

# **Firm performance modeling with resilience approach**

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## **Abstract**

Several efforts have focused on the continuous improvement of firm performance, but many disturbances and incidents still occur because of various random failures. It seems that these disturbances are not avoided by the firm and leading to significant degradation, even in the presence of a good tool of risk management. Resilience which is the ability to withstand shock and maintain critical function, has been recognized as an important approach to keep a firm operating in varying conditions, even if these conditions are expected or not. With the objective to further enhance firm performance and be part of a sustainable development, it is necessary to study this performance through the resilience in order to manage all disturbances (expected or not) of the firm, that may affect its overall performance that combines environmental, social and economic.

The objective of this work is to propose a new representation of a firm performance of a firm through the development of a resilience engineering model of resilience engineering in order to study the ability of firms to recover quickly following disturbance and therefore to maintain sustainable performance. The developed model will be applied to the automotive industry to demonstrate the value of this new model of the performance.

## **Keywords**

Performance, resilience, sustainable development, modeling, disturbances,, management function,

## **Biography**

**Hafida BOULOIZ** is Professor in Industrial Engineering Department at National School of Applied Sciences (ENSA), Ibn Zohr University, Agadir, Morocco. She holds a degree of higher specialized studies on “Safety of Industrial Systems from ‘Engineers Mohammadia School of Rabat’” and from “Institute of Industrial Safety of Nancy” in 2006. She also holds a Phd in Industrial Engineering from “Engineers Mohammadia School of Rabat” in 2010. Her research interests are in the areas of Industrial Safety, Human Factor, Risks Management, Systemic Modeling, Industrial Management, Resilience Engineering, Sustainable Development.