

The effect of business intelligence and emotional intelligence on financial performance considering the mediating role of innovation and network learning in Iraqi companies

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Abstract : One of the most important issues for investors, creditors and in general internal and external decision makers of companies is the issue of evaluating the performance of companies. Measuring the performance of each company can be effective in determining the company's current position (the degree of success in achieving goals), future movements and directions, and improvement programs and activities. Therefore, investors and especially shareholders, need criteria that can correctly evaluate the performance of the company's management. Therefore, the present research has evaluated the impact of business intelligence and emotional intelligence on financial performance, taking into account the mediating role of innovation and network learning, using questionnaire and statistical methods and statistical software pls and Lisrel for Iraqi companies. The results indicated a positive and significant impact of emotional intelligence on financial performance through innovation and network learning.

Key words: business intelligence, emotional intelligence, financial performance, mediation, innovation, and learning

Introduction: Evaluating a company's performance is one of the most significant matters for creditors, investors, and other internal and external decision makers. It is possible to ascertain a firm's existing position (i.e., the extent to which goals have been achieved), future moves and orientations, and improvement programs and activities by measuring the performance of each organization. Because of this, investors—and shareholders in particular—need standards that accurately assess the management of the organization. The criteria for measuring performance are gathered from management control systems. For the purpose of making efficient control decisions and economic planning, company performance must be assessed. Stakeholders evaluate the company's performance to make sure that the limited resources available to the company's creditors and shareholders are allocated as efficiently as possible. As one of the most trustworthy measures of a company's progress, performance evaluation models are becoming increasingly important, according to management experts. As a result, one of the main issues facing modern businesses is coming up with a reliable and adaptable assessment technique that will allow for the analysis of all the company's performance metrics. To effectively address the issues that firms confront, managers must possess an appropriate model for measuring performance in order to attain ongoing development across all domains (Mahdavi et al., 1401). By identifying bottlenecks and booms, performance evaluation facilitates ongoing progress towards predetermined goals. One of the key performance criteria is the financial criterion, which is quantifiable in a number of ways. For most academics, figuring out business unit performance with a range of financial measurement ratios is an intriguing and difficult problem. Generally speaking, assessing a company's performance and being able to forecast it can influence the choices made by both actual and prospective investors (Caseiro et al, 2019).

Businesses are confronting new challenges as a result of the globalization of markets, fierce competition, and the rapid changes in customer demands and market conditions. Only businesses who can adjust to these circumstances and react swiftly to changes while controlling their costs will ultimately be able to thrive in this environment. However, the volume of data in businesses and organizations is growing so quickly that it is impossible to manually gather crucial information. Complex information and communication systems are employed to make sure of this and to supply the data required for planning and decision-making. Here is where business intelligence solutions can assist firms. Processes, regulations, culture, and technology are all combined to create business intelligence, which is the ability to gather, process, store, and analyze data from both internal and external sources. In addition to being essential in helping managers make decisions, business intelligence facilitates the sharing of information and the creation of knowledge (Chen et al., 2021).

If an organization's error detection and correction procedure permits it to maintain its current policies, then network learning is present within the organization. When error detection and repair are carried out in a way that alters an organization's standards, guidelines, and objectives, network learning takes place. According to the studies, business

intelligence and emotional intelligence of employees have an impact on a company's performance level. As a result, this process may also be assessed based on varying degrees of creativity across various industries. Infrastructure and preparation are needed for business intelligence deployment and establishment. Infrastructures for software and hardware might be listed among them. The business intelligence system's basis is built by the hardware layer. The essential components of the business intelligence infrastructure are those that are necessary for the system's successful implementation within the company. Technical infrastructures and managerial infrastructures, on the other hand, are the platforms and infrastructures required for the application of business intelligence. One of the first areas in which an organization uses IT-based technologies is the core process. Another requirement is the ability to save and retrieve data using Excel and office applications. Furthermore, the degree of technological maturity and the volume of technology applied in problem-solving and decision-making are highly significant. In this industry, having competent personnel and competent human resources is also important. Last but not least, top management's backing is like a giant umbrella. In light of the significance of this field of study, the current study examines the effects of emotional and business intelligence on financial success while accounting for the mediating effects of network learning and innovation.

Literature review

The modern market is characterized by excess supply due to changes in production methods, information technology advancements, and competitive markets. As a result, customers now truly control the market. As a result, businesses must shift from focusing on their products to focusing on their customers in order to maximize organizational efficiency through behavior management. Zhi et al. (2022) added that in order to boost an organization's profitability, businesses need properly utilize information systems technologies like business intelligence to swiftly extract the needed information from the massive amount of data. He claimed that the benefits of business intelligence, including enhanced decision-making, improved business procedures, and assistance in achieving strategic company objectives, had led to its consideration. The techniques used by organizations to produce information or intelligence that is beneficial to their survival and growth are collectively referred to as business intelligence. A degree of certainty in predicting the behavior of "competitors, vendors, customers, technologies, profitability, markets, products and services, and the general business environment" is provided by this information product to businesses. Additionally, Vanda et al. (2015) claimed that business intelligence is especially crucial to an organization's survival and competitiveness in the marketplace since it offers improved understanding of customers, organizational performance, and the environment. As a result, businesses have begun using business intelligence tools more often in recent years. Gaining a deeper comprehension of business intelligence tactics can boost organizational performance in businesses that use business intelligence and instill greater trust in investments made in this field. The information technology platform and tools used to gather, retrieve, and analyze data regarding the operations and performance of the organization are referred to as business intelligence. Business intelligence also aids in the reporting of company performance, the discovery of new business prospects, and the improvement of business decisions about rivals, suppliers, clients, financial concerns, strategic issues, goods, and services. Act Additionally, Chen et al. (2021) reported in their study that, generally speaking, business intelligence's goal is to enhance an organization's business operations by utilizing pertinent data. Businesses that employ business intelligence tools and procedures well may transform the data they collect into insightful understandings of their operations and strategies. Better business decisions that boost revenue and productivity may then be made using this data, hastening the growth of the company and increasing profitability. Data-driven decision making is difficult for firms to implement without business information. Instead, managers and staff members use their sixth sense and intuition to make judgments, as well as past experiences and information. Due to a lack of supporting evidence, these approaches are rife with mistakes and incorrect actions even though they can result in wise conclusions. Additionally, Souchon et al. (2012) found in their study that businesses with effective business intelligence implementations have a number of advantages over others in terms of organizational performance and decision-making. Organizations can now use business intelligence as a crucial instrument to get a competitive edge (Mahdavi and Ghorbani, 2019).

Business Intelligence

Business intelligence is a technology-driven process for analyzing data and providing actionable information to help business managers and employees make decisions. During the process of business intelligence, businesses collect data from internal information technology systems and external sources, and after analyzing this data, create reports and dashboards to make the results of the analyzes available to business employees and use them in the decision-making process. Strategic planning should be used. It can also be said that it is a set of theories, methods, processes, architectures and technologies that are used to transform raw data into useful and meaningful information. Business intelligence uses large amounts of information to identify and develop new opportunities. The application of business intelligence at a strategic level can be considered in a way to help increase the overall efficiency of the organization

and optimize processes together. These systems focus on some important financial features and other important parameters in increasing the efficiency of the organization. It is obvious that the system at these levels should also include the external processes of the organization. Different features of application programs at different stages of the organization cause differences in the tools, techniques and infrastructures needed for each of them. The use of analytical and intelligent tools is mostly done at a high level, which requires high processing with access to a large amount of information at strategic and tactical levels more than operational. The operational part of business intelligence is mostly responsible for collecting information and storing it in a private database. In fact, business intelligence is one of the branches of the infinite sea of information technology, with a wide range of techniques, tools and applications (such as online transaction processing, online analytical processing, analytical databases, data mining, decision systems Smart assistant, knowledge management system, supply chain management, customer relationship management and organization resource planning) are related and its purpose is to improve the quality of operations and its analysis. In addition, business intelligence is the process of converting data into information, in such a way that they enable the business organization to analyze information so that they can take into account the needs of all the stakeholders of the system by gaining insight and correct understanding in the field of business intelligence definitions. Several have been presented, some of them are mentioned below:

1- Commercial intelligence refers to the process of converting raw data into commercial and management information that helps the organization's decision makers to make faster and better decisions and act based on correct information.

2- Commercial intelligence is a broad dimension of applications and technology to collect data and knowledge to produce queries in the analysis of organizations in order to make accurate and smart business decisions. By entering the business intelligence system, the data is processed and turned into knowledge, then the obtained knowledge is analyzed and from the analytical results, a general view of the organization is found, based on which the managers make the necessary decisions. they adopt and perform actions to improve the performance of the organization.

Richard Miller (2012) coined the word "business intelligence" in his work Encyclopedia of Trade and Business. He used this phrase to describe a banker who outperformed his rivals and turned a sizable profit ahead of schedule by gathering and evaluating information about his business environment and other noteworthy social events. Subsequently, academics from several universities employed and refined this term to arrive at its current sophisticated and accurate version. In the current era of increasingly complex conditions, companies require ongoing improvement to sustain their operations across multiple domains. This can be achieved by enhancing the organization's performance through the use of business intelligence technology. The goal of business intelligence, one of the more recent subfields of information technology, is to assess operations and enhance quality through a variety of methods, instruments, and applications. Business intelligence refers to the method of boosting an organization's profitability in a cutthroat market by making astute use of the data at hand when making decisions. In actuality, information is gathered and applied in business intelligence in a manner that advances our intended corporate objective. The concepts and practices of business intelligence are applicable to any type of firm, regardless of industry or niche. The integration of data from numerous business functional systems into an organization's information repository is essential to the success of a business intelligence system. Just a few companies own a comprehensive capital data archive. The comprehensive initiative to try and consolidate all of the organization's data is the cause of this. It must be emphasized that only companies with outstanding competitiveness will be able to thrive in the market when a fully dynamic commercial environment emerges. There are various ways to define business intelligence. From a managerial standpoint, business intelligence is the refinement and application of managers' decision-making processes, where knowledge is generated based on the most complete and accurate real information available to the company (Madhoshi et al., 2016).

Applying newly acquired knowledge enhances a manager's capacity to apply strategic judgments by enabling decision-making at various stages of structured, semi-structured, and unstructured problems. Business intelligence is a framework that is viewed as a platform for transferring data to information and information to knowledge from the standpoint of organizational architecture and processes. It does this by adding value and concentrating on decision-making processes at various management levels within the organization. From the standpoint of the market, this is gaining a competitive edge through the use of potent tools for competitor analysis, astute observation and communication with clients and business associates, astute observation of the market and anticipation of its future developments, and the process of boosting the profitability of the company in a cutthroat market. However, from a technological perspective, it is an intelligent system that identifies, gathers, processes, concludes, and displays the necessary data and information by building a suitable technical and architectural platform for the growth and best use of hardware and software resources and tools. Online analytical processing is the foundation of the organization (Chen et al., 2021).

Emotional Intelligence

Emotional, emotional or emotional intelligence includes knowing and controlling one's emotions. Emotional intelligence is an inclusive term that includes a wide set of skills and individual characteristics and is usually referred to as those intra-personal and interpersonal skills that go beyond a specific circle of previous knowledge, such as IQ and technical or professional skills. You can increase your emotional intelligence by learning how to control your emotions and stay motivated. You can maximize your emotional intelligence by developing interpersonal skills, good communication skills, leadership skills and efficiency. Self-awareness is considered the heart of all these skills. Because emotional intelligence begins when emotional information activates the perceptual system. For example, in order to control your anger, you need to be aware of what is causing it. It means to know where this strong emotion first came from. After that, you can learn to moderate this excitement and use it favorably. In order to be able to help others to help themselves, you must be aware of your emotional states in this context. High self-awareness enables you to control yourself and see yourself in action. For this reason, it is necessary to find clear answers to a series of questions. You must know what is important to you; How do you deal with issues; what do you want How do you feel and how do you interact with others? This mental knowledge about yourself not only guides you from one situation to another, but also creates a solid framework for you to make better choices. To function properly in the workplace and to know what motivates you, you need a tool and an axis. Emotional intelligence management is a relatively new concept in organizations that there is a lot of enthusiasm for it. But despite this passion, feelings, emotions and emotions are still considered a kind of taboo in many organizations and are not considered according to their importance. The old and widespread belief that emotions at work have no place in Arabs still rules many organizations. Some other organizations have no problem with expressing positive feelings, but they do not tolerate expressing negative feelings at all. Such views prevent understanding the importance of emotional intelligence in the organization. One of the most important benefits of EQ and the reasons for the importance of emotional intelligence in the organization is its effective role in conflict resolution. Emotional intelligence makes it easy to manage tense situations and enables people to resolve conflicts in a favorable way by reaching effective solutions that are agreed upon by all. Leaders and managers who take the time to understand different perspectives are adept at finding common ground. Managers' attention to people's reactions to each other makes them feel seen and heard, and this makes people more willing to compromise. Emotional intelligence has a direct and meaningful correlation with personal development and career advancement. , is another reason for the importance of emotional intelligence in the organization. People with high emotional intelligence monitor different aspects of their emotions and constantly try to strengthen the elements of self-awareness, self-control, motivation, empathy and social skills in themselves. It goes without saying that the improvement of each of these elements in personal and professional life is of indescribable importance. Many experts consider understanding the importance of emotional intelligence in the organization as one of the requirements for success. Emotional intelligence is the key to understanding human reactions and behavior, and since such understanding provides a platform for effective management and leadership.

Intelligent conduct is influenced by emotional and social intelligence, which is an interactive blend of these skills. Emotional intelligence is described as "a set of non-cognitive abilities, competences and skills that affect a person's ability to achieve success in dealing with environmental requirements and pressures" by Bar-N (2000) in his multi-factor model of emotional intelligence. Baran arrived at the conclusion that emotional intelligence is a collection of intra-personal (emotional) and interpersonal (social) abilities, skills, and facilitators that influence an individual's productive behavior while conducting research to create this conceptual model. Baran (2006) modified the conceptual model of emotional intelligence to the model of social-emotional intelligence, which takes into account a person's ability to comprehend and communicate with others, as well as how well they understand themselves. This revision was made in light of the aforementioned findings. converses and manages life's responsibilities. Researchers have long focused on determining which aspect of emotional intelligence is learnt and which aspect is tied to personality. According to the research that is currently available, psychological type and emotional intelligence are somewhat associated (Minai and Hosseini, 2019).

Academic intelligence is not as significant as emotional intelligence, at least when it comes to social interactions, particularly in business and marketing contexts. Throughout history, this intelligence has distinguished social and reforming elites from scientific elites. A person with emotional intelligence is able to maintain hope in a variety of circumstances, empathize with others, pay attention to other people's feelings, ignore little rewards in favor of larger ones, and not allow worry interfere with his ability to reason and think clearly. It also shows what behavior is appropriate and inappropriate in social relationships and in particular situations. Reduce your speed, keep going when things get tough, and remain motivated at all times. A sort of emotional talent known as emotional intelligence helps us apply wisdom wisely and knows how to make the most use of our skills.

Mayer defines emotional intelligence as a kind of mental ability for applying and making sense of emotional data.

Individuals differ in their capacities in this regard. While some are experts, others are intermediate. This ability is composed of two parts: one that is innate and the other that is learned via experience and can be developed with work and repetition. Salvi also thinks that psychotherapy, counseling, and preparation for life skills training can help improve many of the abilities that make up emotional intelligence.

Financial performance

One of the issues of interest to various strata, including creditors, owners, the government, and even managers, is establishing the issue of separating ownership from management and creating a significant conflict of interest between owners and managers. Another is evaluating the performance of companies and their managers and leaders. The quantity of wealth growth—whether it comes from a rise in the company's valuation price or from cash profit—is significant from the perspective of the shareholders. From the perspective of managers, these assessments are critical for assessing both their own and other departments' performance as well as the appropriate amount of remuneration that is given to them, which is their fundamental right.

The owners, or shareholders, were concerned about conflicts of interest until they began to assess managers' performance to make sure managers were allocating their resources as efficiently as possible. It has been evident over time that certain managers' choices could result in the wastage of the business's resources and the disappearance of the owners' money. Conversely, managers have consistently worked to maximize their own interests while assuring owners that their decisions are made with their best interests in mind. As such, assessing managers' performance is especially crucial. Different instruments and standards have been employed by owners to assess the performance of managers. Each beneficiary has used the criteria and instruments that have been put out over time to assess managers' performance based on their own perspectives (Hadadi and Alamardari, 2022).

A significant portion of the accounting, management, and economics themes are devoted to the company's performance evaluation. Measuring the degree to which the business has accomplished the objectives outlined in its plans is known as performance evaluation. The performance evaluation result is a useful tool for forecasting future plans and for strengthening areas of strength and removing areas of weakness. Which of the company's performance criteria has greater credibility is commonly brought up in the debate of performance evaluation. In essence, an ideal and strict metric for assessing performance. There aren't any businesses. Performance criteria can be broadly categorized as non-financial factors and financial criteria. Social, marketing, and production factors are the three primary categories of non-financial criteria. In order to assess performance based on financial standards, methods Among them are financial ratios, among others. Various methods are employed to assess a company's performance.

Research questions

- 1 .Does business intelligence (emotional intelligence) have a significant impact on financial performance in Iraqi companies?
- 2 .Does business intelligence (emotional intelligence) have a significant impact on innovation in Iraqi companies?
- 3 .Does innovation have a significant impact on financial performance in Iraqi companies?
- 4 .Does business intelligence (emotional intelligence) have a significant impact on network learning in Iraqi companies?
- 5 .Does innovation have a significant impact on network learning in Iraqi companies?
6. Does network learning have a significant impact on financial performance in Iraqi companies?

To measure the research variables, pre-developed questionnaires are used as follows:

variables	Components	Number of questions	source
Business Intelligence	performance management	4	Zahra, S. A., Neubaum, D. O., & El-Hagrassey, G. M. (2002)
	Information analysis	3	
	Optimal decision making	4	
	risk management	4	
Emotional Intelligence	self-awareness	3	Goleman, D.P., McKee, A, Boyatzis, R.E.(2006)
	self management	7	
	Social awareness (empathy and cognition)	7	
	relationship management (social skills)	5	
Innovation	Individual factors	4	Souchon, A. L., Sy-Changco, J. A., & Dewsnap, B. (2012)
	Organizational factors	4	
	Environmental factors	4	

Financial performance	Prediction	3	Narteh, B. (2018), Sardana, G. D. (2009)
	planning	4	
	profitability	3	
Sociological questions	Gender	1	
	Level of Education	1	
	Age	1	
	degree of education	1	

Research method

In terms of the classification of research based on the goal, it is a type of applied research. This research is considered a descriptive research. Descriptive research describes and interprets what is without interference. This type of research includes collecting information in order to test the hypothesis or answer questions related to the current situation of the subject being studied. The statistical population of the research includes some executive managers of Iraqi companies, the sample size of the research will be randomly selected, so that the research will be conducted on them and finally the results of the research will be generalized to the entire statistical population. For sampling, the most suitable method according to the availability of people in the statistical population will be the simple random method by determining the sample size through Cochran's formula for the status determination section and for the identification stage through the selection of experts and executive managers using the available sampling method accepted.

Identifying the scale of structures

After drawing the model containing the structures (hidden variables) and the relationships between them, it is time to draw the obvious variables related to the structures. In fact, at this stage, how to measure the structures is determined. In this research, the relationships between hidden and obvious variables are as follows:

Table 1- Latent and manifest variables

VARIABLE	COMPONENTS	EXPLICIT VARIABLE (QUESTIONS)	TYPE OF VARIABLE IN RESEARCH
BUSINESS INTELLIGENCE	performance management	4	Independent
	Information analysis	3	
	Optimal decision making	4	
	risk management	4	
EMOTIONAL INTELLIGENCE	self-awareness	3	Independent
	self management	7	
	Social awareness (empathy and cognition)	7	
	relationship management (social skills)	5	
INNOVATION	Individual factors	4	mediator
	Organizational factors	4	
	Environmental factors	4	
FINANCIAL PERFORMANCE	Prediction	3	Dependent
	planning	4	
	profitability	3	
SOCIOLOGICAL QUESTIONS	Gender	1	
	Level of Education	1	
	Age	1	
	degree of education	1	

Demographic variables

The demographic variables of this research are in the following tables:

gender

The gender composition of the questionnaire respondents was as follows:

Table 2- Gender composition

gender	Number	Percent
Male	190	%56
Female	150	%44

Table 3- Composition of age

AGE	NUMBER	PERCENT
LESS THAN 30 YEARS	88	26%
30 TO 40 YEARS	115	34%
40 TO 50 YEARS	84	25%
OVER 50 YEARS	53	15%

Table 4- Composition of education level

EDUCATION	NUMBER	PERCENT
LESS THAN A BACHELOR'S DEGREE	46	13%
BACHELOR	122	36%
MASTER'S DEGREE	101	30%
PHD AND ABOVE	71	21%

Table 5- Study field composition

FIELD OF STUDY	NUMBER	PERCENT
ACCOUNTING/ ECONOMICS/ MANAGEMENT	276	81%
OTHER	64	19%

Examining research hypotheses

Hypotheses are examined once based on business intelligence and then based on emotional intelligence. First, it is reviewed based on business intelligence and performance.

The research hypothesis:

- 1st hypothesis: business intelligence has a significant effect on financial performance in Iraqi companies.
- 2nd hypothesis: business intelligence has a significant impact on innovation in Iraqi companies.
- 3rd hypothesis: innovation has a significant effect on financial performance in Iraqi companies.
- 4th hypothesis: business intelligence has a significant effect on network learning in Iraqi companies.
- 5th hypothesis: innovation has a significant effect on network learning in Iraqi companies.
- 6th hypothesis: network learning has a significant effect on financial performance in Iraqi companies.
- 7th hypothesis: emotional intelligence has a significant effect on financial performance in Iraqi companies.
- 8th hypothesis: emotional intelligence has a significant effect on innovation in Iraqi companies.
- 9th hypothesis : Innovation has a significant impact on financial performance in Iraqi companies.
- 10th hypothesis: emotional intelligence has a significant effect on network learning in Iraqi companies.
- 11th hypothesis: Innovation has a significant effect on network learning in Iraqi companies.
- 12th hypothesis: network learning has a significant effect on financial performance in Iraqi companies.

The examination of each hypothesis and the fitting of the corresponding model is done in 3 parts:

- First part: fitting measurement models
- Second part: fitting the structural model
- The third part: fitting the general model

Fitting measurement models

Three criteria of reliability, convergent validity and divergent validity are used to check the fit of measurement models.

Reliability check

Three methods of factor loading coefficients, Cronbach's alpha coefficients, composite reliability have been used to check reliability.

Measurement of factor loads

Factor loadings are calculated by calculating the correlation value of the indicators of a structure with that structure. If the value of the factor loadings is more than 0.4, it confirms that the variance between the construct and its indicators is greater than the variance of the measurement error of that construct and the reliability of that measurement model is acceptable (Hulland, 1999). In the first hypothesis, the coefficients have a factor load greater than 0.4 and it is confirmed.

Cronbach's alpha coefficients

It is considered a classic criterion for measuring reliability and a suitable criterion for evaluating internal stability (internal consistency). Internal consistency indicates the degree of correlation between a structure and its related indicators. Cronbach's alpha value higher than 0.7 is an acceptable indicator of reliability (Cronbach, 1981). Of course, some researchers, such as Mos et al (1998), have also introduced the value of 0.6 as the limit of Cronbach's alpha

coefficient.

Table 6- Cronbach's alpha

	Variables	performance management	Information analysis	Optimal decision making	risk management	Forecast	planning	profitability
1 st hypothesis	result	0.799	0.776	0.831	0.771	0.774	0.797	0.724
		Business Intelligence				Financial performance		
	Result	0.939				0.910		
2 nd hypothesis	Variables	performance management	Information analysis	Optimal decision	risk management	Individual	organizational	environm ental
	result	0.799	0.776	0.831	0.771	0.817	0.778	0.817
		Business Intelligence				Innovation		
	Result	0.939				0.924		
3 rd hypothesis	Variables	Individual	Organization	environmental	Forecast	planning	profitability	
	result	0.817	0.778	0.817	0.774	0.779	0.724	
		Innovation				Financial performance		
	Result	0.924				0.910		
4 th hypothesis	Variables	performance management	Data analysis	Optimal decision	risk management	Artificial intelligence	Access to information	
	result	0.799	0.766	0.831	0.771	0.719	0.749	
		Business Intelligence				Network learning		
	Result	0.939				0.855		
5 th hypothesis	Variables	Individual	Organization	environmental		Artificial intelligence	Access to information	
	result	0.817	0.778	0.816		0.719	0.749	
		Innovation				Network learning		
	Result	0.923				0.885		
6 th hypothesis	Variables	Artificial intelligence	Access to information	Forecast	planning	profitability		
	result	0.719	0.750	0.774	0.797	0.724		
		Network learning		Financial performance				
	Result	0.855		0.910				
7 th hypothesis	Variables	self-awareness	Self-management	Social Awareness	relations management	Forecast	planning	profitability
	result	0.750	0.872	0.875	0.842	0.744	0.797	0.724
		Emotional Intelligence				Financial performance		
	Result	0.956				0.910		
8 th hypothesis	Variables	self-awareness	Self-management	Social Awareness	relations management	Individual	Organization	environmental
	result	0.750	0.872	0.875	0.842	0.817	0.778	0.817
		Emotional Intelligence				Innovation		
	Result	0.956				0.924		
9 th hypothesis	Result	examined in the third hypothesis						
10 th hypothesis	Variables	self-awareness	Self-management	Social Awareness	relations management	Artificial intelligence	Access to information	
	result	0.750	0.872	0.875	0.842	0.719	0.749	
		Emotional Intelligence				Network learning		
	Result	0.956				0.885		
11 th hypothesis	Result	hypothesis was examined in hypothesis 5						
12 th hypothesis	Result	hypothesis was examined in hypothesis 6						

The results of the above table show the appropriateness of the internal stability of the model.

composite reliability (CR)

Since Cronbach's alpha criterion is a traditional criterion for determining the reliability of structures, a more modern criterion than alpha called composite reliability is used. The superiority of this criterion, which was introduced by Werts et al (1974), compared to Cronbach's alpha, is that the reliability of the structures is not calculated in absolute terms, but according to the correlation of their structures with each other. If the value of this statistic is higher than 0.7, it indicates good internal stability for measurement models, and a value less than 0.6 indicates the absence of reliability (Nunnally, 1978).

Table 7 – Composite reliability

	Variables	performance management	Information analysis	Optimal decision making	risk management	Forecast	planning	profitability
1 st hypothesis	result	0.869	0.865	0.888	0.853	0.869	0.868	0.845
		Business Intelligence				Financial performance		
	Result	0.946				0.925		
2 nd hypothesis	Variables	performance management	Information analysis	Optimal decision	risk management	Individual	organizational	environmental
	result	0.869	0.865	0.888	0.853	0.880	0.857	0.879
		Business Intelligence				Innovation		
3 rd hypothesis	Result	0.964				0.935		
	Variables	Individual	Organization	environmental	Forecast	planning	profitability	
	result	0.880	0.857	0.879	0.869	0.868	0.845	
4 th hypothesis		Innovation				Financial performance		
	Result	0.935				0.925		
	Variables	performance management	Data analysis	Optimal decision	risk management	Artificial intelligence	Access to information	
5 th hypothesis	result	0.869	0.865	0.888	0.853	0.842	0.857	
		Business Intelligence				Network learning		
	Result	0.946				0.592		
6 th hypothesis	Variables	Individual	Organization	environmental		Artificial intelligence	Access to information	
	result	0.880	0.857	0.879		0.842	0.857	
		Innovation				Network learning		
7 th hypothesis	Result	0.935				0.592		
	Variables	Artificial intelligence	Access to information	Forecast		planning	profitability	
	result	0.842	0.857	0.869		0.868	0.845	
8 th hypothesis		Network learning		Financial performance				
	Result	0.892		0.925				
	Variables	self-awareness	Self-management	Social Awareness	relations management	Forecast	planning	profitability
9 th hypothesis	result	0.857	0.902	0.903	0.888	0.869	0.868	0.845
		Emotional Intelligence				Financial performance		
	Result	0.960				0.925		
10 th hypothesis	Variables	self-awareness	Self-management	Social Awareness	relations management	Individual	Organization	environmental
	result	0.857	0.902	0.903	0.888	0.880	0.857	0.879
		Emotional Intelligence				Innovation		
11 th hypothesis	Result	0.960				0.935		
	Result	hypothesis was examined in hypothesis 5						
	Result	hypothesis was examined in hypothesis 6						

The results of the above table show the appropriateness of the internal stability of the model.

Convergent validity review

Convergent validity is the second criterion used to fit measurement models in PLS method. Average Variance Extracted (AVE) was used to calculate the convergent validity. AVE shows the degree of correlation of a structure with its indicators, the higher the correlation, the better the fit (Barclay et al, 1995). Magner et al. (1996) considered an AVE value above 0.4 to be sufficient. The result of convergent validity is as described in the following table:

Table 11- Convergent validity

	Variables	performance management	Information analysis	Optimal decision making	risk management	Forecast	planning	profitability
1 st hypothesis	result	0.624	0.682	0.664	0.593	0.688	0.622	0.645
		Business Intelligence				Financial performance		
	Result	0.540				0.552		
2 nd hypothesis	Variables	performance management	Information analysis	Optimal decision	risk management	Individual	organizational	environmental
	result	0.624	0.682	0.664	0.593	0.647	0.600	0.645
		Business Intelligence				Innovation		
3 rd hypothesis	Result	0.540				0.545		
	Variables	Individual	Organization	environmental	Forecast	planning	profitability	
	result	0.647	0.600	0.645	0.688	0.662	0.645	
4 th hypothesis		Innovation				Financial performance		
	Result	0.545				0.552		
	Variables	performance management	Data analysis	Optimal decision	risk management	Artificial intelligence	Access to information	
5 th hypothesis	result	0.642	0.682	0.664	0.593	0.640	0.666	
		Business Intelligence				Network learning		
	Result	0.540				0.580		
6 th hypothesis	Variables	Individual	Organization	environmental		Artificial intelligence	Access to information	
	result	0.646	0.600	0.645		0.640	0.666	
		Innovation				Network learning		
7 th hypothesis	Result	0.545				0.580		
	Variables	Artificial intelligence	Access to information	Forecast	planning	profitability		
	result	0.641	0.666	0.688	0.662	0.645		
8 th hypothesis		Network learning		Financial performance				
	Result	0.580		0.552				
	Variables	self-awareness	Self-management	Social Awareness	relations management	Forecast	planning	profitability
9 th hypothesis	result	0.667	0.568	0.572	0.614	0.688	0.622	0.645
		Emotional Intelligence				Financial performance		
	Result	0.521				0.552		
10 th hypothesis	Variables	self-awareness	Self-management	Social Awareness	relations management	Individual	Organization	environmental
	result	0.667	0.568	0.572	0.614	0.647	0.600	0.645
		Emotional Intelligence				Innovation		
11th hypothesis	Result	0.521				0.545		
12th hypothesis	Result	examined in the third hypothesis						
	Variables	self-awareness	Self-management	Social Awareness	relations management	Artificial intelligence	Access to information	
	result	0.667	0.568	0.572	0.614	0.640	0.666	
		Emotional Intelligence				Network learning		
	Result	0.521				0.580		
11th hypothesis	Result	hypothesis was examined in hypothesis 5						
12th hypothesis	Result	hypothesis was examined in hypothesis 6						

Examining the coefficient of determination of the model

The coefficient of determination is a measure that shows the effect of an exogenous variable on an endogenous variable. The coefficient of determination of the first hypothesis model is calculated as follows: The results of the first hypothesis investigation show that the coefficient of determination of the first hypothesis is about 85% and it indicates that 85% of performance changes can be justified through the variable of business intelligence.

Table 8 – Coefficient of determination

1st hypothesis	The coefficient of determination	0.857
2nd hypothesis	The coefficient of determination	0.865
3rd hypothesis	The coefficient of determination	0.843

4 th hypothesis	The coefficient of determination	0.821
5 th hypothesis	The coefficient of determination	0.810
6 th hypothesis	The coefficient of determination	0.795
7 th hypothesis	The coefficient of determination	0.873
8 th hypothesis	The coefficient of determination	0.879
9 th hypothesis	examined in the third hypothesis	
10 th hypothesis	The coefficient of determination	0.848
11 th hypothesis	hypothesis was examined in hypothesis 5	
12 th hypothesis	hypothesis was examined in hypothesis 6	

Model predictive power criterion (Q2)

This measure determines the predictive power of the model. This criterion is calculated only for the endogenous structures of the model whose indices are reflective. The results of this criterion show that the performance prediction power in the first hypothesis is 0.442. In general, if the prediction power value of an endogenous structure model obtains three values of 0.02, 0.15 and 0.35, it indicates the weak, medium and strong predictive power of the structure or exogenous structures, respectively. related to it. In the first hypothesis, the predictive power of the dependent variable is as follows.

Table 9-Measure of predictive power

Q2	1 st hypothesis	0.442
Q2	2 nd hypothesis	0.439
Q2	3 rd hypothesis	0.435
Q2	4 st hypothesis	0.446
Q2	5 st hypothesis	0.440
Q2	6 st hypothesis	0.410
Q2	7 st hypothesis	0.450
Q2	8 st hypothesis	0.446
9 th hypothesis	examined in the third hypothesis	
Q2	10 st hypothesis	0.460
11 th hypothesis	hypothesis was examined in hypothesis 5	
12 th hypothesis	hypothesis was examined in hypothesis 6	

The measure of changeability of the indicators of an endogenous structure (Redundancy)

This criterion expresses the amount of variability of the indicators of an endogenous structure that is affected by one or more exogenous structures and is generally obtained from the product of the common values of an endogenous structure in the value of the coefficient of determination related to it.

The calculation results of this criterion are as follows:

$$\text{Red} = \text{Community} * R^2$$

Table 10- Criteria for variability of the indicators of an endogenous structure

hypothesis	Common values	Communlity	
1	coefficient	R^2	0.857
	Redundancy	Red	0.473
2	coefficient	R^2	0.865
	Redundancy	Red	0.471
3	coefficient	R^2	0.843
	Redundancy	Red	0.465
4	coefficient	R^2	0.580
	Redundancy	Red	0.476
5	coefficient	R^2	0.810
	Redundancy	Red	0.469
6	coefficient	R^2	0.795
	Redundancy	Red	0.439
7	coefficient	R^2	0.873
	Redundancy	Red	0.482
8	coefficient	R^2	0.879
	Redundancy	Red	0.479
9	examined in the third hypothesis		
10	coefficient	R^2	0.848
	Redundancy	Red	0.491
11	examined in hypothesis 5		
12	examined in hypothesis 6		

The higher the number related to the variability criterion, the more appropriate the fit of the structural part of the model in a study.

Fitting the general model

To check the fit of the overall model, a criterion called GOF is used. This criterion was proposed by Tenenhaus et al (2004). Then Wetzels et al (2009), specified three values of 0.01, 0.25 and 0.36 as weak, medium and strong values :for this criterion. This criterion is calculated through the following formula

$$\text{GOF} = \sqrt{(\text{Communities} * R^2)}$$

The results of this criterion are as follows:

Table 11- fitting the general model

	1st hypothesis	
GOF criterion	0.546	
	2nd hypothesis	
GOF criterion	0.543	
	3rd hypothesis	
GOF criterion	0.547	
	4st hypothesis	
GOF criterion	0.550	
	5th hypothesis	
GOF criterion	0.550	
	6th hypothesis	
GOF criterion	0.554	
	7th hypothesis	
GOF criterion	0.537	
	8th hypothesis	
GOF criterion	0.532	
9th hypothesis	examined in the third hypothesis	
	10th hypothesis	
GOF criterion	0.539	

11th hypothesis	examined in hypothesis 5
12th hypothesis	examined in hypothesis 6

The acquired result leads to the conclusion that the hypothesis model fits the data quite well.

The final test of hypotheses

After examining the fit of the measurement models, structural model and general model, the research hypotheses have been examined and tested. This section includes the following two parts:

- A) Examining the significant coefficients related to each of the hypotheses
- b) Examining the standardized coefficients of the factor load related to the paths of each hypothesis, which indicates the intensity of the impact of the variables on each other using the standardized coefficients of the paths.

According to the above information, the final results of the hypotheses are as follows:

Table 12- Checking the hypotheses

1st hypothesis	Coefficient	T statistic	Significance level	result
Business intelligence has a significant impact on financial performance in Iraqi companies.	0.926	118.490	0.000	confirmed

2nd hypothesis	Coefficient	T statistic	Significance level	result
Business intelligence has a significant impact on innovation in Iraqi companies.	0.930	149.717	0.000	confirmed

3rd hypothesis	Coefficient	T statistic	Significance level	result
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Innovation has a significant impact on financial performance in Iraqi companies.	0.918	135.821	0.000	confirmed
4th hypothesis	Coefficient	T statistic	Significance level	result
Business intelligence has a significant impact on network learning in Iraqi companies.	0.906	114.488	0.000	confirmed
5th hypothesis	Coefficient	T statistic	Significance level	result
Innovation has a significant impact on network learning in Iraqi companies.	0.900	109.897	0.000	confirmed
6th hypothesis	Coefficient	T statistic	Significance level	result
Network learning has a significant impact on financial performance in Iraqi companies.	0.892	95.97	0.000	confirmed

7 th hypothesis	Coefficient	T statistic	Significance level	result
Emotional intelligence has a significant impact on financial performance in Iraqi companies.	0.934	176.321	0.000	confirmed

8 ^h hypothesis	Coefficient	T statistic	Significance level	result
Emotional intelligence has a significant impact on innovation in Iraqi companies.	0.938	177.163	0.000	confirmed

9th hypothesis	examined in the third hypothesis			
10 th hypothesis	Coefficient	T statistic	Significance level	result
Emotional intelligence has a significant impact on network learning in Iraqi companies.	0.921	137.826	0.000	confirmed

11th hypothesishypothesis was examined in
hypothesis 512th hypothesishypothesis was examined in
hypothesis 6

The result of examining the first hypothesis shows the positive and significant impact of business intelligence on financial performance. In other words, according to the theoretical foundations, it is expected that by increasing business intelligence, financial performance will be found, which has been confirmed in the first hypothesis.

The result of examining the second hypothesis shows the positive and significant impact of business intelligence on innovation. In other words, according to the theoretical foundations, it is expected that with the increase of business intelligence, innovation in business units will increase. This is confirmed in the second hypothesis.

The result of examining the third hypothesis shows the positive and significant impact of innovation on financial performance. In other words, according to the theoretical foundations, it is expected that with the increase in innovation, the financial performance will increase, which has been confirmed in the third hypothesis.

The result of the investigation of the fourth hypothesis shows the positive and significant impact of business intelligence on network learning. In other words, according to the theoretical foundations, it is expected that with the increase of business intelligence, network learning will increase, which has been confirmed in the fourth hypothesis.

The result of the examination of the fifth hypothesis shows the positive and significant impact of business intelligence on network learning. In other words, according to the theoretical foundations, it is expected that with the increase of innovation, network learning will increase, which is confirmed in the fifth hypothesis.

The result of examining the sixth hypothesis shows the positive and significant impact of network learning on financial performance. In other words, according to the theoretical foundations, it is expected that financial performance will increase with the increase of network learning, which is confirmed in the sixth hypothesis.

After reviewing the fit of measurement models and general model, finally the investigation and testing of indirect relationships of business intelligence on financial performance of the research has been discussed .

According to the above information, the final results are as follows :

Table 13 Examination of indirect relations

INDIRECT RELATIONS	COEFFICIENT	T- STATISTIC	SIGNIFICANCE LEVEL	RESULT
BUSINESS INTELLIGENCE → INNOVATION → FINANCIAL PERFORMANCE	0.219	4.929	0.000	confirmed
BUSINESS INTELLIGENCE → NETWORK LEARNING → FINANCIAL PERFORMANCE	0.168	3.771	0.000	confirmed

The results of indirect relationships show that business intelligence has a positive and significant effect on financial performance through innovation and network learning. In other words, according to the theoretical foundations discussed in the second chapter, it is expected that as business intelligence increases, financial performance increases.

The result of examining the seventh hypothesis shows the positive and significant impact of emotional intelligence on financial performance. In other words, according to the theoretical foundations, it is expected that financial performance will increase with the increase of emotional intelligence, which is confirmed in the seventh hypothesis.

The ninth hypothesis has already been examined in the third hypothesis.

The result of examining the tenth hypothesis shows the positive and significant impact of emotional intelligence on network learning. In other words, according to the theoretical foundations, it is expected that with the increase of

emotional intelligence, network learning will increase, which has been confirmed in the tenth hypothesis.

11th hypothesis: Innovation has a significant effect on network learning in Iraqi companies.

This hypothesis was examined in hypothesis 5.

12th hypothesis: network learning has a significant effect on financial performance in Iraqi companies.

This hypothesis was examined in hypothesis 6.

After examining the fitting of measurement models, structural model and general model, finally the investigation and testing of indirect relationships of emotional intelligence on financial performance of the research has been discussed .

According to the above information, the final results of the investigation of indirect relationships are as follows:

Table 14 – Investigating indirect relationships of emotional intelligence on financial performance

INDIRECT RELATIONS	COEFFICIENT	T-STATISTIC	SIGNIFICANCE LEVEL	RESULT
EMOTIONAL INTELLIGENCE → INNOVATION → FINANCIAL PERFORMANCE	0.220	4.919	0.000	confirmed
EMOTIONAL INTELLIGENCE → NETWORK LEARNING → FINANCIAL PERFORMANCE	0.123	2.70	0.000	confirmed

The results of indirect relationships show that emotional intelligence has a positive and significant effect on financial performance through innovation and network learning. In other words, according to the theoretical foundations discussed in the second chapter, it is expected that with increasing emotional intelligence, financial performance will increase.

Conclusion

Business intelligence goes through four key steps to turn raw data into easy-to-use insights for everyone in the organization. The first three stages, i.e. data collection, analysis and graphical presentation prepare the necessary preparations for the final decision-making stage. In the stages before the emergence of business intelligence, businesses had to perform a large part of their analysis manually, but business intelligence has provided businesses with a number of tools that automate many processes, reducing time and saving money. They are in the expenses.

Business intelligence tools typically use the Extract, Transform and Load (ETL) method to gather structured and unstructured data from multiple sources. This data, after being extracted and collected, is transformed and reconstructed and then stored in a central location. In this way, applications can easily analyze and query it as a comprehensive data set. Emotional intelligence management is a relatively new concept in organizations that has a lot of enthusiasm for it. But despite this passion, feelings, emotions and emotions are still considered a kind of taboo in many organizations and are not considered according to their importance. The old and pervasive belief that emotions at work have no place in Arabs still rules many organizations. Some other organizations have no problem with expressing positive emotions, but they do not tolerate expressing negative emotions at all. Such views prevent understanding the importance of emotional intelligence in the organization. One of the most important benefits of EQ and the reasons for the importance of emotional intelligence in the organization is its effective role in conflict resolution. Emotional intelligence makes it easy to manage tense situations and enables people to resolve conflicts in a favorable way by reaching effective solutions that are agreed upon by all. Leaders and managers who take the time to understand different perspectives are adept at finding common ground. Managers' attention to people's reactions to each other makes them feel seen and heard, and this makes people more willing to compromise.

Business intelligence is used in extracting information from available data and using them as knowledge in developing business strategies. In other words, business intelligence mainly refers to systems and techniques that are used as decision aids in defining, extracting and analyzing business data in Iraqi companies. Business intelligence is an umbrella term that includes architectures, tools, databases, applications, activities, and processes for organizing, integrating, and discovering information with the goal of developing understanding and knowledge that can lead to a better decision-making process. produce In addition, business intelligence is a vital information technology framework for many Iraqi organizations, especially for organizations that deal with a lot of data. Business intelligence can help organizations in management and development. Business intelligence is a large collection of applications and technologies to collect, store, analyze and provide access to data for better decision-making, and data mining is an important factor in the business intelligence of Iraqi companies. . Emotional intelligence, at least in social life (especially business and marketing activities), is more important than academic intelligence. This intelligence separates reformers and social elites from scientific elites throughout history. Emotional intelligence indicates that in social relations and in certain circumstances, what action is appropriate and what action is inappropriate; It means that a person can always keep hope alive in different situations, empathize with others, hear other people's feelings, ignore small rewards in order to get a bigger reward, and not let his worry, power of thinking and reasoning be disturbed. Slow down, persevere in the face of problems and keep your motivation in all situations. Emotional intelligence is a

type of emotional talent that determines how to use our skills in the best way and even helps us use wisdom in the right direction. The topics of the company's performance can be examined from different angles. There are two basic views on this, traditional and new. The traditional view aims to judge and recall the performance and control of the evaluator and has a prescriptive style. This view is only focused on the performance of the past time period and was formed by the requirements of the past. The new perspective aims to train, grow and develop the capacities of the evaluator, improve and improve people and the company and its performance, provide consulting services and public participation of stakeholders, create motivation and responsibility to improve quality and optimize activities and operations, and base it on Identifying the weaknesses, strengths and excellence of a company in Iraq. The origin of this point of view is contemporary requirements and it is developed in Iraqi companies with the systematic evaluation of performance using modern techniques and methods. The area covered by performance measurement can be the macro level of a company, a unit, a process and employees. In the new models of performance evaluation, quantitative models such as the productivity criterion with the added value approach, the efficiency criterion with the effectiveness and efficiency approach, and the profitability criterion with the performance audit approach; And qualitative models, such as descriptive and value criteria with the approach of corporate commitment and corporate ethics, and several other criteria have been used. There are at least seven scales for evaluating a company's performance, which are not necessarily mutually exclusive. These scales include: effectiveness, efficiency, profit and profitability, efficiency and productivity, quality of work life, creativity and innovation, and quality.

In business intelligence, data is presented graphically to facilitate understanding and sharing of findings. Reporting methods include things like interactive data dashboards, charts, and maps that depict the current state of the business to the user. When businesses have a clear view of their current and past business activity data, they gain accurate and comprehensive insights that they can use to make quick, informed decisions and take action in less time. Business intelligence brings a variety of business benefits to any business. For example, business intelligence enables senior and middle managers to continuously monitor business activities and performance. In this way, managers not only react quickly when a problem occurs, but also can use the available business opportunities for the benefit of their business at the right time. Emotional intelligence has a direct and significant correlation with personal development and career advancement, and this is another reason for the importance of emotional intelligence in the organization. People with high emotional intelligence monitor different aspects of their emotions and constantly try to strengthen the elements of self-awareness, self-control, motivation, empathy and social skills in themselves. It goes without saying that the improvement of each of these elements in personal and professional life is of indescribable importance. Many experts consider understanding the importance of emotional intelligence in the organization as one of the requirements for success. Emotional intelligence is the key to understanding human reactions and behavior and since such understanding provides a platform for effective management and leadership.

Research limitations

- Limitations in the research design: specific limitations in the field of how to conduct experiments and obtain data.
- Limitation in effectiveness: data specific to a limited and specific community cannot be generalized to other communities.
- Limitations in data collection: In situations where it is not possible to collect the desired amount of data or it is very difficult to involve people or different materials in the research.
- Limitation in statistical methods: this limitation can be the source of many limitations in the course of research and cause your interpretations of existing findings to be limited.

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