

The effect of using the Balanced Scorecard (BSC) on reducing the financial and administrative corruption in Iraqi Government Units

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Abstract

Purpose: This research aims to explore the importance application the Balanced Scorecard (BSC) to the accountants and auditors in government units, which in turn contributes to raising the efficiency of scientific and practical performance as one of the fights against financial and administrative corruption suffered by the majority of the government units in Iraq.

Research methodology: This research used a statistical method in the analysis and measurement by using (SPSS) program to extract the necessary statistical indicators to determine the impact of the independent variables (BSC) on the dependent variable (financial and administrative corruption).

Results: There is a significant correlation between the Balanced Scorecard (BSC) and the professional performance efficiency of accountants and auditors, as well as a significant correlation between the Balanced Scorecard (BSC) and the fight against financial and administrative corruption.

Conclusion: The study finds that the Balanced Scorecard (BSC) improves performance and helps combat corruption in government units. However, challenges like legislative conflicts and lack of transparency hinder its implementation. The study recommends training and workshops to better apply BSC and address corruption in Samawah, Iraq.

Limitations: There is a conflict between legislation, laws, and administrative controls in some measures of the balanced scorecard. Besides that, the lack of transparency and impartiality of the employees responsible for setting the balanced scorecard measures, as well as the other parties

Contributions: Find recommended the need to apply the balanced scorecard in the evaluation of the efficiency and improve the performance of the work of accountants and auditors, and the need for government units in the city of Samawah-Iraq, the establishment of training courses, seminars, workshops, and giving lectures specialized in combating financial and administrative corruption that is prevalent in the majority of government units.

Keywords: *Decision, Financial reporting, Financial statement, Investment, Regulatory bodies*

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1. Introduction

A balanced scorecard is a tool of performance management strategies in government units, as it is used by managers to follow up on the implementation of activities by employees who work under their responsibility and follow up on the results resulting from these actions ([Freitas, Oliveira, Veroneze, & Pereira, 2021](#); [Northcott & Taulapapa, 2012](#)). [Erawan \(2019\)](#) the balanced scorecard helps government units evaluate performance in an integrated manner by linking the multiple objectives it seeks to achieve to strengthen its competitive strength and financial position.

In the balanced scorecard, the vision and strategies of the government unit are translated into objectives and measures that are classified into four dimensions, each of which evaluates performance from the perspective of differently, performance is evaluated from the perspective of shareholders, customers, internal operations, learning, and growth, and in this methods, the focus is avoided exclusively on the financial aspect ([Chalid, Lannai, & Basalamah, 2021](#); [Mahsina, Hidayati, & Basuki, 2016](#)).

Corruption, in its financial and administrative forms, is one of the most serious crimes that have spread widely in the government units of the Iraqi state. One of the most important reasons for its spread is job dissatisfaction and the lack of commitment of staff to respect public service law ([Ismail & Abbas, 2015](#)). The political, social, and governance factors that affected the Iraqi society after Iraq suffered from wars and instability of security, and weak application of Iraqi laws, in 2003, anti-corruption government units were established, although Iraqi laws before the year dealt with these crimes through the Iraqi Penal Code and the Iraqi legislator, and the strict penalties imposed by the legislator for the crimes of bribery, embezzlement, exploitation favoritism, nepotism, and theft of state funds, and defined provisions criminalizing the perpetrators of these crimes in order to reduce their spread ([Kareem, Raji, & Kadhim, 2021](#)).

1.1 Research problem

The majority of government units suffer from the spread of financial and administrative corruption, which is negatively reflected in their performance and their failure to use the necessary means to combat it ([Lamijan & Tohari, 2022](#)). As there are some tools that can be used in combating financial and administrative corruption, one of the most prominent of these tools is the Balanced Scorecard (BSC) to evaluate the performance of government units with the aim of combating financial and administrative corruption ([Narutomo, 2012](#)).

A weak public financial management system opens the door for corruption. This damages public funds, public confidence in the government, the delivery of services, and the provision of public goods ([Hillman, 2004](#)). Corruption reduces political competition, democratic and government development, social equality, and the rule of law and diverts public funds to unlawful ends ([Triwibowo, 2019](#)).

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Iraq's losses during the years (2003–2008) as a result of financial and administrative corruption amounted to (250) billion dollars. The Ministry of Defense is considered the most dangerous in terms of corruption among the ministries, and the following table shows the number of funds wasted as a result of financial corruption in Iraqi ministries in the two years (2004 - 2005).

Table 1. The waste in public funds

No	Ministers	The total of waste in public funds (dollar)	Percentage (%)
1	Ministry of Defense	4 Billion	53.33
2	The Ministry of Electricity	1 Billion	13.33
3	Ministry of Oil	510 Million	7.16
4	Ministry of Transportation	210 Million	2.95
5	Ministry of Interior	200 Million	2.81
6	Ministry of Commerce	150 Million	2.11
7	The Ministry of Finance and the Central Bank	150 Million	2.11
8	Ministry of Construction and Housing	120 Million	1.69
9	Ministry of Communications	70 Million	7.7
10	Amanat Baghdad	55 Million	7
11	Ministry of Sports and Youth	50 Million	7
12	Ministry of Higher Education	50 Million	7
13	Ministry of Health	50 Million	7
14	Ministry of Justice	40 Million	5.6
15	Ministry of Agriculture	30 Million	4.2
16	Ministry of Water Resources	30 Million	4.2
17	Ministry of Industry and Minerals	20 Million	2.8
18	The Supreme Electoral Commission	10 Million	1.4
19	Ministry of Tourism	10 Million	1.4
20	Ministry of Education	50 Million	7
21	Ministry of Labor and Social Affairs	50 Million	7

Source: Integrity Commission in Iraq, Rawabet Center for Research and Strategic Studies

1.2 Research questions

Accordingly, the following research questions were posed:

1. Are government units aware of the concept, importance, and standards of the Balanced Scorecard?
2. Do government units perform their professional functions in an efficient manner that reflects the requirements of the Balanced Scorecard?
3. Has financial and administrative corruption become an inherent feature and not a phenomenon of most government units' activities, and how is it combated?

1.3 Research objectives

This study aims to achieve the following objectives:

1. Analyzing the Balanced Scorecard in terms of concept, benefits, dimensions, and importance for government units.
2. Analysis and interpretation of the performance of government units in terms of the rules, instructions, behavior, and challenges of the accounting and auditing profession and its importance to government units.
3. Identifying financial and administrative corruption in terms of its type's causes and means of combating it.
4. Measuring the relationship between the balanced scorecard and the results of evaluating the performance of government units and the impact of this relationship on the fight against financial and administrative corruption.

1.4 Importance of the study

The importance of this research stems from the fact that government units that use the balanced scorecard can set their strategic objectives with their general dimensions, internal processes, learning and growth, financial dimension, relations with customers, and their relationship to the professional performance of accountants and auditors. The relationship between these dimensions and the professional performance of accountants and auditors is moving in a direct direction towards combating financial and administrative corruption.

1.5 Research hypotheses

This study is based on the following hypotheses:

- H₁*: There is a statistically significant correlation between the application of the Balanced Scorecard (BSC) and the assessment of the professional performance of accountants and auditors of government units and the fight against financial and administrative corruption.
- H₂*: There is a statistically significant relationship between the application of the Balanced Scorecard (BSC) and the assessment of the professional performance of accountants and auditors in government units.
- H₃*: There is a statistically significant relationship between the application of the Balanced Scorecard (BSC) and the fight against financial and administrative corruption in government units.

2. Literature review

2.1 Balanced Scorecard (BSC)

2.1.1 Concept Balanced Scorecard

Understanding Balanced Scorecards (BSCs): The BSC was first introduced by accounting academic Dr. Robert Kaplan and business executive and theorist Dr. David Norton. The Harvard Business Review first published it in the 1992 article "The Balanced Scorecard—Measures That Drive Performance." Kaplan and Norton worked on a year-long project involving 12 top-performing companies. Their study took previous performance measures and adapted them to include non-financial information ([Kaplan & Norton, 2004](#))

The concept of the Balanced Scorecard (BSC) is a system for measuring the performance of any commercial, financial, or government activity ([Abdullah, Susilawati, Alfathimi, Widyaningsih, & Andriana, 2022](#); [Irawati, 2020](#)). It can also be considered a tool for measuring the performance of the work of employees because it is considered a tool for implementing the plan or strategy of the work of government units and transforming it into a real business, through which the performance of the work of the employees can be measured ([Kaplan & Norton, 2004](#)) The concept of the balanced scorecard is distinguished from previous systems for measuring performance in two ways:

- A. It translates the strategies of the government unit into objectives and measures, through a balanced set of viewpoints.
- B. They maintain an interest in short-term performance from a financial perspective, as is common in traditional performance measurement systems.

The Balanced Scorecard is a complete concept for managing strategic performance through the integration of a focused set of financial and non-financial performance measures as measures of outputs and the causes of performance of these outputs with their basic future indicators as well as the simultaneous dependent and current historical indicators. Researchers and writers have various opinions on defining the scorecard and performance. These definitions are:

1. A balanced scorecard is a tool consisting of performance measures, enabling the government unit to implement or translate its strategy from performance measures related to financial matters, customers, internal operations, and growth and development.
2. The balanced scorecard is a system for measuring performance in an organized manner, through which the strategy is translated into clear objectives and a set of appropriate measures to evaluate performance, with the availability of performance standards that have been linked to a set of actions and programs that should be carried out to achieve those objectives ([Kaplan & Norton, 2005](#)).

From the definitions, we can define the Balanced Scorecard as a motivational and developmental system for employees in general, and accountants and auditors in particular, that aims to bring about a change in the performance of their work by translating the strategy of governmental and non-governmental units or organizations into an integrated set of financial and non-financial measures that ultimately lead to communication of strategic objectives with accountants and auditors and providing them with feedback ([Hajji & Chataoui, 2017](#); [Nistor, Ștefănescu, & Sintejudeanu, 2017](#)).

2.1.2 Characteristics of the Balanced Scorecard Model (BSC)

Information is collected and analyzed from four aspects of a business ([Bawaneh, 2019](#)):

1. Learning and growth: are analyzed through the investigation of training and knowledge resources. The first leg handles how well information is captured and how effectively employees use that information to convert it into a competitive advantage within the industry.
2. Business processes: These are evaluated by investigating how well products are manufactured. Operational management is analyzed to track gaps, delays, bottlenecks, shortages, and waste.
3. Customer perspectives are collected to gauge customer satisfaction with the quality, price, and availability of products or services. Customers provide feedback on their satisfaction with current products.
4. Financial data, such as sales, expenditures, and income, are used to understand financial performance. These financial metrics may include dollar amounts, financial ratios, budget variances and income targets. These four legs encompass the vision and strategy of an organization and require active management to analyze the collected data.

Scorecards provide management with valuable insights into their firm's service and quality, in addition to its financial track record ([Lueg & Radlach, 2016](#)). By measuring these metrics, executives can train employees and other stakeholders and provide them with guidance and support. This allows them to communicate their goals and priorities to meet their future goals ([Perkins, 2018](#)).

2.1.3 Advantages of using the Balanced Scorecard

The application of the balanced scorecard in organizations or establishments contributes to raising the efficiency and performance of employees or their employees, and among these benefits are ([Pineno, 2004](#)). The BSC helps the administration accurately understand the linkages between decisions and specific strategic objectives, as it contributes to the effective implementation of the strategy.

1. The BSC aims to link short-term plans with long-term strategies.
2. The application of the Balanced Scorecard helps government units' strategy to conduct continuous and advanced modernization.
3. The BSC links the performance appraisal scale for working individuals with long-term strategies.
4. The BSC contributes to improving communication within the government enterprise, the interdependence between working individuals, and the objectives of the government enterprise's strategies.
5. Forming or restoring relations with individuals working in government units.
6. Restructuring the basic administrative functions of the business.
7. Creating a new cooperative society as a working team among government units functions to implement the business strategy.

In addition to the above, we can say that the advantages of the balanced scorecard are:

1. BSC leads to the possibility of comparing the work performance of working individuals through the application of the balanced scorecard in government units.
2. The application of the Balanced Scorecard encourages and motivates employees to present their best bid for the satisfaction of direct officials.
3. Helping working individuals in addressing or finding appropriate and practical solutions to solve the problems facing government units and contributing to raising and improving their professional and behavioral performance.
4. Contribute to the follow-up and control of the objectives and plans previously set by the administration and identify strengths and weaknesses when implementing its strategy.

Another key benefit of BSCs is that they help companies reduce their reliance on inefficiencies in their processes. This is referred to as suboptimization. This often results in reduced productivity or output, which can lead to higher costs, lower revenue, and a breakdown in company brand names and reputation ([Madsen & Stenheim, 2015](#)).

2.1.4 Effective application of the Balanced Scorecard

There are some recommendations that emerged through observations and observations during the adoption and application of the balanced scorecard in some units, and there is still a simple agreement about the effective application of the card, but there is a consensus about the idea that not all tools of the card are equal, and recommendations for effective construction of the balanced scorecard can be summed up including following: ([Hendricks, Menor, Wiedman, & Richardson, 2004](#))

Establishing effective leadership that has many responsibilities.

1. Simplifying business vision and strategies.
2. Determining the production performance elements that link vision and strategy with business results.
3. Defining the performance card at the level of the job, units and individuals.
4. Effective short-term metrics and standards should be developed.
5. Developing accurate budgets, information technology, communication systems, and effective rewards is essential.
6. Performance standards are an ongoing process that requires re-evaluation, maintenance, and updating.
7. Considering the Balanced Scorecard as an intermediary factor to face the changes that occur in society and the government units.

In summary, it can be said that there are some challenges facing the application of the balanced scorecard, and we can overcome these challenges through the following:

1. It is necessary to encourage and support government units to implement the Balanced Scorecard by setting standards that contribute to raising the efficiency of employees, and these standards should be in line with international professional standards.
2. Urging and encouraging employees in general and accountants and auditors, in particular, to do more by giving them financial and in-kind rewards contributes to activating the balanced scorecard.
3. The information provided by the balanced scorecard in government units must be transparent, impartial, and a comprehensive disclosure of all measures included in the scorecard.
4. The necessity of announcing the Balanced Scorecard for all working individuals, as this announcement is posted on the website of government units to ensure the transparency and integrity of this system.
5. Government units prepare and hold training courses for working individuals who have professional competence and a good reputation to work on the application of the balanced scorecard.

The researchers believe that there are some obstacles that hinder working with the Balanced Scorecard, and these obstacles are:

1. There is a conflict between legislation, laws, and administrative controls in some measures of balanced performance.
2. Senior management chooses some standards or directs the standards to some working individuals (non-neutrality) without looking at all working individuals; that is, the standards are not comprehensive.
3. The lack of transparency and impartiality of the employees responsible for setting the balanced scorecard standards, as well as other parties, contributes to the difficulty in implementing this system.

2.2 Concept of corruption

The term corruption is a comprehensive term that covers the financial, administrative, political, judicial, and moral aspects, and each term has specific actions that constitute specific crimes punishable by most of the world's laws, including the Iraqi Penal Code No. 11 of 1969 as amended ([Yusubboevich, 2022](#)). Corruption is an unnatural behavior that occurs when a person tries to place his own interests, regardless of his position, above the public interest or above the values he has pledged to serve ([Ukko, Tenhunen, & Rantanen, 2007](#)). Corruption takes many forms, ranging from trivial matters to large businesses. Corruption may develop into threats and extortion from a public

official or customer. It takes place inside government units in the private and public sectors or outside them ([El Idrissi & Alami, 2021](#))

There is no dispute that corruption is a phenomenon rejected by everyone, and with this rejection, it is an existing and widespread situation in all countries of the world and affects all units, whatever their nature. We find that those who practice financial and administrative corruption are people with different organizational structures and social and political sites ([Amegayibor, 2021](#))

There are several definitions of corruption, including that corruption is every behavior that takes place contrary to what is required by the optimal exploitation of resources, including the behavior of the public and private sectors, which results in wasting government resources in the complex, whether it is for a private benefit or just negligence ([Svensson, 2005](#); [Vaishnav, 2016](#)). The International Monetary Fund (IMF) defines corruption as "a relationship of undue influence aimed at securing benefits from this behavior for an individual or group within a relationship between individuals".

Corruption is a trait inherited by some people or acquired during a person's life that enables them to reach their objectives and satisfy their personal needs without paying attention to the corruption it causes that may affect the interest of the country, causing social and government dangers, whether intentionally or unintentionally ([Papachristos, 2014](#)).

Financial corruption is defined as "the misuse of public influence to gain profits and gain or influence at the expense of others or at the expense of laws, regulations, and instructions." Financial corruption is also known as the "illegal behavior of waste of public money, brokering in projects and arms trade." [Al Hosseini, Al-Tamimi, and Kadhim \(2019\)](#) define financial corruption as a set of financial deviations in violation of financial rules and provisions, such as misappropriation of public funds and trading through the job, and is one of the contemporary government crimes ([Al Hosseini et al., 2019](#)): ([Chigora, Kapesa, & Svongoro, 2021](#)).

Administrative corruption is defined as "moral deviation at the managerial level of senior officials and public servants through bribery, embezzlement, fraud, forgery and the sale of state funds at low prices for personal interests.". Corruption refers to all types of deviation, power abuse, or illegitimate use of occupational positions ([Robbins, Judge, Millett, & Boyle, 2013](#)). Administrative corruption can be defined as an aberrant behavior in which an individual seeks to advance personal interests at the expense of the public good by exploiting their position of authority.

2.2.1 Reasons of the spread of corruption

The spread of corruption in societies can depend on several factors, including:

1. Existence of motives for perpetrating corruption: The most important of these is the spread of poverty, greed, and idleness, which motivates individuals to seize money unlawfully through bribery, abuse of influence, manipulation, and collusion with others to facilitate the seizure of public money.
2. Existence of opportunities to commit corruption: Opportunities to commit fraud arise from the weakness of the control and follow-up system on the one hand, and the administration that causes corruption on the other hand, including:
 - a. Weaknesses of the system of control, follow-up, and accountability.
 - b. The spread of corruption in an organization protects corruption.
 - c. The commission of corruption crimes by senior administrative leaders reduces the fear of others.
 - d. Weak methods for detecting and combating corruption.
3. Existence of justifications for perpetuating corruption: The most dangerous thing about corruption is that it spreads like cancer and then becomes a normal thing for a large number of individuals working in the administrative apparatus of the state. When flimsy and immoral justifications spread among members of society, committing fraud and corruption crimes

becomes acceptable and finds what justifies it ([Al-Waeli, Hanoon, Ageeb, & Idan, 2020](#)); ([Mohamed, Al-Waeli, & Rasheed, 2020](#))

2.2.2 Methods of combating financial and administrative corruption

Ten ways to combat financial and administrative corruption:

1. Corruption is not only about bribes: People especially the poor get hurt when resources are wasted. Therefore, it is important to understand the different types of corruption to develop smart responses.
2. Power of the people: Create pathways that give citizens relevant tools to engage and participate in their governments – identify priorities and problems and find solutions.
3. Cut the red tape: Bring together formal and informal processes (this means working with the government as well as non-governmental groups) to change behavior and monitor progress.
4. It is not 1999: Use the power of technology to build dynamic and continuous exchanges between key stakeholders: government, citizens, business, civil society groups, media, and academia.
5. Deliver the goods: Invest in institutions and policy – sustainable improvement in how a government delivers services is only possible if the people in these institutions endorse sensible rules and practices that allow for change while making the best use of tested traditions and legacies; imported models often do not work.
6. Get incentives right: Align anti-corruption measures with market, behavioral and social forces. Adopting integrity standards is a smart business decision, especially for companies interested in doing business with the World Bank Group and other development partners.
7. Sanctions matter: Punishing corruption is a vital component of any effective anti-corruption effort.
8. Act globally and locally: Keep citizens engaged in corruption at the local, national, international, and global levels, in line with the scale and scope of corruption. Make use of the architecture that has been developed and the platforms that exist for student engagement.
9. Build capacity for those who need it most: Countries that suffer from chronic fragility, conflict, and violence often have the fewest internal resources to combat corruption. Identifying ways to leverage international resources to support and sustain good governance.
10. Learn by doing: Any good strategy must be continually monitored and evaluated to ensure that it can be easily adapted as situations on the ground change ([Shanjabin & Oyshi, 2021](#)).

In addition to the points mentioned above, several methods can be implemented to combat financial and administrative corruption.

- a. Full adherence to the application of international and professional auditing standards is considered one of the main ways to combat financial and administrative corruption.
- b. Strengthening the media and guidance roles that universities, institutes, and civil assembly organizations can play, as well as the role of Baitullah mosques and churches.
- c. The existence of an independent and efficient judiciary that is not subject to political, partisan, or religious pressures.
- d. Selecting individuals working to manage government units with scientific and practical experience and a good reputation.
- e. The country can benefit from the experiences of other countries in combating financial and administrative corruption, such as China, Algeria, and Malaysia.

3. Research methodology

3.1 Approaches to the research

In preparing this study, the researchers relied on the following two approaches:

- a. The descriptive scientific approach is based on the investigation of scientific books, research, and various studies that deal with the research variables represented in the Balanced Scorecard (BSC) and its relationship to evaluating the professional performance of accountants and auditors and the impact of this relationship on the fight against financial and administrative corruption.

- b. The inductive method is based on sober empirical scientific research by preparing a questionnaire to determine the opinions of a sample of accountants and auditors working in government units.

3.2 Population and sample

This part of the research reviews the indicators and results of the statistical analyses that the research was able to reach through the use of the questionnaire tool that was prepared according to the study variables distributed to some government units located in the city of Samawah in the Muthanna Governorate – Iraq for the period 2021 with the population of this study consisting of accountants and auditors. Subsequently, a sample of 55 individuals was selected. In order to identify the study community, the characteristics of its members must be known, and among these characteristics:

3.2.1 Characteristics of the Study Community

- Years of Professional Job

Table 1. Characteristics of the study population according to job years

Years of Job	Frequency	Percentage
Less than 5 years	12	22%
From 6 to 10 years	18	32%
From 11 to 20 years	17	31%
More than 20 years	8	15%
Total	55	100%

- Academic Qualification

Table 2. Characteristics of the sample according to the scientific qualification

Qualification	Frequency	Percentage
High School	6	11%
Diploma	10	18%
Bachelor	25	45%
Master's degree or equivalent Higher diploma	11	20%
PhD	3	6%
Total	55	100%

- Professional Specialization

Table 3. Characteristics of the sample according to the professional specialization

Specialization	Frequency	Percentage
Accountants	32	58%
Auditors	23	42%

Total	55	100%
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- **Gender**

Table 4. Gender

Gender	Frequency	Percentage
Male	41	74%
Feminine	14	26%
Total	55	100%

4. Results and discussions

4.1 Statistical analysis, discussion of results, and hypothesis testing

4.1.1 Descriptive Statistics for Research Variables

Table 5. The arithmetic averages and standard deviations of the research tool

	BSC													
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14
Mean	4.07	4.07	4.07	4.01	3.76	3.98	4.07	4.14	4.21	4.21	4.10	4.07	4.20	4.00
Std. Deviation	.766	.634	.741	.781	.961	.871	.835	.779	.832	.712	.785	.716	.755	.769
	BSC													
	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
Mean	4.00	4.00	4.01	4.16	4.18	4.21	4.14	3.83	3.92	4.00	3.90	4.00	4.10	4.21
Std. Deviation	.816	.962	.827	.811	.722	.737	.803	.855	.878	.769	.799	.693	.685	.737
	BSC													
	Q29	Q30	Q31	Q32	Q33	Q34	Q35							
Mean	4.23	4.10	4.05	4.10	4.00	3.00	5.00							
Std. Deviation	.719	.875	.704	.685	.000	.000	.000							
	Professional performance of accountants and auditors													
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14
Mean	3.69	3.39	3.60	3.84	3.79	3.92	4.00	3.88	4.01	4.15	4.00	4.24	4.16	4.07
Std. Deviation	.798	1.14	.839	.817	.884	.895	.784	.800	.693	.662	.733	.731	.825	.702
	Professional performance of accountants and auditors													
	Q15	Q16	Q17	Q18										
Mean	4.11	4.09	3.92	3.94										
Std. Deviation	.669	.740	.895	.718										
	Fighting financial and administrative corruption													
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12		
Mean	4.10	4.07	4.20	4.00	4.00	4.00	4.01	4.16	4.18	4.21	4.14	3.83		
Std. Deviation	.785	.716	.755	.769	.816	.962	.827	.811	.722	.737	.803	.855		

Table 6. Arithmetic averages and standard deviations of the research dimensions

Statistics				
		BSC	Professional performance In eco. units	Fighting financial and administrative corruption
N	Valid	55	53	55
	Missing	0	2	0
Mean		4.02	3.93	4.07
Std. Deviation		0.179	0.275	0.222

From the data of Tables 5 and 6, the following analytical indicators are extracted; - Tables No. (5 and 6) refer to the independent variable (the Balanced Scorecard), and the arithmetic mean values for the dimensions of this variable ranged between (3-5) on the Likerscalele, which indicates that there is agreement from the study sample with a high degree, and with low standard deviations. Between (0-.962), as for the two dependent variables (professional performance and combating financial and administrative corruption), the results of the descriptive statistics for the professional performance of the study sample indicated an increase in the arithmetic averages, and their values ranged between (3.39-4.24) and with standard deviations (0.662, 1.14), and towards totally agree.

All paragraphs also came with arithmetic means higher than the hypothetical mean on the test scale area (3). As for the anti-financial and administrative corruption variable, the arithmetic mean values of the dimensions of this variable ranged between (3.83-4.21) and with standard deviations (0.962, 0.716), and in a completely agreed direction on the five-point Likert scale, which indicates that there is agreement from the study sample and with a high degree.

4.1.2 Hypotheses testing

4.1.2.1 Testing of the first hypothesis (H_1)

In this study, the researchers relied on the simple correlation coefficient (Pearson) to test the first hypothesis (H_1), which is the correlation between the independent variable (balanced scorecard) and the dependent variables (professional performance of accountants and auditors in the government units and combating financial and administrative corruption).

Table 7 shows the matrix of simple correlation coefficients (Pearson) between these variables, Table 7 also indicates the sample size (60), the type of test (2-tailed), and the abbreviation (Sig.). in the table refers to the significant coefficient test correlation by comparing the calculated (t) value with the tabular value without showing its values. If a sign (* or **) appears on the correlation coefficient, this means that the calculated (t) value is greater than the tabular, and the strength of the correlation coefficient is judged in light of the following rule:

1. The correlation is low if the value of the correlation coefficient is less than (0.10).
2. The correlation is moderate: if the value of the correlation coefficient is between (0.30 - 0.10).
3. The correlation is strong if the value of the correlation coefficient is higher than (0.30).

Table 7 shows the correlation matrix that there are strong and positive correlations (because its value is greater than (0.30) and significant at the level (5% and 1%) between the (Balanced Scorecard and both professional performance and the fight against financial and administrative corruption). The simple correlation coefficient reached (0.589) between the balanced scorecard and professional performance, (0.343*), between the balanced scorecard and combating financial and administrative corruption. This result supports the validity of the first hypothesis (H_1).

Table 7. Pearson correlation matrix for the relationship between the balanced scorecard, professional performance and combating financial and administrative corruption, N=55

Correlations				
		BSC	Professional performance	Fighting financial and administrative corruption
BSC	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	55		
Professional performance	Pearson Correlation	0.589**	1	
	Sig. (2-tailed)	0.000		
	N	53	55	
Fighting financial and administrative corruption	Pearson Correlation	0.343*	0.019	1
	Sig. (2-tailed)	0.010	0.893	
	N	55	55	55
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

4.1.2.2 Testing of second hypothesis (H_2)

To verify the validity of the second hypothesis (H_2), which is based on the effect of the balanced scorecard on the professional performance of accountants and auditors in government units, Tables 8, 9, and 10 have been developed as an initial step to assess the impact of the dimensions of the balanced scorecard on the professional performance of accountants and auditors in government units.

Table 8. Summary of the effect of the balanced scorecard and professional performance of accountants and auditors in government units

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.589 ^a	0.346	0.334	0.22476
a. Predictors: (Constant), BSC				

Table 9. ANOVA test the effect of the balanced scorecard and professional performance of accountants and auditors in government units

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.366	1	1.366	27.041	0.000 ^b
	Residual	2.576	51	0.051		
	Total	3.942	52			
a. Dependent Variable: Professional performance						
b. Predictors: (Constant), BSC						

Table 10. Test values of beta, coefficient (t) and significant values (sig.) Balanced Scorecard and Professional Performance of accountants and auditors in government units

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.206	0.718		0.287	0.775
	BSC	0.924	0.178	0.589	5.200	0.000
a. Dependent Variable: Professional performance						

Tables 8, 9, and 10 show that the balanced scorecard has a significant effect on the professional performance of accountants and auditors. Table 9 of the analysis of variance shows that the model is

significant according to the calculated F value, which amounted to (27,041), which is greater than the tabular value at a significant level (1), if the Unstandardized Beta Coefficient between them was (0.589) and it was the calculated (t) value was (5.200), which indicates the significance of the non-standard beta coefficient at the (1%) level.

The explanatory power of this model was relatively high, according to the value of ($R^2 = 0.346$). This indicates the ability of the independent variable to explain the amount of (34.6%) of the differences occurring in the first dependent variable (professional performance of accountants and auditors in government units), and thus, the second hypothesis (H_2) was supported ([Kaplan & Norton, 2001](#); [Tawse & Tabesh, 2023](#)).

4.1.2.3 Testing of the third hypothesis (H_3)

To verify the validity of the third hypothesis (H_3), which is based on the effect of the balanced scorecard in combating financial and administrative corruption, Tables 11, 12, and 13 have been developed as an initial step to evaluate the impact of the dimensions of the balanced scorecard in combating financial and administrative corruption.

Table 11. Summary of the impact of the balanced scorecard and the fight against financial and administrative corruption

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.343 ^a	0.118	0.101	0.21090

Table 12. ANOVA test the effect of the balanced scorecard and the fight against financial and administrative corruption

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.315	1	0.315	7.083	0.010 ^b
	Residual	2.357	53	0.044		
	Total	2.672	54			

Dependent Variable: Fighting financial and administrative corruption.

predictors: (Constant), BSC

Table 13. Testing the values of beta and coefficient (t) and moral values (sig.) the balanced scorecard and the fight against financial and administrative corruption

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.368	0.643		3.681	0.001
	VAR00001	0.425	0.160	0.343	2.661	0.010

a. Dependent Variable: Fighting financial and administrative corruption

Tables 11, 12, and 13 show that the effect of the balanced scorecard has a significant effect on combating financial and administrative corruption. Table 12 of the analysis of variance shows that the model is significant according to the calculated F value, which amounted to (7.083), which is greater than the tabular value at a significance level (1). The Unstandardized Beta Coefficient between them is (0.343), and the calculated value (t) is (2.661), which indicates the significance of the non-standardized beta coefficient at the level (1%). The explanatory power of this model was relatively good according to the value of ($R^2 = 0.118$). This indicates the ability of the independent variable to

explain the amount of (8.11%) of the differences in the second dependent variable (fighting financial and administrative corruption), and thus, the third hypothesis (H_3) is supported.

5. Conclusions

5.1 Conclusions

The effective implementation of the Balanced Scorecard (BSC) faces several obstacles, including conflicts between legislation, outdated accounting systems, and contradictory auditing quality in government units, which increase the risk of financial and administrative corruption. Senior management's selective standard-setting, lack of transparency, and non-neutrality further complicate the situation. Evaluating the professional performance of accountants and auditors through the BSC aims to enhance their productivity and efficiency, helping to identify strengths and weaknesses in government operations.

Full adherence to international and local auditing standards is essential in combating corruption. The BSC has a significant correlation with both improving professional performance and fighting corruption, as shown by statistical analysis. However, its application faces limitations such as resistance to change, the need for training, difficulties in aligning measures with existing structures, and external factors like political will and data accuracy, which can affect its success in addressing corruption.

5.2 Research Limitations

There is a conflict between legislation, laws, and administrative controls in some measures of the balanced scorecard. Besides that, the lack of transparency and impartiality of the employees responsible for setting the balanced scorecard measures, as well as the other parties.

5.3 Suggestions and Directions for Future Research

The Balanced Scorecard (BSC) should be implemented in the Iraqi business environment as a key tool to address financial and administrative corruption. Government units must adopt BSC standards aligned with international professional standards to improve employee efficiency, ensuring transparency and impartiality in all measures. Publicly announcing the BSC on government websites promotes system integrity. Incentivizing employees, especially accountants and auditors, with rewards can help activate the BSC, while training courses led by qualified professionals are essential for effective implementation. Participation in seminars and workshops further enhances performance in combating corruption. The researchers suggest further studies, such as exploring the impact of BSC dimensions on accounting disclosure of corruption in Iraqi government units.

Author Contributions

SJMA was responsible for conceptualization, study design, data collection, and manuscript drafting. HAAA contributed to data analysis, interpretation of results, critical revision of the manuscript, and supervision of the research process. ASS assisted in data processing, literature review, and manuscript revision. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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