Chapter 9
Major Factors Instigating Engineers to Shift their Career from Engineering to Management

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**ABSTRACT**

This chapter investigates major factors contributing to shifting of career by engineers to management, the challenges faced by them after career shift, and the level of job satisfaction. Respondents of this study consisted of professionally certified engineers who have accepted the managerial role in their existing organizations or at any other company. The survey found that natural career path and better job opportunity were the two main factors that contributed to shift of careers from engineering to management. These results can be used to improve the quality of curriculum and education in engineering schools to produce engineers with diverse capabilities. A need has also been established to improve Human Resource planning and development in public sector organizations to stop brain drain and keep their engineers motivated and associated with their professional work.

DOI: 10.4018/978-1-4666-3006-2.ch009
INTRODUCTION

Shifting of career from a specialized field to another is a common phenomenon among the professionals in Pakistan and also abroad. Engineers are no exception when it comes to shift of careers. Many professional engineers are now becoming Chief Executive Officer (CEO), Managing Director (MD), managers and many other positions in the management field. This shift of career is unique, as engineers are technically inclined group and have a great potential to learn new skills. Accountants, lawyers, economist and human resource personnel are more likely to shift their career towards management line, and they are said to be more successful in doing so (Chow 2007).

Maimunah (2003) stated that most of large engineering based organizations have been promoting their engineers to the management level after certain years of experience, as a natural career path. However not all of the promoted engineers can perform well in management field. Hence organization can never be certain that natural career path into management is a suitable thing to do, as management issues are always associated with human resources management.

PURPOSE

The aim of this chapter was to investigate the factors that contribute to the shift of career of an engineer to management, the challenges faced by them while working in the management field and how can this be related to their job satisfaction after the shift has taken place.

ORIGINALITY/VALUE OF CHAPTER

These results can be used to help improving the quality of curriculum and education in engineering schools to produce engineers with diverse capabilities as well as developing better Human Resource policies to improve carrier path of Engineers and retain them in their own profession.

LITERATURE REVIEW

Evetts (1997) defines professional engineers as ‘those who are in technical field whereby their field of study is in science, mathematics or engineering’. The Wikipedia Dictionary (Anon 2008) stated more than 80 fields of engineering all over the world. The largest five of these are; Civil Engineering, Electrical Engineering, Electronic Engineering, Industrial Engineering and Mechanical Engineering.

Altman (2008) has discussed the management consultancy work as a huge business now and more and more engineers are good at doing this. Rivett (1981) has been discussing on the involvement of engineers in management work and the rate is increasing. Ashford (2004) acknowledges that, to be a good manager, engineers must have trans-disciplinary knowledge besides their engineering expertise. Neculescu (2007) agrees that a large number of engineers will spend a substantial portion of their professional careers as managers. The market is pressuring for a better product to be delivered fast and cheap and these requirements create tremendous management challenges for engineers. Maimunah (2003), states that even though many female are now studying engineering in Pakistan, only 10% of the professional engineer population is female. Maimunah (2003), Evetts (1997), and Powell et al. (2004) agree that many factors influence the female engineers to choose management line as they move forward, after they start family life. Powell et al. (2004) also found that the masculine culture in engineering sectors does not give a comfortable room for female engineers to compete with male engineers.

Many universities have been doing research to improve their engineering programs to produce better quality engineers. McMaster University in
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