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Title: “Studies on the Knowledge Management in Energy Industries”

Summary

The total world reserves of the fossil fuels are limited. The global energy demand is increasing which is putting lot of pressure on energy management. There is a need of not only to conserve and carefully utilize the existing fossil fuel reserves but also to develop the use of new and renewable energy in a more efficient and cost effective ways. This would not only require the dissemination but even generation of new knowledge. In fact, energy crisis has made energy industries more challenging and knowledge and technology driven. Therefore, Knowledge Management (KM) in Energy industries has become very important. The major aim of the present work was to study the Knowledge Management in energy industries. The thesis is divided into 7 chapters:

Chapter- 1

- General introduction, brief history and definitions of Knowledge Management (KM).
- Different theories and models of KM.
- Current Energy scenario of the world and India.

Chapter -2

- Literature survey on the development of KM in different areas.
- The prevalence of KM in different energy sectors such as petroleum exploration, oil refining, power generation, nuclear power generation etc. has also been reviewed.

Chapter - 3

- Research problem of Knowledge Management in energy industries.
- Different aspects of the problem have been identified.

- Six guiding hypothesis are also identified.

Chapter - 4

- Different techniques used to measure and quantify the benefits of KM for the business organizations.
- Compilation of work to measure Performance Index by balance sheet by different workers in the past.
- Performance Index (KMPI) Efforts have also been made to assess this through direct capital return, return of investment, return of assets, market capitalization method etc.

Chapter- 5

- Describes the selection of the questionnaire for use in the study of the KM in energy industries.
- Response from 516 employees from 42 leading energy industries was obtained.
- The analysis of the data was carried out by using the SPSS technique.

Chapter- 6

- An attempt has been made to actually know what efforts are being made by the six leading energy industries.
- Major endeavors in the area of Knowledge Management of these energy industries as case studies in the present work.
- The synthesized results obtained from the Knowledge Management in energy industries are compared with the KM practices at NASA.

Chapter- 7

- Summary and conclusion research work.
- Present work has shown that the leading energy industries which have business competence are following the Knowledge Management seriously.