



Optimizing Company Finances Using Business Intelligence in Accounting

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Abstract

Business intelligence is the process of collecting, analyzing, and interpreting business data to help companies make informed decisions and improve business performance. In accounting, business intelligence is used to understand financial data and monitor overall business performance. This study aims to link the relationship between business intelligence in accounting. Novelty in this research is the methodology in developing business intelligence research in accounting, as it is relatively new to be applied in accounting and business. An approach that combines quantitative and qualitative analysis is very important in achieving the optimization of company finances. Companies must ensure that they have the right strategies and techniques in place to collect, analyze and utilize this information to achieve their financial goals.

Keywords: Business Intelligence, Accounting, Business Performance

1.0 INTRODUCTION

Business Intelligence (BI) and related fields of big data analytics have become increasingly important in both the academic and business communities over the last two decades. BI is a set of tools and techniques that help transform raw data into useful information (Chandra et al., 2018) for business analysis purposes. BI provides businesses with the identification, development, or creation of new strategic business opportunities that generate sustainable competitive advantages. BI aims to identify and process data flows into relevant knowledge for managers to improve decision-making across multiple layers of the business (Kakhki & Palvia, 2016).

In the new global economy and in conditions of increasing amounts of data provided by technological developments, BI can be considered a central approach for the successful management of relevant business data to provide support to decision-making process. BI includes all the processes and systems (e.g. data warehouses, data marts, analytics tools like reporting tools, ad hoc analytics and OLAP, in-memory analytics, planning, alerting, forecasting, scorecards, data mining) that turn raw data into meaningful and informative useful and enable an effective, systematic and purposeful analysis of an organization and its competitive environment (Bach et al., 2018).

BI is often categorized based on its ability to handle data types and turn them into knowledge and insights for decision-making. Modern BI systems extend Decision Support System (DSS) by handling traditional structured data such as in a structured DataBase Management System (DBMS), as well as unstructured data such as images, semi-structured sensor data such as the Internet of Things (IoT), and combinations of these data types. In general, the more complex the data types that can be analyzed, the more advanced the BI system is (Wren et al., 2021).

Business intelligence is the process of collecting, analyzing, and interpreting business data to help companies make informed decisions and improve business performance. In accounting, business intelligence is used to understand financial data and monitor overall business performance.

BI has become the top priority of Information and Communication Technology (ICT) departments in most companies to improve organizational performance. The related software product market continues to grow rapidly in line with the trend of Business Analytics (BA) and Big Data Management which have contributed to the growth of the BI software market. This is inseparable from the role of management which has contributed to the sustainable growth of the BI software market, especially to assist the decision-making process. This is because the BI system can handle large amounts of information and is able to identify this information to develop new opportunities, one of which is a market advantage. The use of BI tools can also help increase profits by managing

an organization's enterprise performance and gaining a competitive advantage through consolidating past wins. Therefore, BI can have a significant impact on company performance and is therefore considered a high priority for many companies in today's business environment (Urumsah & Ramadhansyah, 2019).

Using business intelligence, companies can identify areas that need improvement and make strategic decisions to maximize revenue and reduce costs. For example, a company could analyze sales and cost data to determine the best-selling products and focus marketing efforts on those products.

Business intelligence also helps companies monitor the performance of employees and departments. For example, a company can analyze employee productivity data to determine which employees need additional support or training.

Modern tools and technologies, such as management information systems (Renaldo, Suharti, et al., 2021) and Business Intelligence (BI), facilitate business intelligence processes. This tool allows companies to access data and make analyses easily and quickly.

However, it is important to remember that business intelligence is useless if the data used is inaccurate or irrelevant. Therefore, companies must ensure that the data used in business intelligence is accurate and relevant before taking action based on the results of the analysis.

BI provides access to data that has been integrated and sanitized so that it can be analyzed, manipulated, transformed, and aggregated to discover correlations, trends, and patterns that can offer new insights and support decision-making processes. One of the signs of changes in the competition area is the shift of bureaucratic organizations into organizational forms that are sensitive to vertical, horizontal, and external challenges and opportunities (Sundjaja & Veronica, 2016).

Overall, business intelligence in accounting is a very useful tool to help companies make informed decisions and improve business performance. By using business intelligence, companies can understand business performance and make strategic decisions to achieve their goals.

BI systems can positively influence DSS and make informed decisions by collecting large amounts of data, as well as, DSS can add value to organizational performance by increasing organizational control, personal efficiency, and problem-solving effectiveness (Alasiri & Salameh, 2020).

This study aims to link the relationship between business intelligence in accounting. Novelty in this research is the methodology in developing business intelligence research in accounting, as it is relatively new to be applied in accounting and business.

2.0 LITERATURE REVIEW

Business Intelligence (BI) is the process of collecting, analyzing, and interpreting business data to help companies make informed decisions and improve business performance. In accounting, business intelligence is used to understand financial data and monitor overall business performance.

To enhance strategic orientation and organizational competitiveness, managers need to utilize some specific tools to support their decisions throughout the decision-making process. From a different point of view, BI can be useful by providing specific results to improve the decision-making ability of Decision Making. These tools cover a wide range of techniques and technologies used to collect, provide access to, and analyze data from a variety of sources to assist Decision Making in making more effective managerial decisions (Rouhani et al., 2016).

Business intelligence software can be a transformational asset to organizations. This can eliminate a lot of guesswork within organizations, improve communication and joint planning across functions and lines of business, and enable organizations to respond more quickly to changes in financial conditions, customer preferences, and supply chain operations (Hurbean, 2005).

BI is often just one of many initiatives aimed at improving organizational performance. Business Process Management (BPM) is a well-known approach to improving organizational performance by improving process performance. The integration of BI into the BPM initiative seems natural because the two have the same main objective. For example, implementing BI to manage cross-functional business processes can increase the effective use of BI assets. However, in practice, the two concepts are often applied by different teams, with insufficient cooperation resulting in misaligned initiatives. In addition, many organizations regard BI as an IT implementation project primarily or exclusively and have not embraced the notion of BI as a business initiative which is the only one that can grow business value (Vugec et al., 2020).

Business intelligence systems combine operational data with analytical tools to provide planners and decision-makers with complex and competitive information. BI systems include a wide range of processes and software used to collect, analyze and disseminate data, all in the interest of making better decisions. BI consists of business users and applications that access data from data warehouses to perform enterprise reporting, OLAP, querying, and predictive analytics (Arnott et al., 2019).

Following are some of the important theories that explain business intelligence in accounting:

1. Data-Driven Decision-Making Theory: According to this theory, business decisions should be based on data and not intuition or guesswork. By using business intelligence, companies can make decisions based on facts rather than guesswork.

2. Theory of Financial Ratio Analysis: This theory emphasizes the importance of analyzing financial ratios to understand a company's financial performance. Financial ratio analysis helps companies identify positive or negative trends in financial performance and make informed decisions.
3. Predictive Analytics Theory: This theory emphasizes the importance of analyzing business data to predict future trends and events. Using business intelligence, companies can predict market trends and make informed decisions to capitalize on those trends.
4. Business Process Management Theory: This theory emphasizes the importance of managing business processes to ensure efficiency (Renaldo et al., 2022) and effectiveness. By using business intelligence, companies can optimize business processes and make informed decisions to improve business performance.

Taken together, these theories suggest that business intelligence is an important tool in accounting to help companies make informed decisions and improve business performance. By using business intelligence, companies can understand business performance and make strategic decisions to achieve their goals.

3.0 METHODOLOGY

The right methodology for analyzing the topic of business intelligence in accounting is to use a qualitative and quantitative approach. A qualitative approach involves detailed and interpretive analysis of data, such as conducting interviews with subject matter experts, studying scientific literature and publications, and conducting case studies. This helps me gain a deeper understanding of the issues and problems related to business intelligence in accounting.

The quantitative approach involves statistical and mathematical analysis of data, such as conducting surveys, regression analysis, and factor analysis. This helps provide scientific evidence and strong data to test hypotheses and make informed conclusions.

The combination of qualitative and quantitative approaches will provide a comprehensive and accurate picture of the topic of business intelligence in accounting. This combination approach is referred to as mixed methods.

4.0 RESULTS AND DISCUSSION

Optimizing Company Finances by Using Business Intelligence in Accounting with a Qualitative Approach

This methodology can be done in several ways such as:

- Interviews: Interviews were conducted with experts and practitioners in the field of business intelligence in accounting to understand their views and thoughts on this topic.
- Literature Study: A literature study is conducted to study and analyze scientific publications and other sources related to the topic of business intelligence in accounting.
- Case Studies: Case studies are conducted by looking at examples of companies using business intelligence in accounting to improve their finances. It helps understand how business intelligence in accounting is applied in practice and makes companies more successful.

By using a qualitative approach methodology, we can gain a deeper and more interpretive understanding of how business intelligence in accounting can help improve company finances. The information (Sudarno et al., 2022) and data obtained from this methodology can be used to make practical recommendations and solutions for companies that wish to use business intelligence in accounting to improve their finances. Literature studies and case studies can provide trends and patterns that occur in the industry, as well as show what other companies have done successfully. Interviews with experts and practitioners can provide unique and useful insights to solve problems related to the implementation of business intelligence in accounting.

However, a qualitative approach alone may not be sufficient to provide strong scientific evidence. Therefore, a combination with a quantitative approach involving statistical and mathematical data analysis can provide a more comprehensive and accurate picture.

Optimizing Company Finances by Using Business Intelligence in Accounting with a Quantitative Approach

Some ways that can be done are:

- Survey: The survey was conducted by sending questions related to the topic of business intelligence in accounting to companies engaged in this field. The data received from these surveys can be analyzed using statistical techniques such as regression, analysis of variance, or path analysis.
- Secondary Data Analysis: Secondary data analysis is carried out by collecting data that already exists and is available from sources such as company financial reports, scientific publications, or official websites (Renaldo, Suhardjo, et al., 2021). This data is then analyzed to understand how business intelligence in accounting affects company finances.

- **Controlled Control Experiments:** Controlled control experiments were conducted by comparing two groups of companies, one group used business intelligence in accounting and the other group did not. The difference between these two groups can be used to measure the effectiveness of business intelligence in accounting in improving company finances.

By using a quantitative approach methodology, we can obtain strong scientific evidence and generally accepted results regarding how business intelligence in accounting affects company finances. The data and information obtained from this methodology can be used to make practical recommendations and solutions for companies that wish to use business intelligence in accounting to improve their finances. Surveys and secondary data analysis provides an overview of the current situation and trends in the industry. Meanwhile, controlled control experiments help objectively measure the effectiveness of business intelligence in accounting.

Optimizing Company Finances by Using Business Intelligence in Accounting with a Mixed Method Approach

Some ways that can be done are:

- **Case Studies:** Case studies are conducted by studying one or several companies that use business intelligence in accounting. Data obtained through interviews and observations were analyzed using qualitative analysis techniques such as content analysis, pattern analysis, or discourse analysis.
- **Quantitative-Qualitative Survey:** A quantitative-qualitative survey was conducted by sending questions related to the topic of business intelligence in accounting to companies engaged in this field. The data received from this survey can be analyzed using statistical techniques such as regression, analysis of variance, or path analysis, as well as qualitative analysis techniques such as content analysis, pattern analysis, or discourse analysis.
- **Controlled Experiments:** Controlled experiments were conducted by comparing two groups of companies, one group using business intelligence in accounting and the other group not. The differences between these two groups can be used to measure the effectiveness of business intelligence in accounting in improving company finances, and observations and interviews are also carried out to understand the company's experiences and perceptions of the implementation of business intelligence in accounting.

By using a mixed method approach methodology, we can obtain strong scientific evidence and generally accepted results regarding how business intelligence in accounting affects company finances. Data and information obtained from case studies and quantitative-qualitative surveys provide an overview of the current situation and trends in the industry, as well as the company's perceptions and experience of implementing business intelligence in accounting.

5.0 CONCLUSION

Conclusion

An approach that combines quantitative and qualitative analysis is very important in achieving the optimization of company finances. Business intelligence in accounting provides useful and important information for companies to take the right business decisions and earn profits. Business intelligence in accounting helps companies understand their financial situation and assists in making sound business decisions. It provides information about trends and patterns in a company's financial activities, such as income and expenses, and helps in identifying areas that need improvement or change. This information is critical for companies to ensure that they make wise business decisions and profit in the long term.

Recommendation

Companies must ensure that they have the right strategies and techniques in place to collect, analyze and utilize this information to achieve their financial goals. By ensuring that companies have the right strategies and techniques to collect, analyze, and utilize the information obtained through business intelligence in accounting, companies can ensure that they have accurate and up-to-date information to help them achieve their financial goals. This can include regular monitoring and evaluation of company finances, identifying potential areas for efficiency and effectiveness improvements, and making business projections and plans based on sound data and analysis.

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