

# The Effect of Electronic Training on Organizational Performance: A Survey Study on Pharmaceutical Manufacturing Companies in Syria

By

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## Abstract

The objective of this research is to verify the impact of electronic inculcation on organizational performance and to determine the relative importance of e-inculcation dimensions (electronic inculcation environment, electronic inculcation techniques and electronic inculcation efficiency) on organizational performance in Pharmaceutical Manufacturing companies. The comprehensive inventory method was used to determine the size of the research sample, and the descriptive analytical approach was relied on in a case study style, and a questionnaire was used according to the five-year Likert scale, and the response rate was (91.875%), and the data was analyzed using the SPSS program, where the Cronbach alpha coefficient was used., descriptive statistics, RII, multiple correlation coefficient and multiple regression analysis. The study concluded with conclusions, the most important of which are: There is a significant effect of electronic inculcation on organizational performance, and there is a significant effect of the dimensions of electronic inculcation (electronic inculcation environment, electronic inculcation techniques, and electronic inculcation efficiency) on organizational performance in Pharmaceutical Manufacturing companies, and the relative importance of the effective dimensions of electronic inculcation In organizational performance, respectively, electronic inculcation techniques, electronic inculcation environment, electronic inculcation efficiency.

**Keywords:** Electronic inculcation, organizational performance, inculcation in Manufacturing 4.0, electronic inculcation environment, electronic inculcation techniques, electronic inculcation efficiency

## 1. Introduction

Inculcation is an important factor in modern organizations, and it directly affects performance (Eljali & Ameen, 2020, P218), and it is of important value in avoiding the organization to lose knowledge production, as automation and modern technology have begun to replace many jobs, and through inculcation the Traditional workers in general and manufacturing workers in particular can be rehabilitated to workers capable of managing the technologies of the Fourth Industrial Revolution (Manufacturing 4.0) and obtaining a high level of product knowledge (Margherita & Bua, 2021, p27), but the workers in these organizations could not use this technology Appropriately yet, and they need to receive proper inculcation by making use of modern technology and its various techniques (Batool et al., 2021, P3), hence the trend of organizations towards adopting rapid and effective electronic inculcation.

The process of performance appraisal in organizations under Manufacturing 4.0 is based on a results-oriented goal (Margherita & Bua, 2021, p27), and therefore inculcation employees with the intention of improving and enhancing employee results will enhance organizational performance through motivation, reward, and employee participation in decision-making. Solve work problems, and improve working conditions that make workers feel safe and motivated to work. (Jashari & Kutllavci, 2020, P228).

## **2. The research problem**

The main research problem is determined in answering the following question: What is the effect of electronic inculcation on organizational performance in Pharmaceutical Manufacturing Companies in Syria. This question will be answered by answering the following questions:

- 1- What is the impact of the e-inculcation environment on organizational performance in Pharmaceutical Manufacturing companies in Syria?
- 2- What is the effect of electronic inculcation techniques on organizational performance in Pharmaceutical Manufacturing companies in Syria?
- 3- What is the effect of the efficiency of electronic inculcation on organizational performance in Pharmaceutical Manufacturing companies in Syria?

## **3. Research Objective**

- 1- Defining the concept of electronic inculcation and distinguishing it from traditional inculcation, and explaining its benefits for the employees and the organization.
- 2- Measuring and analyzing the impact of electronic inculcation on organizational performance in Pharmaceutical Manufacturing companies in Syria through:
  - A. Measuring and analyzing the impact of the electronic inculcation environment on organizational performance in Pharmaceutical Manufacturing companies in Syria.
  - B. Measuring and analyzing the impact of electronic inculcation techniques on organizational performance in Pharmaceutical Manufacturing companies in Syria.
  - C. Measuring and analyzing the impact of the efficiency of electronic inculcation on organizational performance in Pharmaceutical Manufacturing companies in Syria.
- 3- Determining the relative importance of electronic inculcation dimensions affecting organizational performance in Pharmaceutical Manufacturing companies.

## **4. The Importance of the Research**

The importance of research is highlighted in the following points:

- 1- This study was conducted in the pharmaceutical manufacturing, and it is one of the few studies, according to the researcher's knowledge, that dealt with electronic inculcation in pharmaceutical manufacturing companies.
- 2- The added value resulting from electronic inculcation, which organizations obtain, such as improving performance and reaching the planned results.
- 3- The importance of inculcation in general in giving organizations a competitive advantage, and e-inculcation, especially in keeping up with rapid changes in technology, adapting to the requirements of the external environment and creating a sustainable competitive advantage.

- 4- The research is a scientific contribution to explain the role of electronical inculcation in improving the interaction between workers and Manufacturing 4.0 technologies to reach effective production processes.

## **5. Research Hypotheses**

**The main hypothesis:** There is no significant effect of electronical inculcation on organizational performance in Pharmaceutical Manufacturing companies in Syria. The following sub-hypotheses are derived from it:

**H1:** There is no significant effect of the electronical inculcation environment on organizational performance in Pharmaceutical Manufacturing companies in Syria.

**H2:** There is no significant effect of electronical inculcation techniques on organizational performance in Pharmaceutical Manufacturing companies in Syria.

**H3:** There is no significant effect of the efficiency of electronical inculcation on organizational performance in Pharmaceutical Manufacturing companies in Syria.

## **6. Literature Review**

According to Cooke et al., (2020), inculcation plays an essential role in work and management, and it has a direct impact on the development of workers and their sense of job satisfaction. The increase in the performance of workers through inculcation is through managing their cultural diversity, and managing their talents and emotions. Inculcation motivates workers to Positive work performance. (Batool et al., 2021).

The study by Sutarto et al. (2019) confirms that the e-inculcation model is more effective than traditional direct inculcation based on increasing professional competence, and (Benhamdoune & Bellaour, 2020; Zondo, 2019) confirms that e-inculcation combines the effect of traditional inculcation and the advantages of using technology in developing the human element. Organizations have adopted it as a result of its economic advantages such as reducing traditional inculcation costs and expenses, working to increase productivity and customer satisfaction, in addition to developing human resources by raising morale, increasing self-confidence, improving workers' knowledge, and providing them with new skills by viewing the inculcation material individually in any Place, time and use it practically.

According to the study of Abu Khatwa (2014), the electronical inculcation process is linked to the philosophy of continuing education, to meet the requirements, needs and skills that are constantly updated in various fields, and it is not subject to the restrictions of time and place, and gives freedom to choose and transfer information based on electronical media and modern means of communication (Merhej,2020).

The study of Tahir et al (2014) indicates that various technologies such as simulations, tutorials, motivational videos, and other HR practices help employees understand the purpose of e-inculcation, and Flokowski (2018) adds that these technologies enhance employee skills, make their work more flexible, and attract them towards more productivity (Batool et al.,2021:1).

The study of Alghaz & Al khaldi (2017) showed that the electronical inculcation environment, especially the internet-based environment, has an effective role in raising

learning outcomes, and Bou Kamal et al.'s study confirms. (2016) The long-term success of any institution is determined by spreading the culture of electronic inculcation among employees to achieve high job performance results. The study also concluded to confirm the existence of a positive and moral relationship between inculcation and employee performance and indicated that the efficiency of electronic inculcation affects job performance.

### ***6.1 Inculcation under the Fourth Industrial Revolution***

Inculcation in light of the Fourth Industrial Revolution refers to the various educational activities organized by the administration, which promote the development of innovation to overcome the uncertainties along the manufacturing lines. For digital or personal presence making it more efficient, only Fettig et al. (2018) The Human Resources Department combines inculcation activities where experienced workers train young and new workers, by supporting them during operations, which is the case of errors or technology problems, and according to Margherita & Braccini (2021) inculcation should be directly related to jobs organization, and to enrich the diversity of skills and knowledge related to technology management, and to focus on team building skills and teamwork. (Margherita & Bua, 2021:26). Inculcation in its modern sense refers to performance, health and safety, advancement of workers and improving their efficiency and ability to solve the problems and difficulties of the current competitive work environment that they face. (Maina & Bula, 2019:241).

### ***6.2 Electronical Learning and its Features***

Electronical inculcation is known as:

- Organized activity, to increase skills and knowledge and achieve electronic interaction with peers, by making use of electronic educational means and dealing with search engines and scientific sites. (Merhej,2020:102).
- A long-distance inculcation process that relies on media such as the Internet, computers, multimedia, electronic books, email, chat... and provides the necessary knowledge to raise the scientific level or achieve rehabilitation for workers. (Sutarto et al.,2019).
- It is the use of technology to provide specific knowledge to employees through a medium such as the Internet. (Bou Kamal et al., 2016).

Through the previous definitions, the researcher sees that electronic inculcation is characterized as an organized process that aims to improve the knowledge and skills of employees by making use of technical media such as the Internet, computers and electronic applications.

### ***I. Distinguishing Between Electronic Inculcation and Electronic Learning***

E-inculcation is part of E-learning, and the distinction is made between them through motivation. The worker himself seeks to improve his abilities through learning by electronic means is e-inculcation, otherwise it is electronic learning, and in other words, electronic inculcation is limited to institutions that are interested in inculcation their workers to increase their professional and scientific competence. In their specific field of work, as for electronic learning, it is what takes place in educational centers such as universities and institutes and gives E-education in various fields (Benarous & Taibi, 2021:24). To a shorter time than electronic learning, especially if it is directed towards a specific result or skill. (Wolor et al., 2020; Sutarto et al.,2019; Bou Kamal et al., 2016)).

### ***II. Distinguishing Between Electronic Inculcation and Traditional Inculcation: (Batool Et Al., 2021; Benhamdoune & Bellaour, 2020)***

- Electronical inculcation is concerned with individual differences between workers and their circumstances.
- Lower cost compared to traditional inculcation.
- Large numbers of workers can be trained at the same time, which cannot be implemented in traditional inculcation.
- Electronical inculcation goes beyond the barriers of time and space, which are essential in traditional inculcation and cannot be dispensed with. Electronical inculcation allows communication between trainers and trainees from anywhere and at any time, even if it is outside the announced inculcation time.
- E-inculcation bypasses various traditional inculcation obstacles such as financial obstacles, travel costs, illness, and others.
- Electronical inculcation allows the inculcation activities to be repeated for the trainees according to what they want and in proportion to their abilities until they master the required inculcation skills.
- E-inculcation provides important opportunities to invest technological progress in the field of inculcation, especially in saving time, effort, and expenses.
- It provides opportunities to compete and excel in inculcation.

***III. Electronical Inculcation Objectives. (Benarous & Taibi, 2021; Bou Kamal Et Al., 2016)***

- Improving performance and job satisfaction, and creating a productive and competitive workforce.
- Addressing and overcoming barriers to traditional inculcation.
- Providing inculcation and research cooperation opportunities between inculcation institutions in the world based on technology.
- Make inculcation more flexible by freeing it from the constraints of time and space.
- Contribute to improving the cultural and scientific level of employees.
- Achieving justice in inculcation by making it available to all employees, and contributing to the dissemination of a technical culture.

***IV. Benefits and Limitations of Electronical Inculcation***

Electronical inculcation reduces the need for real practical practices based on virtual reality and augmented reality technologies such as simulation, and it facilitates the integration of a wide range of realistic inculcation scenarios, and contributes to developing competency (Margherita & Bua, 2021:27), and compared to the traditional inculcation process, it can be summarized the benefits of electronical inculcation as shown in Table 1.

**Table 1. Benefits of Electronical Inculcation**

<b>At the level of individuals</b>	<b>At the level of the organization</b>
Ease of obtaining information and activities in a large amount.	The possibility of horizontal or vertical expansion in inculcation courses by relying on modern technologies.
Overcoming barriers associated with traditional inculcation such as physical barriers, travel or illness.	Reducing the costs of the inculcation process and the costs of sponsoring the trainees, such as transportation costs and halls approved in traditional inculcation processes.
The possibility of direct electronical communication and interaction between the trainer and the trainees and between the trainees themselves through e-mail and communication applications that facilitate discussion and dialogue.	Low cost of lost time and absenteeism.
Organizing time commensurate with the working conditions and daily life of the trainee	Facilitating the follow-up of trainees, despite their large numbers, by relying on modern media and communication technology.
Choose the inculcation material at the time and speed that suits him in an atmosphere of privacy.	Ease of conducting and managing inculcation courses.
The possibility of the trainee participating in several inculcation courses remotely and away from the organization in which he works.	Improving interaction between trainers and trainees.
The possibility of inculcation anywhere where there is a computer and the Internet.	Ease of documenting everything related to the inculcation course and accurately.
Activating the self-inculcation skill by researching multiple learning sources and evaluating his learning from feedback.	Benefiting from distinguished and remote trainees and trainers.
The possibility of repeating the inculcation content where the inculcation material is stored in the computer.	Automatic and fast feedback.
The role of the trainer has changed from a tutor and a source of information to a mentor and guide.	Ease and speed of review, update, editing and distribution of inculcation and educational components.
Acquisition of individuals with different types of skills: such as critical thinking skills, problem solving, and developing the trainee's ability to use the computer and benefit from the Internet in his professional life.	Provide flexibility in the learning and inculcation environment.

Source: Prepared by the researcher based on: (Benarous & Taibi, 2021:25; Merhej, 2020:103; Benhamdoune & Bellaour, 2020:146; Bou Kamal et al., 2016).

Given the many advantages of e-inculcation on organizations and individuals, especially with regard to reducing inculcation costs and time and flexibility, and thus enhancing workers' productivity, many organizations have tended to adopt e-inculcation programs in their strategies. (Merhej,2020:93).

Despite the benefits offered by e-inculcation, it faces a number of limitations, represented by the following: (Benarous & Taibi, 2021; Merhej, 2020).

- A. Lack of trainees to positively share their opinions, suggestions and ideas with the trainer and with their fellow trainees.
- B. The difficulty of the trainer following the trainees and communicating the inculcation content to them as a result of the trainer's inability to follow the trainees if they are sleeping, feeling distracted, or bored, and therefore it is difficult to evaluate them.
- C. Trainees feel isolated from their peers and from the trainer.
- D. The high costs of electronical inculcation, especially in the first phase of its application, as it entails costs of infrastructure, hardware, software design, communications, and continuous maintenance.
- E. The trainee's lack of seriousness in dealing with electronical inculcation tools and techniques.
- F. Some workers' lack of proficiency in using modern technologies.
- G. Difficulty applying some of the skills and practices desired to be learned in some inculcation programs.
- H. Lack of interest from senior management in this type of inculcation.
- I. Non-proliferation of electronical inculcation programs.
- J. Poor infrastructure.
- K. Lack of subjective desire to learn and train.

### **6.3 Organizational Performance**

The percentages of studies related to organizational performance and its measures used were as follows: 10% used a combination of subjective and objective measures, 29% used multiple organizational measures, and 23% used measures based on human resources results. (Garavan et al., 2019:12).

And according to Vrchota et al. (2019) Competencies such as creativity, agile thinking, and innovation are valued for performance under Manufacturing 4.0. (Margherita & Bua, 2021:26).

According to Lee et al. (2013) measures organizational performance "efficiency and effectiveness" of the procedures used in the company (Chienwattanasook et al., 2019: 224)), and it means how managers use organizational resources efficiently and effectively to satisfy customers and achieve the goals and objectives of the organization, and its growth depends on the skills and knowledge of workers who are considered assets For the organization, and since knowledge, development, capabilities and skills are the dimensions of the process of inculcation and developing employees, better performance at the strategic level is considered in organizations. (Raza, 2014: 68).

Bartoli and Blatrix (2015) indicate that performance should be achieved through elements including experimentation, evaluation, efficiency, effectiveness, and quality (Taouab & Issor, 2019: 96).

According to (Jesuthasan, 2013), high performance organizations emphasize these indicators:

- Effectiveness that focuses on attracting and retaining talent.
- Quality focused sharing of excellent practices.
- Innovation and the promotion of entrepreneurship together.
- Customer service is the belief in inculcation employees so that they have a strong relationship with customers.
- Marketing and market share where the organization focuses on building strong teams and partnerships with a common and profitable mindset. (Mehale et al.,2021:2).

According to the study (Garavan et al., 2019:5), organizational performance includes three categories:

- Human resources outcomes: these include motivation, employee turnover, job satisfaction, and organizational commitment.
- Operational results: they include work productivity, innovation, customer service and customer retention.
- Financial results: include financial performance, product market performance, and shareholders' returns.

The performance measurement function is an assessment of the extent to which the organizational strategy has been achieved, and this process cannot be completed without measuring results (Taouab & Issor, 2019), and because in Manufacturing 4.0 organizations, the appropriate performance appraisal system depends on a result-oriented goal, and according to Shamim, et al ( 2016) this system is a dynamic and iterative process designed to enhance employee capacity and organizational productivity, as it allows detecting whether employees' performance is below standard, then inculcation and professional courses can be used to enhance skills. (Margherita & Bua,2021).

## **7. Case Study**

### ***The Research Society, its Sample, and Borders***

The research community is represented by all employees of Pharmaceutical Manufacturing Companies, distributed among administrative workers and technical workers who practice their work in the upper management and departments (purchasing, sales, stores, production, financial management, research and development, laboratories, engineering management, human resources, quality assurance, marketing , delivery), and their number, according to what was reported by the Human Resources Department, is (320) workers. The comprehensive enumeration method was relied on in collecting data, in order to obtain the largest number of answers to the survey.

### ***7.1 Questionnaire***

The questionnaire was prepared as a study tool, according to (4) main themes: e-inculcation environment (M1), e-inculcation techniques (M2), e-inculcation efficiency (M3), organizational performance, and each axis includes a number of direct and indirect closed questions. Relevant to the topic of the questionnaire and the objectives of the study. The five-point Likert scale was used to measure the study variables.

The researcher distributed 320 questionnaires to his research sample manually, and through the company's e-mail with the help of the Human Resources Department, and the questionnaires were collected and retrieved personally and with the help of the Human



Resources Department, and the number of valid questionnaires for the study was (294) questionnaires, and the response rate for the study sample was on Survey (91.875%),

### 7.2 *The Sincerity of the Arbitrators*

The questionnaire's validity and suitability for use were measured by presenting it to a group of arbitrators, and asking them to express their opinions and issue their judgment on the tool in terms of the consistency of the paragraphs with the axes that were categorized within it and the clarity of the linguistic formulation and meaning. The questionnaire settled on (31) items distributed on the mentioned variables.

### 7.3 *Structural Validity*

The structural validity was calculated by calculating the Pearson correlation coefficient for the questionnaire axes, in order to measure the extent to which the study tool achieved the objectives of the research, and to measure the extent to which the questionnaire axes were related to each other.

Table 2 shows that all questionnaire axes have a strong correlation with the aim of the study at the level of significance  $\alpha = 0.05$ . Thus, all questionnaire axes are considered true for what they were designed to measure.

**Table 2. Pearson Correlation Coefficient for the Axes of the Questionnaire**

M	Questionnaire axes	Correlation Coefficient	probability value
1	The first axis: the electronical inculcation environment.	0.767**	0.00
2	The second axis: electronical inculcation techniques.	0.861**	0.00
3	The third axis: the efficiency of electronical inculcation.	0.869**	0.00
4	The fourth axis: organizational performance.	0.964**	0.00

Source: Prepared by the researcher using SPSS program.

### 7.4 *Questionnaire Stability*

Table 3 shows Cronbach's Alpha with a total value of 94.7%, which is an excellent percentage indicating that the internal stability of the questionnaire is achieved.

**Table 3. Cronbach's Alpha Stability Coefficient**

Cronbach's Alpha	N of Items
94.7	31

Source: Prepared by the researcher using SPSS program.

### 7.5 *Analyze and Discuss the Results*

The materiality level was determined as shown in Table 4.

**Table 4. Level of Relative Importance**

RII	Importance Level
$0.8 \leq RII \leq 1$	High H
$0.6 \leq RII \leq 0.8$	High-medium H-M
$0.4 \leq RII \leq 0.6$	Medium M
$0.2 \leq RII \leq 0.4$	Medium- Low M-L
$0 \leq RII \leq 0.2$	Low L

Source: Prepared by the researcher based on a study (Kassem et al., 2020: 444; Rooshdi et al., 2018: 153)

### 7.6 *Electronical inculcation environment*

It is evident from Table 5 that:

- Pharmaceutical Manufacturing companies has an infrastructure and technology suitable for the implementation of electronical inculcation, and all inculcation materials are permanently available and can be accessed at any time and from anywhere.
- The human resources in Pharmaceutical Manufacturing companies have the appropriate qualifications to use the electronical inculcation method, and they rely on it to communicate and exchange ideas and knowledge.
- The e-inculcation environment has gained relative importance (H-M) and is suitable for implementing e-inculcation by 66.82%.

### 7.7 *Electronical Inculcation Techniques*

It is evident from Table 6 that:

- The inculcation techniques used in Pharmaceutical Manufacturing companies are suitable for implementing electronical inculcation, and they have a relative importance (H-M), and the brainstorming technique is the most used technique during electronical inculcation, and it has a relative importance (H) which is used by (83.81%).
- The electronical inculcation techniques in Pharmaceutical Manufacturing companies have a relative importance (H-M) and are suitable for implementing electronical inculcation by (68.69%).

**Table 5.** *Opinions of the Research Sample for the E-Inculcation Environment Axis*

M	Ferries	SMA	standard deviation	RII	level of importance
1	The company's employees have the appropriate qualifications to implement the electronical inculcation method.	4.0170	0.82808	0.8034	H
2	All inculcation materials are available to employees and easily accessible at any time.	3.7279	0.82667	0.74558	H-M
3	Electronical inculcation helps workers to communicate with their peers in companies and inculcation centers, and thus exchange ideas and knowledge	3.2619	1.05292	0.65238	H-M
4	There is an appropriate infrastructure and technology that provides a suitable virtual environment for the implementation of electronical inculcation.	3.1122	0.94435	0.62244	H-M
5	The company has the devices, tools and equipment required to conduct electronical inculcation.	2.9830	1.01342	0.5966	M
6	The external information network helps to identify changes surrounding the institution.	2.9456	1.12546	0.58912	M
<b>The focus of the electronical inculcation environment</b>		<b>3.3413</b>	<b>0.52806</b>	<b>0.66826</b>	<b>H-M</b>

Source: Prepared by the researcher based on the outputs of the SPSS program.

**Table 6.** *Opinions of the Research Sample for the Variable of Electronical Inculcation Techniques*

<b>M</b>	<b>Ferries</b>	<b>SMA</b>	<b>standard deviation</b>	<b>RII</b>	<b>level of importance</b>
1	Trainees use brainstorming in electronical inculcation to generate solutions to business problems.	4.1905	0.77797	0.8381	H
2	Audio and video presentation techniques during electronical inculcation help to interact greatly with the inculcation material and the possibility of teamwork.	3.4966	0.84558	0.69932	H-M
3	Online communication and communication applications such as e-mail, voice mail, dialogue rooms, social media and others help improve communication between trainees, increase confidence in themselves, and facilitate e-learning.	3.3061	1.35814	0.66122	H-M
4	The use of audio-visual and textual aids encourages participation and discussion during the course.	3.1429	1.02860	0.62858	H-M
5	Virtual classes and electronical content facilitate the inculcation process, and contribute to increasing the employees' understanding of the inculcation topics.	3.0374	0.93944	0.60748	H-M
<b>The focus of electronical inculcation techniques</b>		<b>3.4347</b>	<b>0.77258</b>	<b>0.68694</b>	<b>H-M</b>

Source: Prepared by the researcher based on the outputs of the SPSS program.

### 7.8 *Efficiency of Electronical Inculcation*

It is clear from Table 7 that:

- E-inculcation in Pharmaceutical Manufacturing companies provides flexibility in time for employees, as indicated by the relative importance (H), and helps them to activate their creative energies, and accomplish their tasks efficiently and effectively according to the relative importance index (H-M).

- The costs of electronical inculcation in Pharmaceutical Manufacturing companies are considered high and indicated by the relative importance index (M).

- The efficiency of the electronical inculcation implemented in Pharmaceutical Manufacturing companies has a relative importance (H-M), with a rate of (63.25%).

### 7.9 *Organizational Performance*

It is evident from Table 8 that:

- The organizational performance of Pharmaceutical Manufacturing companies has a relative importance (H-M) with a rate of (63.13%).

- The company has the ability to manage customer relationships, gain their loyalty and meet their requirements quickly, which is what items (3-4-7) refer to and its relative importance (H-M).

**Table 7.** *Opinions of the Research Sample for the E-Inculcation Efficiency Variable*

<b>M</b>	<b>Ferries</b>	<b>SMA</b>	<b>standard deviation</b>	<b>RII</b>	<b>level of importance</b>
1	Electronical inculcation provides flexibility in time.	4.0374	0.83152	0.80748	H
2	Electronical inculcation helps to activate the creative energies of workers in the search for a solution to work problems through the Internet and external consultations using communication technology.	3.1088	1.13360	0.62176	H-M
3	Electronical inculcation helps to complete the work efficiently and perform it effectively.	3.0340	1.26607	0.6068	H-M
4	E-inculcation brings about positive changes in the behavior and attitudes of employees and develops their ideas, job habits and methods used in work.	2.9762	1.11892	0.59524	M
5	Electronical inculcation reduces inculcation costs.	2.6565	1.10892	0.5313	M
<b>Efficiency of electronical inculcation</b>		<b>3.1626</b>	<b>0.86783</b>	<b>0.63252</b>	<b>H-M</b>

Source: Prepared by the researcher based on the outputs of the SPSS program.

- The company's products are of high quality, and perhaps this is the reason for its ability to attract new customers continuously, as indicated in items (1-2) and its relative importance (H).
- The company's production is done on time and is characterized by a low rate of work accidents and wastage of materials as indicated in items (5-6-9) and its possession of relative importance (H-M).
- The company benefits from the creative and innovative capabilities of employees in marketing its products and developing work methods, and perhaps this is what gives it the ability to keep pace with technological and technical developments and face changes in the external environment, and this is indicated by items (8-10-11) and their possession of relative importance (H-M).
- The company's sales are considered good towards competitors, but they do not grow continuously, and this may be due to the conditions of the economic environment in Syria, where item (13) indicated a relative importance (M).
- There is a low level of employee motivation, and their feeling of job satisfaction, and perhaps this is the reason for their dependence on behavioral patterns and fixed tendencies towards work and productivity, as indicated in items (12-14-15), which have a relative importance (M).

**Table 8.** *Opinions of the Research Sample on the Organizational Performance Variable*

M	Ferries	SMA	standard deviation	RII	level of importance
1	The company has the ability to attract and acquire new customers on an ongoing basis.	4.1905	0.77797	0.8381	H
2	The company's products are of high quality and conform to international standards.	4.0374	0.83152	0.80748	H
3	The company has good communication with customers that leads to customer loyalty to the company's products or brand.	3.4966	0.84558	0.69932	H-M
4	The company has the ability to manage customer relations.	3.3061	1.35814	0.66122	H-M
5	The company is efficient in managing machinery and equipment and reducing maintenance costs, thus reducing the rate of work accidents.	3.1429	1.02860	0.62858	H-M
6	The company's production is done quickly and on time.	3.1122	1.14077	0.62244	H-M
7	The company meets the requirements of its customers quickly and on time.	3.0952	1.38413	0.61904	H-M
8	The company has the ability to keep pace with technical and technical developments in the external environment and adapt to them.	3.0816	1.17430	0.61632	H-M
9	The company is characterized by low wastage of materials and thus low production costs.	3.0714	1.13808	0.61428	H-M
10	The company benefits from the creativity of its employees in introducing and marketing new products.	3.0476	1.12879	0.60952	H-M
11	Employees have the ability to take initiative and invent new ways of working.	3.0374	0.93944	0.60748	H-M
12	Workers feel job satisfaction.	2.9762	1.11892	0.59524	M
13	The company's sales are constantly growing towards competitors.	2.9150	1.00997	0.583	M
14	Employees have positive attitudes and behaviors towards work.	2.6565	1.10892	0.5313	M
15	There are appropriate and periodic rewards and promotion opportunities for employees.	2.1837	1.07735	0.43674	M
	<b>The focus of organizational performance</b>	<b>3.1567</b>	<b>0.73785</b>	<b>0.63134</b>	<b>H-M</b>

Source: Prepared by the researcher based on the outputs of the SPSS program.

### 7.10 Hypotheses Testing

The research hypotheses were tested using the Standard Multiple Regression model as Enter.

### 7.11 Test the Main Hypothesis

It is noted from Table 9 and Table 10 that:

There is a correlation between electronic inculcation and organizational performance, where the value of the correlation coefficient is (93.9%), which is a positive correlation, and the relationship between the two variables is described as a strong relationship.

The calculated (F) value was (721.007) and the degrees of freedom (3 & 290) and the Durbin-Watson test value was DW = (1.978), and this indicates that there is no autocorrelation between random errors, and the level of significance was (0.000) which is less than (% 5) adopted in this research, which indicates the morality of the model, and also indicates the existence of a significant effect of the dimensions of electronic inculcation on organizational performance in Pharmaceutical Manufacturing Companies.

Thus, we reject the null hypothesis that (there is no significant effect of electronic inculcation on organizational performance in Pharmaceutical Manufacturing Companies.) and accept the alternative hypothesis: there is a significant effect of electronic inculcation on organizational performance in Pharmaceutical Manufacturing companies.

**Table 9. Regression Model Summary**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.939 <sup>a</sup>	.882	.881	.25501	1.978

a. Predictors: (Constant), M3, M2, M1  
b. Dependent Variable: Performance

Source: Prepared by the researcher based on the outputs of the SPSS program.

**Table 10. ANOVA. Analysis of Variance Test**

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	140.657	3	46.886	721.007	.000 <sup>b</sup>
	Residual	18.858	290	.065		
	Total	159.515	293			

a. Dependent Variable: Performance  
b. Predictors: (Constant), M3, M2, M1

Source: Prepared by the researcher based on the outputs of the SPSS program.

### 7.12 Sub-Hypothesis Testing

Table 11 shows the results of the multilinearity test, where the result revealed that the value of VIF (variance inflation factor) for the model is less than (3), which indicates that there is no multilinearity problem between the variables, and we can write the regression equation as follows:

Organizational performance = - 0.317 + 0.167 (electronic inculcation environment) + 0.5.3 (electronic inculcation technologies) + 0.376 (electronic inculcation efficiency) + prediction error.

### 7.13H1 Hypothesis Test

Looking at Table 11, the value of beta (B), which shows the relationship between organizational performance and the e-inculcation environment (M1) (0.167), is statistically significant, as this can be deduced from the value of T and the level of significance associated with it (0.000), which is less than (5%) This means that whenever the e-inculcation environment improves by one unit, the level of organizational performance improves by (0.167) units. It also indicates a significant effect of the e-inculcation environment dimension on organizational performance. Thus, we reject the null hypothesis that says: There is no significant effect of the e-inculcation environment on organizational performance Pharmaceutical Manufacturing Companies, and we accept the alternative hypothesis: There is a significant effect of the e-inculcation environment on organizational performance in Pharmaceutical Manufacturing companies.

### 7.14H2 Hypothesis Test

Looking at Table 11, the value of beta (B) that shows the relationship between organizational performance and electronical inculcation techniques (M2) (0.503) was statistically significant, as this can be deduced from the value of T and the level of significance associated with it (0.000), which is less than (5%) ) approved in the study, which means that whenever e-inculcation techniques improve by one unit, the level of organizational performance improves by (0.503) units, and it also indicates a significant effect of the electronical inculcation techniques dimension on organizational performance. Thus, we reject the null hypothesis that says: There is no significant effect of electronical inculcation techniques on organizational performance in Pharmaceutical Manufacturing companies, and we accept the alternative hypothesis: There is a significant effect of electronical inculcation techniques on organizational performance in Pharmaceutical Manufacturing companies.

### 7.15H3 Hypothesis Test

Looking at Table 11, the value of beta (B) that shows the relationship between organizational performance and the efficiency of electronical inculcation (M3) (0.376) was statistically significant, as this can be deduced from the value of T and the level of significance associated with it (0.000), which is less than (5%) ) approved in the study, which means that whenever the efficiency of e-inculcation is improved by one unit, the level of organizational performance will improve by (0.376) units, and it also indicates a significant effect of the e-inculcation efficiency dimension on organizational performance.

Thus, we reject the null hypothesis that says: There is no significant effect of the efficiency of electronical inculcation on organizational performance Pharmaceutical Manufacturing Companies, and we accept the alternative hypothesis: there is a significant effect of the efficiency of electronical inculcation on organizational performance in Pharmaceutical Manufacturing companies.

**Table 11. Multiple Linear Regression Test Results**

VIF	T sig.	T	B	sig. F	F	R <sup>2</sup>	R	Independent Variable	Dependent Variable
	0.001	-3.266-	0.317-					(Constant)	
1.683	0.000	4.556	0.167					M1	Performance
1.677	0.000	20.127	0.503	0.000	721.007	0.882	0.939	M2	
1.710	0.000	16.769	0.376					M3	

Source: Prepared by the researcher based on the outputs of the SPSS program.

### 7.16 Hypothesis Interpretation Ratio

Through Table 9, it is noted through the coefficient of determination (the explanatory function) that e-inculcation in its three dimensions explains (88.2%) of the variance in organizational performance, given the coefficient of determination ( $R^2$ ), and the rest (11.2%) is explained according to other variables that the study did not take. . Table 12 shows the percentage of interpretation of e-inculcation variables for organizational performance.

**Table 12.** *Interpretation of E-Inculcation Variables for Organizational Performance*

independent variable	Interpretation ratio	dependent variable
Electronical inculcation environment	88.2%	organizational performance
Electronical inculcation techniques		
Efficiency of electronical inculcation		
Other variables that should be searched and their effect on the dependent variable should be measured.	11.2%	

Source: Prepared by the researcher.

## 8. Conclusions

The study reached the most important conclusions:

- 1- There is a significant effect of electronical inculcation on organizational performance in Pharmaceutical Manufacturing Companies in Syria.
- 2- There is a significant effect of the e-inculcation environment on organizational performance in Pharmaceutical Manufacturing Companies in Syria.
- 3- There is a significant effect of electronical inculcation techniques on organizational performance in Pharmaceutical Manufacturing Companies in Syria.
- 4- There is a significant effect of the efficiency of electronical inculcation on organizational performance in Pharmaceutical Manufacturing Companies in Syria.
- 5- The dimensions of e-inculcation affecting organizational performance are arranged according to the relative importance index as follows: e-inculcation techniques, then e-inculcation environment, and finally e-inculcation efficiency.
- 6- The products of Pharmaceutical Manufacturing Companies are of high quality and conform to international standards and meet the requirements of customers.
- 7- The company has the ability to manage customer relations and take advantage of the innovative and creative capabilities of its employees in developing work methods and introducing and marketing new products.

## 9. Recommendations

- 1- Working to provide and improve the infrastructure and technology in the company by providing the latest equipment and appropriate technologies to implement electronical inculcation.



- 2- Paying attention to the method of implementing electronical inculcation to have a positive impact on the behavior of employees and their career trends by paying attention to the quality of the inculcation content.
- 3- Paying attention to motivating the workers, by rewarding them financially and morally after following the inculcation courses, and benefiting from their suggestions in solving work problems, which will reflect positively on their job satisfaction.

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