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The impact of Resistance to Change to Digital Transformation as a Mediating Variable on the **Relationship between Training and Performance Efficiency** (Applied to the National Organization for Social Insurance in Egypt)⁽¹⁾

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Abstract

The study reached proof of the validity of the concept proposed by the researchers in the research problem, which emerged from the analysis of previous studies, which is that training workers within organizations may have an effect in raising the efficiency of performance within organizations, but that effect will not necessarily be a direct effect, as the presence of a resistance variable Change to digital transformation has a role in this relationship, as the results of the field study showed that there is an indirect effect of digital transformation and resistance to change in that relationship because workers' continued resistance to the shift to digital work will have a negative impact on performance efficiency. On the other hand, the study showed that continuing the training process for workers would have a negative impact on this resistance, leading to its decrease over time, which ultimately helps increase performance efficiency.

Keywords: Resistance to Change, digital Transformation, Training, Performance Efficiency.

أثر مقاومة التغيير للتحول الرقمي كمتغير وسيط على العلاقة بين التدريب وكفاءة الاداء

بالتطبيق على الهيئة القومية للتأمين الاجتماعي بجمهورية مصر العربية الملخص

توصلت الدراسة إلى إثبات صحة المفهوم الذي طرحه الباحثون في مشكلة البحث والذي انبثق من تحليل الدراسات السابقة وهو أن تدريب العاملين داخل المنظمات قد يكون له أثر في رفع كفاءة الأداء داخل المنظمات ، إلا أن ذلك التأثير لن يكون بالضرورة تأثيراً مباشراً، إذ إن وجود متغير مقاومة التغيير للتحول الرقمي له دور في تلك العلاقة ، إذ أظهرت نتائج الدراسة الميدانية أن هناك تأثير غير مباشر لمقاومة التغيير نحو التحول الرقمي في تلك العلاقة لأن مقاومة العاملين المستمرة المتحول إلى العمل الرقمي سيكون لها تأثير سلبي على كفاءة الأداء. ومن ناحية أخرى أظهرت الدراسة أن استمرار عملية التدريب للعاملين سيكون له أثر سلبي على هذه المقاومة، مما يؤدي إلى انخفاضها مع مرور الوقت، مما يساعد في النهاية على زيادة كفاءة الأداء. المجلة العلمية لكلية الدرإسات الاقتصادية وإلعلوم السياسية بجامعة الإسكندربة

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Introduction

The human resource in society is one of the most important resources of all, as it represents the primary engine in the wheel of development and economic, political and social mobility. Therefore, this human resource and those who manage it must have a degree of competence and ability to perform the work, which in turn includes the quantity and quality of work and the time spent on it. This work.

Accordingly, the topic of employee training has become widely discussed and frequented, in order to raise work efficiency through efficient performance.

With technological progress and the increasing importance of digital transformation in improving the methods of performing work and its quality, shortening the time taken for completion, reducing the cost of work, raising the quality of performance and reducing the amount of errors, organizations have begun to interact with these rapid changes and are working to evaluate their conditions and the performance of their staff and fill any defect or deficiency in The skills of its employees, by taking the training process as a means and not an end in itself. From here stems the importance of training, which represents a long-term investment at the level of human resources in the organization.

Based on the above, this study attempts to clarify the negative impact that resistance to change plays to digital transformation in organizations as an intermediary variable located between training as an independent variable and performance efficiency in those organizations as a dependent variable, by applying it to one of the government service sectors in the Arab Republic of Egypt, which is the National Authority for Social Insurance, as there is a trend within This sector is involved in digital transformation in all operations within that organization.

1. Literature Review

The Definition of Digital Transformation

According to Wang, D., & Shao, X. (2024), Digital transformation originates from the influence of technological advancements. It encompasses existing digital technologies like social media, mobile devices, embedded equipment, IT infrastructure, big data analytics, cloud computing, mobile internet, and enterprise resource planning systems. Its primary manifestations lie in business enhancements, including improved customer experiences,

streamlined operations, innovative business models, digital product innovation, and impacts on organizational structures.

The Concept of Digital Transformation in Enterprises

Le Viet, H., & Dang Quoc, H. (2023) have confirmed that enterprises now have the capability to utilize digital technologies such as the Internet of Things (IoT), big data analytics, and artificial intelligence (AI) to drive innovation in products and services, as well as reform production processes and strategic approaches within the organization.

Digital transformation leverages digital technology to overhaul business models, generating opportunities, revenue, and novel values. This shift entails transitioning from traditional business models to digital ones. It involves reimagining how organizations engage people, utilize data, and execute processes to generate fresh value propositions. By integrating digital technology into business operations, digital transformation fundamentally alters the functioning of business models and delivers added value to customers. It encompasses the adoption of digital platforms and the realignment of processes, procedures, and culture to align with strategic business objectives. Utilizing technology to optimize the production, supply, and transportation of goods enhances the value of data while reducing customer costs. By implementing software management tools for tasks like software management, order processing, and warehouse management, logistics service operations can be streamlined to minimize costs while enhancing the efficiency of data management.

Digital Transformation & Companies Innovation Capabilities

Digital technology has the potential to augment firms' information processing capabilities while minimizing unwanted interference from nonrelevant information. Specifically, as information serves as a conduit for knowledge, digital tools enable firms to efficiently access and track pertinent information in a timely manner. Research has indicated that firms equipped with robust information processing capabilities are better positioned to adapt their innovation strategies promptly in response to evolving circumstances.

Furthermore, digital technologies facilitate the monitoring of product sales and customer demand, enabling firms to fine-tune their innovation focus accordingly. Studies have also demonstrated that enhanced information processing capabilities positively influence the relationship between information-intensive customer engagement practices and the generation of

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innovations. Drawing from these insights, the following hypotheses are posited. (Chen, P., & Kim, S. ,2023).

Digital Transformation and Companies' Performance

Digital technology is increasingly crucial for achieving business objectives, offering a means of differentiation and competitive edge. Researchers have discovered that managerial capabilities significantly influence performance, especially when mediated by a sustainability strategy. (Masoud, R., & Basahel, S. 2023).

According to Luo, J. (2023). Existing studies suggest that digital transformation can enhance firm performance across various dimensions. Firstly, digital applications can elevate the quality of products and services offered by firms, thereby attracting new customers and enhancing satisfaction among existing ones. Secondly, digital transformation has the potential to reduce production and management costs for firms. Technologies like the Internet, big data, and blockchain can streamline processes, replacing manual labor, cutting down on labor costs, shortening production cycles, and enhancing product quality control. This allows firms to deliver a wider range of products and services at a lower cost, catering to high-volume, diverse, and personalized demands. Thirdly, digital transformation can optimize the organizational structure of enterprises. Digital technologies facilitate decentralization, flattening hierarchical structures, reducing internal communication costs, maximizing employee potential, and boosting management and operational efficiency. Lastly, digital transformation fosters corporate innovation. The adaptable, expansive, innovative, and relevant features of digital technology contribute to improved performance and competitive advantage for enterprises.

Knowledge Intensive Business Services (KIBS) Companies

Marino-Romero, J. A. et. al have mentioned (2022), that knowledge-Intensive Business Services (KIBS) companies hold a pivotal position in reshaping organizational knowledge bases and competencies through the enhancement of employees' skills. Furthermore, the services they offer serve as valuable knowledge sources, exemplified by tasks like audit and tax report preparation, which aid clients' business operations. These services address various client challenges, spanning legal, accounting, and IT domains, among others, through adept knowledge transformation and compilation. Consequently, KIBS firms exhibit innovation and foster

knowledge and innovation transfer to their clients. This is facilitated by their employment of highly skilled personnel and active utilization of professional expertise, defining these companies' characteristics. This suggests a necessity to examine the innovation management processes within Knowledge-Intensive Business Services (KIBS) using a theoretical framework rooted in resources and capabilities.

The Relationship between Training Programs and Business Performance

According to Maria, et. al (2014) training does not have a direct effect on the performance of companies, although there is a relationship between training and performance recognized in the literature. One possible explanation proposed by this study is that training does not have a direct effect on performance, but it has an indirect effect through other variables, which improves organizational outcomes. This paper proposed that organizational learning is one of those variables and that it mediates the relationship between training and performance and that the adoption of learning-oriented training enhances performance through its positive impact on organizational learning.

Another study by Philippe, et. al (2016) suggested that training is the focus of great conceptual and empirical interest, but it is considered a relevant factor for competitive advantage in companies because it has a positive impact on business performance, which gave the justification for this study to conduct a deeper analysis of the process involved in converting training into performance, as this paper was implemented. The absorptive capacity approach as a suitable conceptual framework for designing a model that reflects the relationship between training and business performance through the mediation of absorptive capacities.

There is an empirical solution to the most famous question, which is, "Is there a direct relationship between human resources training and improvement in business performance?" This study presented a multiple mediation model for dynamic capabilities. Based on this proposed model, the study made a significant contribution to the effectiveness of training at the organizational level, as the study showed that the "real" relationship between training and performance is mediated by absorptive and innovative capabilities, because it is difficult to obtain a direct impact from training on business performance. (Benito, et. al, 2018)

A study by Rahmat, et. al (2019) examined the impact of training on business performance for women in Nigeria by using innovation as a

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mediating variable in order to improve business performance for women, which in the long run contributes positively to increasing Nigerian GDP, as the results revealed that the mediating effect of innovation in training is an important strategic element for enhancing business performance. Business among women in MSMEs in Nigeria. The results also revealed that business performance of women in MSMEs depends on the degree of training attended by women. The study also found that innovation is a variable that mediates the effects between training and business performance of women.

Motivation as a Mediating Variable in the Relationship between Training Programs and Companies' Performance

A paper by Luisinha, et. al (2020) presented an experimental study of the role of motivation in mediating the effect of education, training, and leadership style on the performance of employees of the Ministry of Education in Paraguay. The experimental results showed that motivation mediates the effect of leadership style on employee performance, but not on educational training, as the researchers believe that these results can Provides valuable insight into Paraguayan public service administration.

Nur, et. al (2020) argued in their study that provided a good background on commercial organizations and public organizations working together to establish national logistics policies for national development requirements in Malaysia. The researchers studied the role of motivation to learn as a mediating variable in the relationship between management support in training programs and motivation to perform the task. This study showed that motivation to learn It served as an important mediator of the relationship between management support in training programs and motivation to perform the task.

The Mediating Role of Digital Transformation in the Relationship between Training and Organizational Performance

An integral aspect of a digital transformation strategy is human resources, which play a crucial role in helping organizations achieve sustainable competitive advantage. Consequently, organizations are compelled to swiftly evolve their HRM (Human Resource Management) practices due to the emergence of new technologies and the digitalization of organizational processes. This evolution necessitates the development of procedures and the adoption of practices for continuous assessment of human resource competencies, as well as the introduction of new forms of work

organization and employment. Additionally, agile human resources processes are essential to meet the demands of this evolving landscape.

Training and development initiatives equip employees with essential skills, ideas, and knowledge necessary to effectively carry out their duties in a proficient manner. The impact of digital transformation is evident in the training function through the emergence of e-training.

E-training involves utilizing the Internet to disseminate information and provide structured training to human resources in a systematic and efficient manner. Unlike traditional methods, e-training is not bound by constraints of time and location, enabling delivery of training content swiftly and cost-effectively. (Abugabel, A. ,2023)

A paper by Martanti, F., et. al (2023) suggested that organizations are actively pursuing digital transformation as a means to enhance customer interactions, streamline operational procedures, and refine business frameworks. Prior initiatives have catalyzed a significant transition towards digitization across various operational domains within these organizations. These shifts present novel prospects for optimizing the value chain across business functions, cycles, and overall organizational efficacy, aiming for enhanced effectiveness, efficiency, and agility.

Research has raised doubts regarding the direct impact and, consequently, shifted focus towards supplementary elements to elucidate not merely whether but how IT capabilities augment firm performance. Discoveries indicate that this correlation is largely contingent upon environmental circumstances, the characteristics and scope of IT capabilities, and organizational factors such as the innovation atmosphere. Moreover, digital transformation has emerged as a pivotal intermediary in the correlation between IT capability and firm performance, supported by empirical investigations into the precursors of digital transformation. (Barba-Sánchez, V., et. al ,2024).

The Importance of Employees' Readiness for Adopting Technology

Kastelli, I., et. al (2022) They confirmed that digital transformation transcends mere technology adoption; it encompasses the proficient utilization and exploitation of digital tools and the cultivation of digital competencies to drive innovation. This entails employees acquiring a repertoire of metaskills enabling them to adapt and augment their skill sets in response to the continual evolution and introduction of new digital

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technologies. Achieving digital transformation requires firms to enhance their digital capacity, encompassing endeavors to integrate and effectively leverage digital tools, overhaul organizational functions, and empower their workforce to embrace and capitalize on digital advancements.

In the realm of digital transformation, the emphasis lies on people rather than technology. The readiness of staff within a company to embrace digital processes facilitated by software and technology is termed "digital readiness." The workforce constitutes the foundational element of any organization. Therefore, the journey toward digital transformation must commence with the company's employees, aligning its objectives and reinforcing its infrastructure with technology. The smoother the transition to digital transformation, the more swiftly personnel can adapt to these emerging technologies. Moreover, digital preparedness entails more than simply possessing the requisite technology, a component already prevalent in the majority of countries. It also encompasses having standardized data, interoperable systems, clearly defined roles and responsibilities for digital skills, and, most crucially, a digitally adept workforce. (Ibrahim, F. 2022).

A paper by Ghi, T. N, et. al (2022) suggested that digital transformation necessitates businesses to possess digital skills and resources for digital management. Consequently, there's a pressing need to cultivate human capital that can expedite the digital transformation journey. Past research emphasized the role of IT capabilities in driving digital transformation. Furthermore, successful digital transformation hinges on effective team building within businesses and the enhancement of organizational capacity. Hence, leaders and managers need to acquire digital management skills, redefine the role of digital managers, cultivate recipients of digital transformation, and assess both digital transformation and information technology capabilities.

Another study by Wu, W., et. al (2023) suggested that digital transformation has the potential to enhance firms' performance provided they possess the requisite capabilities to assimilate and utilize new knowledge and technology. For instance, firms endowed with greater absorptive capabilities can establish effective learning processes and cultivate a broader knowledge base. This, in turn, heightens the likelihood that firms will appreciate and effectively leverage new knowledge and technology. Moreover, the moderating influence of absorptive capability has been corroborated in

various domains, including innovative endeavors, science-to-industry technology transfer initiatives, new product launches, and international ventures.

While Imani, S., et. al (2020) confirmed that organizations incorporate prevalent trends and knowledge into their operations through organizational learning, thereby enhancing organizational efficiency by effectively leveraging the diverse skills within their workforce. In terms of employee development, the extent of training plays a crucial role. Targeted training programs aimed at augmenting employees' skills and knowledge are indispensable for fostering organizational innovation.

Avoiding Empoloyees' Resistance to Change

Saranya, P. C., & Vasantha, S. (2023) confirmed that employees often resist changes due to entrenched thinking and habits, which can hinder the adoption of digitalization. There's a misconception that digital transformation solely relies on technology upgrades, but in reality, it's about fostering organizational adaptability to a digital environment. To thrive in today's digital era, businesses must swiftly adapt to digital environments. Corporate culture plays a pivotal role in facilitating this transition, influencing employees to embrace digital transformations. In order to keep pace with the rapid changes brought about by digital transformation, organizations need to be agile and adaptable, with organizational culture being crucial for the success of any digital initiative.

Another study by Bozkus, K. (2023) suggested that organizations must deal with the challenges of integrating new technologies into their existing processes and infrastructure as they go to the development stage. Effective change management is essential at this level because firms must deal with potential resistance from staff members who are concerned about how new technologies may affect their jobs and duties. Organizations must make targeted training and skill development investments to promote a culture of learning and flexibility in order to address these issues and seize the potential for increased productivity and efficiency.

Comment on previous studies.

Although the researchers dealt with a limited number of recent studies on the solution of mediating variables and their impact on the relationship between independent and dependent variables with regard to administrative variables, the researchers concluded from those studies to the following: المجلة العلمية لكلية الدراسات الاقتصادية والعلوم السياسية بجامعة الإسكندرية

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- Although the relationship between training and performance is widely mentioned in management literature, most studies have said that this relationship does not necessarily have a direct effect, but rather that there is a strong tendency for the relationship to always be affected by an intermediary variable through which this relationship is explained.
- The researchers did not find any evidence that anyone addressed the effect of resistance to change as a mediating variable on the relationship between training and employee performance, and this is what makes this study new to the best of the researchers' knowledge.

2. The Problem of the Study

The National Social Insurance Authority, which is one of the government sectors entrusted with implementing state policies and speeding up the completion of the interests of individuals, realizes the importance of developing the performance of government agencies, training its employees, and increasing their knowledge, as training will positively affect understanding of tasks, raising capabilities, and reducing errors, which necessarily reduces the impact. Negative resistance to change for digital transformation within the organization, and improving their skills and abilities to adapt to the new circumstances and situations they are exposed to when dealing with the process of transitioning to performing business digitally as a necessity of development so that these devices can perform their work efficiently and effectively.

Since any new change is met with a degree of resistance to this change, and because we seek to make the most of the training programs provided to these entities until we reach the efficient performance of these organizations, the researchers found it necessary to study the effect of workers' resistance to this change as an intermediary variable and its impact, whether direct or indirect, on achieving That efficiency as a dependent variable through training workers on digital transformation is also an independent variable

3. Objectives of the Study

This study seeks to achieve the following objectives:

- a. Identify the reality of digital transformation within the National Organization for Social Insurance in the Arab Republic of Egypt.
- b. Identifying the reality of training on digital technologies and the extent of workers' aptitude for that transformation.

c. Explaining the impact of the variable resistance to change for digital transformation as a mediating variable on the relationship between training and performance efficiency within the National Organization for Social Insurance in the Arab Republic of Egypt.

4. the importance of the Study

The study sheds light on the impact of resistance to change for digital transformation as a mediating variable on the relationship between training and performance efficiency within business organizations. This topic is considered one of the topics that no one has addressed before, as far as the researchers know. The practical importance of this study comes from the fact that it deals with training in one of the most important the government sectors in Egypt are the social insurance sector, where most of the activity and work of this sector is based on direct dealing with the public and providing services to beneficiaries, whether they are individuals or institutions, which requires continuous development and renewal of work methods and tools, including the transformation to digital technologies. The study also shows that the process of training workers at the National Organization for Social Insurance, it has a direct impact on reducing the problems of assimilating the transition to digital technologies, which increases the performance efficiency of employees, as this leads to faster completion of services for citizens, ensuring rapid collection of fees, and avoiding making mistakes.

5. Study Assignments

Based on the study problem, the following main hypotheses were formulated:

- 1. There is a statistically significant relationship at a significant level) $\alpha = 0.05$ (Between resistance to change and digital transformation within organizations and training.
- 2. There is a statistically significant relationship at a significant level) $\alpha = 0.05$ Between training and performance efficiency within organizations.
- 3. There is a statistically significant relationship at a significant level) $\alpha = 0.05$ (To resist change to digital transformation within organizations as a mediating variable on the relationship between training and performance efficiency within these organizations.

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In light of the above, the study model can be presented in the following figure (1).

Figure (1) shows the relationships between the study variables.



Source: Figure prepared by the researcher

6. Study variables

The researchers believe that there is a clear effect of training in raising performance efficiency, developing workers' skills, and increasing their knowledge. However, what the researcher wants to test is whether the workers' unwillingness to change and fighting it as a human characteristic that always aims for stability and not being displaced by rapid and fundamental changes will affect their lack of acceptance of those technological changes, even with the availability of Training and qualification operations.

This study is based on the relationship between three variables: training, which is the independent variable in this relationship, performance efficiency, which is the dependent variable in that relationship, and resistance to change for digital transformation, which is the mediating variable in that relationship. Below we present each variable in some detail:

6.1. Training as an independent variable in the relationship

Training and development refer to the process of obtaining the knowledge, skills and abilities necessary to carry out a specific activity or functions. Therefore, the benefits of training for both the organization and the

individual are of a strategic nature and therefore much broader to meet the current and future challenges of organizations. Training assumes a wide range of learning procedures starting from training the individual in his tasks. Current, moreover, knowledge sharing to improve the organization's horizon and customer service focusing on their career development and enrichment thus expanding individual, group and organizational effectiveness (Niazi, 2011).

The United Nations defines the training process as an exchange process for teaching and learning a set of knowledge and methods related to practical life. It is an activity to transfer knowledge to individuals and groups who are believed to benefit from it. Training, in short, is the transfer of knowledge and the development of skills.

(Armstrong, 2008) defines that the training process is an organized process concerned with acquiring or retaining certain capabilities. Training is important at the level of society, the organization, and the individual, as the role of training activities in developing human resources is embodied in their importance in terms of the positive reflection of these activities for the benefit of society, the organization, and the workers.

The training process includes the following: Identification of training needs

Making an organized effort to achieve knowledge of what training is required to acquire a particular ability or skill. The effort includes conducting

required to acquire a particular ability or skill. The effort includes conducting study and analysis that leads to knowing the ability required to be provided by individuals working in middle management to accomplish the work whose performance requires the availability of that ability.

Trainees: They are the elements who benefit from the training and those who are being trained.

Trainers: They are people who transfer knowledge and impart skills to trainees.

Training courses: It is a group of organized, planned, and continuous activities aimed at providing the organization's human resources with specific knowledge, improving and developing their skills and abilities, and changing their behaviors and attitudes in a positive and constructive manner. (Niazi, 2011)

The researchers believe that the training axes in this study are (the degree of practice of training activities and steps, the level of adoption of

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technological techniques as the basis of training, and the continuous updating of training programs to keep pace with digital development).

6.2. Performance efficiency as a dependent variable in the relationship

Performance refers to the degree of achieving and completing the tasks that make up an individual's job, and it reflects how the individual achieves or satisfies the job requirements. The performance evaluation process is the process of assessing the performance of each employee during a specific period of time to estimate the level and quality of his performance. He adds (Ameen and Ahmad, 2014) The performance appraisal process is concerned with reviewing the employee's performance during a certain period of time and judging it in terms of quality. It confirms that one of the uses of the results of the performance appraisal process is to identify training needs and the requirements for developing a sound training plan. Human resources management needs a list of the training courses that the organization and participants need. This step represents the basic building block in preparing any sound training program.

Performance is evaluated to benefit from human resources to the greatest extent possible, by utilizing the evaluation results in making administrative decisions as a basis for determining methods and means of selection that are compatible with work requirements, as an input in determining the training needs of working individuals, and where performance evaluation is used for the purposes of individuals' development and performance, this It requires providing them with information about expected performance and its consequences and appropriate training to meet what is expected to be accomplished but has not yet been achieved. (Abd. Jalani, 2013)

The researchers believe that the dimensions of performance efficiency in this study are (administrative capabilities, technical capabilities, performance level of behavioral competencies).

6.3. Resistance to digital transformation as an intermediary variable in the relationship

Resistance to change is a process that occurs when something ends, so that something new begins. The difference between these two stages constitutes the crossroads at which individuals learn how to say goodbye to the past and accept the present and the new, that is, the transition from the familiar to the unfamiliar, and even when the change is positive, it must create

some kind of change. Psychological effect. A common mistake in change management is to underestimate the impact that change has on employees. Many leaders and managers think that by ordering their employees to change, they will change. They do not realize the extent of the turmoil that accompanies abandoning familiar work patterns and understand the fact that employees need time to adapt. It is natural. There are those who have difficulty understanding the loss that this change may cause (Carnall, 1999).

Although all studies agree that resistance to change is considered one of the most important problems facing those planning change, there is no unified definition of resistance to change. Every researcher views resistance from the perspective of his own understanding of the behavioral, organizational, or technological aspects related to this matter.

Gaylor and Kent (2001) defined it as every force that inhibits and hinders change. On the other hand, he also defined it as the explicit or implicit expression of the defensive reaction to change.

Burke (2008) also defined resistance to change as: an emotional and behavioral response to a real or expected danger that threatens the current method of work.

Carnall (1999) defined it as the result related to the sum of positive or negative individual or collective behaviors that hinder the process of change. **Resistance to change was classified by (Derya and Gökhan, 2013) into three types of resistance:**

A) Blind Resistance

Where a group of people in the organization fear and do not tolerate change and blindly resist it, regardless of the effects that result from that change.

b) Political Resistance

Here, people resist change simply because they feel the loss of some political gain, such as a position or revenue, as a result of the change.

C) Ideological Resistance

Here resistance to change results from intellectual differences in true beliefs, feelings, or philosophies. To illustrate, teachers may feel that proposed changes in schools are wrong and violate their deeply held values, such as switching from paper-based education to distance learning. المجلة العلمية لكلية الدراسات الاقتصادية والعلوم السياسية بجامعة الإسكندرية المجلد التاسع

The researcher believes that the dimensions of resistance to change in this study are (fear of change, difficulty in changing habits, lack of motivation).

7. Study methodology

The study will rely on the descriptive analytical approach to describe the analysis of variables and the relationships between them.

Data, study population, and sample

A. Study population:

The research population consists of all employees working in administrative positions within the National Social Insurance Organization, and their number is estimated at 24,000 administrative employees (excluding workers), which the researchers decided to exclude because they are not related to the subject of the study.

B. Study sample:

A sample of workers in administrative positions within the National Organization for Social Insurance, numbering 378 individuals, representing all departments and job grades, was selected on a random basis, the simple random sampling method was chosen, which is a type of probability sampling where the researcher randomly selects a subset of participants where each member has an equal chance of being selected.

As well as containing the different types of vocabulary in society, including frames, age, length of service, and the rest. Differences such as educational level, gender, etc. In determining the sample size, the researchers relied on the law for determining the sample size if the size of the population is known.

The researchers distributed 380 survey forms according to the study sample, distributed among the study categories. 374 questionnaires were received, and by analyzing these forms it became clear that the lists suitable for analysis amounted to 371 lists, representing 98.4% of the total sample size.

Table 1 summarizes the specifications of the study sample in terms of frequencies and percentages, with respect to five demographic variables.

Variables	Frequency	Percentage		
The	e kind			
male	248	67%		
feminine	123	33%		
Осси	upation			
Director general	58	16%		
Director of the Department	85	23%		
specialist	228	61%		
	Age			
Less than 30	87	24%		
From 30 to less than 40	131	35%		
From 40 to less than 50	88	24%		
50 or more	65	17%		
Service	duration			
Less than 5	59	16%		
From 5 to less than 10	192	52%		
From 10 to less than 15	60	16%		
15 or more	60	16%		
Educa	tion level			
Middle Certification	87	24%		
High qualified	131	52%		
Postgraduate studies (Master's	88	24%		
and PhD)				
Total sample items	371	100%		

Table No. (1) shows the demographic characteristics of the study sample.

Source: Prepared by researchers based on the outputs of statistical analysis

Table (1) describes the study sample, which consisted of 371 individuals, approximately 67% of whom were male, and the rest were female. In terms of job, the percentage of general managers is 16%, while the percentage of department managers is close to 23%, and specialists represent 61% of the total sample. In terms of age group, 24% of the study participants were under the age of 30, while the percentage of ages from 30 to less than 40 represented 35%, and the percentage of ages from 40 to less than 50 represented 24%, and the age group was the least participating in the sample. They are people aged 50 and over, making up 17% of the total sample. In terms of length of service, 16% of the participants in the study had a period of service of less than 5, while a percentage of their period of service from 5 to less than 10 represented 52%, and a percentage of their period of service from 5 to less than 15 represented 16%. The period of service was 15 years or more, and their percentage of those with an intermediate qualification

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represents 24%, while the percentage of those with a high qualification represents 35%, while the percentage of those with postgraduate studies represents 24% of the total research sample.

Mediation models and tests used in the study.

In this study, we will test the validity of the hypotheses by applying tests of mediating variables and measuring the type of effect of the mediating variable, which is resistance to change for digital transformation, whether partial or complete. We will also determine the type of mediation of the mediating variable, whether it is total or partial mediation, through the following tests.

A) Testing the mediating variable using the model (Baron & Kenny, 1986)

In this test, three regression models are formulated between the independent variable x, the mediating variable M, and the dependent variable Y, as follows:

$M = b_0 + b_1 x$	(1)	
$y = c_0 + c_1 x$	(2)	
$y = a_0 + a_1 M + a_2 M + a_3 M + a_4 M + a_$	$a_2 x$	(3)

We note that the first and second models are simple linear regression models, or the third model is a multiple regression model.

After applying the previous regression models, obtaining the value of the estimators, and knowing the extent of their significance, we design Figure (2) as follows:







Source: Figure prepared by researchers

We notice that.

- If the value of the coefficient a_2 is less than the value of the coefficient C_1 as absolute values (the sign of the coefficient is neglected here) and the coefficient a_2 is not statistically significant (not significant), the mediation here is total mediation.
- If the value of the coefficient a_2 is less than the value of the coefficient C_1

as absolute values and the coefficient a_2 is statistically significant (significant), the mediation here is partial mediation.

It is worth noting here that the significance of the coefficient a_2 depends on the value of the level of significance used in the study α , as it takes the value of 5% or the value of 1%. Accordingly, it may happen in some situations that the mediation is complete at the level of significance of 5% and turns into partial mediation at the level of significance of 1%.

The mediating variable has two effects on the relationship:

- Direct effect and expressed by the value of the coefficient a_2
- An indirect effect, which is expressed as the product of the two coefficients) $a_{1\times}b_{1/2}$
- Therefore, the total effect of the mediating variable on the relationship is

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Total impact = $a_{2} + a_{1\times}b_{1}$

B) Testing the mediating variable using the (Soble test model, 1982).

In this test, the previous three regression models are formulated, and

then a confidence interval for the indirect effect) $a_1 \, b_1$ (is calculated from the following relationship:

$$a_1b_1 - z_{\alpha/2} \ se_{a_1b_1} \le \tau \le a_1b_1 + z_{\alpha/2} \ se_{a_1b_1}$$

whereas

 $\mathbf{Z}^{2}_{\frac{\alpha}{2}}$: The tabular value corresponding to the 95% confidence coefficient.

 $S\mathcal{e}_{a_1b_1}$: The standard error of the third regression model.

au : It represents the indirect impact on the level of society as a whole.

According to the above, it is

- If zero is confined between the lower limit and the upper limit of the • previous period, then the mediating variable does not mediate the relationship between the independent variable and the dependent variable.
- If zero is not confined between the lower limit and the upper limit of the previous period, then the mediating variable mediates the relationship between the independent variable.

8. Results of the study

The researchers conducted statistical analysis of the research variables. This statistical analysis includes:

Analytical statistics, in which simple and multiple regression and linear correlation models are created to study the relationships mentioned in the study. Tests are performed to demonstrate the effect of the mediating variable, which is resistance to change for digital transformation.

Descriptive statistics are also presented, where frequencies, percentages, weighted arithmetic mean, standard deviation, standard coefficient of variation, and ranking are calculated on the basis of the least dispersed or most homogeneous values through the coefficient of variation.

Before all that, the reliability and validity of the content of the axes of the data collection form is measured as follows:

8.1. Reliability and self-validity of the research variables: Table No. (2) Reliability and self-validity coefficient for the study's axes

the scale	Number of paragraphs	Honesty coefficient	Stability coefficient alpha
The axis of resistance to change for digital transformation	10	0.943	0.889
The focus of the organization's performance	9	0.994	0.988
Training focus	11	0.995	0.99

It was shown from Table No. (2) that the Cronbach reliability coefficient (alpha) was used to measure the content reliability of the aforementioned study variables.

It was found that the Cronbach coefficient ranged between 0.99 and 0.889 for the study axes, which had an impact on both validities, as the value ranged between 0.995 and 0.943, which indicates the high stability of the study variables at the level of the research sample.

8.2. Descriptive statistics of the content of the data collection form

Through the following questions, we conduct a descriptive analysis of the first part of the survey list and an analysis of the entire total sample.

0) Analyzing the questions related to the first axis, which is the axis of resistance to change for digital transformation

This group of questions is divided into subgroups, and by analyzing these groups, we obtained the following:

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Table No. (3): Frequency and proportional distribution and some statistical measures

Paragraph	Levels [frequency below percentage]			rithmativ	standard	coefficier	Rankin			
	Fotally	agree	neutral	lisagree	omplete	average	deviation	of		
	agree				disagree	area age		variation		
1 -The dimension of fear of change										
The change to the digital work system is										
different	246	110	8	1	6				2	
	66%	30%	2%	0%	2%	4.59	0.70	15.35%		
There is difficulty in performing work tasks										
after digital transformation	242	98	22	3	6				4	
	65%	26%	6%	1%	2%	4.53	0.78	17.25%		
The work became less difficult after a										
period of working on the new system	258	86	20	3	4				3	
	70%	23%	5%	1%	1%	4.59	0.73	15.81%		
Training on digital transformation										
contributed to reducing fears of making									1	
mistakes while working	282	72	12	1	4				•	
	76%	19%	3%	0%	1%	4.69	0.65	13.89%		
General av	verage					4.59	0.55	11.88%	-	
2.	The dif	fficulty	of chan	ging ha	bits					
The work system after digital		<u> </u>		Ť						
transformation needs more focus	272	68	20	5	6				3	
	73%	18%	5%	1%	2%	4.60	0.70	17 12%	-	
The work system after digital						7.00	0.75	11.1376		
transformation restricts the employee's										
movement away from his workplace	286	58	20	1	6				2	
interenting attack in the second	77%	16%	5%	0%	2%	4.66	0.74	15.78%		
Job training after digital transformation										
helps change some work-related habits and										
behaviors	276	74	14	1	6				1	
	74%	20%	4%	0%	2%	4.65	0.72	15.39%		
Ganaral ar										
General av	erage					4.71	0.56	11.88%	-	
3 -T	'he dim	ension (of lack o	of motiv	ation					
Management motivates workers after										
successfully implementing the change in									2	
order to encourage them	250	96	18	1	6				5	
	67%	26%	5%	0%	2%	4.57	0.74	16.25%		
The training process creates motivation										
among employees towards change	259	97	8	3	4				1	
	70%	26%	2%	1%	1%	4.63	0.67	14.57%		
Creating new units to keep pace with										
changes leads to better motivation	246	100	20	1	4				2	
	66%	27%	5%	0%	1%	4.57	0.71	15.44%		
General av	General average 4.59 0.57 12.32%									

Source: Prepared by the researchers based on the outputs of statistical analysis

We note from Table (3) that frequencies, percentages, arithmetic mean, standard deviation and coefficient of variation were calculated for each item of each of the three dimensions, and an overall average was calculated for each dimension with a general standard deviation and a general coefficient of variation.

It is clear from the results of the table that the second dimension, which is "the dimension of difficulty in changing habits," gives an arithmetic mean (4.71) and the lowest standard deviation (0.56), which was reflected in

the coefficient of variation (12.76%), followed in order by the first dimension, which is "the dimension of fear of change." I gave an arithmetic mean (4.59) and a standard deviation (0.56), which was reflected in the coefficient of variation (11.88%), followed in order by the third dimension, which is "the dimension of lack of motivation." It was given an arithmetic mean (4.59) and a standard deviation (0.57), which was reflected in the coefficient of variation. (12.32%).

It also became clear that all averages, whether general or detailed, [for each paragraph] are greater than 3. This means that the opinions of the respondents tend to strongly agree with all of those paragraphs.

The researchers also arranged the paragraphs within each dimension based on the value of the coefficient of variation, where the coefficient of variation expresses the paragraphs that are the least dispersed (they have the highest average with the lowest standard deviation), and the order was made according to the value of the coefficient of variation from the lowest value to the highest.

B) Analyzing the questions related to the second axis, which is the organization's performance efficiency

This group of questions is divided into subgroups. By analyzing these groups, we obtained the following:

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Table No. (4) Frequency and percentage distribution and some statistical

measures

Paragraph	Le	Levels [frequency below				Arithmetic		Coefficie	Ranking	
		pe	rcenta	ge]			tandard	nt		
	otally	gree	eutral	isagree	omple	attorage	leviation	of		
	agree				tely	otally agree	agree	variation		
					isagre	otany agree		neutral		
1 -The dimension of administrative capabilities										
Management offers	277	72	20	1	1				2	
employees new ways and								[
ideas of working	75%	19%	5%	0%	0%	4.68	0.61	13.07%		
Employees complete	273	84	10	3	1				4	
tasks on time	74%	23%	3%	1%	0%	4.68	0.59	12.64%		
Workers seek to develop	263	84	21	1	2				3	
themselves to keep pace						1				
with the change process	71%	23%	6%	0%	1%	4.63	0.65	14.11%		
Gene	ral ave	erage				4.66	0.6	12.88%	-	
	2 -	Techr	nical ca	apabili	ties di	mension				
The necessary computer	255	96	18	0	2				3	
programs are available to						1				
complete tasks faster and			1							
more accurately	69%	26%	5%	0%	1%	4.62	0.63	13.62%		
The technology used led	265	79	22	3	2				2	
to speedy completion of					-	1				
work	71%	21%	6%	1%	1%	4.62	0.68	14.78%		
Training programs	250	104	15	1	1				1	
increase employees' skills						1				
and knowledge	67%	28%	4%	0%	0%	4.62	0.60	13.08%		
Gene	ral ave	erage				4.62	0.62	13.41%	-	
3 -Dimension	of the	level	ofner	forma	nce of	behavioral	compete	ncies		
Training programs	270	80	8	2	2				3	
changed employees'			-	-		1				
behavior for the better	73%	24%	2%	1%	1%	4.68	0.60	12,79%		
Improving the methods of	250	102	16	2	1				1	
dealing and service	<u> </u>		<u> </u>	-	1	1				
between the performing					1					
employees and the public										
requesting the service	67%	27%	4%	1%	0%	4.61	0.62	13.51%		
There is an atmosphere of	241	110	16	2	2				2	
trust and respect between	<u> </u>			-	1-	1			-	
employees and										
management	65%	30%	4%	1%	1%	4.58	0.65	14.27%		
Gene	ral ave	rage		- / -		4.59	0.57	12.32%	-	
0111	General average									

Source: Prepared by the researchers based on the outputs of statistical analysis

It is clear from the results of Table (4) that the first dimension, which is "administrative capabilities," gives an arithmetic mean (4.66) and the lowest standard deviation (0.6), which was reflected in the coefficient of variation (12.88%), followed in order by the third dimension, which is "performance level of behavioral competencies." I was given an arithmetic mean (4.62) and a standard deviation (0.6), which had an impact on the coefficient of variation (13.01%). Finally, the second dimension came, which is "technical capabilities." I was given a arithmetic mean (4.62) and a standard deviation (0.62), which had an impact on the coefficient of variation (13.41). %).

It also became clear that all averages, whether general or detailed, [for each paragraph] are greater than 3. This means that the opinions of the respondents tend to strongly agree with all of these paragraphs.

C) Analyzing the questions related to the third axis, which is training.

By analyzing the paragraphs related to that topic, we obtained the following: Table No. (5): Frequency and proportional distribution and some statistical

Paragraph	L	Levels [frequency below				rithmati.		coefficie	Ranking
		percentage]			anumetic avorago	standard	tof		
	otalla	gree	neutral	lisagree	Complet	Totally	leviation	variatio	
	У				ely	Totany	agree	neutral	
	igree				lisagree	agree			
1 -The degr	ree of	pract	ice of t	raining	g activit	ties and s	teps		
The Authority conducts training	277	72	20	1	1				2
courses periodically to train on						1			
the new work system	266	74	21	3	7	4.59	0.79	17.31%	
The trainee is evaluated while	278	62	21	3	7				2
performing the work to						1			
determine the extent of his									
mastery and acquisition of skills									
and training information	75%	17%	6%	1%	2%	4.62	0.79	17.10%	
The results of training courses	250	90	21	3	7				4
are evaluated by reflecting them]			
on the performance of the		1							
trainees	67%	24%	6%	1%	2%	4.54	0.80	17.55%	
Training courses increase	273	83	7	4	4				3
workers' efficiency in									
performing various daily tasks	74%	22%	2%	1%	1%	4.66	0.67	14.47%	
General	avera	age				4.6	0.73	15.93%	-
2 -Following the level of a	doptic	on of t	echnol	logical	techniq	ues as th	e basis f	or training	
Training takes place in a	242	101	18	5	5				3
practical manner on the same]			
work tasks and with the same									
equipment	65%	27%	5%	1%	1%	4.54	0.77	16.91%	
Training is provided on the	241	95	25	4	6				2
latest technology methods used]			
in digital transformation	65%	26%	7%	1%	2%	4.51	0.80	17.78%	
There is a strong communications	274	70	18	3	6				2
network that helps in performing									
digital tasks in a smooth and	7.494	1001	504	1.04	201		0.74	16000	
organized manner	/4%	19%	5%	1%	2%	4.63	0.76	16.38%	

measures

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Paragraph	L	Levels [frequency below					tandard	coefficie	Ranking
	lotali y igree	agree	neutral	lisagree	complet ely lisagree	average Totally agree	leviation agree	variation neutral	
You prefer that the methods and methods of work remain the same as they are	266 72%	21%	18	4	6 2%	4.60	0.77	16.79%	1
General	aver	age	_			4.57	0.74	16.29%	-
3 -The dimension of continu	3 -The dimension of continuous updating of training prog development								
You will be notified of any	264	76	21	4	6				3
change in the system, no matter how minor	71%	20%	6%	1%	2%	4.58	0.78	17.10%	
As a member of the organization, you find yourself obligated to embrace any new development that may result	258	82	24	3	4				1
from the change process	70%	22%	6%	1%	1%	4.58	0.74	16.19%	
There is a support and development unit in the Authority to keep pace with digital development and	261	80	23	3	4				2
constantly update the system	70%	22%	6%	1%	1%	4.59	0.74	16.05%	
General	4.59	0.74	16.1%	-					

Source: Prepared by the researchers based on the outputs of statistical analysis

It is clear from the results of Table No. (5) that the first dimension, which is "the degree of practice of training activities and steps," gives an arithmetic mean (4.6) and the lowest standard deviation (0.73), which was reflected in the coefficient of variation (15.93%), followed in order by the third dimension, which is " The level of adoption of technological technologies as the basis of training was given a mean (4.59) and a standard deviation (0.74), which was reflected in the coefficient of variation (16.1%). Finally, the second dimension came, which is "continuous updating of training programs to keep pace with digital development." It was given a mean (4.57). And a standard deviation (0.74), which was reflected in the coefficient of variation (16.29%).

It also became clear that all averages, whether general or detailed, [for each paragraph] are greater than 3. This means that the opinions of the respondents tend to strongly agree with all of those paragraphs.

8.3. Testing the validity of hypotheses using correlation and linear regression

We note here that the independent variable is training, and it is expressed by each of the following variables:

- 1- The variable degree of practice of training activities and steps, which will be expressed by the symbol x1.
- 2- The variable level of adoption of technological techniques as a basis for training, which will be expressed by the symbol x2.
- 3- The variable of continuous updating of training programs to keep pace with digital development, which will be expressed by the symbol x3.

The dependent variable is the efficiency of performance within the organization and is expressed by each of the following variables:

- 1- The administrative capabilities performance variable, which will be expressed by the symbol y1.
- 2- The technical capabilities performance variable, which will be expressed by the symbol y2.
- 3- The behavioral competencies performance variable, which will be expressed by the symbol y3.

8.4. Measuring the relationship between the dimensions of the independent variable, which is training, and their relationship to the dimensions of the dependent variable, which is performance efficiency within the organization.

Through Pearson's correlation coefficient, the following was obtained: Table No. (6): Linear correlation coefficients and test of the significance of the

Independent		Dependent variables									
variables	Y:	1	Y	2	Y3						
Independent variables	Correlation coefficient	Significance level	Correlation coefficient	Significance level	Correlation coefficient	Significance level					
X1	0.702**	0.00	0.68**	0.00	0.669**	0.00					
X2	0.68**	0.00	0.685**	0.00	0.677**	0.00					
Х3	0.713**	0.00	0.687**	0.00	0.671**	0.00					

relationship

**Significant at a significance level less than (0.01).

From Table No. (6) it is clear that:

Pearson correlation results are shown in the table.

There is a direct, statistically significant correlation with a confidence degree of 99% between the administrative capabilities performance variable Y1 and the independent variables related to the three training dimensions, as the significance level value is less than 1% for all correlation coefficients in

the previous table between the independent variables and the dependent variable Y1.

There is a statistically significant inverse correlation with a confidence degree of 99% between the technical capabilities performance variable Y2 and the independent variables related to the three dimensions of training, as the significance level value is less than 1% for all correlation coefficients in the previous table between the independent variables and the dependent variable Y2.

There is a statistically significant inverse correlation with a confidence degree of 99% between the behavioral competencies performance variable Y3 and the independent variables related to the three dimensions of training, as the significance level value is less than 1% for all correlation coefficients in the previous table between the independent variables and the dependent variable Y3.

a. Results of mediation test models

By applying it to the study sample, we obtained the following results 1) Results of the first regression model

 Table No. (7): Results of linear regression analysis between the mediating variable, which is resistance to change as a dependent variable, and the independent variable, which is training

Indepen	Parameters	"1	t" value	"F"	value	
dent	Estimated		t. test	F.	test	Determination
variable	b_i					coefficient R ²
		value	Level of significance	value	Level of significance	
Stator	5.256**	31.543	0.00	15.407**	0.00	4%
X	141**	-3.925	0.00			

**Significant at a significance level less than (0.01).

*Significant at a significance level less than (0.05).

From Table No. (8), we find that the independent variable, which is training, explains (4%) of the total change in the dependent variable, which is resistance to change. The model is also significant, as the value of the F-test is (15.407), which is significant at a lower level. From (0.01).

Therefore, the initial regression equation is as follows.

$M = 5.256 - 0.141x \tag{1}$

Using the (t-test), we find that the variable of reasons for resistance to change in the relationship with the mediating variable, which is resistance to change, is significantly significant at a level less than (0.01), where the value of its significance level reached (0.00), which is a value less than 0.01.

Therefore, it can be said that the first hypothesis is correct, which is, "There is a statistically significant relationship at a moral level ($\alpha = 0.05$) between resistance to change to digital transformation within business and training organizations."

b. Results of the second regression model

Table No. (9): Results of linear regression analysis between the dependent variable, which is the organization's performance efficiency, and the

Independent variable	Parameters Estimated b_i	"t" t.	value test	"F" F.	value test	Determination coefficient R2
		value Level of significance		value	Level of significance	
Stator	2.001**	14.093	0.00	7.387**	0.00	17.3%
X	0.575**	8.797	0.00			

independent variable, which is training

**Significant at a significance level less than (0.01).

*Significant at a significance level less than (0.05).

From Table No. (9) we find that the independent variable, which is training, explains (17.3%) of the total change in the dependent variable, which is the efficiency of the organization's performance. The model is also significant, as the value of the F-test is (77.387), which is significant at the level of Less than (0.01).

Therefore, the second regression equation is as follows:

 $y = 2.001 + 0.575x \tag{2}$

Using the t-test, we find that the training variable in the relationship with the dependent variable, which is the efficiency of the organization's performance, has a moral significance at a level less than (0.01), where the value of its significance level reached (0.00), which is a value less than 0.01.

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Therefore, it can be said that the second hypothesis is correct, which is, "There is a statistically significant relationship at a moral level ($\alpha = 0.05$) between training and performance efficiency within business organizations."

c. Results of the third regression model

Table No. (10): Results of linear regression analysis between the dependent variable, which is the organization's performance efficiency, & the independent variables, which are resistance to change & training.

Indepen dent	ndepen Parameter dent s		alue est	"F" v F. te	alue est	Determin ation	tandard Error
variable	Estimated b_i	Value	Level of significan ce	Value	-evel of significa nce	coefficie nt R ²	$Se_{a_1b_1}$
Stator	2.612**	9.646	0.00	L83.017 **	0.00	49.9%	0.0022
М	-0.116**	-2.642	0.00				
Х	0.558**	18.036	0.00				

**Significant at a significance level less than (0.01).

*Significant at a significance level less than (0.05).

From Table No. (10), we find that the independent variables, which are resistance to change and training, explain (49.9%) of the total change in the dependent variable, which is the efficiency of the organization's performance. The model is also significant, as the value of the F-test is (183.017), which is significant. At a level less than (0.01).

Therefore, the third regression equation is as follows:

 $y = 2.612 - 0.116M + 0.558x \tag{3}$

Using the (t-test) we find that

- The training variable in the relationship with the dependent variable, which is the efficiency of the organization's performance, has a moral significance at a level less than (0.01), where the value of its significance level reached (0.00), which is a value less than 0.01.
- The variable of resistance to change in the relationship with the dependent variable, which is the efficiency of the organization's performance, has a moral significance at a level less than (0.01), where the value of its significance level reached (0.00), which is a value less than 0.01.

By applying the results of the three models, we obtain Figure (3) Figure (3) shows the relationships between the independent and dependent variables and the mediating variable after application to the study variables



From Figure (3) we note that

At a significance level of 1%, the value of the coefficient $a_2 = 0.558$ is less than the value of the coefficient $C_1 = 0.575$ as absolute values, and the coefficient $a_2 = 0.558$ was statistically significant (significant), so the mediation of the variable resistance to change for digital transformation in this case is partial mediation.

The mediating variable, which is resistance to change, has two effects on the relationship:

- Direct effect = 0.558
- Indirect effect = -0.116 * -0.141 = 0.0164

Therefore, the total effect of the mediating variable on the relationship is $a_{2^{-1+}}$

$$a_{1*}b_{1=0}$$
 0.558 . 0.575 = 0.0164

We note that this confirms the validity of the results as the overall effect is always valuable $C_1 = 0.575$

Using the confidence interval using the (Soble test), we find that:

$0.012 \leq \tau \leq 0.0207$

We note that zero is not within the previous confidence interval, and this confirms that the mediating variable, which is resistance to change for digital transformation, mediates the relationship between the independent المجلة العلمية لكلية الدراسات الاقتصادية وإلعلوم السياسية بجامعة الإسكندرية

variable, which is training, the dependent variable, and the dependent variable, which is the efficiency of the organization's performance.

Therefore, it can be said that the third hypothesis is correct, which is, "There is a statistically significant effect at a significant level ($\alpha = 0.05$) of resistance to change for digital transformation within business organizations as a mediating variable on the relationship between training and performance efficiency within business organizations."

8.5. Discuss the statistical analyzes results.

From the previous statistical analyzes the following was revealed

The relationship was studied for the first hypothesis, which is, "There is a statistically significant relationship between training (X) (the degree of practice of training activities and steps, the level of adoption of technological techniques as the basis of training, the continuous updating of training programs to keep pace with digital development) and the efficiency of performance in the organization (Y) (performance Administrative capabilities, performance of technical capabilities, performance level of behavioral competencies) "By calculating the linear correlation coefficients, I showed that the relationship has a significant correlation, as all correlation coefficients were significant and direct between the dimensions of training with each dimension of the organization's performance.

Regression models were also analyzed to study the relationships between the independent variable, which is training, the dependent variable, which is the efficiency of the organization's performance, and the variable that mediates this relationship, which is resistance to change for digital transformation within the National Social Insurance Authority. It was found that the relationship between resistance to change and training is an inverse

relationship, where the value $b_1 = -0.141$ was In the first regression model, it is negative, which indicates that the relationship is inverse, but the explanatory power of this model was low, as the value of the coefficient of determination $R^2 = 4\%$ was low. This means that the training variable explains 4% of the changes that occur in resistance to change for digital transformation.

It was also shown that the relationship between the efficiency of the organization's performance and training is a positive relationship, as the value

 $c_1 = 0.575$ in the second regression model was positive, which indicates that the relationship is positive, but the explanatory power of this model was

also low, as the value of the coefficient of determination $R^2 = 17.3$ was low, and this means that the training variable explains 17.3% of the changes that occur in The efficiency of the organization's performance. The coefficient

 $c_1 = 0.575$ in this relationship represents the total effect between the independent variable, which is training, and the dependent variable, which is the efficiency of the organization's performance.

But when the effect of the mediating variable, which is resistance to change for digital transformation, entered the relationship between the independent variable and the dependent variable in the third regression model, the explanatory power of the model changed and became $R^2 = 49.9$. This means that the resistance to change variable and the

 $\mathbf{A} = -\mathbf{P} \cdot \mathbf{P}$. This means that the resistance to change variable and the training variable together explain 49.9% of the changes that occur in the organization's performance efficiency. This is because resistance Change has

a negative effect $a_1 = -0.116$, unlike the effect of training, which has a positive effect $a_2 = 0.558$, so the mediating variable, which is resistance to change, plays the role of a negative factor that reduces the efficiency of the organization's performance in that relationship, which is reflected in its effect on the coefficient of determination by increasing the explanatory power of the model.

9. Discussion

Based on the above, the validity of the concept presented by the researchers in the research problem has been proven, which stemmed from the analysis of previous studies, which is that training for workers within organizations may have an impact on raising the efficiency of performance within the organization, but that impact will not necessarily be a direct impact, as the presence of the variable of resistance to change for digital transformation It has a role in that relationship, as the results of the field study showed that there is an indirect effect of resistance to change in that relationship because workers' continued resistance to the shift to digital work will have a negative impact on performance efficiency.

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On the other hand, the study showed that continuing the training process for workers will have a negative impact on this resistance, causing it to decrease over time, which ultimately helps to increase performance efficiency.

10. Contribution

Therefore, in summary, we draw clear evidence on the determinants that influence performance efficiency, since training is an effective factor in developing skills, refining experience and accumulating information that is beneficial to work and improves productivity.

The benefits of digital transformation help measure the efficiency and effectiveness of performance. This will lead to efficient information performance and increase efficiency in strategy formulation, in addition to redesigning procedures, increasing operational efficiency and improving governance, and maximizing the delivery of services and benefits electronically, thereby increasing citizen and worker satisfaction degree at the same time, but there is a factor that has an indirect but significant and harmful impact on improving performance efficiency, namely the lack of desire and resistance to change, which satisfactorily reduces the direct impact of training factors on improving performance rates.

Therefore, policymakers must work to change workers' perceptions of digital transformation and encourage their acceptance of it, provided that training programs to develop their digital skills include convincing beneficiaries of the importance of digital transformation for workers and employees. They believe the entire process is being done for their benefit, accelerating digital transformation and building infrastructure. As this closely related research paper explains, infrastructure will facilitate this change, affecting the effectiveness of government performance and improving the delivery of services to citizens.

11. Conclusion

The purpose of this study is to show the relationship between training and performance efficiency with the intervention of the factor of resistance to change for digital transformation, which is sometimes adopted by many workers out of their desire to maintain the existing conditions without change.

This is often due to the fear of some workers from experimenting with modern systems or because of the weakness of the capabilities of some of them and hiding behind the old systems and their stagnation, loopholes, etc.,

or for some to obtain money by completing the paperwork for some clients, and their desire to maintain these corrupt practices and alert them to the shift towards digitalization will eliminate corruption completely, which will spoil their illegal profit.

However, this study has shown that digital transformation has advantages when applied in a proper manner and training workers and those responsible for providing services to citizens after convincing them that this transformation helps both the employee and the customer to facilitate the provision of services, increase the satisfaction of the beneficiaries of those services, and reduce the rate of errors.

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