

REVIEW OF RESEARCH JOURNAL

Business Intelligence (AMI23B)



Critical Review Paper: Assimilation of business intelligence: The effect of external pressures and top leaders commitment during pandemic crisis- Akriti Chaubey, Chandan Kumar Sahoo

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Summary:

During pandemic crises, business intelligence played a key role in supporting many firms to improve their business performance. However, BI assimilation is a challenge for several organisations. According to the paper, which was published in August 2021, BI is not effectively adopted across companies. It proposes a theoretical model for assimilation using institutional and upper echelon theories in order to adapt in firms that are having trouble using business intelligence. The authors posit two questions to explore BI assimilation during the pandemic crisis. RQ1: What are the antecedents of BI assimilation? RQ2: How can firms assimilate BI across their organisation during pandemic crisis.

Given the above, the authors, however, believe that external pressure and top leader commitment play key factors in the adoption and routinization of BI integration by evaluating previous publications. They developed a model that finds the antecedents of BI assimilation using institutional theory, and they also found that institutional forces influence senior leader's commitment. The authors developed the hypothesis that coercive pressures, normative pressures, and mimetic pressures have a positive influence on top leader commitment, that top leader commitment has a positive and substantial effect on BI acceptability, and that BI acceptability influences BI routinization, and BI routinization influences BI assimilation in a substantial and positive way.

To gather data, the authors surveyed 174 leaders from auto component manufacturing organisations in India in the third portion of the research paper, which focused on research methods. They presented the statistical data analysis and results for the data in the fourth section of the paper. They applied Herman's one factor test to mitigate the negative impact of common method bias (CMB) as statistical findings derived from a single respondent data. Furthermore, they found very slight variations between adjusted and unadjusted correlations, leading them to conclude that the potential influence of CMB is insignificant.

The authors also found that business size has little effect on BI assimilation, based on the results of the hypothesis test. Coercive pressures were shown to have no beneficial relationship with senior leader commitment, which is contrary to previous research. However, the authors argue that mimetic and normative pressures influence top leadership commitment, which in turn affects business intelligence technology acceptance, routinization, and assimilation. The data-driven study, which is based on theory, gives a clear picture about how BI assimilations occur under situations of uncertainties.

Objectives:

The purpose of this research is to investigate the influence of external pressure and top leader commitment in BI diffusion in the presence of uncertainty. The aim is to give a clear understanding of business intelligence assimilation by proposing models and reenergize the business intelligence efforts with the efficient use of the model to the organisation who report BI failure due to lack of understanding.

Contribution:

This study report fills a lot of gaps in the previous literature and offers a lot of useful information. It contributed survey-based reflective measures of institutional pressures that captured cohesive, memetic, and normative pressures to the literature. It tackles the previous paper's shortcoming of institutional theory in describing the amount to which organisations within the same industry adapt technological innovation,

as well as incorporating top leader commitment into the institutional theory framework. Furthermore, it presents evidence of the collective influence institutional pressures may have on top leader commitment to business intelligence assimilation by creating and experimentally testing a theoretically grounded model. Specifically, it is intended to demonstrate how a senior leader's commitment to BI assimilation might moderate the link between institutional pressures and BI assimilation.

The paper also addresses the theoretical reasons of the pandemic impact on organizational responsiveness to the assimilation of business intelligence technologies, while investigating post-implementation stages, that had not been explored in earlier works. The researchers state that mimetic and normative forces influence senior leader commitments, which in turn will influence business intelligence adoption, routinization, and assimilation. However, the authors discovered, that coercive demands were not positively related to top leader commitment, which contradicts previous studies. Finally, the models presented in this study work give valuable knowledge for future research on this subject.

Strengths:

The authors looked deeper into several past research studies and collected valuable insights from them in order to conduct their study on variables impacting BI assimilation during the epidemic. This study explained the reasons why many firms struggled to launch new technology and business intelligence tools during the pandemic crisis, along with strategies for recouping the losses. This report fills the gaps and addressed flaws that were discovered in the prior research. In contrast to previous study, they discovered that coercive coercion had no substantial impact on top leaders' commitment, which contradicts previous research studies. The statistical results provide a clear picture of association and complementarities among external pressures and top leader's commitment in business diffusion stages. It addresses the importance of top leaders, commitment and institutional pressures in the effective adaptation of business intelligence tools and new technologies, which I find quite interesting.

Weakness:

To minimize variability, the authors concentrated on just one sector in India's west and southern region. Due to a wide range of practices and cultural differences, this will not assist us in adapting globally. Secondly, it relied on cross-sectional single-source data, which makes analysing behaviour over time difficult. Because the sample size is so limited, large samples are required to make useful information. Finally, the authors looked at their non-response bias, but not their response bias. They stated that 64 questionnaires were received throughout the duration of numerous follow-ups. Because of the pandemic, there's a greater potential of response bias distorting the results due to work pressures and other issues. In the endogeneity test, it is said that the least square regression analysis of total leader commitment on all instrumental variables and control variables R^2 value increases significantly compared to only control variables. I feel adjusted R^2 values should be considered when increasing variables. The model provided in this paper is theoretical and not proven practically. Finally, I also see that some sentences are unclear and needs a bit more clarity or explanation.

Conclusion:

Overall, the article analyses the impact of external pressures and senior leaders' commitment to BI adoption, as well as offering effective methods for post-adoption BI diffusion during a pandemic crisis. This work corrects faults in previous research and provides readers with useful information about the models. Many businesses will profit from the implementation of BI technologies as a result of this study. However, there are certain limitations cited in this work by focusing on one business and one nation that are not applicable globally. The limitations and future research provided in this paper will give more insights to the readers to do other study on this topic, hence, I will consider investigating same topic, but from a more global perspective as my future research option.