

## The management of intangible assets and their role in improving financial performance and creating value, Analytical study of a sample of Iraqi private banks

La gestión de activos intangibles y su papel en la mejora del rendimiento financiero y la creación de valor, estudio analítico de una muestra de bancos privados iraquíes

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### ABSTRACT

The study aims to study the role of intangible assets in the banking sector using mixed methods. A quantitative approach was adopted to test the relationships between the various intangible elements and between them and the banking performance and value creation of a sample of seven private sector banks for the period from 2014 to 2016. The research problem focuses on the contribution of intangible assets (AI) in financial performance and value creation, The research is based on the hypothesis that there is no relationship between the variables of intangible assets and the performance and value creation in the sample banks. The empirical results indicate that human capital in senior management has a positive impact on customer relations or financial performance and creation. Value for the bank and A theoretical model based on intangible foundations have been developed, which reveals how intangible materials and physical/financial resources interact in the process of establishing bank value. The study reached a number of recommendations, the most important of which is that banks should draw their attention to the conformity of intangible indicators with the Bank's strategy and performance by offering suggestions to improve the measurement of intangible assets in financial institutions and the need to understand the importance of intangible assets through its various components in influencing activities.

**Keywords:** Intangible assets, goodwill, brand, intellectual capital, human capital, relational capital, performance, value creation.

### RESUMEN

El objetivo del estudio es estudiar el papel de los activos intangibles en el sector bancario utilizando métodos mixtos. Se adoptó un enfoque cuantitativo para probar las relaciones entre los diversos elementos intangibles y entre ellos y el desempeño bancario y la creación de valor de una muestra de siete bancos del sector privado para el período de 2014 a 2016. El problema de la investigación se centra en la contribución de los activos intangibles (AI) en el desempeño financiero y la creación de valor. La investigación se basa en la hipótesis de que no existe una relación entre las variables de activos intangibles y el desempeño y la creación de valor en los bancos de muestra. Los resultados empíricos indican que el capital humano en la alta gerencia tiene un impacto positivo en las relaciones con los clientes o en el desempeño y creación financieros. Se ha desarrollado un valor para el banco y un modelo teórico basado en fundamentos intangibles, que revela cómo los materiales intangibles y los recursos físicos / financieros interactúan en el proceso de establecer el valor bancario. El estudio llegó a una serie de recomendaciones, la más importante de las cuales es que los bancos deberían llamar su atención sobre la conformidad de los indicadores intangibles con la estrategia y el desempeño del Banco, ofreciendo sugerencias para mejorar la medición de los activos intangibles en las instituciones financieras y la necesidad de comprenderlos. La importancia de los activos intangibles a través de sus diversos componentes para influir en las actividades.

**Palabras clave:** activos intangibles, buena voluntad, marca, capital intelectual, capital humano, capital relacional, desempeño, creación de valor.

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## Introduction

In the past few decades, the focus shifted from traditional financial sources of value such as tangible assets to intangible assets such as innovation, knowledge and intellectual property. In the 1996 OECD publication, it referred to its members as knowledge-based economies because of the trend towards high-technology investments and industries, and the increase in high-skilled labor and related productivity gains. Traditional accounting is unable to keep pace with this new type of business and economy. The quality of the information available on the company's financial statements is of interest to investors and other market participants to determine the market value of the company. Lev and Zarowin (1999), when looking at the usefulness of financial information to investors in comparison to all available information in the market, found evidence that metrics such as reported earnings, cash flows and book value values are deteriorating in importance and interest. In this regard, large investments in intangible assets such as R & D, which are driven to change and create value, are not properly accounted for in the financial statements as expenses are recorded but the benefits do not match expenditures in the same year. Because of the mismatch of costs and benefits, the accounting system failed to fully reflect the value and performance of the firm.

### 1. Methodology of research

#### 1.1 Search problem

This research focuses on the contribution of intangible assets (AI) in financial performance and the value of companies that use information from traditional data and models already used today. Intellectual capital and intangible assets will be used interchangeably.

The research problem is focused on the following questions

1. Does a bank with a calculated value of intangible assets perform better: market value, profitability, and productivity?
2. To what extent does the calculated value of intangible assets explain the market value of the bank's assets?
3. Is the bank that owns more physical assets have a better performance?
4. Does the balance sheet show related intangible assets?
5. What are the relationships between the different intangible elements and the banking performance?
6. What are the important intangible matters for the Bank?
7. How can intangible assets be measured?
8. How was intangible assets reported?

Added Value for Intellectual Factor (VAICTM). The Bank consists of the efficiency of human capital, the efficiency of structural capital, and physical capital or capital efficiency used (CCE).

#### 1.2 Research Objectives

The objective of this research is to identify the main intangible value resources of intangible assets and to develop their measurements as a prerequisite for the financial valuation of moral value resources in the banking sector, and more specifically.

#### 1.3 Importance of Research

The importance of research shows how the reporting of intangible assets gives an accurate picture of the Organization's ability to create value and contributes to the continued efforts to demonstrate the utility of reporting intangible assets. It provides the foundation

To analyze the occurrence of business events such as mergers and acquisitions based on guidelines and financial statements as well as to help business leaders understand the importance of intangible assets in the valuation process, the impact of intangible assets on the Bank's growth potential and long-term viability, Of specific intangible assets to increase the value of their organization.

Intangible assets related to increases in value in active markets, capitalization of R & D expenses and revaluation of net property, plant and equipment (Butell, 2010) have become increasingly important.

#### 1.4 Research Hypotheses

The research is based on the hypothesis of (Ho): There is no correlation between the variables of intangible assets and the performance and the creation of value in the sample banks. The following sub-assumptions are subdivided:

The first sub-hypothesis: Ho1)) There is no significant correlation between statistical and moral level between brand and reputation and between performance and value creation in banks.

Second Hypothesis (Ho2) There is no statistically significant correlation between the intellectual capital through its components (human capital) and (operational capital) and the relative capital between performance and the creation of value in the bank.

Sub-Hypothesis (Ho3) There is no significant statistical effect relationship between the brand and reputation and the performance and the creation of value in the banks.

The fourth hypothesis (Ho4) There is no statistically significant and significant effect relationship between intellectual capital through its components (human capital), (operational capital) and (relative capital) and performance and value creation in the bank.

### 1.5 Community and Research Sample

The research community consists of banks operating in the private sector and registered in the Iraqi Stock Exchange, whose shares were traded during the research period. A total of seven banks were selected from the 22 banks operating in the market from the private sector and 31% from the research community. Table (1) shows the banks the sample of the research and the paid up capital until 2016.

Table (1-1) shows the sample banks and paid-up capital

N	BANK NAME	The Capital (million dinars)
1	Commercial bank of IRAQ	250000
2	Bank Of Bagdad	250000
3	Iraqi Islamic Bank	250000
4	Middle East Investment Bank	250000
5	Investment Bank of Iraq	250000
6	Credit Bank of Iraq	250000
7	Dar es salam Investment Bank	150000

### 1.6 Research Methodology

The researchers use two approaches to scientific research: the exploratory approach and the inductive method to identify the facts that are included in the research. The inductive method is based on extrapolating the facts, analyzing them, interpreting them, and then reaching the results.

### 1.7 Spatial and temporal boundaries of research

The spatial boundaries of the research sample of Iraqi private banks and registered in the Iraqi market for securities, the temporal boundary was taken a time series of data for search variables from 2006 to 2015

### 1.8 The Analysis Tools Statistical

The following statistical analysis tools have been adopted Statistical Methods:

1.Used to verify the concentration of responses to the study sample and its dispersion as follows:

A - weighted arithmetic mean: to determine the level of response of sample members to the variables of the study.

B - standard deviation: to know the level of dispersion of the values of the response from the arithmetic.

2. Statistical analytical methods:

Simple Correlation: Used to measure the strength of the relationship between two variables

Simple Regression coefficient: Used to test the effect of independent variables in dependent variables.

B. (R2): Used to illustrate the amount of changes in the dependent variable that can be interpreted by the independent variable.

(T) Test: Use to measure the correlation relationship between the study variables.

The significance of the differences between the computational environment of the study variables.

Test (F): Use in the test of the significance of the effect and measured between the variables of the study.

SPSS.V.22 was used for data processing.

## 2. Theoretical framework

### 2.1 The concept of intangible assets

Assets in the balance sheet are divided into current and fixed assets. It is assumed that current assets are transferred to other assets within a year while the plant is of a more permanent nature and instead is supposed to be maintained as it is (Artsberg, 2005: 187). The fixed assets can then be divided into tangible assets, Intangible and Financial (Smith, 2006: 106)

Many researchers have described intangible assets as intellectual capital consisting of human capital, client capital, and structural / organizational capital (Andriessen & Tissen, 2000; Leliaert et al., 2003). (Kaplan and Norton, 2004: 3) Intangible assets are “non-natural factors that contribute to, are used in the production of goods or services, or which are expected to generate future productivity benefits for individuals or the bank that controls the use of those factors.” One of the unique characteristics of intangible assets is that the market value of the bank lies in optimal balance and integration between human, customer, and capital structure. It is far exceeding a small amount of the value of individual components (Leliaert et al., 2003)

One common intangible asset is goodwill. Goodwill arises when the price of the Bank's shares in the business increases, which is the difference between the purchase price and the issue price of the bank (Sundgren, Nilsson och Nilsson, 2007: 109) (Johansson 2000: 26). Other intangible assets are brands and can be produced by taking a higher price for the item. Other types of intangible assets are patents, licenses, and copyrights (Smith, 2006: 201).

According to the opinion (Lev, 2003). The terms “intangible assets, knowledge assets and intellectual capital” are interchangeable since all three terms “are widely used: intangible assets in accounting literature and knowledge assets - by economists, intellectual.

### 2.3 Importance of intangible assets of banks

To build an efficient intellectual asset management should develop the ability to extract value from the intellectual point of view of intangible or intellectual assets. As a multi-functional competency, the skills required for success include a wide range of capabilities including technical expertise in IP, financial assessment experience, business strategy and practical knowledge. This involves developing a vision and strategy, implementing better processes, and establishing a growth-focused organization. The implementation of a well-constructed intangible asset management system plays a crucial role in developing an effective and efficient system. Such a system supports processes and decisions necessary to create, manage and use assets to their fullest potential. Without a system that provides systematic electronic asset management, a series of activities for IP management, and tools for strategic analysis of intellectual property data, the development of public competencies is difficult, if not impossible.

According to (Raissa, 2015: 10), (Martin, et.al., 2011: 6) identifying the size and measurement of intangible assets helps organizations to:

- 1 .Decisions on development, diversification and expansion
- 2 .Ensure equitable compensation of employees and managers
- 3 .Development of key performance indicators used in strategy assessment
- 4 .Formulation of business strategies.
5. Communicate effectively the intellectual capital of external stakeholders.

### 2.4 Classification of Intangible Assets

(Crass et al., 2014: 51), (Corrado et al. ,2009: 669) Both pointed out. to classify intellectual capital in three groups: computerized information (mainly computer programs) and economic competencies (brand and bank-specific resources such as human and organizational capital) ) And innovative property (scientific and non-scientific research).

Experimental research focuses on the importance of the value of structural capital mainly on some innovation indicators, such as investment in R & D or information technology, because this information is publicly available and can be compared between a bank or industries. Evidence shows that R & D investments are generally related to the performance or market value of Kim, (2007).

Human capital tends to have two dimensions: the first: general that can be measured by education or experience, and the second specific by the bank with specific experience or training. Human capital can also be represented at the individual or organizational level. Research on human capital mainly provides two types of evidence. One type of study is how leadership relates to performance (Bassi et al., 2002: 68).

As the relational capital includes all external resources, such as the name of the bank, trademarks, distribution channels, customer relations and other stakeholders, etc. (Canibano et al., 2000) Mainly in brand metrics, such as advertising and market expenditures (Ali Shah and Akbar, 2008) or brand value, and customer relationship metrics, such as customer satisfaction and loyalty.

## 2.5 Assessment of Intangible Assets

The problem of valuing intangible assets is very complex and controversial. Regardless of the specific nature of the subject of its assessment (incoherence), the difficulty of the problem is that evaluation models not only give numerical evaluation, but also determine the substance of the evaluation. But it is clear that the problem is really important in the century of knowledge-based economy which has become the most important resource for the bank and needs to be managed in the best way. (Somsak, 2010)

And as a general approach using the calculated value method presented by [Stewart, 1995]. To assess intangible assets. Intangible value (CIV) of the Bank is determined as the difference between the value of the Bank (which is determined by the carrying amount of the Bank's assets and the discounted cash flows from the remaining operating income) and the amount of tangible assets it owns (the carrying amount of these assets and the discounted cash flows Remaining using the average industrial rate of return). This difference distinguishes the Bank's ability to use intangible assets to "bypass" competitors in the industry.

The calculation of the value of intangible assets in accordance with the CIV is based on the residual operating income (REOI) model as a change to the basic value of the equity model. The remaining operating income is the net operating income of the Bank after deducting the cost of the Bank's capital. In this case, investments mean the book value of the Bank's net assets. As a result, we take here the value of net operating income, earnings before interest (EBI), and take the average cost of all capital (WACC - kw) of the required return.

The residual income model, theoretical evidence in this field of research, the practical application of the model, the basic work and current publications on this point are presented in Volkov, 2005 Berezinets, 2006,

As mentioned above, the basis for evaluation in this paper is the remaining operating income model:

(Dmitry Volkov and Tatiana Garanina, 2007: 530)

## 2.6 Characteristics of Intangible Assets

Intangible assets have many of the characteristics that distinguish them from tangible assets as shown in Table 2-1.

Criteria	Tangible Assets	Intangible Assets
Measurement and record	<ul style="list-style-type: none"> <li>- tangible, easy to identify,</li> <li>- easy to measure (quantitative criteria),</li> <li>- included in financial statements,</li> <li>- estimation according to generally accepted criteria</li> </ul>	<ul style="list-style-type: none"> <li>- intangible, difficult to identify,</li> <li>- difficult to measure (qualitative criteria),</li> <li>- only a few of them are included in financial statements,</li> <li>- estimation by unconventional methods</li> </ul>
Availability	<ul style="list-style-type: none"> <li>- easy available,</li> <li>- limited use in time when they run out entirely or partly,</li> <li>- can be use by one group at a time</li> </ul>	<ul style="list-style-type: none"> <li>- relatively rare,</li> <li>- variable use which does not reduce the value, but sometimes even increases it,</li> <li>- use by one group does not limit the use by the other</li> </ul>
Durability and ease of replication	<ul style="list-style-type: none"> <li>- relatively not durable,</li> <li>- easy to replicate and imitate,</li> <li>- full and strict protection by copyright,</li> <li>- copyright easy to execute</li> </ul>	<ul style="list-style-type: none"> <li>- relatively durable, but some of them disappear if not used (e.g. knowledge)</li> <li>- difficult to replicate and imitate,</li> <li>- lots of them are not protection by law, the existing law is limited and inconsistent,</li> <li>- copyright difficult to execute</li> </ul>
Depreciation	<ul style="list-style-type: none"> <li>- lose value in time,</li> <li>- run out, can lose value gradually or fast</li> </ul>	<ul style="list-style-type: none"> <li>- used properly take on value in time,</li> <li>- do not run out, but if they lose value it is usually dramatic</li> </ul>
Transfer possibility and cost	<ul style="list-style-type: none"> <li>- are traded,</li> <li>- can be connected and stored,</li> <li>- transfer cost easy to estimate</li> </ul>	<ul style="list-style-type: none"> <li>- trading is limited,</li> <li>- cannot be stored,</li> <li>- transfer cost difficult to estimate</li> </ul>

Source: Janina Harasim, The role of intangible assets in bank's competitiveness and effectiveness, Journal of economies& management. Volume 4, 200

## 2.7 Intangible assets and value creation

The complexity of intangible assets is also related to their definitions because they do not contain a clear and precise interpretation of what can be considered intangible assets. Instead, these definitions often include a list of previously recognized intangible assets. There are two reasons for this (Stolowy & Jeny, 2001: 484) explains why there is nothing really different between tangible or intangible assets, while others say, "there is no theoretical framework behind the intangible assets approach." (Stähle, Grönroos, 2000: 192-199).

The value of intellectual capital can be produced through the business strategy of the bank. The different types of values obtained by the Bank include (profits) generated from sales of products, services and licenses), strategic location (market share, reputation and recognition through brands), customer loyalty and productivity improvement (Josephin, 2016).

Research results showed that the average return on investment in intangible assets such as R & D, patents, software and human resources can be high. Intangible assets are inert, unable to create value on their own. The manager's abilities and the implementation of appropriate business strategies are the main forces behind the institution's ability to create value from intellectual capital. The Bank is engaged in its own research and development activities with the business strategy to increase the efficiency of research and development (OECD 2006).

The value of the bank can be seen in the market and book value. The book value is equal to total assets minus total liabilities. The share price or the purchase price of the Bank represents its market value. As explained above, accounting practices fail to recognize the value of most intangibles. The value of intellectual capital is better reflected in market value.

## 2.8 Intangible assets and performance

There are conflicting views on the role of the Bank's performance. In the traditional view of the bank, shareholders had priority and performance involves creating value for them and confirmed (Raissa, 2015: 21) in a study on stakeholder theory of the bank images of two input and output models. In the first stage, employees, investors and suppliers contributed to the introduction of inputs that have become a product that primarily benefits customers. The second is a more advanced view where all stakeholders; employees, employees, suppliers, shareholders, customers, society and government contributed inputs and benefited from the outputs. The Bank's performance included meeting shareholders' needs and not only with the accounting profits allocated to shareholders, but with the added value (total wealth created by the Bank) (Firer and Williams, 2003: 351).

In the Bank's resource-based theory, superior performance is obtained through the creation and sustainability of a complementary advantage. Competitive advantage is a strategy for value creation. Strategic resources (used to achieve this strategy) must be rare, creating value, in competition by competitors, non-replaceable and non-transferable (not easily accessible to others). The tangible and intangible assets available to the Bank are strategic. (Zéghal and Maaloul, 2010: 43) noted that some researchers considered intangible assets to be strategic resources only, confirming that tangible assets did not meet all of the criteria mentioned above. (R. Boulton , B. Libert, S. Samek, 2001: 11).

## 3.2 Correlation analysis and hypothesis testing

In this paragraph we analyze the correlation coefficients of the quantitative data on the banks of the research sample to determine the correlation coefficient of each independent variable of the intangible assets with each dependent variable between the independent and approved search variables and the hypothesis test and all the sample items during the research period and using the program SPSS V.22 These hypotheses are:

The main hypothesis (Ho) is: There is no correlation between the variables of intangible assets and the performance and value creation in the sample banks. The following sub-assumptions are subdivided.

The first sub-hypothesis: (Ho1) There is no significant correlation between statistical and moral level between brand and reputation and between performance and value creation in banks.

Second Hypothesis (Ho2) There is no statistically significant correlation between the intellectual capital through its components (human capital) and (operational capital) and the relative capital between performance and the creation of value in the bank.

Table 3-3 shows the correlation and interaction between independent and dependent variables. The table shows the correlation between the first variable (X1) and the other independent variables (X6), Pearson correlation coefficient (0.42 \*) and X7, X8, and X9), with correlation rates (0.507 \*, 0.430 \*, 0.406 \*) with a significant significance of (5%). This confirms the rejection of the assumptions of nothingness and the proof of the existence hypothesis, which emphasizes the existence of a relationship of correlation and interaction between these variables. As for the relationship between the variable age (X1) and the variables adopted for performance and value creation, the research did not show a relationship between them and thus accept the hypothesis of nothingness.

(X3) with the rest of the independent variables, and there was a relationship with the variable number of employees (x3), the number of branches (x4) and some variables of scientific qualification (X8, X9, X10) (X12) and the correlation coefficient ranged between 0.682 \*\* and 0.837\*\* respectively, as well as the relationship of correlation with the approved performance variables (ROE) and a correlation coefficient of (0.693\*\*) and the creation The value of PS (MV, ADDV) and correlation coefficients (0.608\*\*, 0.788\*\*, 0.623\*\*) respectively and with a significant significance of (0.01%). Affirms a correlation between these To modifiers.

The correlation between the independent variable and the number of employees (X3) is shown in Table 3.3. And 0.851\*\*) with a significant significance ranging from (5% to 1%), indicating the relevance of this variable and its interaction and contribution to the variables adopted. This confirms the rejection of the object of nullity and prove the hypothesis of the existence of the relationship between these variables.

The correlation between the variable number of branches (X4) shows that there is a strong correlation relationship with all independent and dependent variables except ROA through Pearson correlation coefficient, which ranged from (0.397 to 0.751\*\* and in terms of significance ranged between (5% to 1%), indicating the relevance of this variable and its interaction and contribution to the variables adopted. This confirms the rejection of the object of nullity and prove the hypothesis of the existence of the relationship between these variables.

In the same context, Table (3.3) shows a strong correlation between the training variable (X5) and the variable (X6). The correlation coefficient (0.731 \*\*) has a significant significance of 1%. The variable of the number of training courses is also related to wage and salary variables (X11) and X12 (X4) and correlation coefficients of (0.474 \* and 0.460\*) respectively, with a significant significance of 5%. With the approved variable (ROA) reached (-0.399 \*) with a significant significance of 5%. On the basis of this can be rejected the hypothesis of nothingness and prove the hypothesis of existence of these variables and prove the hypothesis of nothingness residual variables.

The correlation between the number of participants (X6) and the salary and wage variables (X11) and the X12 (X12) and the correlation coefficients (0.604\*\* and 0.589\*\*) respectively were shown in Table 3.3. 1% indicating the strength of the relationship and interaction between these variables and accept the hypothesis of existence.

As for the variables of scientific qualification from (X8 to X10), they had strong and positive correlations with all variables dependent on the variable (ROA) and correlation coefficient ranged between (0.642 \*\* and 0.409 \*) 5% to 1%. On the basis of this is rejected the hypothesis of nothingness and accept the hypothesis of the existence of the relationship between these variables.

The correlation between ROE and correlation coefficient (0.449\*) was also significant. The correlation coefficient between the variables (ROE) and the variable capital (X12) and the variable (ADDV) and the correlation of (0.386 \*) with a significant significance of 5%, which supports rejection of the hypothesis of nothingness and accept the hypothesis of the existence of the relationship.

Table 3.3 Analysis of correlation between search variables

X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
X1	1										
X2	.174	1									
X3	.336	.826**	1								
X4	.336	.826**	1.000**	1							
X5	.172	.237	.566**	.524**	1						
X6	.416*	.364	.427*	.397*	.731**	1	.				
X7	.507*	.286	.385*	.490**	.010	.031	1				
X8	.430*	.837**	.851**	.751**	.287	.332	.637**	1			
X9	.406*	.747**	.799**	.745**	.278	.253	.716**	.970**	1		

X10	.326	.769**	.754**	.585**	.246	.293	.363	.826**	.813**	1		
X11	.220	.887**	.829**	.674**	.474*	.604**	.196	.739**	.646**	.691**	1	
X12	.068	.682**	.647**	.426*	.460*	.589**	.038	.525**	.432*	.566**	.893**	1
ROA	.092	-.184-	-.197-	.163	-.399-	-.367-	.137	-.108-	-.030-	-.167-	-.341-	-.362-
ROE	.256	.693**	.488**	.551**	-.282-	-.061-	.320	.578**	.513**	.409*	.449*	.211
PS	.061	.608**	.457*	.436*	-.118-	-.097-	.159	.556**	.562**	.547**	.316	.119
MV	.233	.578**	.471*	.597**	-.003-	.059	.269	.621**	.642**	.584**	.306	.065
ADDV	.094	.623**	.484**	.446*	-.011-	.044	.102	.533**	.512**	.475*	.386*	.110

	ROA	ROE	PS	MV
ROA	1			
ROE	.402*	1		
PS	.169	.620**	1	
MV	.234	.566**	.944**	1
ADDV	-.013-	.550**	.892**	.858**

### 3.3 Analysis of the relationship of the effect of independent variables in the adopted

In this study, we analyze and discuss the influence relationships of the independent variables (intangible assets) in the variables adopted by applying the simple linear regression model to determine the effect of the independent variable in the dependent variable. (T) of the ANOVA table, as well as the determination of the slope value in the regression model (B) and using the statistical analysis program SPSS V.20:

Sub-Hypothesis 3: Ho3) There is no significant statistical effect relationship between the brand and reputation and the performance and the creation of value in the banks.

The fourth hypothesis (Ho4) There is no statistically significant and significant effect relationship between intellectual capital through its components (human capital), (operational capital) and (relative capital) and performance and value creation in the bank.

Table (3-4) shows the effect of the independent variables combined in each dependent variable. In relation to the effect of independent variables in the approved variable (ROA), the value of the coefficient of determination (R<sup>2</sup>) is 0.494 This means that 49% The changes in the dependent variable (ROA) are caused by the independent variables listed above, and the rest of the effect is caused by other factors not mentioned in the research, and Table (3-9) shows that the calculated value (F) (1.419), indicating that the form of the relationship was not significant, and on this basis accept the sub-hypothesis of the absence of a significant effect of moral Independent variables in the variable (ROA).

As shown in Table (3-4), the effect of the independent variables combined in the dependent variable (ROE), where the value of the coefficient of determination (R<sup>2</sup>) is 890 (0), which means that (89%) of changes in the dependent variable (ROE) It is also noted in table (3-4) that the calculated value (F) derived from the ANOVA table was (11.805\*\*), which indicates That the shape of the relationship was significant and 1%, and on this basis rejects the sub-hypothesis of the absence of significant effect of the independent variables in the variable (ROE) and acceptance of the alternative hypothesis T demonstrate the effect in the approved variable (ROE).

For the effect of independent variables in the dependent variable (PS), Table (3-4) shows the value of the limiting factor (R<sup>2</sup>) (0.811). This means that 81% of the changes in the PS variable are caused by the independent variables mentioned above. The remainder of the effect is due to other factors not mentioned in the research It is also noted in table (3 - 4) that the value of (F) calculated from the table (ANOVA) was (6.223\*\*), indicating that the shape of the relationship was significant and degree 1%. On this basis, the sub-hypothesis is rejected that there is no significant effect of the independent variables in the variable (PS) and acceptance of the alternative hypothesis which proves that the effect of the approved variable (PS).



In the same context, the effect of the independent variables in the dependent variable (MV) was shown. Table (3-4) shows the value of the limiting factor (R2) (0.811). This means that (81%) of the changes in the MV variable are caused by the independent variables mentioned (3). The calculated value (F) extracted from the ANOVA table was (0.221\*\*), indicating that the relationship was significant and 1%, and on this basis, the sub-hypothesis is rejected that there is no significant effect of the independent variables in the variable (MV) and acceptance of the alternative hypothesis. T shows the effect in the dependent variable (MV).

Finally, the correlation between independent variable variables (ADDV) and table (3-4) showed the value of the identification factor (R2) (0.811). This means that (81%) of the changes in the dependent variable (ADDV) (3). The calculated value (F) extracted from the ANOVA table was (0.726\*\*), indicating that the effect was significant and 1%, and on this basis reject the sub-hypothesis of the absence of significant effect of independent variables in the variable (ADDV) and accept the alternative hypothesis Which demonstrate the effect in the dependent variable (ADDV)

Table (3-4) influences relationships for dependent variables in the dependent

Model Summary								
Variable	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Change Statistics		
						T	F Change	Sig. F Change
ROA	.703 <sup>a</sup>	.494	.146		.808626	-1.014	1.419	.255
ROE	.944 <sup>a</sup>	.890	.815		.987087	-2.813**	11.805**	.000
PS	.900 <sup>a</sup>	.811	.680		.167909	-2.785**	6.223**	.001
MV	.906 <sup>a</sup>	.821	.697		44855476.92	-2.785**	6.656**	.000
ADDV	.852 <sup>a</sup>	.726	.537		31164544.05	-1.333	3.848**	.007

a. Predictors: (Constant), X12, X7, X6, X1, X10, X2, X5, X9, X4, X11, X8

#### 4. Conclusions and Recommendations

This topic deals with the main conclusions of the research on the theoretical side and the results of the statistical analysis that were discussed in the practical aspect of the research and through two paragraphs:

##### 4.1 Conclusions

1. This paper presents a theoretical and practical presentation of the role of intangible assets in the banking model by studying the relationships between the various intangible elements and between them and the financial performance and value creation of the banks operating the sample.
2. Analysis of the data in the applied side revealed the answer to the research questions by choosing the hypotheses that were formulated in the research methodology.
3. Although it is difficult to measure intangibles directly, quantitative measures have been used to quantify them and to benefit from previous applied studies.
4. In terms of goodwill and brand, which were measured by a set of variables. The analysis revealed the existence of interaction and relations between these elements and between them and the performance and the creation of value for the banks sample study
5. The results of the analysis in relation to the elements of human capital, which is one of the most important components of intellectual capital, show that there is interaction and integration between its many variables and between performance and value creation.
6. It is clear from the analysis that there is a weak and non-significant correlation between the relational capital in the light of what was expressed quantitatively through advertising and marketing expenses.
7. The results indicate that the form of the relationship of the influence of independent variables was insignificant, and on this basis the sub-hypothesis is accepted that there is no significant effect of the independent variables in the ROA.
8. The analysis shows that the effect of the independent variables combined in the dependent variable, ROE, indicates that the relationship form was significant and 1%. Accordingly, the sub-hypothesis of the absence of significant effect of the independent variables Variable (ROE) and accept the alternative hypothesis that proves the effect on the variable (ROE).

9. For the effect of independent variables in the PS variable, the analysis showed that the shape of the relationship was significant and 1%, and on this basis, the sub-hypothesis was rejected that there was no significant effect of the independent variables in the PS variable and acceptance of the alternative hypothesis .

10. The effect of the independent variables in the dependent variable shows the market value (MV) indicating that the relationship form was significant and 1%. Accordingly, the sub-hypothesis is rejected that there is no significant effect of the independent variables in the variable MV and acceptance of the alternative hypothesis the effect is shown in the variable.

11. The analysis showed that the effect of the independent variables on the dependent variable (ADDV) showed that the effect was significant and 1%. Accordingly, the sub-hypothesis of the absence of significant effect of independent variables in ADDV Effect on the dependent variable.

#### **4. 2 Recommendations**

1. Banks should draw their attention to the alignment of intangible indicators with the Bank's strategy and performance by making proposals to improve the measurement of intangible assets in financial institutions.

2. The necessity of recognizing the importance of intangible assets through its various elements in influencing the activities, performance and contribution of the organization in adding value to tangible assets.

3. To develop quantitative and qualitative measures that are adequate and suitable for measuring intangible assets because of their important role in the performance of banks.

4. The need to focus on improving the reputation of the bank and its brand that distinguish the products and services provided by the bank and thus work to attract dealers, which reflects the returns on it.

5. The need to pay attention to human capital, which is the decisive factor and the important resource through the possession of this man's mental and cognitive skills and rare skills cannot be imitated to strengthen his competitive position.

6. The search for quantitative and qualitative methods that measure the operational capital and the relative capital as a component of the intellectual capital and the intangible asset in the banks.

7. Focus on the degree of impact of the different elements of intangible assets, which proved the conclusions in the dependent variables, which reflected on improving performance and increase efficiency.

8. Identification and follow-up of the relationship between the intangible variables and performance indicators, which proved that there are different grades between banks.

9. Follow up and evaluate the correlation and influence relationships between the variables of intangible assets and the variables that reflect the creation of value in the banks sample study.

10. Attention to human development and development, which is the main source of intangible assets.

11. Work on the combination or integration of the various intangible elements that were likely to contribute more to the Bank's performance than to each individual.

12. Value creation should be a continuous learning process for banks. Studies have confirmed that the ability of financial institutions, especially senior management, in terms of market-based learning and knowledge creation is critical to the success of their business.

13. Develop appropriate standards that encourage banks to disclose reliable, timely and consistent information on intangible assets of the capital market, reduce the problem of information manipulation, and provide opportunities for academics to further investigate the role of intangible assets

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