

THE MINE VALUE CHAIN AND ITS IMPACT ON MINING HOUSES.

By George Nyawo

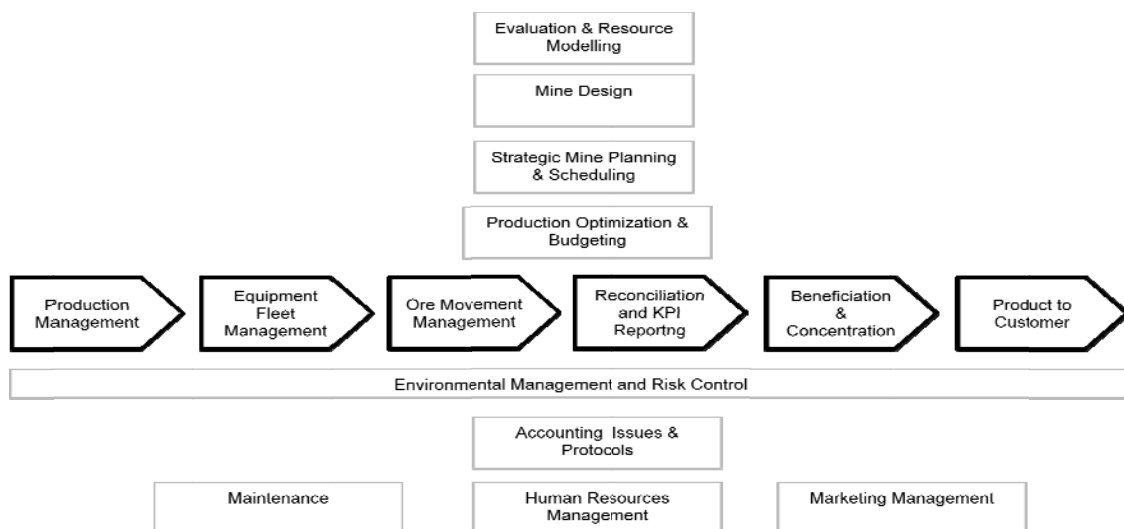
The Mineral Resources that a mining business unit accesses generates the embedded value that exists within the unit. It may also provide a competitive advantage. However, the real value is only identified once effective mining plans have been put in place. These should optimize the extraction of the resource, and add measurable value to the mining business unit. A number of mining business units are faced with the following issues:-

- lack of long-term business planning;
- lack of standardization across the operations;
- failure to appreciate the importance of Mineral Resource Management (MRM).

These issues are receiving attention in order to comply with public reporting, corporate governance, international codes and protocols, organizational restructuring and changes to process organizations.

By definition MRM is an integrated activity/process which identifies, evaluates and provides an optimal extraction plan of the mineral resource, to produce a quality product which satisfies the business objectives of the mining business unit, and the requirements of the customer, in a dynamic environment. It performs an audit and quality assurance function to ensure compliance to the business plan, and production targets in terms of quality and quantity. Overall, effective MRM is an essential component of Operational Excellence along the Mining Value Chain. The term “chain” implies that the activities are inter-dependent or linked such that performance in one activity affects the cost or effectiveness of other activities.

In order to come up with an appropriate conceptual solution to problems in MRM, it is necessary to step back from the detailed technology requirements of each department in a mining operation and look at the overall way the mining activities integrate and how information flow between these activities affects the total operation (i.e. the Mining Value Chain). Analyzing the holistic view enables a conceptual process to be created and implemented using modern information technology methodologies and furthermore increase productivity and ascertain profitability. The figure below shows the general components of a Mine Value chain:-



The Mine Value Chain, as seen from the flow diagram integrates the four main areas in the mining business unit that are:-

- Strategic and tactical mine planning and production systems;
- Milling, beneficiation and process control systems;
- Commercial and financial systems; and
- Management information systems.

It is therefore crucial for the close and effective monitoring of every stage in the Mining Value Chain from mineral resource evaluation up to marketing the product in order for the mining business unit to achieve its set goals consistently throughout the life of the operation.

For further discussions on how mining houses can come up with a comprehensive MRM strategy and ultimately increase efficiencies of every component throughout the Mine Value Chain please contact [George Nyawo](#).