
Editorial: From profits to fundamentals...and more...

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1 Introduction

In traditional terms 'assets' are often seen associated with the term 'value'. It implies for the majority that the practice of engineering asset management inherently involves economical value (wealth) creation throughout various stages of the commercial life of any asset. Design, development, deployment, operations, etc. have greatly been influenced by various financial yardsticks such as returns on capital investments, cost control and so on, in such a way that the profit margins can be maximised under different business conditions. Subsequently, for a very long time the profitability remained a dominant measure of success (or failure) of how well (bad) a given asset has been managed by the asset owners.

Over the years, observably, the world has experienced some great transformations in socio-political terms. Information-societies have gradually begun to challenge the very conventional practices both from the public and private sectors demanding better understanding and assessment of different stakes of various assets. At the same time, research and development activities have been able to generate increasing vigilance on the novel aspects, sensitive to the quality of life, eco-system, social well-being, etc.

We have gradually created an environment where global forces join hands to find the right balance between economic value creation, social equity, and quality of the eco-system. These are the three critical fundamentals that define the future of humanity, societies, and the planet. Now, it has become a legitimate responsibility of the organisations to pay due attention to the sustainability of the assets and their performances, so that all possible efforts are geared towards a better world.

This implies that the 'value' of an asset has a redefinition where the triple bottom-line come into play to provide a broader and a reasonably balanced perspective to realistically assess asset performances. In a way, this contributes to raise the awareness as to what extent an organisation has been able to meet stakeholder expectations, and moreover about an organisation's capability to manage its risks and opportunities under complex conditions for short-term and long-term benefits. This obviously brings new perspectives to the asset management discipline, where sustainability will provide the solid bedrock to assess the success and failure of asset management practices adopted by both private and public sector organisations. Trends are on the way to make it the dominant yardstick for various sectors of the world.

2 Highlights of this issue

In an attempt to give a broader perspective to the understanding and the knowledge content of engineering asset management, this issue disseminates interesting information relating to investment portfolio management, supportability towards mechanical systems, use of cost-effectiveness for maintenance policy development for mechanical systems, human performance under complex operations, and linking knowledge management to equipment reliability.

In the article on empirical experiences of investment portfolio management in a capital-intensive business environment: a dimension of strategic asset management, the authors describe the investment portfolio management method and how it affects portfolio management from different strategic (corporate, business and functional) perspectives. It interestingly, integrates technical, operational and strategic information to improve the quality of investment and business decisions.

The article on supportability of mechanical systems explores a framework for analysing, improving and optimising supportability performance. It presents a framework for analysing supportability through a proposed methodology that can help in arriving at the optimal solution. The methodology developed is an integrated approach that considers controllable parameters affecting supportability and life cycle costs in obtaining an optimal solution.

Authors of the article on selecting and improving a maintenance policy for mechanical components, use cost-effectiveness as the basis for policy selection process. In the paper, the most popular selection methods are introduced, discussed and compared using 11 criteria for identifying their weaknesses and strengths. The study also explores maintenance selection methods in Swedish industry.

The article related to human performance under complex conditions, looks closely at the drilling and wireline operations in Petroleum industry, based on the experience and learning from various projects and audits. In a period where human factors and the human performance model have gained considerable attention in the petroleum sector, the paper argues that the actual work performance has to be better understood in a human-technology-organisation (HTO) context to reduce system vulnerability and to improve performance from safety, environmental, and economic points of view.

In the article on knowledge management and equipment reliability, the authors make an attempt to draw a constructive interface of equipment performance with knowledge management in the process industries through the development of a specific measuring instrument. The underlying study attempts to develop a validated knowledge management instrument, and then to prove linkage of organisation's various failure factors of knowledge management with equipment performance.

The combination of subject matter in this issue is quite interesting, and it represents the multidimensionality of engineering asset management. If you have some interesting work to contribute to this productive effort, I welcome your submission(s) to continue the dialogue and effective knowledge exchange.