | 31.75 | 69.84 | 53.97 |
| | Total % | 29.30 | 29.30 | 29.30 | 29.30 |
| | Sig. ** | 0.007 | 0.000 | 0.000 | 0.000 |
| J: | % | 87.22 | 66.11 | 86.11 | 82.22 |
| | Total % | 83.72 | 83.72 | 83.72 | 83.72 |
| | Sig. ** | 0.001 | 0.000 | 0.004 | 0.001 |
| P: | % | 79.63 | 46.30 | 83.33 | 68.52 |
| | Total % | 25.12 | 25.12 | 25.12 | 25.12 |
| | Sig. ** | 0.000 | 0.008 | 0.209 | 0.083 |

* * Level of significant using Pearson Chi-Square test, which is same as Phi coefficient in this test. Significant at the level of 0.05 and marginally significant level is when $0.05 < p < 0.1$.

Figures indicate the percentage of 'Yes' and 'Strongly Agree and Agree' responses.

## 4.6.2. Cross-tabulation Between Managing Styles and Managerial Performance

Table 4.7 shows the cross-tabulation between managing styles and managerial performance and its statistically significant level. Of these, 76.28 per cent of the Extraversion-style managers, 30.23 per cent of the Introversion-style managers, 53.95 per cent of the Sensing-style managers, 29.77 Intuition-style managers, 77.21 per cent of the Thinking-style managers, 29.30 per cent of the Feeling-style managers, 83.72 per cent of the Judging-style managers and 25.12 per cent of the Perceiving-style managers have responded to all the four managerial performance indicators.

Extraversion and Introversion managing style contribute to the predictions of managerial performance on three out of four of the performance indicators that was 75 per cent with level of significance at $p < 0.05$. Those are performance bonus or incentives (0.000), set targets and goals achievements (0.001) and potential candidate for advancement (0.001), except for job promotion (0.367) where there is no correlation. In other words, whether a manager is using Extraversion or Introversion managing style, he or she still performs in attaining the managerial performance indicators. However, the study finds that there is no statistically significant relationship between job promotions with both managing styles in this case.

For those using the Sensing-style of managing only contributed to the prediction of managerial performance on two areas that is 50 per cent with level of

significance at $p < 0.05$, namely the performance bonus and incentives (0.001), and set targets and goals achievements (0.017). This is mostly due to the nature of sensing managing styles that emphasized chiefly on realities, current and practical perspective in overcoming on immediate issues that stumbled their managerial performance results. The study reveals that there is no statistically significant relationship between Sensing-style of managing with both job promotion (0.474) and potential candidates for advancement (0.120).

It is interesting to find that those using Intuition managing styles do not contribute to the prediction of managerial performance on all the four managerial performance indicators (at $p > 0.05$) as shown in Table 4.7. There is no correlation at significant level. Perhaps, this is very much attributed to the nature of intuition-style of managing which focuses on future possibilities rather than the immediate issues as compared to Sensing managing style. It must be noted here that all the four managerial performance indicators are current-based rewards emphasis.

The results indicate that those employing Thinking, Feeling and Judging managing styles contribute to the prediction of all the four managerial performance indicators (at $p < 0.05$) as exhibited in Table 4.7. This is, perhaps, due to the strengths of these managing styles that can be easily looked upon as a translation of managerial performance. Those who are emplacing Thinking style portrayed an image of analytical using cause-and effect reasoning and solve problem with logic which many a time appealing to their superiors as performing managers. As for the Feeling style, which is empathetic and guided by personal values thus assessing impacts of decisions on people, seemed to be people-oriented type and well like by people including their bosses.

Perceiving managing style contributes to the prediction of managerial performance on job promotion, performance bonus or incentives and potential candidate for advancement (at $p < 0.05$), except set targets and goals

achievements (0.209) as illustrated in Table 4.7. This is possibly due to the nature of Perceiving style to be spontaneous, flexible, and open to change alongside feel energized by last-minute pressure. These attributes in the eyes of their bosses seemed to be very receptive to changes and proactive in attaining company results. However, in term of actual targets and goals achievements, no are no correlations at significant level.

### 4.6.3 T Test: Chi Square Test of Independence Analysis

Usually, along with cross tabulation, a chi-square analysis is conducted with p < 0.05, it is commonly accepted that the observed values differ significantly from accepted values and the two variables are not independent of each other.

**Table 4.6.3: T Test: Chi Square Test of Independence Analysis For Managing Styles and Managerial Performance.**

| Management Styles: | Chi-Square* | df | Sig |
|---|---|---|---|
| Extraversion | 183.526 | 2 | 0.000 |
| Introversion | 118.837 | 2 | 0.000 |
| Sensing | 78.316 | 2 | 0.000 |
| Intuition | 96.735 | 2 | 0.000 |
| Thinking | 192.121 | 2 | 0.000 |
| Feeling | 123.135 | 2 | 0.000 |
| Judging | 246.484 | 2 | 0.000 |
| **Managerial Performance:** | | | |
| Job Promotion | 97.791 | 1 | 0.000 |
| Performance Bonus or Incentives | 10.274 | 1 | 0.001 |
| Set Targets and Goals Achievements | 100.507 | 1 | 0.000 |
| Potential Candidate For Advancement | 65.865 | 1 | 0.000 |

* 0 cells (0.0%) expected frequencies less than 5.
**T-test is significant at p<0.005.
. df = degree of freedom.

Table 4.6.3 shows that managing styles using Extraversion, Introversion, Sensing, Intuition, Thinking, Feeling and Judging styles are statistically significant at p = 0.00. This is also significant at p<0.05 for managerial performance towards job promotion ((p=0.000), performance bonus or incentives (p = 0.001), set targets and goals achievements (p = 0.00) and potential candidate for advancement (p=0.000).

## 4.7. Multiple Regression: An investigation into the Two Main Preferred (Combination) Managing Styles and Managerial Performance.

The study has concluded two most preferred combination-managing styles of the Malaysian managers. The more preferred is ESTJ managing style and the lesser favoured is the INFP managing style as illustrated in table 4.4. Do these two combination-managing styles predict managerial performance?

### 4.7.1. ESTJ Managing Style Contributes to the Prediction Of Managerial Performance (that is to accept alternative hypotheses H1 to H5).

**Table 4.8: Regression Showing ESTJ Managing Style Predicts Managerial Performance.**

| Dependable Variable | R | R Square | ANOVA F | Sig |
|---|---|---|---|---|
| Job Promotion | 0.224 | 0.050 | 2.780 | 0.028* |
| Performance Bonus or Incentives | 0.453 | 0.206 | 13.590 | 0.000* |
| Set Targets and Goals Achievements | 0.325 | 0.106 | 6.193 | 0.000* |
| Potential Candidate For Advancement | 0.430 | 0.185 | 11.881 | 0.000* |

* Regression is significant at p < = 0.05 level.

Table 4.8 shows that all the four-combination-managing style that is ESTJ together explain 20.60 per cent of the variance in managerial performance towards performance bonus and incentives at R = 0.453 indicating a strong relationship, which is highly significant as showed by ANOVA F-value at p= 0.000. The beta values in Table 4.10 indicate that T has the greatest influence on performance bonus and incentives (Beta = -0.250, with p = 0.000). Followed by S (beta = -0.184, with p = 0.003), J (beta = -0.182, with p = 0.006) and E (beta = -0.178, with p = 0.006).

Secondly, by potential candidate for advancement at R = 0.430 with R square at 0.185 indicates that 18.50 per cent of the variance is accounted by ESTJ managing style, with ANOVA F-value at p = 0.000 (as exhibited in table 4.8). Table 4.9 illustrates that the greatest influence here is T (beta = -0.279 at p = 0.000, followed by E (beta = -0.172, with p = 0.009), J (beta = 0.145, with p = 0.030) and lastly is S (beta = -0.0117, with p = 0.064 that is only at marginally significant level).

Thirdly, is the set targets and goals achievements at R = 0.325 where ESTJ managing style explains 10.60 per cent (R square at 0.106) of the variance with ANOVA F-value at p = 0.000 (as shown in Table 4.8). Table 4.9 shows that the most influential predictor indicator here is T (beta = -0.226, with p = 0.001), followed by E (beta = -0.186, with p = 0.007), S (beta = 0.115, with p = 0.079, which is marginally significant level. J with beta 0.037 at p = 0.594 is not significant in predicting dependent variable of set targets and goal achievements.

The least relationship is job performance at R = 0.224 with R square at 0.050, which indicates that ESTJ managing style, only explain 5 per cent of the variance with ANOVA F-value at p = 0.028 as shown in Table 4.8. Table 4.9 exhibits that only J (beta = -0.145, with p = 0.044) followed by T (beta –0.126, with p = 0.069) are contributing to the prediction of job performance. The other two independent

variables S (beta = 0.080, with p = 0.235) and E (beta = - 0.009, with p = 0.897) are not significant in explaining job promotion.

**Table 4.9: Regression Showing the Coefficients Between ESTJ Managing Style and Managerial Performance.**

| Independent Variables: | | E | S | T | J |
|---|---|---|---|---|---|
| **Dependent Variables:** | | | | | |
| Job Performance | Beta | -0.009 | 0.080 | -0.126 | -0.145 |
| | 't | -0.129 | 1.191 | -1.825 | -2.031 |
| | Sig | 0.897* | 0.235* | 0.069* | 0.044* |
| Performance | Beta | -0.178 | 0.124 | -0.250 | -0.182 |
| Bonus or | 't | -2.750 | 2.988 | -3.951 | -2.783 |
| Incentives | Sig | 0.006* | 0.003* | 0.000* | 0.006* |
| Set Targets and | Beta | -0.186 | 0.115 | -0.226 | 0.037 |
| Goals | 't | -2.714 | 1.763 | -3.372 | 0.534 |
| Achievements | Sig | 0.007* | 0.079* | 0.001* | 0.594 |
| Potential | Beta | -0.172 | 0.117 | -0.279 | -0.145 |
| Candidate For | 't | -2.621 | 1.865 | -4.355 | -2.184 |
| Advancement | Sig | 0.009* | 0.064* | 0.000* | 0.030* |

* Coefficient is significant at p<= 0.05 level. Marginally significant at p<= 0.01.

In sum, from regression analysis the study accept alternative hypotheses H1 (exists corrections between managing styles and managerial performance) and H2 to H5 (managing styles predict managerial performance). Hence, the study (in general) rejects null hypotheses HO1 and HO2.

## 4.7.2. INFP Managing Style Predicts Managerial Performance (that is to accept alternative hypotheses H1 to H5).

**Table 4.10: Regression Showing INFP Managing Styles Predict Managerial Performance.**

| Dependable Variable | R | R Square | ANOVA -F | Sig |
|---|---|---|---|---|
| Job Promotion | 0.262 | 0.069 | 3.869 | 0.005* |
| Performance Bonus or Incentives | 0.494 | 0.244 | 16.958 | 0.000* |
| Set Targets and Goals Achievements | 0.348 | 0.121 | 7.225 | 0.000* |
| Potential Candidate For Advancement | 0.395 | 0.156 | 9.713 | 0.000* |

\* Regression is significant at $p < = 0.05$ level.

Table 4.10 exhibits that all the four-combination-managing style that is INFP together explains 24.40 per cent of the variance (at R square = 0.244) in managerial performance towards performance bonus and incentives at R = 0.494 indicating a strong relationship, which is highly significant as illustrated by ANOVA F-value at p= 0.000. The beta values in Table 4.11 indicate that F has the greatest influence on performance bonus and incentives (Beta = 0.334, with p = 0.000). Followed by I (beta = 0.251, with p = 0.000), N (beta = -0.144, with p = 0.029) and P (beta = 0.131, with p = 0.048).

Secondly, by potential candidate for advancement at R = 0.395 with R square at 0.156 indicates that 15.60 per cent of the variance is accounted by INFP managing style, with ANOVA F-value at p = 0.000 (as exhibited in table 4.10). Table 4.11 illustrates that only F (beta = 0.368 at p = 0.000) influences the

prediction of potential candidate for advancement. The other three independent variables, I (beta = 0.047, with p = 0.485), P (beta = 0.044, with p = 0.532) and N (beta = 0.014, with p = 0.837 are not significant in explaining managerial performance towards potential candidate for advancement.

Thirdly, is the set targets and goals achievements at R = 0.348 where INFP managing style explain 12.10 per cent (R square at 0.121) of the variance with F-value at p = 0.000 (as shown in Table 4.10). Table 4.11 shows that only F (beta = 0.246, with p = 0.001), followed by I (beta = 0.201, with p = 0.00) influence managerial performance towards set targets and goals achievements. The other two independent variables, P (beta = -0.039, with p = 0.586) and N (beta = 0.021 at p = 0.771 are not significant in predicting the dependent variable here.

The least relationship is job performance at R = 0.262 with R square at 0.069, which indicates that INFP managing style, only explain 7 per cent of the variance with ANOVA F-value at p = 0.005 as shown in Table 4.10. Table 4.12 exhibits that the most influential independent variable here is F (beta = 0.183, with p = 0.012) in predicting job promotion. Followed by N (beta -0.138, with p = 0.059) and P (beta = 0.130, with p = 0.078, which are at marginally significant level in contributing to the prediction of managerial performance towards job performance. The other independent variable I (beta = 0.070, with p = 0.320) is found to be not significant in explaining job promotion.

**Table 4.11: Regression Showing the Coefficients Between INFP Managing Style and Managerial Performance.**

| Independent Variables: | | I | N | F | P |
|---|---|---|---|---|---|
| Dependent Variables: | | | | | |
| Job Performance | Beta | 0.070 | -0.138 | 0.183 | 0.130 |
| | 't | 0.996 | -1.896 | 2.527 | 1.774 |
| | Sig | 0.320* | 0.059* | 0.012* | 0.078* |
| Performance | Beta | 0.251 | -0.144 | 0.334 | 0.131 |
| Bonus or | 't | 3.978 | -2.203 | 5.122 | 1.992 |
| Incentives | Sig | 0.000* | 0.029* | 0.000* | 0.048* |
| Set Targets and | Beta | 0.201 | 0.021 | 0.246 | -0.039 |
| Goals | 't | 2.944 | -0.292 | 3.499 | -0.546 |
| Achievements | Sig | 0.004* | 0.771* | 0.001* | 0.586 |
| Potential | Beta | 0.047 | -0.014 | 0.368 | 0.044 |
| Candidate For | 't | 0.700 | -0.206 | 5.349 | 0.625 |
| Advancement | Sig | 0.485* | 0.837* | 0.000* | 0.532* |

* Coefficient is significant at $p <= 0.05$ level. Marginally significant at $p <= 0.01$.

From regression analysis, the study accepts alternative hypotheses H1 (exists corrections between managing styles and managerial performance) and H2 to H5 (managing styles predict managerial performance). Therefore, the study rejects null hypotheses HO1 and HO2.

## 4.8. Summary of Hypothesis Testing

Results from the hypotheses testing concludes that there are correlations between managing styles and managerial performance (that is to accept alternative hypothesis H1), and managing styles as predictor to managing

performance were at statistically significant level at $p < 0.05$ (that is to accept alternative hypotheses H2 to H5), except for Intuition managing style with no correlation as exhibited in Table 4.7. This explains that six out of the seven managing styles (that is 85.71 per cent) contribute to the prediction of managerial performance.

In term of preferred managing style of the Malaysian managers, they prefer Extraversion, Sensing, Thinking and Judging styles of managing which made up the four combination styles as ESTJ using MBTI psychological type model of personality as shown in Table 4.3 and 4.4. Conversely, they use less of the Introversion, Intuition, Feeling and Perceiving styles of managing.

Investigation into ESTJ and INFP using multiple regression analysis confirms that the study accepts alternative hypotheses H1 and H2 thus rejecting null hypotheses HO1 and HO2. These are illustrated in Table 4.8, and 4.10, in general, showing ANOVA F-value at significant level of $p <= 0.05$ and marginally significant at $p <= 0.01$ level. The coefficients of ESTJ (thirteen out of sixteen that is 81.25 per cent) and INFP (ten out of sixteen that is 62.50 per cent) managing styles indicated that most of the betas were at significant level as illustrated in Table 4.10 and 4.12 to explain and accept H1 and H2 to H5.

ANOVA F-value results suggest that there is significant interaction effect ($p < 0.05$) including the influence of management styles on managerial performance as shown in Table 4.9 and 4.11.