CHAPTER V

CONCLUSION

This chapter summarises the findings of this study, highlights its implications and makes some recommendations for further research.

5.1 SUMMARY OF FINDINGS

The objectives of this study were :-

(i) to identify the motivational needs of consulting engineers in their working environment;

(ii) to identify the organisational tasks performed by consulting engineers; and

(iii) to determine whether their organisational tasks meet the motivational needs of consulting engineers.

The influence of consulting engineers' demographic data on their motivational needs was also examined. This study was based on McClelland's *3 Needs Theory*. Data was collected by mailed questionnaire from 175 consulting engineers working in the Klang Valley.

In general, of the three motivational needs (need for achievement, need for power and need for affiliation), the need for achievement appears to be the dominant need of consulting engineers working in the Klang Valley. It also appears that consulting engineers consider that their organisational task is an achievement task. From these two findings, it can be concluded that, in general, there is a match between the <u>motivational demands of the organisational task</u> and the <u>motivational needs of consulting engineers</u>.

Linear regression models could be derived for the level of the need for achievement and the level of the need for power. However, a linear regression model could not be derived for the level of the need for affiliation. The significant predictor demographic variables for the level of the need for achievement were (i) the annual gross income and (ii) the number of staff in the firm. For the level of the need for power, the significant predictor demographic variables were (i) work experience, (ii) the annual gross income and (iii) the number of staff in the firm.

This study also found that, insofar as the need for achievement was concerned, there were no intra-group differences, for the demographic variables (i) sex, (ii) ethnic group, (iii) education level and (iv) engineering discipline. There were, however, significant intra-group differences for the demographic variables (i) age, (ii) work experience, (iii) marital status, (iv) annual gross income and (v) number of staff in firm.

5.2 IMPLICATIONS OF THE STUDY

The results of this study have several implications. Only the principal ones are discussed here. **First,** the study has identified the need for achievement as the dominant need of consulting engineers. This implies that consulting engineers have the following work behaviour patterns :-

(i) when he (or she) starts a task, he tends to stick with it until completion;

(ii) he usually tries to get as much feedback as possible on his work performance;

(iii) he usually responds to a difficult, challenging situation;

(iv) he works better when there is a deadline or some challenge involved;

(v) he is eager to accept responsibility; and

(vi) when he is given responsibility, he sets (and often meets) measurable standards of high performance.

Second, as there is an appropriate fit between the consulting engineers' organisational tasks and their motivational needs, the engineering manager/employer need not consider altering aspects of the job to suit motivational needs. Also, as consulting engineers considered that their job task an achievement task, this implies that the job task itself has the following characteristics :-

(i) it allows the consulting engineer to set his own work pace and work methods;

(ii) it allows choices for the consulting engineer when it comes to getting help or direction from someone else;

(iii) errorless and efficient performance contribute to a high degree of company profits;

(iv) it challenges the abilities and skills of the consulting engineer; and

(v) it provides clear and unambiguous feedback about the quality of job performance of the consulting engineer.

Third, this study shows that several demographic variables have a significant influence on the mean score of the need for achievement construct. For example, consulting engineers in different age groups do have significantly different scores for the need for achievement construct. The study also shows that some demographic variables are significant predictors of the level of the need for achievement and the level of the need for power. This implies that an engineering manager can quickly assess the level of need for achievement and the level of need for power of his staff by referring to their demographic data.

Finally, this study demonstrates that useful and significant results can be obtained through an empirical study of motivational needs. Thus, it may well spur

further research on the subject in relation to the engineering profession or other professions.

5.3 RECOMMENDATIONS FOR FURTHER RESEARCH

This study was confined only to the identification of motivational needs of consulting engineers and the motivational demands of their organisational task. Further research is recommended on aspects of the <u>organisational climate</u> (defined as the climate that characterises the work situation) which would help determine the kind of motivation that is <u>actually aroused</u>.

This study was confined only to consulting engineers listed in the sampling frame (the ACEM and the BEM's listings). It would be useful to conduct research which extends the sampling frame and covers other parts of the country so that generalisations on Malaysian consulting engineers can confidently be made. It may also prove beneficial to conduct research on engineers working in other areas (such as in the public sector or with contractors) so that differences between them and consulting engineers working in the engineering consulting firms in the private sector can be assessed. Likewise, cross-functional studies covering other professional service providers (such as doctors, accountants, lawyers) would help answer questions like "Are the prevailing motivational needs the same between professions ?" and "Are the motivational demands of organisational tasks similar between professions ?".