Abstract

The Impact of Business Intelligence on Business Intelligence Execution Capacity in Strategic Management: The Mediating Role of Digital Literacy †

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1. Objectives

Strategic management involves addressing irregularities, pursuing objectives, and selecting optimal actions in an economic context [1]. This encompasses research, analysis, and decision-making [2]. To enhance results, diversify strategies and explore various management techniques [3]. Effective decision-making is crucial for success [4], and decision hierarchies evolving alongside management changes [5]. Business intelligence involves understanding data connections to achieve goals [6]. It includes functions such as reporting, data discovery, data mining support, and predictive analytics [7]. While data-driven decisions are preferred, intuition still plays a role, especially in complex scenarios [8]. Successful decision-making balances strategic management, business intelligence, and the interplay between data-driven insights and intuition.

In this study, perceptions and perspectives of managers at the strategic management level regarding the needs for business intelligence systems will be explored. The sample will be drawn from sectors that have exhibited high levels of digitalization, as indicated by the “Accenture 2016 Digitalization Index” study. These sectors will encompass such as financial services, service activities, retail trade, motor vehicle trade and repair. The research will particularly target prominent companies operating within these sectors. To identify these leading enterprises, we will consult largest companies listed in the Fortune 500 index. The survey administration will be conducted on a voluntary basis, and structural equation modeling will be applied. The survey instrument is anticipated to comprise 42 questions for Business Intelligence and 29 questions for Digital Literacy alongside a demographic information section. Using a Likert scale ranging from 1 to 7, the survey will be carefully adapted to the research’s specific context while retaining its fundamental components, as documented in the existing literature.

The principal objective of this study is to make a substantive contribution to the extant body of research in the realm of strategic management, encompassing sectors in “Accenture 2016 Digitalization Index”. The study seeks to accomplish this overarching goal by delving into the individual perceptions of senior leaders regarding the concept of business intelligence and their discernment of the imperative for corporate business intelligence systems. In the broader theoretical landscape, this study aspires to make a supplementary contribution by undertaking an empirical analysis of how diverse strategic approaches translate into practical implementation. Furthermore, by subjecting some commonly employed strategic management models originally designed for the private sector to empirical scrutiny in the context of the public sector, this research endeavors to
expand the horizons of this field of inquiry. The ultimate goal of this research is to provide conceptual reference frameworks describing the orchestration of strategic management processes within organizations.

2. Methodology

The core objective of this study is to delve into the perspectives of senior executives concerning the necessity of business intelligence and their assessments of their respective organizations’ competencies in integrating business intelligence effectively. In this context, the research endeavors to produce data and insights of an exploratory nature, shedding light on individual and organizational viewpoints regarding business intelligence systems’ role as supportive tools in the decision-making process of senior executives.

To accomplish these research objectives, a quantitative research methodology will be employed. Data will be gathered from study participants through a survey-based approach. The survey instrument selected for this study has previously been administered to individuals occupying senior managerial positions within municipal government entities. In adapting this survey to suit the research’s applicability in varied sectors, necessary refinements and adjustments will be made, ensuring the preservation of its core components.

The participants in this study will encompass senior executives occupying pivotal decision-making roles within organizations, spanning both the public and private sectors. The selection of senior executives for this study will be all-encompassing, transcending sector-specific boundaries. The anticipated sample will encompass individuals with varying levels of experience in the realm of business intelligence. The sample will be drawn from sectors that have exhibited high levels of digitalization, as indicated by the “Accenture 2016 Digitalization Index” study. These sectors will encompass, but will not be confined to, financial services, service activities, retail trade, motor vehicle trade and repair, among others. The research will particularly target prominent companies operating within these sectors.

To identify these leading enterprises, the initial approach will involve consulting the roster of 500 largest companies, as listed in the Fortune 500 index. Subsequently, companies operating within sectors boasting above-average digitalization scores will be singled out for inclusion in the study.

The survey administration will be executed on a voluntary basis, and no financial remuneration will be extended to participants. The survey instrument is anticipated to comprise 44 questions, alongside a demographic information section. Employing a Likert scale ranging from 1 to 7, the survey will be thoughtfully adapted to suit the research’s specific context while retaining its fundamental components, as documented in the existing literature.

3. Results

This study aims to shed light on the decision-making processes and the orientation of strategic management leaders towards using Business Intelligence, as well as to reveal their execution capabilities and perceptions. It is an evident fact that traditional approaches to strategic decision-making have increasingly embraced their share of rapidly evolving technologies in the present day. Decision-making, supported by knowledge, experience, and accumulated data, is transitioning into a new concept with the aid of new technological systems. Business Intelligence systems are one such technological development that facilitates decision-making processes for strategic management leaders. It is clear that access to complete and accurate information is essential for more error-free decision-making. Every piece of data must be evaluated among various alternatives and should guide leaders in decision-making processes. In this context, Business Intelligence systems represent technological innovations with these features. They encompass the stages from extracting, storing, and presenting data from both internal and external sources. It is understood that the use of Business Intelligence systems in management, particularly in the realm of strategic
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decision-making, is expected in today’s organizations. Therefore, this study attempts to understand the perceptions of strategic leaders regarding the use of Business Intelligence.

Similarly, the importance of Business Intelligence systems for companies in competitive environments and in the face of unexpected or unpredictable developments is clear. At the end of this study, the significance of Business Intelligence systems for organizations seeking to continue their operations and adapt to the competitive environment is emphasized. Perceptions regarding Business Intelligence are of strategic importance for senior public leaders in terms of prioritizing more advanced needs and specific capabilities. This study will also address senior leaders’ perceptions of their need for Business Intelligence and their perceptions of their organizations’ effective adoption of Business Intelligence. The findings of the research are expected to provide a comprehensive picture of senior leaders’ Business Intelligence needs. It is expected that perceptions regarding the dynamics and complexity, as indicated by Hellström and Ramberg (2019), will serve as a guiding factor in how managers work with their organizations’ strategies, structures, and processes.

4. Implications

The main purpose of this study is to thoroughly explain the opinions and beliefs of individuals in top management roles, particularly in the field of strategic management (C-suite), in both the public and private sectors. The focus of this study is on their views regarding business intelligence systems. To achieve this goal, the research will involve senior executives from different Turkish organizations. The research data will be carefully gathered through surveys. For the sake of convenience and speed, the research sample will be selected using a method called convenience sampling. The survey will be distributed to the participants online through a designated web link. Before conducting the research, ethical clearance and necessary permissions will be obtained from relevant institutions to ensure that potential respondents can participate in the survey while adhering to ethical standards and regulations.

The study does not anticipate incurring any additional costs from the beginning to the end of the research. Any potential expenses will be covered by the study’s author and researcher, eliminating the need for external financial support, whether from governmental or private sources. In essence, this study aims to understand the importance of business intelligence systems. These systems fall under the scope of Management Information Systems and play a vital role in supporting the decision-making process.

5. Originality Value

The overarching objective of this study is to delve into the perceptions held by senior leaders in the field of strategic management concerning the imperative for business intelligence (BI) and their organization’s capacity to effectively integrate BI into their operational fabric. This research aspires to offer valuable insights into specific strategic domains where senior leaders must augment their utilization of BI tools and prioritize the development of organizational capabilities. Drawing upon a methodology adapted from the different sectors, this study endeavors to furnish senior leaders with fresh perspectives regarding the indispensability and efficacious deployment of BI in contemporary business landscapes. It seeks to elucidate their ideas, perspectives, and viewpoints concerning the cognitive infrastructure prerequisites pivotal in identifying factors that exert influence on market complexity and uncertainty. The anticipated outcome is a richer comprehension of the perceptions pertaining to the utilization of BI systems that senior leaders need to embrace in order to remain abreast of the rapid technological advancements and proactively respond to the ever-evolving environmental dynamics.

In this study, an exhaustive examination of the perceptions and perspectives concerning the individual and corporate demand for BI systems among senior managerial personnel, particularly in the context of strategic management, will be undertaken.
6. Contribution

For organizations to achieve sustainable success, it is crucial for them to make the right decisions. Business intelligence systems play a significant role in achieving this goal. Especially for large-scale organizations, they aim to improve decision-making processes with insights derived from data. In today’s business world, organizations are faced with increasing demands and complex workloads. As data volume grows, customer needs change, and instant decisions need to be made, there is pressure to perform better in the business world. To gain a competitive advantage and maintain sustainable success, organizations need to enhance their efficiency. This is possible by utilizing their assets effectively to create value. In today’s business world, information is the most valuable asset for organizations. Organizations that can obtain and utilize information can achieve success. To ensure continuity, organizations need to use and interpret their data effectively.

Business intelligence systems are increasingly being used among large organizations and companies. These systems cater to various levels, from employees to top-level executives. They are particularly aimed at being effectively utilized in managerial decision-making processes. Business intelligence technologies help in understanding complex information and facilitating effective decision-making. With features such as data mining, data storage technologies, and analytical applications, business intelligence systems provide significant benefits to users. One of the key benefits of business intelligence systems is facilitating effective decision-making processes. With good decisions, it becomes easier for organizations to reach their goals. Understanding the role of business intelligence systems enhances the success of organizations. Business intelligence systems typically aim to assist managers in decision-making processes. Increasing business performance and making correct decisions by leveraging business intelligence systems effectively are crucial for organizations (Eren, 2018).

This study will examine the usage tendencies, intentions, and application capabilities of business intelligence systems among top-level executives in their decision-making processes. The utilization of business intelligence systems is directly associated with the user’s technological knowledge infrastructure. Therefore, the impact of users’ digital literacy on their business intelligence application capabilities will be explored.

The following findings are expected to be reached at the conclusion of the study:

- The needs of managers for business intelligence systems will have a significant impact on determining their usage intentions.
- It is anticipated that the level of digital literacy will significantly influence business intelligence application capabilities.
- The frequency of business intelligence usage in decision-making processes is expected to be directly proportional to the level of digital literacy.
- It is predicted that the success rates of decisions made with business intelligence systems will have a meaningful impact on business intelligence usage intentions.

These results will provide a deeper understanding of the usage and success of business intelligence systems.

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References


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