

**Centre des Etudes Doctorales Sciences et Techniques
&
Sciences Médicales**

THESIS DEFENSE

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CANDIDATE FOR DOCTOR SCIENCES AND TECHNIQUES

**Conception and Development of a Competitive Intelligence
System in a Big Data Context**

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| Date : | Saturay, February 10th, 2024 |
| Time : | 10.00 am |
| Location : | Conference Room, Building F, FST - Tangier |

Committe Members

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|-----------------------|-------------------|------------|
| Pr. Abdellah AZMANI | FST - Tangier | Chair |
| Pr. Mohammed BOUHORMA | FST - Tangier | Reviewer |
| Pr. Tomader MAZRI | ENSA - Kenitra | Reviewer |
| Pr. Anass EL HADDADI | ENSA – Al Hoceima | Reviewer |
| Pr. Chaker EL AMRANI | FST - Tangier | Examiner |
| Pr. Abdelhadi FENNAN | FST - Tangier | Supervisor |

ABSTRACT

This research explores the challenges posed by the surge in data volume and diversity in today's business landscape. It investigates the interplay between Big Data, Artificial Intelligence (AI), and Competitive Intelligence (CI) as essential elements for interpreting, processing, and utilizing this diverse data influx. The main contribution introduces a Big Data analytics framework for Competitive Intelligence systems, illustrated through a practical case study on technological surveillance in Morocco. Additionally, the study pioneers a straightforward framework for detecting weak signals in extensive online data, integrating web crawling and text mining for improved automation and precision. Advancing CI further, the research introduces Knowledge Graph Embedding (KGE) models, specifically designed for extracting latent competitors from vast research paper collections. These findings collectively underscore the collaborative potential of Big Data, AI, and CI, providing a practical exploration that enhances decision-making capabilities and fosters competitive advantages in the contemporary data-driven business environment.

Keywords: Competitive Intelligence Systems, Big Data, Big Data Mining, Information Systems, Apache Spark