The Intervening Role of Readiness Factors on the Relationship between Business Intelligence and Analytics Usage and Firm Performance

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TREO Talk Paper

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Abstract

Technology, data and analytics are becoming a transformative force in business. Many organizations are implementing Business Intelligence (BI) and Business Analytics (BA) to support decision-making and improve firm performance. As applications of new information systems and technologies such as the Internet of Things, Wearable Devices, Cloud Computing, Additive Manufacturing and Robotics continue to grow, massive amounts of data are being collected and stored within firms' data warehouses. This data is one of the most valuable assets of the firms that can be analyzed using BI and BA tools and techniques, to support managerial decision-making. As such, business organizations are continually seeking innovative strategies to pursue both opportunities and resolve threats in order to maintain and increase their competitiveness in a volatile, yet ever-evolving business environment. To cope with such volatility, business decisions empowered through the integration of BI/BA will provide clear direction for management by allowing them to forecast critical managerial decisions to support their overarching business strategy. However, the advent of BI/BA does not come without its fair share of problems. The most critical issue observed within the paradigm of BI/BA research would be its steadily growing rate of implementation failure. Gartner's BI/BA performance management framework noted the fact that projects looking to integrate BI/BA fail around seventy to eighty percent of the time. Much of this failure rate stems from the inability of project managers in realizing the potential of investment in BI/BA. This lack of understanding regarding the capitalization of market insight obtained by adopting smart analytics practices has deterred many implementation teams from successfully carrying out BI/BA projects. This is where the mediating construct of readiness factors comes into play. The goal of our study would be to understand how effectively we can integrate business intelligence within the corporate environment by employing the appropriate readiness factors (e.g. strategic alignment, continuous improvement culture, organizational structure, human capital resources, etc). Thus, the research problem is defined as such: "Would the inclusion of readiness factors mediate the relationship between business intelligence and firm performance?". Upon investigating this question, we hope to uncover the significance of how readiness factors can define the potential of BI/BA to improve firm performance allowing for purposeful investment in BI/BA. Furthermore, we plan on developing a conceptual framework to determine to what extent would the implementation of readiness factors influence IT/IS firm performance. Technical, organizational and social readiness factors will be considered in this framework. The practical implications of our study will benefit organizational leaders by identifying how investment in readiness factors can encourage the involvement of best practices associated with BI/BA usage intentions, ultimately leading to better firm performance. Lastly, our findings will greatly benefit IT/IS firms to see how they fare in relation to BI/BA readiness and allow them to tailor their business strategy to leverage their strengths and identify weaknesses to mitigate risks associated with BI/BA organizational commitments.