



The impact of organizational development Expenses on financial performance: a field study in the Jordanian pharmaceutical companies sector.

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Abstract

This study seeks to clarify the impact of organizational development expenses (training and development of employees, use of technology, spending on employees) on financial performance (return on equity, return on assets) in. And to provide a systematic perception of the most important practices related to financial performance. And Shedding light on the importance of employee training, the use of technology, and spending on employees in raising financial performance.

This has affected the improvement of the performance of employees in Jordanian pharmaceutical companies, and the satisfaction of service recipients. The study population formed of all (service providers) in the Jordanian pharmaceutical companies, a sample of workers in (10) centers, During the period from 2019 to 2021, in order to obtain data for both independent variables and dependent variables and all of them were considered valid for analysis.

The findings of this study showed:

- The positive relationship between variables calls on pharmaceutical companies in Jordan to increase attention in the aspect of training employees because of the importance of improving the returns of pharmaceutical companies and thus increasing their profitability.

- The direct relationship between variables calls on pharmaceutical companies in Jordan to increase attention in the aspect of training employees because of the importance of improving the returns of pharmaceutical companies and thus increasing their profitability.
- There is an inverse relationship between employee expenses, return on assets and return on equity.
- The study showed that there is no statistically significant effect of spending on organizational development in its dimensions (expenditures in training and training of employees, expenditure in information technology, and personnel expenditure) on the financial performance in its dimensions (return on assets, return on equity) for Jordanian pharmaceutical companies.

In conclusion, this study concluded with a set of recommendations, which were drawn in light of the results, the most important of which was,

- The need for government and legislative agencies to directly supervise spending in organizational development.
- The need to impose laws by the responsible authorities to impose on pharmaceutical companies a unified reward system, which works to reduce the expenses of employees within pharmaceutical companies.
- The need to work on developing deliberate plans to face any emergency situation, after the loss suffered by most Jordanian pharmaceutical companies due to the Corona pandemic.

Key words: organizational development, Expenses on financial performance, Jordanian pharmaceutical companies

General framework of this study.

Introduction:

Organizational development refers to the rapid change that is taking place, requiring officials to work on building great capabilities in the organization, so that it is able to anticipate events that may occur and thus take advantage of new opportunities that can create a clear change in the performance of the organization (Roy, 2014).

Financial performance is a tool to measure the success of the establishment in exploiting the resources available in a good way, and achieving the objectives set by the management, and the financial performance in institutions aims at the following (Matar, 2016):

- Knowing the activity of the facility, this gives the investor all the information he needs in order to enter into investment with this facility.
- Evaluating the financial position of the entity, through analysis and interpretation of the financial statements of the entity.

There are several indicators to measure financial performance and the following metrics will be used in this study:

- Return on assets
- Return on equity

The problem and questions of the study

The use of traditional organizational plans works on the inactivity of the organizational system in the institution, which may reduce the performance of the institution significantly and this may work on the collapse of the institution in the long run, but when institutions work to develop their organizational plans, they work at the same time to raise their efficiency.

Since financial performance is the most important measure in determining the path of the institution and its evaluation, the researchers in this study will seek to know the impact of the application of Jordanian pharmaceutical companies to the elements of organizational development on financial performance, and from here the problem of the study was identified, so that the factors that revolve around organizational development strategies will be studied to reach the extent of their impact on financial performance within Jordanian pharmaceutical companies.

The problem of the study was formulated as follows:

The first major question: there is an impact of organizational development expenses (training and development of employees, use of technology, spending on employees) on financial performance (return on equity, return on assets) in Jordanian pharmaceutical companies?

The following sub-questions emerge from this main question:

- To what extent does employee training and development expenses affect return on assets in Jordanian pharmaceutical companies?
- To what extent does employee training and development expenses affect the return on equity in Jordanian pharmaceutical companies?
- Is there an impact of the use of technology expenses on the return on assets in Jordanian pharmaceutical companies?
- Is there an impact of the use of technology expenses on the return on equity in Jordanian pharmaceutical companies?
- Is there an impact of employee expenses on the return on assets in Jordanian pharmaceutical companies?
- Is there an impact of employee expenses on the return on equity in Jordanian pharmaceutical companies?

Importance of the study

It seeks to clarify the relationship between the role of organizational development **expenses** and its impact in achieving financial performance in **Jordanian pharmaceutical companies sector**, and studying satisfaction of the service provider and recipients, and to providing a systematic perception of the most important practices related to organizational development affecting achieving financial performance.

Objectives of the study:

The study aims to know the impact of organizational development expenses in its dimensions on the financial performance in its dimensions in the Jordanian Pharmaceutical Company by providing:

- a comprehensive concept of the importance of organizational development expenses in raising the efficiency of financial performance
- Shedding light on the importance of employee training, the use of technology, and spending on employees in raising financial performance.

Study Design:

This study relied on the descriptive analytical approach, the field study method, and through the preparation and development of its questionnaire as a main tool for data collection.

The descriptive analytical approach was relied upon to conduct this study, with the aim of identifying "the impact of organizational development on financial performance in Jordanian pharmaceutical companies", and this approach depends entirely on the accurate and detailed interpretation of the current situation or problem by determining its dimensions and circumstances in order to reach an accurate and integrated scientific description. This approach also includes the process of analyzing and interpreting data and reaching an accurate description of the problem in a comprehensive manner that is useful in generalizing the results reached and helps to predict the future of the phenomenon, and provide solutions and proposals to address it.

Data collection methods

- a) Secondary data collection: Secondary data was obtained through the researcher's review of the literature from books, periodicals and previous studies related to the subject of the study.
- b) Means of primary data collection: This study used the questionnaire as a means of collecting primary data.

Tests for the measuring instrument

- A. Validity, is defined as the process of ensuring that the instrument (scale) used actually measures the phenomenon it was designed to measure. The authenticity of the content of the measurement tool (questionnaire) used in this study was ascertained, as it was presented after the development of its initial form to three arbitrators from the faculty members at Jerash and Yarmouk University, to ensure that it covered the basic aspects of the topic, its clarity, and the integrity of its formulation and contents. The tool was then modified based on their observations in deleting some phrases, modifying and adding new phrases, and reformulating some paragraphs, to become clearer and more understandable among the members of the study sample, to be more honest in measuring the subject of this study.
- B. Reliability, the stability of the instrument used in the study was confirmed by extracting the Cronbach Alpha coefficient for internal consistency, Cronbach Alpha for multi-point scale. In order to ensure that the measurement tool does not obtain false data, if the same study is repeated and using the same tool in the same conditions in which it was used for the first time, and the value of this coefficient reached (0.81) for the all dimensions.

The population and sample of the study were selected 11 Jordanian insurance companies listed on the Amman Stock Exchange and the companies whose information was not complete were excluded.

Study Tool: The method used by the researchers to collect the data necessary to measure (organizational development expenses) as well as the data necessary to measure (financial performance), and organizational development strategies were measured (the independent variable through (spending on employee salaries, spending in employee training, and spending in information technology) and financial performance (dependent variable) was measured through (return on assets, return on equity), and the annual reports of companies in the pharmaceutical sector in Jordan were relied on. During the period from 2019 to 2021, in order to obtain data for both independent variables and dependent variables shown in Table (1).

Table (1) Study variables and data for the extended period (2019-2021) (all figures in the table are percentages)

2019					Company Name
ROA	ROE	Information Technology	Staff Training	Staff expenses	
1.61	11.16	5.373	3.172	4.394	Al Hikma Company
1.49	9.69	7.535	5.567	6.643	Al Ram Pharmaceutical Industries
0.88	8.03	6.621	5.380	6.872	Dar Al Dawa Company
1.09	6.51	7.442	5.354	6.177	Sweden Company
0.83	8.16	7.671	5.934	6.965	Jordan Pharmaceutical Production Company
0.38	3.82	7.147	5.143	6.162	Arab Pharmaceutical Industries Co.
0.76	7.56	7.208	4.672	6.141	International Pharmaceutical Company
0.17	1.23	7.137	4.954	6.093	United Pharmaceutical Company
0.99	7.57	7.926	5.762	7.058	Food House Company
1.37	8.84	7.204	4.852	6.023	Al Sharq Drug Warehouse

					Company
2020					Company Name
ROA	ROE	Information Technology	Staff Training	Staff expenses	
0.08	0.57	5.713	3.245	4.754	Al Hikma Company
1.31	7.87	7.491	5.397	6.768	Al Ram Pharmaceutical Industries
0.52	4.95	7.622	4.991	6.929	Dar Al Dawa Company
-0.16	-0.99	7.464	5.202	6.165	Sweden Company
0.57	5.78	7.657	5.611	7.022	Jordan Pharmaceutical Production Company
0.04	0.37	7.114	4.633	5.118	Arab Pharmaceutical Industries Co.
0.52	5.25	7.204	3.312	6.169	International Pharmaceutical Company
0.1	0.76	7.123	4.815	6.157	United Pharmaceutical Company
0.51	3.33	7.887	5.523	7.064	Food House Company
0.49	3.23	7.181	4.562	5.988	Al Sharq Drug Warehouse Company
2021					Company Name
ROA	ROE	Information Technology	Staff Training	Staff expenses	
0.57	4.09	5.781	3.519	4.832	Al Hikma Company
1.32	7.61	7.483	5.564	6.813	Al Ram Pharmaceutical Industries
0.9	8.47	7.647	5.222	6.908	Dar Al Dawa Company
0.26	1.66	7.488	5.254	6.197	Sweden Company
0.66	7.59	7.696	5.623	7.084	Jordan Pharmaceutical Production Company

0.48	4.76	7.143	4.968	6.232	Arab Pharmaceutical Industries Co.
0.79	8.14	7.191	4.274	6.271	International Pharmaceutical Company
0.78	5.7	7.174	4.826	6.180	United Pharmaceutical Company
1.34	9.14	7.882	5.683	7.101	Food House Company
1.41	9.77	7.187	4.734	6.093	Al Sharq Drug Warehouse Company

Data collection sources

The process of data collection is one of the most important steps in conducting scientific research, and it must receive special attention, due to its importance in providing appropriate evidence to answer the questions of the study that are presented in the study problem, and the data gains its value through its response and adaptation to the problem, and finding solutions and explanations for these problems (Al-Jadri and Abu Helou, 2015).

To complete this study, published and unpublished books and research, and university theses were referred to, and some websites were used that help collect data on the analysis process, and some old research was used to obtain all the required information, and modern studies on the subject of the study. Secondary sources were obtained from (bulletins and annual reports of pharmaceutical companies in Jordan) during the period (2019-2021).

Normal Distribution Test

Shapiro-Wilke Test

The normal distribution test of the collected data was performed to ascertain whether the data is within the normal distribution or not, where the Shapiro-Wilke test was performed, since the sample size is less than (150) observations (Doane & Seward, 2011). One of the conditions of normal distribution is that the Sig value of the data is greater than (0.05), which means that the data is distributed naturally (Hair, et.al.2018) and the results were as shown in Table (2).

Table (2) Normal distribution of data

Sig	Variables	Variable type
0.11	employees expenses	Independent
0.13	employees Training Expenses	
0.10	Information Technology Expenditures	
0.08	Return on assets	Dependent
0.85	Return on equity	

Based on the test data shown in the previous table No. (2), which confirms that the data are distributed normally, where the value of Sig for all variables of the study, values greater than 0.05.

Statistical methods used:

The Statistical Program for Social Sciences (SPSS) was relied upon to process the data to obtain answers to the questions of the study and test its hypotheses to achieve the objectives of the study, after unloading the financial data into the tables of the program, by applying the following statistical indicators:

- **Descriptive Statistic Measures:** To measure arithmetic averages and standard deviations.
- **Inferential Statistics:** This is in order to be able to apply the following statistical methods and indicators.
- Normal distribution test: to know the extent of normal distribution of data
- Simple linear regression analysis to measure the effect of only one independent variable on only one dependent variable, and the equation is as follows:

Dependent variable	= Y
(Constant)	= α
Slope	= b
Independent variable	= x
Error	= e

Therefore, the equation is formulated as follows: $Y = a + bx + e$

Related studies:

Saker (2022). **The Impact of Management Information Systems on Improving Employee Performance: A Case Study in the Financial and Administrative Department / Ministry of Higher Education and Scientific Research.** The study aimed to measuring the impact of management information systems on the performance of employees in the administrative and financial department, where the size of the study population (203) was selected from the various employees within the organization. While the sample size of the study was (57) workers and they were selected in a simple random way. The results concluded that there is a clear and statistically significant impact of hardware efficiency on the performance of employees in the Iraqi Ministry of Higher Education, as well as a statistically significant impact on advanced software technology. Human resources, network technology and efficiency. Databases and ease of practices and regulations related to the performance of employees in the Iraqi Ministry of Education. The study recommended the need to emphasize the need to increase the degree of efficiency of the techniques and programs used in the Iraqi Ministry of Education, in line with the important basic requirements for the management of modern information systems and taking into account the modernization of Internet and intranet communication technologies. In the Iraqi Ministry of Higher Education.

Hindasah, and Nuryakin (2020). **The Relationship between Organizational Capability, Organizational Learning and Financial Performance.** This study aims to empirically investigate the influence of organizational capability and organizational learning on the financial performance of family-business type small- and medium-sized enterprises (SMEs). In addition, this study examines the moderating role of SMEs' ages and the managers' experiences in the relationship between organizational capability and organizational learning on the SMEs financial performance. This study is a basic exploratory research conducted by using an empirical survey, i.e., sampling of the businessman (the owner) of family-business type SMEs cross-functional in the area of DIY. The study uses purposive sampling. The respondents are the SME businessmen from the various business sectors in Yogyakarta, Indonesia. The number of respondents is 150. Hypothesis testing used SPSS program's moderation regression approach; validity and reliability testing used confirmatory factor analysis and Cronbach's alpha. The result of this study shows that organizational capability positively and significantly affects the financial performance. Also, organizational learning significantly affects the financial performance. The organization's age factor does not moderate the relationship between organizational capability and the financial performance, but it is significant on the organizational learning. The factor of manager's

experience moderates insignificantly on the relationship between organizational capability and financial performance. However, it is significant to the organizational learning.

Koene. et. al. (2002). **Leadership effects on organizational climate and financial performance: Local leadership effect in chain organizations.** The study aimed to examine the effect of different leadership styles on two financial measures of organizational performance and three measures of organizational climate in 50 supermarket stores of a large supermarket chain in the Netherlands. Our findings show a clear relationship of local leadership with the financial performance and organizational climate in the stores. The findings also show that the leadership styles have differential effects. Charismatic leadership and consideration have a substantial effect on climate and financial performance in the small stores, suggesting the relevance of personal leadership of the store manager in these small stores. Initiating structure leadership had no effect on financial results or organizational climate, either in the small stores or in the large stores. Based on these findings, we have formulated some avenues for further research.

Based on the experience of the researcher and by reviewing previous studies related to the subject of the study, the following hypotheses has been formulated:

hypotheses of the study:

Main hypothesis: There is no statistically significant effect at the level of ($\alpha \leq 0.05$) of organizational development in its dimensions (expenses in training and development of employees, expenses in the use of technology, expenses of employees) on the financial performance in its dimensions (return on assets, return on equity) for Jordanian pharmaceutical companies.

From this main hypothesis emerge the following sub-hypotheses:

- 1- There is no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditures in the training and development of employees on the return on assets of Jordanian pharmaceutical companies.
- 2- There was no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditures in information technology on the return on assets of Jordanian pharmaceutical companies.
- 3- There is no statistically significant effect at the level of ($\alpha \leq 0.05$) of employee expenditure on the return on assets of Jordanian pharmaceutical companies.
- 4- There is no statistically significant effect at the level of significant ($\alpha \leq 0.05$) of expenditures in training and developing employees on the return and equity of Jordanian pharmaceutical companies.
- 5- There was no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditures in information technology on the return on equity of Jordanian pharmaceutical companies.
- 6- There was no statistically significant effect at the level of ($\alpha \leq 0.05$) of employee expenditure on the return on equity of Jordanian pharmaceutical companies.

Theoretical framework:

Expenses: It refers to the costs borne by companies from the operations they carry out in order to increase revenues and achieve profits (TAQA, Al-Azzawi, 2010).

Al-Dulaimi (2019) defines it as the amounts that organizations pay in the form of employee wages, leases, and equipment depreciation, which reduces their annual taxable income and liability.

Types of spending in accounting

Accounting expenses can be divided into three types:

Capital expenditure: Capital expenditure represents all the money that companies use for purchases and asset development, with the aim of extending their life. The danger of these expenses lies in the fact that they may affect the budget significantly because they reach very high amounts at times, and these risks can be avoided by making sure that the revenues specified in the budget can cover these expenses, in contrast, one of the advantages of these expenses is that they look at the assets in the long term, which helps the institution to always continue (Al-Srikhi, 2019). Examples of capital expenditures include (buildings and property of the enterprise, software development expenses, and expenses on vehicles).

Operating expenses: which are expressed in all expenses and costs that companies pay for the commercial and vital activities of companies, and these expenses are mandatory towards institutions because of their importance in the continuity of the company and the conduct of its business to achieve profit and revenues, and examples of operating expenses (telephone expenses, travel expenses, and expenses for benefiting from services such as electricity and water).

Administrative expenses: All expenses that are expenses paid by companies on activities that are not related to the production process, and are either fixed (paid for the continuity of the business process) or variable (paid only once or twice) (Al-Ra'ad, 2016). Examples of administrative expenses include (staff salaries, supply services, and IT expenses).

Organizational development: The concept of organizational development can be referred to as the rapid change that occurs, as it requires those responsible for organizational development to work on building great capabilities and capabilities in the organization so that it is able to

anticipate events that may occur and thus take advantage of new opportunities that may arise a clear change in the performance of the organization (Roy, 2014).

Dimensions of organizational development

In a study (Cabler, 2004), organizational learning was divided into three dimensions:

- The strategic dimension: It is the unification of efforts and orientation towards organizational learning by the members of the organization, and it also requires them to develop specific plans that support and support learning and innovation.
- The organizational dimension: It represents the flexible organizational structure that is more heard for those working to gain experience and exchange ideas, thus learning from mistakes and not repeating them.
- Cultural dimension: It is the creation of a work environment that encourages the worker to learn and innovate, by providing and retaining new information.

The improvement of the organizational process depends entirely on some elements and applications that emerge from management by increasing the organizational culture, as well as on the development of the organizational structure. Among the most prominent elements related to organizational development (Flamhoitz, 2005):

- Combine internal and external organizational issues.
- The presence of experts capable of developing management methods, and this is in the presence of internal and external experts.
- Work within a structured and pre-planned effort. The main supporter is senior management.

The researchers believe that organizational development can be defined as tasks and policies aimed at improving and increasing production, through training workers and developing their practical and scientific skills. It should be noted here that the objectives of organizational development within organizations are as follows (Shanak, 2017):

- Problem solutions should be characterized by creativity and innovation.
- Improve the skills of all team members within organizations.
- Work to strengthen administrative methods by providing some types of assistance to managers, to reach smooth solutions to solve administrative problems.

- Dealing with environmental regulations of different sources and types.
- Work on the permanent development of the system of rewards and incentives, and can be linked to the achievement and implementation of the objectives of the organization.

Elements of organizational development (Roy, 2014)

- Long-term plan: Organizational development depends on developing a plan with a long period of time ranging from one to five years.
- Meet problems: so that the activities of people with influence in the organization must be targeted and their capabilities raised so that their leadership influence is doubled to be able to face the challenges faced by the institution.
- Building the future: This is done by preparing employees on how to address potential problems in the future, and the element of estimating the future and the changes it may hold must be included in the structure of the planning process.
- External intervention: This depends on the presence of external parties such as management consulting writers specialized in this field to be a key driver for change. The intervention of these parties depends on the depth of the problems faced by the administration.

Financial Performance

Financial performance is a tool to measure the success of the establishment in exploiting the resources available to it in a good way, and achieving the objectives set by the management, and the financial performance in institutions aims at the following (Matar, 2016):

- Knowing the activity of the facility, this gives the investor all the information he needs in order to enter into investment with this facility.
- Evaluating the financial position of the entity, through analysis and interpretation of the financial statements of the entity.
- There are several indicators to measure financial performance and the following measures will be used in this study: Return on assets Return on equity.

Measuring financial performance through profitability ratios

The profit ratios set puts the company in front of important information about the operating activity in the short term, and this indicates that the company that is unable to survive in the short term will not be able to survive in the long term (Al-Nuaimi, Tamimi, 2008).

To determine the efficiency of investment and financing decisions, the following economic rules can be followed:

- Profit margin. This rule reflects the company's ability to offer products at a lower cost or at a higher price.

$$\text{Gross Profit Margin} = \text{Gross Profit} / \text{Net Sales}$$

The resulting percentage represents the dinar's ability to make a profit from sales

- Revenue capacity. represents the company's ability to achieve operating profit from its core activity.

$$\text{Basic Earning Power} = \text{EBIT} / \text{Total Asset}$$

The resulting percentage represents the ability of the dinar from sales to generate profit

- Rate of return on assets. This rate represents the effectiveness of management in making a profit from available resources, and this ratio was used as a dependent variable in this study.

$$\text{Return On Asset (ROA)} = \text{Net Income} / \text{Total Asset}$$

This ratio measures the productivity of the invested dinar in relation to the assets

- Rate of Return on Equity. This rate refers to the extent to which leverage contributes to increasing shareholder wealth, this ratio was used as a dependent variable in this study.

$$\text{Return On Equity (ROE)} = \text{Net Income} / \text{Equity}$$

This ratio measures the wealth of one dinar invested from the owners' money.

- Earnings per share. This metric expresses the amount of earnings available to ordinary shareholders.

Earnings Per Share= (NET Income- Preferred dividends)/ number of common stock

Earnings per share. This metric expresses the amount of earnings available to ordinary shareholders.

It is noted from the previous ratio that the preferred shares were excluded because the company bears the distribution of the dividends of the preferred shares before the ordinary shares. (Financial Analysis and Planning, Dr. Adnan Tayeh Al-Nuaimi and Dr. Arshad Al-Tamimi, 2008).

Results of the study

The results of the descriptive analysis:

The arithmetic mean and standard deviation were calculated to describe the results of the study for each of the variables (independent and dependent) during the study period from 2019 to 2021 shown in Table (3).

Table 3
Results of the study during the period (2019-2021)

Sample Size (N)	Std. Deviation	Mean	Maximum value	Minimum value	variables
30	0.72	6.27	7.10	4.92	Staff expenses
30	0.76	4.92	5.93	3.17	Expenses in staff training
30	0.61	7.21	7.92	5.37	IT Expenditure
30	3.20	5.72	11.16	-0.99	ROE
30	0.47	0.74	1.61	-0.16	ROA

The previous table No. (3) indicates that the arithmetic mean of employee expenses is (6.27) with a standard deviation of (0.72) and the minimum value was (4.92) in (2019) in Al-Hikma Company, and the maximum value was (7.10) in (2019) in Al-Ram Company, while the arithmetic mean of expenses allocated to employee training reached (4.92) with a standard deviation of (0.76) and the minimum value was (3.17) in (2019) in Al-Hikma Company and the maximum value was (5.93) in (2019) in the Jordan Pharmaceutical Production Company, and the arithmetic mean was For IT expenses (7.21) with a standard deviation of (0.61) and the minimum value was (5.37) in (2019) in Al-Hikma Company, and the highest value (7.92) in (2019) in Al-Ram Company.

The arithmetic mean value of return on equity was (5.72) with a standard deviation of (3.20), the minimum value was (-0.99) in (2020) in Dar Al-Dawa Company and the maximum value (11.16) in (2019) in Hikma Company, and the arithmetic mean of return on assets was (0.74) with a standard deviation of (0.47) and the minimum value was recorded (-0.16) in (2020) in the Swedish company and the maximum value (1.61) in (2019) in Hikma Company.

Through what was presented in the previous part, the researchers believe that this item, which is dedicated to reviewing the descriptive statistics of the study variables, is to obtain a general description of the variables in terms of arithmetic averages, patterns and nature of their behavior during the study period from 2019 to 2021, and this fluctuation in the return on assets and return on equity in the year 2020 indicates the strong crisis that the different sectors in Jordan were exposed to due to the Corona virus, and the values presented in Table (3) to That's very clear. This reason was not isolated from the impact on the rest of the study variables (staff expenses, staff training, IT expenses), as some companies terminated some of their employees in an attempt to reduce their expenses, which led to a reduction in the courses offered by companies to new employees.

Testing the hypotheses of the study:

This part is related to the presentation of the results of the hypothesis test, in order to determine the effect relationships in order to present the results and clarify the behavior of the relationships between the variables of the study, the significance level ($\alpha \leq 0.05$) has been relied upon as a rule to reject and accept hypotheses, meaning if the value of Sig is equal to or less than 5%, we accept the nihilistic hypothesis H_0 and reject the alternative hypothesis and vice versa.

The results of the first sub-hypothesis test:

There is no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditures in the training and development of employees on the return on assets of Jordanian pharmaceutical companies.

The hypothesis was tested using the Simple Linear Regression test and its results are shown in Table (4).

Table (4)

Results of the Simple Linear Regression Model of the Impact of Expenditures on Training and Development of Employees on Return on Assets for Jordanian Pharmaceutical Companies

		Model Summery			
		R ²	R		
		0.026	0.163		
ANOVA					
Sig F	F Calculated	Average of squares	Degree of freedom Df	Sum of squares	Model
*0.390	0.761	0.168	1	0.168	Regression
		0.22	28	6.17	Rest
			29	6.34	Total
*Morale at Significance($\alpha \leq 0.05$)					
Coefficient					
T Sig	T Calculated	Beta	Modular error	B Slope	Model
0.67	0.42		0.57	0.24	Constant
0.39	0.87	0.163	0.115	0.100	(Spending on staff training)

Table (4) represents the results of the statistical test of the first sub-hypothesis model, which is represented by the existence of one independent variable (expenditure in staff training), and one dependent variable (return on assets).

The results indicate that there is no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditure in training employees on the return on assets, where the level of significance reached (0.390) at one degree of freedom, and the value of R^2 of (0.026) indicates that the independent variable has explained its percentage (2.6%) of the variance in the return on assets, and the correlation coefficient reached (16.3%), which indicates a weak relationship between the two variables.

Based on the previous result, we accept the nihilistic hypothesis and reject the alternative hypothesis, as it was proven that there is no statistically significant effect of spending in training employees on return on assets, and from the above, the linear regression equation will be: **Return on assets = 0.246 + 0.100× expenses in staff training.**

The previous equation indicates that the increase in expenses in staff training is accompanied by an increase in the return on assets, but it is not easy to interpret this, so this can be explained through the standard mark (Z-Scorss) and this coefficient is equal to the value of the correlation coefficient between the two variables (Beta) and is used to predict the standard value of the dependent variable through the standard values of the independent variable, where that value reached (0.163) and this means that the increase of the independent variable is one degree accompanied by an increase in the dependent variable by (0.163).

The results of the second sub-hypothesis test:

There was no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditures in information technology on the return on assets of Jordanian pharmaceutical companies.

The hypothesis was tested using the Simple Linear Regression test and its results are shown in Table (5).

Table (5)

Results of the Simple Linear Regression Model of the Impact of Expenditures on Information Technology on Return on Assets of Jordanian Pharmaceutical Companies

		Model Summery			
		R ²	R		
		0.002	0.048		
ANOVA					
Sig F	F Calculated	Average of squares	Degree of freedom Df	Sum of squares	Model
*0.800	0.065	0.065	1	0.015	Regression
		0.226	28	6.32	Rest
			29	6.34	Total
*Morale at Significance($\alpha \leq 0.05$)					
Coefficient					

T Sig	T Calculated	Beta	Modular error	B Slope	Model
0.652	0.456		1.042	0.457	Constant
0.800	0.256	0.048	0.144	0.037	(Spending in Information Technology)

Table (5) represents the results of the statistical test of the second sub-hypothesis model, which is represented by the existence of one independent variable (IT spending), and one dependent variable (return on assets).

The results indicate that there is no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditure in information technology on the return on assets, where the level of significance reached (0.800) at one degree of freedom, and the value of R2 of (0.002) indicates that the independent variable has explained its percentage (0.2%) of the variance in the return on assets, and the correlation coefficient reached (4.8%), which indicates a weak relationship between the two variables.

Based on the previous result, we accept the nihilistic hypothesis and reject the alternative hypothesis, as it was proven that there is no statistically significant effect of spending in information technology on the return on assets, and from the above, the linear regression equation will be: **Return on assets** = 0.457 + 0.037 × **expenses in information technology**.

The previous equation indicates that the increase in expenses in information technology is accompanied by an increase in the return on assets, but it is not easy to interpret this, so this can be explained through the standard mark (Z-Scorss) and this coefficient is equal to the value of the correlation coefficient between the two variables (Beta) and is used to predict the standard value of the dependent variable through the standard values of the independent variable, where that value reached (0.048) and this means that the increase of the independent variable is one degree accompanied by an increase in the dependent variable by (0.048).

Results of the third sub-hypothesis test:

There is no statistically significant effect at the level of ($\alpha \leq 0.05$) of employee expenditure on the return on assets of Jordanian pharmaceutical companies.

The hypothesis was tested using the Simple Linear Regression test and its results are shown in Table (6).

Table (6)

Results of a Simple Linear Regression Model of the Impact of Employee Expenditure on Return on Assets of Jordanian Pharmaceutical Companies

		Model Summery			
		R ²	R		
		0.036	0.189		
ANOVA					
Sig F	F Calculated	Average of squares	Degree of freedom Df	Sum of squares	Model
*0.318	1.036	0.226	1	0.226	Regression
		0.218	28	6.115	Rest
			29	6.34	Total
*Morale at Significance($\alpha \leq 0.05$)					
Coefficient					
T Sig	T Calculated	Beta	Modular error	B Slope	Model
0.97	−0.038		0.761	−0.29	Constant
0.318	1.018	0.189	0.121	0.123	(Staff expenses)

Table (6) represents the results of the statistical test of the third sub-hypothesis model, which is the existence of one independent variable (personnel expenses), and one dependent variable (return on assets).

The results indicate that there is no statistically significant effect at the level of ($\alpha \leq 0.05$) of employee expenditures on the return on assets, where the level of significance reached (0.318) at one degree of freedom, and the value of R2 of (0.036) indicates that the independent variable has explained its percentage (3.6%) of the variance in the return on assets, and the correlation coefficient reached (18.9%), which indicates a weak relationship between the two variables.

Based on the previous result, we accept the nihilistic hypothesis and reject the alternative hypothesis, as it was proven that there is no statistically significant effect of employee expenses

on return on assets, and from the above, the linear regression equation will be: **Return on assets** = $0.29 - 0.123 \times \text{employee expenses}$.

The previous equation indicates that the increase in staff expenses is accompanied by a decrease in the return on assets, but it is not easy to interpret this, so this can be explained through the standard mark (Z-Scorss) and this coefficient is equal to the value of the correlation coefficient between the two variables (Beta) and is used to predict the standard value of the dependent variable through the standard values of the independent variable, where that value reached (0.189) and this means that the increase of the independent variable is one degree accompanied by a decrease in the dependent variable by (0.189).

Results of the test of the fourth sub-hypothesis:

There is no statistically significant effect at the level of significant ($\alpha \leq 0.05$) of expenditures in training and developing employees on the return and equity of Jordanian pharmaceutical companies.

The hypothesis was tested using the Simple Linear Regression test and its results are shown in Table (7).

Table (7)

Results of the simple linear regression model of the impact of expenditure on training employees on the return on equity of pharmaceutical companies

		Model Summery			
		R ²	R		
		0.030	0.172		
ANOVA					
Sig F	F Calculated	Average of squares	Degree of freedom Df	Sum of squares	Model
*0.362	0.858	8.80	1	8.80	Regression
		10.259	28	187.2	Rest
			29	296.0	Total
*Morale at Significance($\alpha \leq 0.05$)					
Coefficient					
T Sig	T Calculated	Beta	Modular error	B Slope	Model
0.589	0.547		3.91	2.139	Constant

0.362	0.926	0.172	0.786	0.728	(Spending on staff training)
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Table (7) represents the results of the statistical test of the fourth sub-hypothesis model, which is represented by the existence of one independent variable (expenditure in staff training), and one dependent variable (return on equity).

The results indicate that there was no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditure in training employees on the return on equity, where the level of significance reached (0.362) at one degree of freedom, and the value of R² of (0.030) indicates that the independent variable has explained its percentage (3%) of the variance in the return on equity, and the correlation coefficient reached (17.2%), which indicates a weak relationship between the two variables.

Based on the previous result, we accept the nihilistic hypothesis and reject the alternative hypothesis, as it was proven that there is no statistically significant effect of spending in training employees on return on equity, and from the above, the linear regression equation will be:
Return on equity = 2.139 + 0.728 × expenses in employee training.

The previous equation indicates that the increase in expenses in staff training is accompanied by an increase in the return on equity, but it is not easy to interpret this, so this can be explained through the standard mark (Z-Scorss) and this coefficient is equal to the value of the correlation coefficient between the two variables (Beta) and is used to predict the standard value of the dependent variable through the standard values of the independent variable, where that value reached (0.172) and this means that the increase of the independent variable by one degree is accompanied by an increase in the dependent variable by (0.172).

Results of the fifth sub-hypothesis test:

There was no statistically significant effect at the level of ($\alpha \leq 0.05$) of expenditures in information technology on the return on equity of Jordanian pharmaceutical companies.

The hypothesis was tested using the Simple Linear Regression test and its results are shown in Table (8).

Table (8)

Results of the Simple Linear Regression Model of the Impact of Expenditure in Information Technology on the Return on Equity of Jordanian Pharmaceutical Companies

		Model Summery			
		R ²	R		
		0.008	0.089		
ANOVA					
Sig F	F Calculated	Average of squares	Degree of freedom Df	Sum of squares	Model
*0.641	0.222	2.33	1	2.33	Regression
		10.49	28	293.7	Rest
			29	296.0	Total
*Morale at Significance($\alpha \leq 0.05$)					
Coefficient					
T Sig	T Calculated	Beta	Modular error	B Slope	Model
0.739	0.336		7.097	2.387	Constant
0.641	0.471	0.089	0.98	0.46	(Spending in Information Technology)

Table (8) represents the results of the statistical test of the fifth sub-hypothesis model, which is represented by the existence of one independent variable (IT spending), and one dependent variable (return on equity).

The results indicate that there was no statistically significant effect at the level of ($\alpha \leq 0.05$) of spending in information technology on the return on equity, where the level of significance reached (0.641) at one degree of freedom, and the value of R^2 of (0.008) indicates that the independent variable has explained its percentage (0.8%) of the variance in the return on equity, and the correlation coefficient reached (8.9%), which indicates a weak relationship between the two variables.

Based on the previous result, we accept the nihilistic hypothesis and reject the alternative hypothesis, as it was proven that there is no statistically significant effect of IT spending on ROE, and from the above, the linear regression equation will be: **ROE = 2.387 + 0.46 × IT expenditures.**

The previous equation indicates that the increase in expenses in information technology is accompanied by an increase in the return on equity, but it is not easy to interpret this, so this can be explained through the standard mark (Z-Scorss) and this coefficient is equal to the value of the correlation coefficient between the two variables (Beta) and is used to predict the standard value of the dependent variable through the standard values of the independent variable, where that value reached (0.089) and this means that the increase of the independent variable is one degree accompanied by an increase in the dependent variable by (0.089).

Results of the sixth sub-hypothesis test:

There was no statistically significant effect at the level of ($\alpha \leq 0.05$) of employee expenditure on the return on equity of Jordanian pharmaceutical companies. The hypothesis was tested using the Simple Linear Regression test and its results are shown in Table (9).

Table (9)

Results of the Simple Linear Regression Model of the Impact of Employee Expenditure on the Return on Equity of Jordanian Pharmaceutical Companies

		Model Summery			
		R ²	R		
		0.085	0.291		
ANOVA					
Sig F	F Calculated	Average of squares	Degree of freedom Df	Sum of squares	Model
*0.117	2.617	25.31	1	25.31	Regression
		9.67	28	270.74	Rest
			29	296.03	Total
*Morale at Significance($\alpha \leq 0.05$)					
Coefficient					
T Sig	T Calculated	Beta	Modular error	B Slope	Model
0.636	-0.478		5.064	-2.42	Constant
0.117	1.618	0.292	0.802	1.298	(Staff expenses)

Table (9) represents the results of the statistical test of the sixth sub-hypothesis model, which is represented by the existence of one independent variable (employee expenses), and one dependent variable (return on equity).

The results indicate that there was no statistically significant effect at the level of ($\alpha \leq 0.05$) for employee expenditures on the return on equity, where the level of significance reached (0.117) at one degree of freedom, and the value of R² of (0.085) indicates that the independent variable has explained its percentage (8.5%) of the variance in the return on equity, and the correlation coefficient reached (29.2%), which indicates an average relationship between the two variables.

Based on the previous result, we accept the nihilistic hypothesis and reject the alternative hypothesis, as it was proven that there is no statistically significant effect of employee expenditure on return on equity, and from the above, the linear regression equation will be:

Return on equity = 2.421 + 1.298 × employee expenses.

The previous equation indicates that the increase in personnel expenses is accompanied by an increase in the return on equity, but it is not easy to interpret this, so this can be explained through the standard mark (Z-Scores) and this coefficient is equal to the value of the correlation coefficient between the two variables (Beta) and is used to predict the standard value of the dependent variable through the standard values of the independent variable, where that value reached (0.292) and this means that the increase of the independent variable is one degree accompanied by a decrease in the dependent variable by (0.292).

Hypothesis test summary:

Table (10)

Return on equity					Return on assets					Dependent variables
Relationship	R ²	R	Sig	T	Relationship	R ²	R	Sig	T	Independent variables
Direct	0.030	0.172	0.858	0.926	Direct	0.026	0.163	0.761	0.873	Staff
										Training
										Expenses
										Information
Direct	0.008	0.089	0.641	0.641	Direct	0.002	0.048	0.800	0.256	Technology
										Expenditures
Reverse	0.085	0.292	0.117	1.618	Reverse	0.036	0.189	0.318	1.018	Staff

The study proved through the presentation of Table (10) that the independent variables (training expenses for employees, information technology expenses, and personnel expenses) did not have a statistically significant effect on the dependent variables (return on assets, return on equity). While there was a direct relationship between (staff training expenses and IT expenses) and (return on equity, and return on assets), and an inverse relationship between (employee expenses) and (return on assets, and return on equity).

Conclusions and recommendations:

The results of analysis of hypothesis testing can be summarized as follows:

- 1) The absence of an impact of expenses in training employees on both (return on assets, and return on equity) does not mean that there is no relationship between them, as the results of the statistical analysis showed that the positive relationship between them calls on pharmaceutical companies in Jordan to increase attention in the aspect of training employees because of the importance of improving the returns of pharmaceutical companies and thus increasing their profitability.
- 2) The absence of an impact of expenses in training employees on both (return on assets, and return on equity) does not mean that there is no relationship between them, as the results of the statistical analysis showed that the direct relationship between them calls on pharmaceutical companies in Jordan to increase attention in the aspect of training employees because of the importance of improving the returns of pharmaceutical companies and thus increasing their profitability.
- 3) One of the most important inverse relationships in economics is the relationship of expenses in revenues, and therefore the result reached in the current study was not far from this theory, as it was found that there is an inverse relationship between employee expenses, return on assets and return on equity. The researchers believe, by reviewing the financial statements of the study sample, that all pharmaceutical companies increase employee expenses year after year, which increases the expenditure side significantly.
- 4) The study showed that there is no statistically significant effect of spending on organizational development in its dimensions (expenditures in training and training of employees, expenditure in information technology, and personnel expenditure) on the

financial performance in its dimensions (return on assets, return on equity) for Jordanian pharmaceutical companies.

The researchers made the following recommendations:

- 1) The need for government and legislative agencies to directly supervise spending in organizational development, so that a minimum is imposed that increases organizational development within pharmaceutical companies in Jordan.
- 2) The need for senior management within Jordanian pharmaceutical companies to improve, develop and increase expenditures on information technology because of the benefit in developing returns on pharmaceutical companies.
- 3) The need to impose laws by the responsible authorities to impose on pharmaceutical companies a unified reward system, which works to reduce the expenses of employees within pharmaceutical companies.
- 4) Work on developing an accounting system capable of predicting the total allowable expenses at the beginning of the accounting year
- 5) The need to work on developing deliberate plans to face any emergency situation, after the loss suffered by most Jordanian pharmaceutical companies due to the Corona pandemic.

References:

- Taqa, Mohammed, Al-Azzawi, Huda (2010). Economics of Public Finance, Second Edition, Dar Al-Masirah for Publishing, Distribution and Printing, Amman-Jordan.
- Al-Dulaimi, Ahmed Jamal (2019). The causal relationship between public spending, private spending, and inflation in Jordan, unpublished master's thesis, Al al-Bayt University, Jordan.
- Al-Srikhi, Saleh Finch (2019). Capital expenditures and their impact on inflation rates in Jordan, unpublished master's thesis, Al al-Bayt University, Mafrqa, Jordan.
- Al-Raoud, Omar Abdulkarim (2016). The Impact of Information Sharing in Supply Chain Management on Operational Excellence, Unpublished Master's Thesis, Al-Balqa Applied University, Salt, Jordan.

- Cabler, Kathleen (2018). The Impact of Organizational Development (OD) Methodology on Leadership Training: A More Intentional Consulting Approach. Journal of practical consulting, Vol (6), issue (1), pp 37-45.
- Flamhoitz, Eric G, (2005). Strategic Organizational Development, Infrastructure, and financial performance, international journal of entrepreneurship education, vol (2), pp 117-140.
- Shanak, hasni, (2017). The Impact Of Organizational Culture On Corporate Financial Performance, International Journal of Economics, Commerce and Management, vol (8), pp 585-586.
- Roy Carvey (2014). Leadership Development Predictions.
- Matar, Mohammed (2016). Financial and credit analysis, methods, tools and practical uses, fourth edition, Dar Wael for Publishing and Distribution, Amman, Jordan.
- Matar, Mohammed (2010). Recent Trends in Financial and Credit Analysis, Middle East University for Graduate Studies, Wael Publishing House, Third Edition.
- Al-Nuaimi, Adnan, and Al-Tamimi, Arshad (2008). Financial analysis and planning. Amman: Dar Al-Yazuri Scientific for Publishing and Distribution.
- Saker, hussien abed almohssien (2022). The Impact of Management Information Systems on Improving Employee Performance: A Case Study in the Financial and Administrative Department / Ministry of Higher Education and Scientific Research, Tikrit Journal of Administrative Sciences, vol(58), issue (18), pp 112-133.
- Bas A.S Koene, Ad L.W Vogelaar, Joseph L Soeters, (2022). Leadership effects on organizational climate and financial performance: Local leadership effect in chain organizations, The Leadership Quarterly, Volume 13, Issue 3, Pages 193-215.
- HINDASAH, L., & NURYAKIN, N. (2020). The Relationship between Organizational Capability, Organizational Learning and Financial Performance. The Journal of Asian Finance, Economics and Business, 7(8), 625–633. <https://doi.org/10.13106/JAFEB.2020.Vol. 7.No.8>.