Title: Understanding dark side of artificial intelligence (AI) integrated business analytics: assessing firm's operational inefficiency and competitiveness (European Journal of Information Systems)

This article focuses on the increasing automation and sophistication of AI presenting both opportunities and challenges for businesses. The concept of AI-integrated BA (AI-AB) refers to analytical information provided by intelligent machines supplemented by human data to inform decision-making. The analysis highlights the transformative potential of AI-integrated AB to drive business innovation and competitiveness. It reveals that factors such as lack of governance, poor data quality and ineffective training contribute to the opacity of IA-BA, leading to sub-optimal business decisions, risk perception, operational inefficiency and competitive disadvantages for companies. To ensure content validity, a set of 33 questions was developed based on existing literature and theoretical background. The items, quantified using a five-point Likert scale, aimed to measure concepts such as IA-BA opacity, perceived risk, operational inefficiency, negative sales growth, employee dissatisfaction and the company's competitive disadvantage.

Data collection targeted management personnel in various sectors, taking advantage of one of the researchers' industrial relationships with key officials in Indian trade organizations such as FICCI, CII and NASSCOM. The study used partial least squares structural equation modeling (PLS-SEM) to estimate the search model, due to its robustness for complex hierarchical models. Two higher-order constructs, inappropriate AI integration in AB and risk perception, were estimated using the repeated indicators approach. The measurement properties of first-order constructs were assessed in terms of convergent and discriminant validity, reliability and consistency. Second-order reflection constructs were developed and their measurement properties analyzed. Path coefficients between concepts were estimated and tested using a non-parametric bootstrapping approach.

The results of the study highlight the consequences of governance issues within AI-integrated business analytics (AI-BA) systems, leading to poor data quality and inadequate employee training. These issues can lead to the adoption of opaque AI solutions, posing risks to businesses and negatively impacting operational efficiency, ultimately compromising their competitive advantage.They also suggest that the opacity of AI-BA can mislead company management, leading to inappropriate business decisions and an increase in risk factors, thereby decreasing operational efficiency. These results support the hypotheses formulated and are in line with previous literature. In addition, the study indicates that the Operational Performance Index (OPI) has a negative impact on employee satisfaction and sales growth, affecting company competitiveness. The moderating contingency plan (COP) significantly influences the relationships between sub-optimal business decisions, operational inefficiency and perceived risk.
The study acknowledges its limitations, including the fact that it focuses solely on the service industry and the limited sample size. In addition, the study of AI-related technical issues and other consequences beyond operational inefficiency and competitive disadvantage could provide further insights.

We can conclude with the fact that tackling AI-BA opacity is essential if companies are to realize the full potential of AI-BA integration. By understanding the factors contributing to opacity, and implementing effective governance, data quality and training practices, companies can mitigate the operational inefficiencies and competitive disadvantages associated with AI-BA integration. The study highlights the importance of contingency planning in moderating these relationships, and suggests avenues for future research in this area.