

Evaluation of PDCA approach for the improvement of complex information systems

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Abstract

Currently, each company seeks in a perpetual way to achieve customer satisfaction in order to ensure a share of the market and increase its turnover. This goal can be achieved through the improvement of their information systems.

The information system, increasingly complex, is in one hand, composed of many interrelated processes that characterize its operating, and in other hand, it is never isolated and fits into its environment, so it's a sub-system of another system. The improvement of such systems requires the improvement of these processes, which is in this context a tedious task.

This paper introduces the improvement of processes through the implementation of PDCA in accordance with the recommendations of ISO 9001: 2015. However, these processes are dynamic and highly correlated since they form a complex information system. We try through this paper to demonstrate that the PDCA approach does not cover complex systems and we converge towards its extension to ensure the improvement of such systems.

Keywords

PDCA, Complex Systems, Improvement, Business Process, Information System.

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Biography

Ikram AKKIYAT is an engineer, graduated from the High National School of Mining in Rabat (ENSMR). Currently, Mrs. AKKIYAT is a PhD student and member of the SIWEB Team at Mohammadia School of Engineers (EMI), Mohammed V University in Rabat, researching about Business Process Improvement.

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