

The Relationship between the Balanced Scorecard and (ISO) Standards in Improving Banking Performance

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Abstract

The main objective of the research is to show the impact of the balanced scorecard under (ISO) standards on improving banking performance. The most important objectives of the study can be summarized as follows: - Providing an introductory framework on the concepts of the balanced scorecard, its dimensions and how to employ it, with ISO standards and its reflection on improving banking performance and presenting a set of suggested indicators that clarify the relationship between the balanced scorecard and (ISO) standards in improving banking performance. The research has reached a set of conclusions, the most important of which is that the use and analysis of traditional banking performance indicators only does not determine the real performance level of banks, so it is necessary to develop indicators to measure and improve banking performance according to what researchers suggested of indicators related to (ISO) standards and the dimensions of the balanced scorecard.

Keywords: Balanced Scorecard, ISO Standards, Banking Performance.

Introduction

The emergence of the financial crisis and the accompanying bankruptcy of many commercial banks, affected all economic and financial sectors due to the strong link of the banking sector to all other economic sectors, which required a review of the laws regulating the work of banking institutions and the imposition of international banking standards, such as (ISO) standards.

The problem of the current study is the failure to activate the use of the balanced scorecard according to (ISO) standards related to banks by the management of commercial banks listed in the Iraqi Stock Exchange in the process of improving banking performance. The study problem can be formulated in light of the following main question: Does the use of the balanced scorecard in the presence of ISO standards related to commercial banks affect the improvement of banking performance?

The objectives of the study: to study the impact of the balanced scorecard under (ISO) standards on improving banking performance. The main objectives of the study can be summarized as follows:-

1. Presenting an introductory framework on the concepts of the balanced scorecard and its dimensions and how to employ them, with (ISO) standards and its reflection on improving banking performance.
2. Presenting a set of suggested indicators that clarify the relationship between the balanced scorecard and (ISO) standards in improving banking performance.

The importance of the study: the importance of the study stems from the fact that the use of the balanced scorecard according to (ISO) standards in the process of improving the performance of Iraqi commercial banks, will contribute greatly to the adoption of corrective methods and measures to reduce weaknesses and optimize the use of strengths, which in turn improves the level of performance.

The hypothesis of the study: The use of the balanced scorecard in accordance with the (ISO) standards related to commercial banks and according to their dimensions (financial, customers, internal operations, learning and growth, societal environment, risks) contributes to improving banking performance by identifying defects and weaknesses in banking performance.

Theoretical Framework for Research

First: The balanced scorecard: the balanced scorecard focused in the beginning as a tool for managing, measuring and evaluating performance, after a study of multiple institutions conducted by (Kaplan & Norton), Its objective is to provide managers with a brief summary of the main success factors that can be achieved from the business and to facilitate the alignment of business operations with the overall strategy. It has been identified in four dimensions. In addition, to financial metrics. Managers are encouraged to consider taking measures derived from three other dimensions of business, customers, internal processes, learning and growth, as performance is measured within these four dimensions (1999, Mooraj et al).

Recently, the balanced scorecard focused on behaviors, not measures, by supporting decision-making strategy during uncertainty and change in the organization. The organization is more changeable and more able to respond when changes are needed. By linking the scorecard to the value of the enterprise and using it as a valuable advisory service and as a measure of the impact of the enterprise's strategies on society and the environment (2014, Kádárová et al.).

Second: ISO Standards

(ISO) means the International Organization for Quality Standards, established on February 23, 1947, with its permanent headquarters in Switzerland, specifically in Geneva. It is an organization that specializes in setting quality standards in its work, and it consists of representatives of many professional organizations, and although it is a non-governmental organization now, its authority to set quality standards gives the power to impose laws that are signed and followed and stipulated in the treaties, which results in giving it more support and power than most other NGOs.

• ISO 31000 Standard

ISO 31000 applies to all organizations, regardless of type, size, activities and location and covers all types of risks. It was developed by a group of business owners and is intended for use by anyone who manages risks, not just professional risk managers. ISO 31000 helps banks develop a risk management strategy to effectively identify and mitigate risks (2018, ISO) and thus enhance the likelihood of achieving their objectives and increase the protection

of their assets. Its overarching objective is to develop a culture of risk management where employees and stakeholders understand the importance of monitoring and managing risks. The application of this standard also helps banks see the positive opportunities and negative consequences associated with risks and allows for more informed and therefore more effective decisions especially in the allocation of resources. Moreover, it can be an active component in improving an organization's governance and ultimately its performance (2016).

- **ISO 27001 Standard**

It is defined as an information security standard that has been published by the International Organization for Standardization (ISO) and the international electrotechnical commission (IEC) under the joint subcommittee of ISO and the international electrotechnical commission. ISO 27001 was prepared to provide the requirements for planning, implementing, operating and improving an information security management system (2017, Wasser). In the organization the requirements are formulated in a general way to suit all organizations regardless of their size, objectives, business model, location, etc. This standard therefore forms the basis for determining the core operations of the ISMS. ISO/27001 requires management (ISO/IEC-2700).

- Conducting a regular periodic review of information security risks in the organization taking into consideration threats, weaknesses and influences.
- Design and implement a comprehensive follow-up package (eg, risk prevention or risk transfer) to address
- Information that is considered unacceptable.
- Adopt a comprehensive management process to ensure continuous information security oversight of the organization's information security needs on an ongoing basis (2018, Velasco).

- **ISO 15504 Standard**

It is an international standard for evaluating software and electronics development processes and contains process reference models as well as a process evaluation model (2017, Haufe). The ISO/IEC 15504 standard specifies assessments for different purposes and with varying degrees of strength. The purposes can be internal, focusing on comparisons between areas of the organization or improvement of processes for internal benefit, or they can be external, focusing on formal assessment, reporting and certification. The COBIT 5 ISO/IEC 15504 based assessment approach continues to facilitate the following objectives which have been the main COBIT approach since 2000 to:

- Enable the governance and management body to measure the capacity of the operation.
- Enabling high-level “as is” and “future” health checks to support the governance body and make management investment decisions regarding process improvement.
- Provide gap analysis and improvement planning information to support the definition of justified improvement projects.
- Provide the governance and management body with assessment estimates to measure and monitor current capabilities. (ISACA 2012).

- **Standard ISO 38500**

The ISO/IEC 38500 standard provides a framework of principles to help managers assess, direct, monitor, understand and fulfill their legal, regulatory and ethical obligations in relation to their banks' use of information technology. The standard sets out the minimum requirements for IT governance in an organization. ISO 38500 encourages banks to use appropriate standards to support IT governance. The (IEC38500: 2008/ISO) standard states that managers should govern IT through key tasks: (Feltus 2008).

- Assessment of current and future use of information technology.
- Direct preparation and implementation of plans and policies.
- Ensure that the use of information technology meets business objectives.
- Monitor compliance with policies, and performance against plans.

There are six principles of good IT governance (responsibility, strategy, acquisition, performance, compatibility, and human behavior). It also provides guidance for those advising managers, informing them or emphasizing principles applicable to organizations and articulating preferred behavior to guide decision-making. The statement of each principle indicates what should happen but does not describe how, when and by whom the principles should be implemented.

- **ISO 20000 Standard**

ISO 20000 uses the same approach as management system standards such as ISO 9001 and ISO 27001. It aims to rely on an integrated set of management processes in order to effectively provide services to customers. IT and ISO 20000 are complementary to each other. The implementation of IT processes satisfies some of the requirements for obtaining ISO 20000 certification. The ISO 20000 standard defines a set of interrelated management processes. It requires an integrated methodology to effectively provide IT services (2016, et al, cots) and includes the relationship with customers and suppliers as part of its assessment. The 20000 standard consists of the following parts.

- ISO/IEC 20000-1 sets out the requirements for the development and implementation of information technology management systems.
- ISO/IEC 20000-2 sets out the most important practices for managing these services.
- ISO/IEC 20000-3 sets out the guidance used on the definition of the scope and applicability of ISO/IEC 20000-1.

ISO/IEC 20000-4 sets out the purpose of the process and results that clarify and cover the requirements of ISO/IEC 20000-1. (2015, Central Bank of Nigeria).

Third: The effect of the relationship between (the balanced scorecard and (ISO) standards) in improving banking performance. Improving banking performance depends on the extent to which commercial banks are able to adopt sound banking strategies and standards. As well as on the extent of their ability to adapt to internal and external environmental changes, and how to employ those changes that occur to commercial banks in improving the quality of assets, especially the loan portfolio, in a manner that enhances capital adequacy, and modernizing information systems about customers and their credit portfolios, as well as developing technology and improving services provided to beneficiaries. Which contributes to strengthening the public's confidence in it and thus improving the efficiency and effectiveness of its performance, especially in light of technological, economic and financial developments at all levels through the application of international banking standards related to the process of measuring and improving banking performance. As the banking performance is of interest to both specialists and stakeholders, through the role that these financial institutions provide in accelerating the development process through their ability to attract financial resources, and provide banking services that improve cash flows, which is a fundamental pillar of economic developments (Stankeviciene & Mancaite: 2012). The concept of banking performance is evidence of the bank's knowledge of its financial position and its ability to achieve sustainable profitability, which is the first line of defense for the institution against unexpected losses, as it improves its capital position and enhances future profitability, since the ultimate purpose of any profit-seeking institution is to preserve and create wealth for the owners (Yondo: 2015), as the balanced scorecard measures the performance of commercial banks across six different dimensions, but they are interrelated and derived from the objectives, strategy and vision of the banks. Each dimension has a specific goal that it seeks to achieve. The balanced scorecard enables banks to track financial results and exercise control in Same time across non-financial measures (2021, Niroula & Tan).

1. Employing the Financial Dimension and ISO Standards in Improving Banking Performance

The financial dimension provides a link between current financial goals and future goals that have the ability to create satisfactory results for related parties. The financial objectives focus on sales growth, studying new markets and customers, providing new banking services that keep pace with technological development, and maintaining the level of return on invested capital, operating income and profit margin. As for the maturity stage, the financial goals are concerned with the cash flows that help the continuity of the bank's activity (2019, Abbas). Through the needs of stakeholders, it is possible to link the set of general banking goals that have been developed using the balanced scorecard, as it represents a list of frequently used goals that the bank sets for itself. Information from the financial side based on ISO standards for corporate governance and management controls for information and communication technology in the banking sector based on the COBIT5 framework (Al-Obaidi and Jawhar, 2019). After what was clarified about the relationship between the financial dimension and the standards and (ISO) in the process of improving banking performance, we are now able to present a set of important indicators that were deduced according to the table (1) below.

1	Indicator of the number of lawsuits resolved at the balance sheet date
2	The percentage of benefit and value generated from a portfolio of IT resources and projects

2. Employment of Customer Dimension with (ISO) in Improving Banking Performance

The customer is one of the most important cornerstones of the banking relationship, and the importance of customers in the bank comes because the customer is the one who generates profits for the banks, and the customer

dimension is an important source in the composition of the commercial bank, as this dimension reflects the markets and customers that banks rely on in competition between peers. Thus, maintaining the customer and gaining his satisfaction by providing advanced banking services that shorten the routine procedures and the long time to obtain the desired service is very important. Also, the dimension of customers requires managers to determine what is the area in which their banks excel? Who are the users of its products and services? As an initial step to define goals and standards, financial institutions choose two sets of standards in the customer dimension (2003, et al, HANSON), and the ISO/IEC 20000 standard is considered one of the standards that demonstrates how to implement IT services in a way that supports the achievement of business goals and the development of the quality of service management. It shows that the bank has the ability to provide information technology services with high efficiency and reliability, whether at the internal or external level, as well as the ISO/IEC 27001 standard, which was developed to help all financial institutions, including banks, to protect their information in an effective and systematic manner by helping the bank to implement strong systems for managing Security of information, financial and non-financial data for customers. Some study also showed that measuring the satisfaction of the bank's customers is done by calculating the growth rate in sales by dividing the sales for the ended year minus the sales for the current year by the sales for the year ended (Anderson: 1997). And after what was clarified of the relationship between the customer dimension with standards and (ISO) in the process of improving banking performance, we can present a set of important indicators that were deduced according to Table (2) below:

	Cursor Name
1	Customer Service-oriented Technology Index Number of Technologies
2	Customer Deposit Index
3	Indicator of the amount spent on services provided to customers

3. Employing the Internal Operations Dimension with (ISO) in Improving Banking Performance

One of the standards used for the internal operations dimension set by the information technology governance is the ISO 38500 standard, which aims to provide a framework of principles for managers to use when evaluating, directing and monitoring the use of information technology in banks. It provides an effective framework for IT governance to help banks understand their legal, regulatory and ethical obligations. The scope of the standard is to provide guidance on the effective and acceptable use of information technology within banks. (2014, Nugroho). As well as the 27001 standard, which was developed to help all banks to protect their information in an effective and systematic manner by helping the bank to implement strong information security management systems to protect all types of information, including employee data, financial data, customer data, and intellectual property terms of banks through which the bank can maintain confidentiality Information so that only authorized persons can access that information, identify risks, controls, and mitigations to meet expectations, implement all controls and other ways to address risks, measure whether implemented controls are working as expected, and make continuous improvement to make the entire information security management system work better. <https://www.bsigroup.com/en-AE/---ISOIEC-27001/>). And after what has been clarified of the relationship between the internal operations dimension with (ISO) standards in the process of improving banking performance, we can present a set of important indicators that were deduced according to the table (3) below:

Index equation	Cursor name
Amounts spent on purchasing effective information technologies and software for the current year / total expenses for the current year x 100%	The ratio of the total amounts spent on purchasing effective information technologies and software to the total expenses of the commercial bank
Ratio of the number of banking technologies of interest to customers to the total bank technologies used x 100%	The ratio of the number of banking technologies and software of interest to customers
Number of goals compatible with information technology systems / total strategic goals of the banker x 100%	The extent to which the objectives of information technology systems fit with the strategic objectives of commercial banks
= Continuous improvement (number of new technologies) in information technology technologies for the current year - Continuous improvement (number of new technologies) in information technology technologies for the previous year ÷ continuous improvement (number of new technological technologies) in information technology technologies for the previous year x 100%	The percentage of continuous improvement in information technology technologies
= net profit for the current year - net profit for a previous year ÷ net profit for the previous year x 100%	The benefit achieved from continuous improvement in purchasing modern technologies
= Amounts spent on maintaining IT technologies during a year, dividing the total IT purchase costs during the previous year x 100%	Amounts spent on IT maintenance

4. Employing After Learning and Growth with (ISO) in Improving Banking Performance

The dimension of learning and growth includes not only training, but also mentoring, ease of communication between employees, and technology, and employees are considered the only repository of knowledge as the main resource for it (Kaplan and Norton, 2007). As well as the ISO/IEC 15504 standard, which aims to evaluate procedures and processes related to information technology in banks, as it specifies the framework and requirements for the evaluation process and improving the procedures used by banks for information technology systems in the planning, management, control and development of banking products and services (Abdul Watia, 2021). After what was clarified of the relationship between the learning and growth dimension with (ISO) standards in the process of improving banking performance, we can present a set of important indicators that were deduced according to the table (4) below:

	Pointer
1	Professional and highly skilled individuals indicator.
2	An indicator of the level of skills and competitiveness of bank cadres in general and information technology cadres in particular
3	The rate of development in the number of IT courses
4	Advertising percentage

5. Employing the Societal Environment Dimension with (ISO) in Improving Banking Performance

Investors confirm that banks that rely on correct societal environmental practices financially outperform other banks. The concept of environment has always been associated with meeting the needs of the present without compromising the ability of future generations to meet their future needs. Today, it has become a strategic priority within the banks' quest to seize costs and preserve competitive advantage. Enhancing the bank's ability to attract long-term investors, including major investors such as foreign institutions, to generate financial value for banks by monitoring opportunities that enable cost savings, revenue generation and risk mitigation, as it is positively linked to improving the cost of capital and financial performance (Boursa Kuwait, 2020) as well as (ISO) 38500, which aims to provide an effective framework for information technology governance to help banks understand their legal, regulatory and ethical obligations towards the internal and external environment (2014, Nugroho). And after what was clarified of the relationship between the dimension of the societal environment with (ISO) standards in the process of improving banking performance, we can present a set of important indicators that were deduced according to the table (5) below:

T	pointer
1	Insurance for facilities
2	Per capita contribution to social security
3	Social Responsibility Index
4	Employee insurance rate

6. Employing the Risk Dimension with (ISO) Standards in Improving Banking Performance

Standard 27001 and Standard 31000, which helps banks risk management to develop a strategy to effectively identify risks and mitigate the effects resulting from those risks, improve the awareness of employees and stakeholders of the importance of risk control and management, and see the positive opportunities and negative results related to them (5:2011, Mayer et al). Moreover, these standards are an active component in the effective management and improvement of the performance of banks by defining the potential risks in advance, calculating the losses that will occur in the event of such risks, taking the necessary precautions in advance to avoid risks, predicting acceptable values of preventable risks and predicting what to do when risks occur (Abd, 2019) (Abd, 2019).

<https://www.belge.com/ar/belgelendirme/sistem/iso-31000/>). And after what was clarified about the relationship between the risk dimension and ISO standards in the process of improving banking performance, we can present a set of important indicators that were deduced according to table (6) below.

T	Index equation	pointer
1	Total financial losses resulting from the bank's non-compliance with information security / total financial losses resulting from non-compliance with information security study sample	Financial losses resulting from non-compliance with information security

Conclusions

Improving banking performance is one of the basic aspects that all banks seek, whether they are government banks or private or mixed commercial banks, in order to determine the level of banks' performance in line with the changes that occur in the business environment and not to rely on traditional methods when evaluating performance, which depend on the financial side only, and its neglect of the non-financial aspects, which fully show performance and keep pace with developments. The balanced scorecard is a financial and non-financial method that gives the senior management a clear and comprehensive picture of performance through the application of a new combination of indicators (ISO) to improve banking performance List.

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