

The Effect of Business Intelligence on Financial Performance of Iranian Banks

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Abstract

Goal: Business Intelligence systems couple operational data with analytical tools to produce information of competitive value for planners and decision makers. These systems can handle huge amounts of information and are capable of identifying information to develop new opportunities. Thus competitive market advantage and effective strategy insight are gained by implementing Business Intelligence based systems.

Methodology: So that, studies show that benefits Business Intelligence bring to companies: faster and more accurate reporting, an improved decision-making process, improved customer satisfaction, increased revenues, savings in IT; and savings in other areas (in addition to information technology). In addition, the benefits of Business Intelligence as: an increase in revenue, an increase in profit, improved customer satisfaction, a reduction of costs, and an increase in market share. However, very few studies have empirically evaluated these assertions theoretically and a dearth of studies exists in the literature when it comes to empirical evidence to ascertain some of these claims of Business Intelligence systems benefits.

On the other hand, Contemporary banks face challenges such as fierce competition, a highly dynamic market, the necessity of strict control, varying client demands and risk management are only some of the features of the business environment where modern banks conduct their operations. In addition, concerns such as suppression and detection of fraud, risk management, customer management, loss prevention and product management, are some of the primary problems of financial institutions.

In recent years, banks strive to adopt diverse forms of Business Intelligence tools to curtail the challenges they face. Some of the areas Business Intelligence covers in the bank include: "Customer Relationship Management (CRM), Performance Management (PM), Risk Management (RM), Asset and Liability Management (ALM), and Compliance". Online analytical processing (OLAP) and data warehouse are used for the informational basis for the application of Business Intelligence in the banks, whilst data mining and knowledge retrieval handle "complex statistical analysis discovering hidden relationships between data and forecasting the behavior trends of business systems".

Iranian's banking industry is undergoing through a phase of major transformation, with entry of more players in an already competitive environment and as a result one common theme being seen across banks in Iran is increased Implementation of Business Intelligence and analytics to drive their overall

profitability, competitiveness, performance management and risk management. This study wanted to answer this question, “Are the banks that have implemented Business Intelligence systems really benefitting from these reported benefits? Is it true that Business Intelligence systems can improve the banks financial performance”?

So, this study examines the effect of Business Intelligence on financial performance of banks in Iran over the period 2006-2015.

The data is collected from Financial Statements Analysis of Iranian banks Sector .

Results: This study has chosen to use Principal component analysis (PCA) method and panel data regression models as a quantifiable measure to assess the Business Intelligence index and then, its effects on financial performance of Iranian banks respectively .

Independent variable used in this research is Business Intelligence and dependent variables used are Return on assets (ROA), Return on equity (ROE), loans to assets ratio and cost-to-income ratio that they are proxy variables of financial soundness indicators.

In this study, Business Intelligence index (independent variable) calculated on according to Wixom (2008) study to use of 4 variables. These variables are information technology, human resource, customers and competitors.

Findings show that, Business Intelligence has positive and significant effect on banks' Return on assets (ROA), loans to assets ratio and first lag of Return on equity (ROE). Also, Business Intelligence can decrease cost-to-income ratio of banks after year.

Conclusion: Practically, this study has shown that the adoption of Business Intelligence systems can have both financial and nonfinancial effects on banking performance. This has provided an insight to managers and policymakers that in evaluating the effects Business Intelligence systems, they should take a comprehensive approach and consider both the financial and non-financial aspects due to the intangibility of some of the benefits. In addition, it is recommended that bank managers should also encourage the use of Business Intelligence systems in all their operations which with time can translate to the financial gains of the banks. Then, banks can use of this technology for Improvement financial performance. That's while, only 3 banks use Business Intelligence in Iran.

Key Words: Business Intelligence, Financial Soundness Indicators, Financial Performance, Information Technology.

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