

# The Impact of Organizational Development on Maximizing Business Intelligence in Jordanian Joint Stock Companies

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## Abstract

The study aimed to measure the impact of organizational development on maximizing business intelligence in Jordanian industrial joint stock companies. The study was based on analytical descriptive methodology. The study community is from Orange Jordan as a case study. The sampling unit consisted of managers working in the senior and middle management of industrial companies in Jordan. A total of 264 questionnaires were collected and retrieved (258) of which were (97.7%), all of which were valid for analysis. The survey sample was composed of general managers, their deputies, assistants and department heads according to the study sample. The study concluded with a number of results, the most important of which was the existence of a statistically significant effect at the level of  $\alpha$  ( $= 0.05$ ) for the organizational development in its dimensions (development, empowerment, recruitment, innovation, organization) to maximize business intelligence (data collection, Data, reporting, information transfer) in Jordanian industrial joint stock companies. The study recommended a number of recommendations, the most important of which was the need to raise the awareness of the Jordanian industrial companies' management about the importance of organizational development as one of the fundamental concepts in modern management. It also recommended increasing the interest of administrative leaders in studying and understanding the characteristics of effective business intelligence dimensions and methods.

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## Introduction

Organizational development is the intellectual extension of the behavioral schools that supported the efforts of the modern intellectual schools on the new consideration of the individual human being and later became the turning point in the new studies which dealt with the topics of organizational development, mainly focused on the human aspect and considered it the basis of the productive processes. Therefore, all the definitions of the book focused on the basic point of the importance of the human dimension in organizational processes, and defines organizational development as "includes a reference to the various approaches to the behavioral sciences used to guide administrative organizations towards openness and honesty." Organizational development is also known as a planned effort at the level of organization As a whole is supported by the higher management to increase the effective organization through planned interventions in the processes that are conducted in the organization using the knowledge provided by the behavioral sciences ", and in another definition he believes that " development seeks to achieve efficiency in productivity through management organizations Through the development of human resources, and focus on the organizational culture and support of the top leadership, and work to find the appropriate organizational climate and consolidate the pillars of democracy. "

Information technology is one of the most important concepts associated with globalization, which began to emerge in the late 19th century. This technology has become increasingly associated with the business environment, which has become an important and essential prerequisite for its prosperity.

The business environment in technology has been remarkably connected, and this correlation has become a natural one. Technology is a driving force and a picture that reflects knowledge, which is a fuel that stimulates the constant development of organizations and gives them modern and future dimensions. Evolution has been a key feature of historical changes. Information technology has become synonymous with the convergence of economic and social issues. This technology contributes to the development of science and its applications in various fields very rapidly, which in turn has given it its current power and power and has made a very important impact on organizations and individuals. And the working communities, which has become a prominent place in our time compared to any time in the history of mankind, where the information technology is the basis of modern economic organizations and the business world, and a means to take over And that they are necessary to be included as a strategy to meet the requirements.

With the advent of information technology in its present form in the business environment, this century has seen great leaps in the steady and increasing use of its various tools under the digital and information revolution. Global Virtual Economy.

Current organizations face many internal and external pressures and challenges that affect their survival, competitiveness and presence in an unstable environment, and the scarcity of human resources and material resources contribute to competition.

It is therefore necessary to value human resources as the fundamental and fundamental resource of the

Organization. Undoubtedly, all that can not be measured can not be assessed and thus can not be properly controlled and managed. Therefore, the objective of the study is to measure the impact of organizational development on maximizing business intelligence in the Jordanian industrial joint stock companies.

### **Study Problem**

The purpose of the study is to measure the impact of organizational development on maximizing business intelligence in Jordanian industrial joint stock companies. The purpose of this study can be achieved by answering the following main question:

#### **The main question:**

Is there an impact of organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on maximizing business efficiency in its dimensions (data collection, data warehouse, data mining, reporting, information transfer)?

#### **This question is divided by the following sub-questions:**

1. Is there an impact of organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the collection of data in Jordanian industrial joint stock companies?
2. Is there an impact of organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the data warehouse in Jordanian industrial joint stock companies?
3. Is there an impact of organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the exploration of data in Jordanian industrial joint stock companies?
4. Is there an impact of organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the preparation of reports in the Jordanian joint industrial companies?
5. Is there an impact of organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the transfer of information in Jordanian industrial joint stock companies?

### **Importance of Study**

The importance of the study comes from two aspects:

The theoretical importance of this study is shown in the attempt to achieve modest additions to the library of Arab science, in order to adopt a scientific approach capable of achieving the objectives pursued by this study because it makes it easier for researchers and interested in researching the subject of organizational development and business intelligence. In addition to clarifying the aspects related to them and directing them in order to achieve a high level of performance in Jordanian industrial joint stock companies.

The importance of the study is applied through the ability to prepare this study, which can determine the extent of the application of organizational development to maximize the business intelligence in Jordanian industrial companies, and benefit from the results of this study by the company, as well as the results and recommendations of the study.

### **The limits of the study:**

The study limits were as follows:

1. Spatial boundaries: This study was limited to Jordanian industrial joint stock companies.
- 2- Human Boundaries: This study was limited to the directors, their deputies, their assistants and the heads of the departments in the Jordanian industrial joint-stock companies, which are (264) members of the unit in all levels of administrative and educational levels.

### **Previous studies**

#### **Bhushan Kapoor (2010) "Business Intelligence and Its Use for Human Resource Management"**

The importance of the study is reflected in the importance of the variables investigated. Business intelligence systems are one of the most modern applications, and the organization's success and sustainability can depend on its ability to benefit from these applications, and the human resource is the most important resource that the organization possesses and distinguishes it from other organizations. The study showed that business intelligence helps companies become more competitive, and the study recommended the importance of gathering and storing data at an alarming rate because the business environment is constantly changing.

#### **Richards et al., (2017): "Business Intelligence Effectiveness and Corporate Performance Management: An Empirical Analysis"**

The aim of this study is to identify business intelligence techniques and organization performance, a model of the country program management framework based on the integrated model of IT business value and information processing theory. The data were collected from a global survey of senior managers in 337 companies. The results indicate that the implementation of the MIS is more effective in the planning of analytic practices where there is

close correlation between them and also shows a correlation between the efficiency of the bachelor's degree and the planning. The study suggests that business intelligence contributes to corporate management practices, and information needs vary based on the level of management practice.

**Gaikhorst et al., (2018): "Organizational conditions for teacher professional development: School principals' beliefs and practices"**

Research has increasingly indicated that school principals play an important role in teacher professional development (TPD). However, there is still a need to deepen ideas about the special impact of school principals in this process and how to exercise this influence in practice. This study focuses on what school principals consider as important organizational working conditions for TPD and the leadership practices they create to meet these conditions in their schools. Using a multiple case study design, including 20 semi-structured interviews with primary school principals, results show that managers consider both structural (eg, adequate time and assessment of TPD interventions) and cultural conditions (eg, open business climate and collaboration) To be important for the TPD. In addition, school principals emphasize the importance of teachers' attitude towards learning, differentiation in professional efforts, and sharing of knowledge within their schools. Moreover, the results show that school principals have a problem in achieving these regulatory working conditions. In particular, the conditions for internal learning activities (such as the open work environment) are often seen as difficult to attain. Based on the findings, recommendations are made for further research and policy makers in terms of preparing and supporting school principals in order to achieve TPD (internal) in their schools.

**Kasemsap (2018): "Multifaceted Applications of Data Mining, Business Intelligence, and Knowledge Management"**

This paper reviews the literature in the search for multi-faceted applications for data extraction (DM), business intelligence (BI), and knowledge management (KM). The literature review sheds light on the general views of DM, BI, and KM. Practical applications for DM, BI and KM; and prospects for DM, BI and KM in relation to marketing, business, human resources and manufacturing. Dubai Municipality plays a key role in organizing an enormous amount of data and intensifying it in valuable information. BI includes the delivery and integration of relevant and useful business information in the organization. KM enables companies to manage their core competency system to increase employment and minimize the risk of job losses. The results provide valuable insight and understanding of how DM, BI and KM efforts should be concentrated.

**Study Methodology**

In this study, the researcher used the analytical descriptive method to obtain the necessary data for the purpose of data analysis and classification to describe the sample of the study and to present it in tables and forms. A questionnaire was designed to collect the data analyzed using the SPSS program, The questionnaire was used as a tool for collecting data related to study variables.

The study community is represented by Orange in Jordan as a case study.

The sampling unit consisted of managers working in the senior and middle management of industrial companies in Jordan. A total of 264 questionnaires were collected and retrieved (258) of which were (97.7%), all of which were valid for analysis. The survey sample was composed of general managers, their deputies, assistants and department heads according to the study sample.

The validity of the study instrument has been verified as follows:

**Tool Validation:**

The questionnaire was judged by a group of Jordanian university professors as well as experienced and competent people who took their opinions in drafting the final version of the questionnaire.

**Stability of the tool:**

The internal consistency of the tool was verified by the Cronbach's Alpha calculation (979) and is acceptable in such studies.

**Table (1): Cronbach's Alpha**

Cronbach's Alpha	Dimintions	Variable
.934	development	<b>organizational development</b>
.929	empowerment	
.922	appointment	
.922	innovation	
.942	organization	
.893	data collection	<b>Business Intelligence</b>
.837	data warehouse	
.873	data mining	
.895	reporting	
.878	information transfer	
<b>.979</b>	<b>Total</b>	

**Test the normal distribution of data**

**Table 2: Normal distribution of samples (On-Sample Kolmogorov-Smirnov Test)**

<b>Total</b>	
258	<b>N</b>
4.0460	<b>Normal</b>
.52788	<b>Parameters<sup>a,b</sup></b>
.100	<b>Kolmogorov-Smirnov</b>
.000 <sup>c</sup>	<b>Asymp. Sig. (2 - tailed)</b>

- a. Test Distribution Is Normal.
- b. Calculated From Data.

It is noted from Table (2) that the value of the test (Kolmogorov-Smirnov Z) reached (0.100) and at the level of statistical significance (error rate) reached (0.00) and is smaller than (0.05) indicating that the distribution of data was following normal distribution.

**Characteristics of the study sample**

The study examined a number of demographic variables of the study sample (gender, age, academic qualification, specialization, current position, duration of employment, duration of experience in the company, duration of experience in general) and derived from the general information included in the questionnaire. The study sample description is as follows:

**Table (3): Description of the study sample according to the demographic variables of the study members**

%	no	category	variables
58.1	150	Male	gender
41.9	108	Female	
100.0	258	Total	
19.0	49	Less than 25	age
27.1	70	25–35	
20.5	53	36–45	
18.6	48	46–55	
14.7	38	More than 55	
100.0	258	Total	
6.2	16	High School	academic qualification
20.5	53	Diploma	
59.3	153	BA	
9.3	24	Master	
4.7	12	PhD	
100.0	258	Total	
8.1	21	Manager	current position
26.4	68	Deputy	
9.3	24	Assistant	
56.2	145	Head of Department	
100.0	258	Total	
.8	2	Less 5	experience
33.3	86	5-9	
53.1	137	10–14	
12.8	33	15 and more	
100.0	258	Total	

Table (3) indicates the sample of the study according to the demographic variables of the study members as follows:

**First: Type**

In terms of gender, the percentage of males (58.1%) was higher than that of females, while the proportion of females (41.9%). In the light of the interviews conducted by the researcher, it was found that the reason for these results is attributed to two factors. The first is that companies tend to hire males more than females. This is because of the nature of the work of companies in movement and movement. The second factor is the customs, traditions and societal norms in the environment of industrial companies Contribution.

**Second: Age**

In terms of age, the highest age group was 25-25 (27.1%), followed directly by the age group (45-36), which was (20.5%), followed by the age group less than 25 years (18.6%), followed by the age group (55 years and over) by 14.7%. These results reflect the reality of the youth group within the job sites The study found that the majority of the age group (35-25), and the researcher found through interviews that this reason is due to the desire of companies engaged in the recruitment of youth groups, because M are characterized by vigor and vitality and rush to work, in addition to the creative and innovative possibilities that are available to them and Moakpthm rapid developments in technology and knowledge in the business world, and their acceptance of change more than the elderly.

**Third: Scientific qualification**

The academic qualification (intermediate diploma) was (20.5%), followed by the master's degree (9.3%), and finally came the qualification Scientific degree (PhD) by (4.7%). Through the perception of the researcher as a result of his interviews, these results can be explained by the fact that industrial companies in Jordan rely on certain bases and rules in their employment of human resources, in terms of their scientific qualifications, in addition to the accumulation of personal experience. Some of the jobs in these companies are known to differ from others, and they need scientific qualifications and personal experiences that help individuals to perform the tasks and roles required by their jobs, in order to accomplish business as best as possible and in a way that achieves the goals and objectives of those companies.

**Fourth: Years of experience**

In terms of years of experience, the years of experience (10-14) were the highest (53.1%), followed by years of experience (5-9) at 33.3%, followed by years of experience (more than 15 years) ) And (12.8%), and last years of experience less than 5 years (0.8%). These results explain that the largest proportion of the sample members of the current study experience (10-14). This confirms that the industrial companies contributing in Jordan depend on the accumulated personal experience of individuals when employing human resources. So their employment is

based on the scientific qualifications they hold and the experience they have acquired.

### Descriptive statistics

The arithmetical averages and standard deviations of the sample responses of the study on the paragraphs:

#### First: Dimensions of the Independent Variable (Organizational Development)

The independent variable representing organizational development was measured in five dimensions (development, empowerment, appointment, innovation, organization). In order to identify the general level of the responses of the sample members of the study on the paragraphs related to these dimensions, the descriptive statistics analysis was carried out through the computational environment and the standard deviations of the responses, as shown below:

#### 1- Development:

The researcher calculated all the arithmetical averages and standard deviations of the dimension (development) as shown in Table (4) as follows:

**Table (4): Arithmetic averages and standard deviations of paragraphs after (development)**

importance	Rank	ST.D	Mean	Paragraph	#
high	1	.693	4.10	Senior management elects competent management to carry out the development process.	1
high	6	.855	3.78	Raising the company's ability to deal with external changes and internal problems.	2
high	3	1.018	3.82	Employees are trained to meet the company's developments	3
high	8	1.028	3.74	There is ongoing research on new ways to develop business methods.	4
high	5	.940	3.79	The company constantly updates and renews the mechanisms and technologies.	5
high	7	1.00	3.78	There are powers of some subordinates to act without reference to senior management.	6
high	4	1.041	3.81	The senior management alone has the power to develop	7
high		.73751	3.8348	Average arithmetic mean (development)	

Based on the five-point scale adopted in the present study, the results indicate that paragraph (1) was the most agreeable paragraph with an average score of 4.10 indicating that employees in the company are sufficiently aware of their respective roles in the overall work plan. While paragraph (4), which refers to the management of the company changes in some of the activities carried out in order to achieve its objectives, has obtained the lowest paragraphs approved and an average of 3.74.

#### 2- Empowerment:

The researcher presented all the arithmetical averages and standard deviations of the systemic thinking dimension in Table (5) as follows:

**Table (5): The arithmetical averages and standard deviations of paragraphs after (empowerment)**

importance	Rank	ST.D	Mean	Paragraph	#
high	4	.894	3.90	The company allows the participation of decision makers.	1
high	3	.907	3.93	The company adopts the method of administrative decentralization.	2
high	8	.968	3.78	The company uses advanced feedback technologies.	3
high	5	.921	3.90	The company operates in a career enrichment manner	4
high	7	.945	3.81	The company evaluates research and development alliances with other organizations and institutions.	5
high	6	.929	3.82	The company implements brainstorming workshops.	6
high	1	.523	4.47	The company opens multiple channels of communication to exchange views.	7
high	2	.617	4.32	It's easy to get the information the employee needs.	8
high			3.98	Average arithmetic mean (enabling)	

Table (5) shows that the arithmetic averages of the responses of the sample of the study to the paragraphs of the dimension (empowerment). Paragraph (7) obtained an equal mean of 4.47. The opening of the company provided multiple channels of communication to exchange views. On the other hand, ) With the lowest approval rate and an average of (3.78). The paragraph states that the company uses advanced techniques to invest feedback

#### 3- Appointment

The researcher presented all the mathematical averages and standard deviations of the dimension (appointment) as follows:

**Table (6): The arithmetical averages and standard deviations of the (appointment).**

importance	Rank	ST.D	Mean	Paragraph	#
high	4	.683	4.34	Appointment of new employees and transfer of staff between different departments and departments.	1
high	1	.648	4.37	The interview with applicants is a key factor in hiring the company	2
high	5	.563	4.33	The appointment is based on established criteria, most importantly efficiency.	3
high	3	.550	4.34	The company relies on its appointment of leading positions on employees from within the company.	4
high	8	.698	4.16	The company's management determines the level and type of appropriate scientific qualification for each job.	5
high	6	.739	4.18	Applicants pass many capacity and skill tests.	6
high	7	.873	4.17	Tests prepared by the tests committee measure the technical skills of the applicant.	7
high	2	.668	4.35	Of the selection criteria between applicants for employment in the company and practical experience.	8
high			4.28	Average arithmetic mean (assignment)	

The results of the researcher indicated in Table (6) indicate that the arithmetic averages of the responses of the sample of the study to the paragraphs of the dimension (appointment). Paragraph (2) showed the highest approval with an equal mean of 3.37. Essential for appointment in the company. The computational averages of these two paragraphs indicate that the management of interested companies is given considerable attention to the opportunities available, and how they are prepared to capture and invest them before their competitors, through the development of diverse options and the development of methods of capturing opportunities for maximum benefit. While paragraph (5) with the lowest percentage of approval and an average of (4.16), which indicated that the management of the company to determine the level and type of appropriate scientific qualification for each job .

#### 4- Innovation

The researcher presented all the mathematical averages and standard deviations of the dimension (innovation) as follows:

**Table (7): Arithmetic averages and standard deviations of paragraphs after (innovation)**

importance	Rank	ST.D	Mean	Paragraph	#
high	4	.619	4.22	The necessary information is obtained quickly.	1
high	5	.697	4.20	Management provides the information necessary for the employees to perform the work continuously.	2
high	2	.602	4.29	Senior management accepts new staff proposals and ideas.	3
high	6	.666	4.17	Officials make timely decisions.	4
high	3	.577	4.26	Employee has the ability and ability to make important and vital decisions.	5
high	1	.642	4.30	The paucity of information is a constraint on the adoption of new proposals.	6
high	8	.944	4.05	The employee feels the desire to introduce new methods that help improve performance.	7
high	7	.904	4.10	The Department is interested in encouraging individual initiatives and creative ideas.	8
high		.482	4.19	Average arithmetic average (innovation)	

Table (7) shows that the arithmetic mean of the responses of the sample of the study to the paragraphs of the (Innovation) component at (4.19) and the level of (high). Paragraph (6) showed the highest level of approval with an average of 4.30. The paragraph indicated that the paucity of information hindering the adoption of the new proposals is to continuously improve its performance by reviewing its past performance and addressing its mistakes in order to achieve its future aspirations. While the results of the analysis showed that paragraph (7) came with the lowest arithmetic mean (4.05), where the paragraph indicated the employee's desire to introduce new methods that help improve performance. Despite the relative disparity between the arithmetical averages. These results explain that the dispersion of respondents' responses falls within the acceptable range.

#### 5- Organization:

The researcher presented all the mathematical averages and standard deviations of the dimension (organization) as follows:

**Table (8): Arithmetic averages and standard deviations of paragraphs (organization)**

importance	Rank	ST.D	Mean	Paragraph	#
high	2	.767	4.26	The incentive system contributes to the productivity of the company's employees.	1
high	1	.708	4.33	A fundamental shift has been made in the business strategy, which is aimed at development and modernization.	2
high	7	.940	3.79	Some administrators would like to delegate part of the powers to some subordinates.	3
high	8	1.00	3.78	HR managers diagnose and solve the problem.	4
high	6	1.04	3.81	The company depends on selection on predefined criteria	5
high	5	.881	3.87	Senior management has the ability to allocate resources and resources to staff.	6
high	4	.894	3.90	The design of the structures does not conform to the stated objectives of the company.	7
high	3	.907	3.93	Prior to the recruitment process, the company is interested in collecting accurate information about applicants from several sources	8
high	7	.940	3.79	Senior management has extensive management and management experience.	9
high			3.93	Average arithmetic mean (organization)	

Table (8) shows that the arithmetic mean of the responses of the sample of the study to the paragraphs of the dimension (organization) came at a rate of (3.93) and the level of rating (high). (4) received the lowest level of approval with an average of 3.78. , Which indicate that human resources managers diagnose and solve the problem, which explains that the dispersion of respondents' responses falls within the acceptable threshold.

**Second: Components of the dependent variable (Business Intelligence)**

The business variable is measured in five dimensions (data collection, data warehouse, data mining, reporting, data transmission). And to identify the level of responses to the members of the study sample on the paragraphs of each dimension, through the conduct of descriptive statistical analysis by calculating the mean and standard deviations, and this is illustrated by the following:

**1. Data collection**

The arithmetical mean and the standard deviation of the dimension (data collection) were calculated in order to demonstrate a correlation relationship, as illustrated in Table 9.

**Table (9) Arithmetic averages and standard deviations of dimension (data collection)**

importance	Rank	ST.D	Mean	Paragraph	#
high	4	1.101	3.40	Improving the design of web services using data collection helps to obtain services at the lowest possible price.	1
high	1	1.052	3.61	Data collection develops and improves the performance and quality of services provided	2
high	2	.956	3.59	The company is aware of the field required to work by obtaining the necessary scientific and technical information by relying on various sources of information, internal and external.	3
high	3	.968	3.54	The company recognizes that work or the search for creativity requires serious work and a focus to overcome the existing and rely on current knowledge.	4

Table 9 indicates that the second paragraph, which states that "data collection develops and improves the performance and quality of services provided", had a higher mean (3.61) and a standard deviation (1.05). The first paragraph had the lowest mean (3.40) and a standard deviation (1.10) and stated that "improving the design of web services using data collection helps to obtain services at the lowest possible price." Which shows that the company sets clear and sound data collection policies in order to win loyalty and customer satisfaction.

**2- Data warehouse**

The arithmetic mean and the standard deviation of the dimension (data warehouse) and its paragraphs were calculated, as shown in Table 10.



**Table (10) Arithmetic averages and standard deviations of dimension (data warehouse)**

importance	Rank	ST.D	Mean	Paragraph	#
high	2	.999	3.62	The company is interested in storing data and information that contribute to the development of the company	1
high	3	1.031	3.60	The company achieves technological innovation based on a vast reservoir of knowledge.	2
high	4	1.050	3.51	Data transmission systems achieve the principle of technological innovation and are part of business intelligence.	3
high	1	1.001	3.70	Data storage leads to the creation of new ideas in a structured framework.	4

Table (10) indicates that the fourth paragraph, which reached an arithmetical mean of 3.70, with a standard deviation (1.00), which states: "Data storage leads to the creation of new ideas within a structured framework." The third paragraph had the lowest mean (3.51) and the standard deviation (1.05). "Data transmission systems achieve the principle of technological innovation, which is part of business intelligence." Demonstrating the company's interest in monitoring data storage, processes and activities that contribute to the development of creative ideas.

### 3- Prospecting data

The arithmetical mean and the standard deviation of the dimension (data mining) and its paragraphs were calculated, as shown in Table 11.

**Table (11) Arithmetic averages and standard deviations of dimension (data mining)**

importance	Rank	ST.D	Mean	Paragraph	#
high	5	1.036	3.51	Data mining improves the design of products and services	1
high	4	1.016	3.60	Data mining makes it easy to find new products and services at any time.	2
high	3	.966	3.64	The use of data mining helps in obtaining products and services with the least time and effort.	3
high	2	.851	3.64	Data mining provides high level of accuracy information to the company and customer.	4
high	1	.916	3.73	Data mining develops and improves the performance and quality of services.	5

Table (11) indicates that the fifth paragraph, which states that "data mining develops and improves the performance and quality of services", has a higher mean (3.73) and a standard deviation (0.916). The first paragraph had a lower mean of 3.51 and a standard deviation of 1.04 and stated that "data mining improves the design of products and services". Demonstrating that the company follows standards and methods to increase performance and improve data mining methods and meet all customer needs.

### 4- Preparation of reports

The arithmetical mean and the standard deviation of the (reporting) dimension and paragraphs were calculated, as shown in Table 12.

**Table 12: Arithmetic averages and standard deviations of dimension (reporting)**

importance	Rank	ST.D	Mean	Paragraph	#
high	4	1.003	3.58	Advanced data analysis makes it easier to access products and services, thereby improving performance.	1
high	3	1.015	3.61	Advanced data analysis speed helps save time and effort in building a new service.	2
high	2	.963	3.66	Accuracy and clarity Advanced data analysis contributes to the company's profitability.	3
high	2	.976	3.67	Advanced data analysis helps meet all the needs and desires of the client, whatever they may be.	4

Table (12) indicates that the fourth paragraph, which reached the mean (3.67) and the standard deviation (0.976), which states: "Advanced data analysis helps to meet all the needs and wishes of the customer whatever." The first paragraph had a lower mean of 3.58 and a standard deviation of 1.00. "Advanced data analysis makes it easier to access products and services, which improves performance." Which indicates that the company's interest in the reporting process is very high, which helps in the growth and development.

### 5- Transmission of information

The arithmetical mean and the standard deviation of the (information transfer) dimension and its paragraphs were calculated, as shown in Table 13.

**Table (13): The statistical averages and the standard deviations of the dimension (transfer of information)**

importance	Rank	ST.D	Mean	Paragraph	#
high	1	.998	3.75	The company recognizes that the development of communication technology is a necessity that requires the development and modernization of technology adopted by economic business organizations.	1
high	3	1.128	3.70	The company has the ability to integrate elements of theoretical and applied knowledge to create something new.	2
high	2	1.209	3.74	The proper transmission of information in the company develops the ability to detect opportunities and threats.	3
high	4	1.068	3.69	The company has the ability to know the modern technological capabilities that qualify it to obtain the oral and written information available in the information repository.	4

Table 13 indicates that the first paragraph, which states that "the company is aware that the development of communication technology is a necessity that requires the development and modernization of technology adopted by economic business organizations" had a higher mean of 3.75 and a standard deviation of 0.998. The fourth paragraph had the lowest mean of (3.69) and the standard deviation (1.07) stating that "the company has the ability to know the modern technological capabilities that qualify it to obtain the oral and written information available in the information warehouse." Which shows that the company is aware of the development of communication technology is high and high, which contributes to improving performance and efficiency, which in turn achieves the desired strategic objectives.

**Testing hypotheses:**

It was ascertained that the conditions necessary for testing the hypotheses of the study were achieved as follows:

**H01: There is no statistically significant effect at the level of significance (0.05 =  $\alpha$ ) for the organizational development in its dimensions (development, empowerment, appointment, innovation, organization) to maximize business efficiency (data collection, data warehouse, data mining, Transfer of information) in Jordanian industrial joint stock companies.**

To examine this hypothesis, the researcher conducted multiple regression analysis in order to show the effect of organizational development combined on maximizing business intelligence at the level of  $\alpha = 0.05$  and the result is as follows:

**Table (14): Summary of Form**

Standard error	(R)	(R <sup>2</sup> )	Adjust (R)	Model
.54458	.705 <sup>a</sup>	.498	.478	1

Table 14 shows that the correlation coefficient of the independent variable (organizational development) and the variable (business intelligence) reached 0.705. The value of the (R<sup>2</sup>) was 0.498, meaning that the model accounted for 49.8% of the total variance, and the rest was explained by other factors.

**Table (15): Results of multiple regression analysis**

Sig	F	Squares mean	DF	squares		Model
.000 <sup>b</sup>	25.565	7.582	5	37.909	Regression	1
		.297	252	38.257	Residual	
			257	76.166	Total	

Table (15) shows the value of F (25.565), and the statistical significance level is (0.00), which is less than (0.05), thus rejecting the null hypothesis and accepting the alternative hypothesis. There is a statistically significant effect at the level of  $\alpha = 0.05$  (Development, empowerment, appointment, innovation, organization) to maximize business intelligence in its dimensions (data collection, data warehouse, data mining, reporting, information transfer) in the Jordanian joint industrial companies.

**Table (16): Transaction table for the whole variable (a Coefficient)**

Tolerance	VIF	Sig.	T	Beta	Standard error	B	Dimintion
.338	2.955	.040	2.073	.222	.094	.196	development
.228	4.377	.647	-.459-	.060-	.111	.051-	empowerment
.463	2.159	.026	2.258	.207	.069	.157	appointment
.339	2.950	.025	2.274	.244	.096	.219	innovation
.310	3.225	.081	1.757	.197	.100	.175	organization

Table (16) shows that the elements (development, appointment, innovation) have a statistically significant effect at a level of (0.00), which is less than 0.05 on maximizing business intelligence in all its dimensions. The rest of the elements have no statistically significant effect at (0.05).

To ensure that there is no high internal correlation between the elements of the independent variable

(Multicollinearity), the VIF and Tolerance were extracted for all dimensions of the independent variable, and VIF were found to be smaller than 5, Multiple regression could be used.

### Discussion of results

- 1- The results showed that there is a statistically significant effect at the level of ( $\alpha = 0.05$ ) for organizational development in its dimensions (development, empowerment, appointment, innovation, organization) to maximize business intelligence in its dimensions (data collection, data warehouse, data mining, , Transfer of information) in Jordanian industrial joint stock companies.
- 2- The results showed that the elements (development, appointment, innovation) have a statistically significant effect at the level of (0.00), which is less than (0.05) on maximizing business intelligence in all its dimensions. The rest of the elements have no statistically significant effect at (0.05).
- 3- The results showed that there is a statistically significant effect at the level of ( $\alpha = 0.05$ ) for the organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the collection of data in Jordanian industrial joint stock companies.
- 4- The results showed that the (Empowerment) component reached a level of significance (0.000), ie, it has a statistically significant effect at the level of significance (0.05) on the data collection, while the rest of the elements have no statistically significant effect at (0.05).
- 5- The results showed that there is a statistically significant effect at the level of ( $\alpha = 0.05$ ) for the organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the data warehouse in Jordanian industrial joint stock companies.
- 6- The results showed that the elements (appointment, innovation) had a statistically significant effect at a level of significance less than (0.05) on the data warehouse, while the rest of the elements did not have a statistically significant effect at (0.05).
- 7- The results showed that there is a statistically significant effect at the level of ( $\alpha = 0.05$ ) for the organizational development in its dimensions (development, empowerment, appointment, innovation, organization) on the exploration of data in Jordanian industrial joint stock companies.
- 8- The results showed that the element (development) had a mean level of less than (0.05), ie, it has a statistically significant effect on the exploration of data, while the rest of the elements have no statistically significant effect at (0.05).
- 9- The results showed that there is a statistically significant effect at the level of ( $\alpha = 0.05$ ) for the organizational development in its dimensions (development, empowerment, recruitment, innovation, organization) on the preparation of reports in Jordanian industrial joint stock companies.
- 10- The results showed that all elements had no statistically significant effect at the level of (0.05) on the preparation of reports.
- 11- The results showed that there is a statistically significant effect at the level of ( $\alpha = 0.05$ ) of the organizational development in its dimensions (development, empowerment, recruitment, innovation, organization) on the transfer of information in Jordanian industrial joint stock companies.
- 12- The results showed that the elements (development and recruitment) had a statistically significant effect on the level of (0.05) on the transmission of information, while the rest of the elements did not have a statistical effect at (0.05).

### Recommendations

- 1- The study recommends that Jordanian industrial companies and other organizations in general increase the interest of senior administrative leaders in the importance of organizational development as one of the fundamental concepts in modern management. Which contribute to giving a clear vision for the future, anticipating threats and exposing opportunities in the internal and external environment of the company, so that they can provide creative ideas to help them to develop strategic plans, which is difficult for competitors to imitate them only at high cost or after a long time.
- 2 - The study recommends that Jordanian industrial companies and other organizations in general, to pay attention to the concept of business intelligence, which is an important and directly affecting the companies, which may be an obstacle to the development of companies and growth. Therefore, it is necessary to increase the interest of administrative leaders to study and understand the characteristics of the dimensions and methods of business intelligence that are effective and develop companies through them and know how to manage those dimensions in the form of development and growth, and avoid and avoid crises that may accompany the process of development of companies and growth.
- 3- The study recommends that Jordanian industrial companies and other organizations in general should develop after the innovation in all its details. This is explained by the descriptive analysis and testing hypotheses, where it showed the impact of this dimension on business intelligence in all its dimensions. Through the development of flexible strategies that help increase the mutual positive feeling between the company's management and the

employees of the company in addition to the ability of workers to do their work without reference or help others adapt to environmental developments surrounding, and in a manner that harmonizes between the internal activities of companies and business environment variables.

4. The study recommends that Jordanian industrial companies and the rest of the organizations in general, the importance of the availability of each of the dimensions of business intelligence among senior administrative leaders, which achieve the future aspirations and to the position that seeks to reach them. Through the development of the capabilities of their employees and encourage them to provide creative ideas and share the vision of the future, which correspond to the directions and future aspirations of the company.

5- The study recommends that Jordanian industrial companies and other organizations in general should focus on the development of their administrative leadership by attracting individuals with the skills and experience gained and accumulated through many years of specialized work. Which enables them to carry out their duties and responsibilities in a way that enhances the company's position and competitiveness by employing the internal strengths of the company to optimize the opportunities available in the business environment and to seize those opportunities before its competitors.

### References

- Aati, Lamy and Aalem, Asma (2018). Knowledge Management as an Approach to the Application of Organizational Development in the Institution, Umm Al-Bohaqi University, Department of Economic Sciences, <http://hdl.handle.net/123456789/4695>
- Al-Azzawi, Ghanem (2013), Using Business Intelligence Systems in Human Capital Development, A Survey of a Sample of Employees in the Ministry of Health, Al-Ghari Magazine, Volume 9 (28).
- Birkani, Maryam and Quneifa, Noura (2018). The role of electronic management in organizational development at the institution, University of Umm al-Bohaki, Department of Economic Sciences, <http://hdl.handle.net/123456789/4939>.
- Gaikhorst, L., Marz, V., Du Pre, R., Geijsel, F. (2018). Organizational conditions for teacher professional development: School principals' beliefs and practices, Annual Meeting of the American Educational Research Association (AERA), <http://hdl.handle.net/2078.1/199121>.
- Kapoor, B (2010). Business Intelligence and Its Use for Human Resource Management . the Journal of Human Resource and Adult Learning, 6 (2), 21- 30.
- Kasemsap, R. (2018). Multifaceted Applications of Data Mining, Business Intelligence, and Knowledge Management, Int. J Sup. Chain. Mgt, 7 (1).
- Richards, G., Yeoh, W., Chong, A., & Popovic, A. (2017). Business Intelligence Effectiveness and Corporate Performance Management: An Empirical Analysis. *Journal of Computer Information Systems*, 25 (2).
- Saleh, Sarmad. Ismail, Hadi, Ali, and Ari (2017). The role of business intelligence in achieving the dimensions of efficient consumer response Study of the views of a sample of managers in the individual shops of the international business organizations in the provinces of Erbil and Dohuk, the academic journal of the University of Noroz, Volume 7 (1), pp.