

2 PROBLEM STATEMENT AND RESEARCH OBJECTIVES

The increased pressure on first line supervisors in the modern company is echoed by McManus (1995:18) who says that "a supervisor must become a trainer, facilitator, coach and leader...Such a change is dramatic and even frightening for a supervisor, especially one that has performed the traditional supervisory role for years." Lindbeck & Snower (2000:353) states that there have been fundamental changes in production technology and the ways in which to organize firms in the past decade. They argue that these changes have restructured the organization and method of how work is done. The changes also imply a different role to be played by the first line supervisor, as there is "an increased role for team work and job rotation, a reduction in the number of management levels, continuous learning and development of complementary skills, decentralisation of responsibility in firms and direct participation of employees in decision making on multiple fronts." They also refer to the traditional way of occupational barriers thinking: that is that employees need to have highly specialized skills appropriate for the standardized production process that they are involved in. Relating this to the environment of the coal mining production unit implies that the employees in a production unit must be highly skilled in the technical aspects of coal production. As the first line supervisors originates from this pool, it is clear that the first line supervisor will be well equipped with technical skills, but will have very little people and operations management experience or skills. In contrast to occupational barrier thinking Lindbeck & Snower (2000:354) discuss the modern thinking where a breakdown of occupational barriers is the norm in companies. In this environment the separation of roles tends to break down. Workers have responsibilities spanning more than one of the traditional occupational groupings. Multitask learning, all-round knowledge and skills transfer are some of the abilities that are expected from the worker, and therefore the first line supervisor.

The first line supervisor in the coal mining production unit is therefore required to perform on a high level of technical skill, but also requires more people and operational management abilities. The typical first line supervisor however has limited training in the field of operations management. "People skills" training is usually part of the required training for supervisors. The following is a list of typical non-technical training courses presented to first line supervisors:

- Models for leadership
- Seven habits of highly successful people
- Practical supervision
- Negotiating skills
- Situational leadership skills
- Business communication skills
- Customer care
- Emotional intelligence
- Making meetings work
- Personal insight
- Cross cultural diversity
- Psychology of personal success
- Assertiveness skills
- Root cause analysis
- Lateral thinking
- Creativity
- Change leadership / management

(Source: Sasol Mining organisational development & learning department)

It is clear from the list that it is focused on leadership skills and not as much on operational management.

It therefore follows from literature as well as from the current reality within a typical coal mine that the current capabilities of first line supervisors are mostly limited to technical excellence where-as the environment requires that the supervisor also manages the unit profitably – requiring people and operational management abilities. A solution to the problem could be to provide first line technical supervisors with an operational management model derived from the current management philosophies available that they can utilise in assisting them to guide and manage the mining production unit.

To determine which management philosophy to investigate is daunting. There are numerous philosophies currently in operation in the market, some very successful and some not. Even the academic fraternity battles to distinguish between “fads” and true solutions. Collins (2000: 26) refers to the “guru industry” as “...that hotchpotch of ideas and actors, which produces advice concerning the aims, processes and conduct of management”. It is

therefore necessary to clearly define the key criteria that a management philosophy must conform to in order for it to be included in this research.

To summarise: it is expected from highly technical first line supervisors to manage an underground coal mining production unit and to reach stretched targets when they have very little operational management skills. A myriad of operational management philosophies are available that were not developed for a mining environment as such. These philosophies are focused on company level implementation and not on production unit level. It is therefore necessary to adapt these philosophies for implementation in the mining production unit.

The first line supervisor needs an operational management business model that will assist and guide him/her in managing the production unit to such an extent that production, cost and quality targets can be achieved easily. Furthermore he/she must be able to adapt quickly to changing requirements. The answer lies in the application of current world-class operational management philosophies. A management model that could assist the first line supervisor needs to be derived from the available operational management philosophies.

Therefore the research objective for the thesis is:

The development of an operational management model for use in a coal mining production unit.

The research approach that will be followed is:

- Determine which management philosophies to analyse in detail, with the aim to:
- Determine the key elements from the chosen philosophies that could be used in an operational management model in an underground mining production unit.
- Use the key elements as building blocks to develop an operational management model for use in the production unit.
- Test the developed model utilising real data from a production section and simulating the use thereof.

The operational management model will be a framework of how to manage the production unit on a day-to day basis, but also with a long-term vision. It will therefore operate on both a strategic and operational level. The model will provide the first line supervisor with a management process, including problem solving techniques and operational management guidelines.