

# BEST PRACTICES AND PROCESS IMPROVEMENT. AN APPLICATION FOR THE TRANSFER AND MANAGEMENT OF KNOWLEDGE TO THE TRANSPORTATION OF HYDROCARBONS IN ECOPETROL<sup>1</sup>

BUENAS PRÁCTICAS Y MEJORA DE PROCESOS. UNA APLICACIÓN PARA LA TRANSFERENCIA Y GESTIÓN DEL CONOCIMIENTO EN EL ÁREA DE TRANSPORTE DE HIDROCARBUROS DE ECOPETROL

BOAS PRÁTICAS E MELHORA DE PROCESSOS. UMA APLICAÇÃO PARA A TRANSFERÊNCIA E GESTÃO DO CONHECIMENTO NA ÁREA DE TRANSPORTE DE HIDROCARBUROS DE ECOPETROL

Julio César Acosta-Prado<sup>2</sup>

Jaime Andrés González Valencia<sup>3</sup>

## CITACIÓN

Acosta-Prado, J.C. & González, J.A. (2015). Best practices and process improvement. An application for the transfer and management of knowledge to the transportation of hydrocarbons in ECOPETROL. *Dimensión Empresarial*, 13(2), p. 33-54

**JEL:** G15, G34,

**DOI:** <http://dx.doi.org/10.15665/rde.v13i2.542>

## ABSTRACT

Knowledge's processes enrich the information bringing value to organizations. These formal or informal, processes increase the value of information and useful knowledge of people and organizations. Therefore, in order to identify good practices that promote the improvement of processes for the implementation of knowledge management in the area of transport hydrocarbon, this exploratory study was performed on ECOPETROL, Colombia's largest oil company. Due to its size, it belongs to 40 largest oil and gas companies in the world's group and is recognized as one of the four major in Latin American. The study target the workshops developed within the Operations and Maintenance teams using the methodology of the Knowledge Assurance Guide. The results show positive impacts identifying best practices that support process improvement in the tactical, strategic and operational levels.

**Keywords:** best practices, process improvement, knowledge management.

**Content:** 1. Introduction, 2. Theoretical framework, 3. Methodology, 4. Case study, 5. Conclusions.

1 This paper is product of the investigation project "Best Practices and Process Improvement. An Application for the Transfer and Management of Knowledge to the Transportation of Hydrocarbons in Ecopetrol, S.A.", conducted in the Universidad Externado de Colombia, Bogotá, [www.uexternado.edu.co](http://www.uexternado.edu.co). The authors thank ECOPETROL, for the support and permission to publish the case study. Fecha de recepción 03/04/2015. Fecha de aceptación 30/07/2015.

2 Ph.D. in Management and Business Organization of the Universidad Autónoma de Madrid. Research Professor of the Universidad Externado de Colombia. Email: [julio.acosta@uexternado.edu.co](mailto:julio.acosta@uexternado.edu.co)

3 Magister in Business Administration of the Universidad Externado de Colombia. Email: [jandresgonzalez@gmail.com](mailto:jandresgonzalez@gmail.com)

## RESUMEN

Los procesos de conocimiento enriquecen la información dotándola de valor para las organizaciones. Éstos procesos estructurados o no, incrementan el valor de la información y el conocimiento útil de las personas y las organizaciones. Por tanto, con el objetivo de identificar las buenas prácticas que favorecen la mejora de procesos para la implementación de la gestión del conocimiento en el área de transporte de hidrocarburo, este estudio de naturaleza exploratoria se realizó en ECOPETROL, principal empresa petrolera de Colombia. Por su tamaño, pertenece al grupo de las 40 petroleras más grandes del mundo y es una de las cuatro principales de Latinoamérica. El estudio profundizó en las mesas de trabajo desarrolladas con los equipos de Operaciones y Mantenimiento, utilizando la metodología de la Guía de Aseguramiento del Conocimiento. Los resultados muestran impactos positivos al identificar las buenas prácticas que favorecen la mejora de procesos en los niveles táctico, estratégico y operativo.

## RESUMO

Os processos de conhecimento enriquecem a informação dotando-a de valor para as organizações. Estes processos estruturados ou não, incrementam o valor da informação e o conhecimento útil das pessoas e as organizações. Por tanto, com o objetivo de identificar as boas práticas que favorecem a melhora de processos para a implementação da gestão do conhecimento na área de transporte de hidrocarburos, este estudo de natureza exploratoria realizou-se em ECOPETROL, principal empresa petrolera de Colômbia. Por seu tamanho, pertence ao grupo das 40 petroleras maiores do mundo e é uma das quatro principais de Latinoamérica. O estudo aprofundou nas mesas de trabalho desenvolvidas com as equipas de Operações e Manutenção, utilizando a metodologia da Guia de Garantia do Conhecimento. Os resultados mostram impactos positivos ao identificar as boas práticas que favorecem a melhora de processos nos níveis táctico, estratégico e operativo.

## 1. INTRODUCCIÓN

Since the second half of the XVIII century with the industrial revolution, new ideas, products, services and concepts have emerged; However, despite the changes and dynamics present in the world, especially in organizational and administrative field, techniques, practices, and methodologies have been developed and implemented with a skill's development requirement, expertise and knowledge at all levels of the organization, in order to achieve the necessary skills to optimize the processes execution to improve time and costs, aligning company's goals to increase financial and organizational results.

These practices can be understood as an extension and improvement of flows and stocks of each person knowledge by finding a better way of doing things, either based on their experience, trial-and-error, knowledge formally gained and learned lessons from people who have developed the same tasks before, or simply because new alternatives are generated. This

new knowledge, seeing as a benefit to the organization, is only valuable whenever can be reflected and repeated multiplying the profits and assuring its sustainability through time with the possibility to be improved.

In addition to the mentioned practices to increase and enhance the flows and stocks of knowledge, there is the support of technological tools, adaptable to the needs of each productive process, able to transform and learn from the development of tasks and decision-making. The efficient use of these technological tools applying the knowledge of the company to obtain the required outcomes could become a differentiating factor. Thus, improving the workers added value in order to achieve business goals.

Based on this, the study focuses specifically on the Operations and Maintenance area of the Vice Presidency of Transportation in ECOPETROL, in which a transition period has occurred, generated from the retirement of most of the tech-