أثر التغير الهيكلي والتكنولوجي وفق رؤية السعودية 2030 على أداء الموارد البشرية دراسة حالة الشركة السعودية للكهرباء

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#### **Abstract:**

This study aims to identify the impact of both structural and technological changes on the performance of human resources in the Saudi Electricity Company.

After presenting the theoretical side of the study and identifying its variables, a questionnaire containing 40 words is designed, trying to measure the relationship between the variables and the possibility of the impact of both structural and technological change on the performance of the employees in the company subject of this study.

The results showed that the variable of technological change is the most statistically significant because the corresponding Beta value of this variable is equal to 0.377 and is therefore statistically significant at a level less than (0.05). This variable is followed by the change variable which includes the organizational structure where the value of (Beta) corresponding to this variable is equal to 0.219 and is statistically significant at a level less than (0.05).

Key words: Structural change, technological change, Saudi Vision 2030, H.R performance.

ملخص

تهدف هذه الدراسة إلى التعرف على أثر التغيرات الهيكلية والتكنولوجية على أداء الموارد البشرية في الشركة السعودية للكهرباء. وبعد عرض الجانب النظري للدراسة وتحديد متغيراته تم تصميم استبانة تحتوي على 40 عبارة لمحاولة قياس العلاقة بين المتغيرات وإمكانية تأثير التغير الهيكلي والتكنولوجي على أداء الموظفين في الشركة موضوع هذه الدراسة.

وأظهرت النتائج أن متغير التغير التكنولوجي هو الأكثر دلالة إحصائيا لأن قيمة بيتا المقابلة لهذا المتغير تساوي 0.377 وبالتالي يعتبر ذو دلالة إحصائية عند مستوى أقل من (0.05). ويتبع هذا المتغير الناهي يشمل الهيكل التنظيمي حيث قيمة (بيتا) المقابلة لهذا المتغير تساوي 0.219 وهي ذات دلالة إحصائية عند مستوى أقل من (0.05).

الكلمات المفتاحية: التغير الهيكلي، التغير التكنولوجي، رؤية السعودية 2030، أداء الموارد البشرية.

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# 1. INTRODUCTION

Change is unavoidable in all affairs of existence, which makes our era witnessing extensive trends and changes in various fields, especially expertise, technical, administrative and informatics. Like other Saudi companies, the Electricity Company needs to enhance its performance in order to face the various challenges posed by local and global treaties. Whether or not the trade in (SEC) is technical, administrative, structural or behavioral, it has to do with its employees. The fulfillment of the employer in introducing numerous changes depends on the acceptance of the personal of these adjustments and on their impact on its performance.

# **Problem Statement:**

Thus, and based on what has just been described previously, we can issue the following request:

How does structural and technological changes affect human resource overall performance?

The principal query arises from the following questions:

To what extent can the dimensions of change in the organizational structure represented by the flexibility of the organizational form, the change in authority and responsibility, the switch in lines of communication and participation in decision-making impact the overall performance of human resources?

How does the business in a specific era, which is related to production and conservation, impact human resource performance?

- What is the impact of demographic variables as intermediate variables on the connection among structural and technological exchange and the human assets overall performance of the organization subject of this study?

# **Objectives of the Study:**

We intend through this topic:

- recognize structural and technological business as a plan and highlight its implications through exposure to the different ideas underlying it;
- categorize the effect of structural and technological change on human sources overall performance;
- analyzing the impact and devotion of workers to alternate tactics.

The significance of the study: The importance of the study lies within the benefits to:

- (SEC): The study offers with the critical topic of trade in (SEC), one of the most critical public establishments in Saudi. In its diverse fields, conquer issues that could preclude the manner of exchange to enhance and broaden performance;
- Society: where the company (SEC) if you work the change in a systematic and scientific will reflect on the overall performance and the extent of offerings provided to the citizen.

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**Hypotheses of the study:** inside the mild of the preceding presentation of the dilemma of studies can be done the following hypotheses in order to check theoretical validity:

- There is an effect of the change inside the dimensions of the organizational shape at the performance of human resources;
- There may be an effect of technological change relating to using cutting-edge strategies in production tactics and in the communication manner on human useful resource overall performance;

We additionally hope to achieve the following hypotheses inside the field:

- The first hypothesis: there may be a statistically substantial effect of the change inside the organizational shape on the performance of sources inside the company (SEC) unit Najran.
- The second hypothesis: there is a statistically massive effect of the trade within the generation used on human sources overall performance in the company (SEC) unit Najran.
- There are statistically significant differences for demographic variables as intermediate variables in the relationship between structural and technological transformation and human resources in the overall performance of the company.

#### **Previous studies:**

The most important studies are:

- Hayat Ben said: coping with exchange in Public management for Modernization: Canadian Case research and classes for Morocco, Doctoral Thesis in management technology, grasp of technological know-how in management science, school of better commercial enterprise research university associate of Montreal, Canada, 2000.

The apprehension of the study became on alternate management in public management for modernization with the Canadian case take a look at and instructions for Morocco.

The goal is to improve its performance, and tried through the study to build an integrated model of strategic change management that will enable the success of the upgrading process. The study was performed in two Canadian institutions and one in Quebec.

The researcher also reviewed cases of successful models of modernization in Canada and Quebec in order to conclude an integrated model of strategic change management, which will serve as a reference model, and this model can be adapted according to the cases of public administration in Morocco. My study, and that managers working directly with citizens are able to make suggestions take part in an important role in the success of change.

- Sophie Meunier: Organizational Change -predict Support and Resistance Behaviors Through Concerns 'Ph.D. thesis in Occupational Psychology and Organizations, Faculty of Arts and Sciences, University of Montreal, Canada, 2010.

This research attempt to examine how to predict the behavior of supporting and resisting change

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through the interest of workers to change The study works to surmount this gap by identifying variables that can clarify both support and change behavior, and accessible numerous variables (knowledge, adaptability, affective, moderation, anxiety, fear), the researcher concluded that the variable of fear of change has a big role In shaping the behavior of support or resistance to change, but the researcher suggested to repeat the research in another institution that applies a significant change so that we can simplify the result.

We have benefited from the previous studies in the theoretical structure of research and the development of a comprehensive idea on the subject of the study, as well as in the preparation of the survey to classify different environments and different sectors dealing with the subject of change in business organizations.

#### **Used Method:**

To answer to the difficult questions of our study and try to test the strength of the proposed hypotheses, the theoretical section relied on the analytical method, in order to extrapolate the theoretical aspect of the subject and understand the inside and analysis of its dimensions, regardless of the fact that the practical section was relied on the case study method and the descriptive analytical method through social survey using the survey.

# 2. the concept of change in business organizations

The concept of change is varied and wide-ranging. It was researchers who focused on the used technology in its definition of change, and some of them focused on the organization, the organizational environment and organizational behavior with the aim of adapting and improving performance.

In addition, from the perspective of organizational approach to the organization. As a system consisting of a set of sub-systems interacting with each other, and being located in an external system, which in turn consists of broader subsystems (economic, political, social, technological...), the change in these systems is reflected in the change of the organization necessarily (Bartoli & Harmel, 1986, p. 21).

The Change in business organizations has many definitions, including:

Definition one: change is "the transition from the current equilibrium point to the target equilibrium point, which means so the conversion from one state to another in space and time" (Osman, 2000, 9).

Definition two: change is: "response and natural outcome of regulatory change, adaptability and response, a state of finding adaptation and environmental balance of changes induced in the adjoining climate" (Jean & Amassasse, 1997, p. 340).

Definition three: change is: "a deliberate and planned process for a long period of time, usually focused on plans and policies or organizational structure, or organizational behavior, organizational culture and performance technology, or actions and conditions of work, etc., in order to achieve

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adaptation to changes in the internal and external environment to survive continuity, development and excellence" (Thabit, 2003, p. 362).

From the above definitions, we bring to a close that change that takes place inside companies is based on systems theory. The organization considers a network of overlapping subsystems, so that an individual, a group, or another organizational unit is recognized as an independent unit of other actions affecting and influencing around it. A sub-system in a larger system is the external environment or external climate, in the logic that change efforts are permanent and continuous to face incorporated changes in the external environment, and that any force on any system or branch thereof leads to further changes in its branches or other systems, and so in the internal environment of the organization as a whole.

# 3. the objectives of change in business organizations

Among the objectives of the change programs are:

- -High performance, high motivation and cooperation, clearer methods of communication, reduced absenteeism, turnover, conflict reduction and low expenses.
- -The program of change aims to make the Organization more flexible to the current or anticipated environment.
- -WFP must use methods designed to bring about a change in knowledge, skills, attitudes, processes, behavioral patterns, job design and organizational structure.
- -The plan must be calculated on the assumption that the level of organizational effectiveness and individual performance is high enough to optimize the integration of individual and organizational goals (Andrew, 1991, 544).

#### 4. Areas of Change in Business Organizations

The theme of the areas of change is a subject of several many studies and research by those interested in change because of their importance, and in response to external and internal variables, the organization initiates one or some of the following areas of change:

- -Functional field: It is concerned with the philosophy, mission, goals and strategy of the organization, and philosophy is intended to enjoy the general values of the organization that are special and separate from other institutions, and represent the constants and movement of workers (Abdelmoati, 1999, 239).
- -Human field: Human resource is vital and essential in the organization because it represents the dynamic element in it, and therefore focused change on individuals in order to develop their skills, which can be through understanding and awareness of the behavior of individuals, and then work to develop it to suit the needs of the organization (Khudair, 2002, p. 191).
- -Organizational Structure: this approach works to bring about change through an amendment and change in the organizational structure of the organization. The organizational structure is distinct

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as the "clear institutional framework for the components of the organization, its sections and branches, and the specific levels of the organization. Through which they should act together, the activities they promote, and the levels and powers given to them" (Amer, 1998, p. 19).

The most important factors that require change in the organizational structure (Mahmud Suleiman, 2010, p. 232):

- An error in the design of the fundamental organizational structure has emerged after a whisper of an unjustified increase in the number of administrative levels, increased oversight, lack of specialty, inadequate geographical distribution.
- Reorganization to prevent undesirable administrative actions such as abuse of authority, inability of administrators to their positions and their inability to bear their responsibilities;
- change the standards and foundations adopted by the Organization, such as the discovery of new working methods and the introduction of modern machinery, which requires a radical change in the organizational structure.
- Changing the conditions of economic enterprise, such as going through periods of recovery or retreat or changing legal obligations, which require a review of the organizational structure to concentrate on them.
- Change in organizational goals.

Technological field: is proposed as a concept which allow us to focus on changes in the reinstallation, flow of work, work patterns, methods, the used means in the performance of work, or the introduction of equipment, tools and new ways of work, and that competitive factors forced change agents' innovation, new equipment, methods of work to enable them to take the lead over other competing organizations (Magda, 2003, 349). There is no doubt that technology has an important and influential role in the effectiveness of the organization, and there are two generally recognizable trends from studies and writings interested in technology and organizations (Mohammed, 2000, 49):

- -The first trend: which is concerned with the impact of technology on the behavior and attitudes of workers.
- -The second trend mainly focuses on studying the impact of technology on the organizational structure.

This imply that the Organization conducts a process of technological change in methods, means and procedures, which generates new ways, means and procedures as a result of such change. The change has noticeable effects on individual performance and groups as well as on the organizational structure within the organization, possibly when the Organization introduces a new method. For example, a new machine replaces five workers who work in five phases. This machine cuts the social relationships that will change. To lay off some workers (Ghassan, 2007, p27) Business Organizations.

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# 5. The concept of human resources performance

Human resources are one of the most important factors that have a significant impact on the performance of the organization as distinct resources whose performance contributes mainly to the overall performance of the organization, and even some believe that the performance of the organization due to the performance of the total human resources that make up (Robert, 1999, p. 899).

The performance of the human resource is: "The output achieved by the employee in the performance of any work, and functional performance reflects the effort made by the individual in coordinating his work to accomplish his functions accurately in the shortest time and least effort" (Marion, 1989, 271).

Other researchers show the performance of human resources in relation to Dimitri (2001, p. 251).

PERFH = MC2 as:

PERFH: human performance

M: stimulation

C: Skills;

C: Culture, common language and shared value that represents the conditions for collective activity. There are numerous bilateral relationships between performance determinants, which are:

Skills - Motivation: Attracting the skills needed to materialize the strategy and achieve action activates the need for completeness in individuals; motivated person wants to acquire more skills.

Skills - Culture: Skills development has a positive impact on the culture of the organization, as it enables the raising of the level of knowledge of individuals.

Culture - Motivation: A strong and shared culture raises the need for recognition and belonging and drives productive teamwork.

# 6. the relationship of structural and technological change with the performance of human resources

The effect of the change in the organizational structure on the performance of the human resource is illustrated by:

- The impact of organizational structure flexibility on human resource performance:

The higher the level of flexibility of the organizational structure, the more likely it will be for the success of the organization.

The practical flexibility related to the objectives and functions of the organization, which the structure is able to change some of its practical jobs, that have been done or not accomplished, and

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replace the most important functions in new situations more easier in terms of achievement, noting that each organization cannot be untied from some of its functions and interim goals, and assume more functions and goals Consistent with its potential in changing circumstances is destined to stagnation, but freedom from phased objectives or certain practical functions does not mean freedom from higher principles and objectives that justify the continuation of regulation.

- Procedural flexibility regarding the structure and internal procedures of the organizational structure related to leadership change and decision-making, that the organization is able to change its leadership easily, in a flexible way that opens the mode to the ascent to and from the leadership, and able to take the right decision at the right time without delay or obstruction;
- The organizational structure dealt with the changing challenges in a changing manner without stagnation on the previous methods, even if they proved useful in the past.

In contrast, the inequity of this section enters, and the organization falls victim to its past successes and glories (Muhammad Iben al-Mukhtar, p. 1).

- Impact of Change in Authority and Responsibility on Human Resource Performance:

Job is distinct as a set of activities and duties that the worker is committed to perform, and bears the consequences of this performance of behavior, this obligation is expressed by responsibility, and the human resource in this case is not only asked about the good performance of the job but also held responsible when abstaining from carry out the duties of the job in accordance with the change plans and programs approved by the company. Moreover, the right to assign subordinates to carry out the work and hold them accountable for everything that affects the performance must match this responsibility and this is what is known as power. Consequently, the change in authority and responsibility improves the capacity of staff, releases their knowledge and energies and gives them sufficient authority to deal with problems. This requires reducing the number of managers and allowing employees to develop and ensure continuity of safety performance.

- Impact of Change in Communication Pattern on Human Resource Performance:

Communication between human resources and management about change has a significant impact on the swap of information and the intensification of relations with management. The communication is an essential activity in determining the type of human behavior. If not communicated in the required manner, this may lead to the deterioration of relations, which negatively affects the desired change (Shawki, 2000, p. 36).

The force of the change in communication pattern on human resource performance can be summarized as follows:

- Communication plays an important role in the success of change, and can be compare to the blood that flows in the veins of human and carry food to all parts. So communications play an important role in keeping the flow of information related to change, and the effectiveness of work increases whenever there are good systems of communication and high efficiency of managers in

its embodiment (Ahmad, 2003, p. 240)

- Good communication is two-way communication (upward and downward) because it allows staff to have opportunities to express their opinion and learning. And much research has shown that the presence of downward communication: from the highest to the lowest pyramid only in the form of issuing orders and instructions, leads workers to be unmoving in thinking and indifference Considering that their ideas and opinions are valueless which negatively affects their performance (Filihwal-Sayyed, 2005, p. 297).
- The nature of communication in the organization will affect the creation of a climate conducive to creativity, innovation and add to decision-making, as communication is a social means through which understanding between workers and create an energetic between them.
- Efficiency of communication depends on many factors that usually relate to the nature of the work and the target change, and the connected formal working groups and patterns of informal relationships, that will create a good climate. Organizationally appropriate to create social interactions between individuals and stimulate their role and performance.
- Effective communication leads to improved job performance and greater satisfaction of the worker. Therefore, the latter can understand his work better and feel more involved as well as the roles of others, which encourages cooperation and coordination. Satisfaction with work and performance, it is also seen that effective communication helps to evaluate performance and productivity of work, as well as to determine performance standards and indicators, as well as motivate employees and increase their enthusiasm for work (Hassan Harim, 2005, p. 243).
- Impact of Participation in Decision Making on Human Resource Performance:

The impact of involving workers in the decision-making process on staff performance can be recapped as follows:

- engaging employees to participate in decision-making about change is the most important way that the administration should pay attention to, because the decision is more acceptable and loyal to those who participated in the industry and take it, this mechanism contributes to the management of the psychological needs of workers, as well as supply to the development of the capabilities of employees and increase their awareness Holding them a split of the responsibility for change, which would reflect positively on their performance.
- appealing decision-makers in change gives them the opportunity to communicate their opinions and rationalize decisions, which leads to higher morale because they feel that they are part of this change and not only apply its decisions, but is the consequence of their thinking and therefore they do their best to put into operation the fullest, leading to synchronization in the work environment, reflecting positively on performance.
- Participation in decision-making fosters a sense of loyalty to the organization, because the worker seeks a positive work life, and better mental health through the fulfillment of the needs of

independence and responsibility, and much research has shown that participation leads to higher productivity, and lead to reduce work turnover and achieve job satisfaction.

- The major challenges facing organizations in the current era have led to increasing voices calling for more participation in decision-making in order to reach decisions that are more accurate. On the other hand, the waves of educated workers who join different organizations expect to be permitted to contribute in influencing decisions. Participation also seems as a moral issue, as the lack of participation in the opinion of many leads to long-term psychological damage (Hussein Hareem, 2010, p. 236).

We believe that participation in decision-making gives change to the worker a sense of its importance, which leads to honesty and dedication to work, as well as to the formation of new frameworks trained and experienced in decision-making.

- The impact of technological change on human resource performance:

Technological factors include all types of equipment and machinery as well as processes assisting individuals in the completion of their work, technological change is linked to the productive procedure and how the organization performs its work, and all technological changes are mainly focused on the production processes leading to the creation of goods and services. Goods or services where change leads to new or improved products.

In general, technological change comes in the context of ideas and initiatives that come from lower organizational levels to go to higher levels for validation and follow-up accomplishment. Here we play the technological expertise of human resources at the lower levels as pioneers of ideas for technological changes in the field of work. Technological changes can take place in the context of ideas and initiatives from senior leaders, and these ideas may be few because senior management YS has technical skills and expertise and is far from production lines and operations (Saleh, 2007, 396).

One of the most noticeable technological changes over the past years has been the expansion of computing, as most organizations today have refined management information systems that connect employees of the organization regardless of their geographic location. Using microcomputers that are associated together through networked systems.

- Technological changes include one or more of the following levels:
  - Minor improvements in product or process technology.
  - Major improvements in existing product technology.
  - Introduction of new technology integrated with existing technology in the Organization.
  - Discover new technology, this represents the highest level in the organization's technology change.
- The reasons for technological change can be classified as follows:

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- To increase energy and meet the expected demand for FAO products.
- Reduce production costs; the Organization may reduce labor by replacing technology with individuals, as well as using technology to reduce waste.
- Quality improvement, the reason for technological change may be to improve the quality of services provided.
- Improving customer services and enhancing capacity for timely delivery of products.
- make a distinction the product of the organization from the products of competitors through sufficient flexibility in the performance of the work in a manner that achieves maximum levels of customer satisfaction with the diversity of products.
- Aging and degradation of equipment as machines and processes become economically inefficient due to poor maintenance and lack of spare tools.
- The impact of technological change on the performance of human resources:

Researchers differ on the impact of technological change on the performance of human resources, some of them see its negative impact and some of them positive impact on performance, and can be summarized the impact of technological change on the performance of human resources as follows:

- Marxist theory holds that there is a negative impact of technology on workers when it criticizes the capitalist system, in terms of machine control over the work of individuals, which leads to their isolation and weak social relations and the impact on the performance of the worker in the organization(Ghassan, 2007, 104);
- Many researchers see the positive role played by technological change, because it cannot be denied the positive role of advanced technology in improving the performance of the organization, it helps to speed performance and cost savings, and contribute to high efficiency performance of individuals in terms of speed and reduce the loss of effort, time and information. Etc. (Hammoud Khudair, 2002, 172).

We believe that technological change intended at acquiring cutting-edge technology will make the change a success in the organization because it directly contributes to the elimination of routine job performance, thereby raising its efficiency and launching the creativity of the human resource.

# 7. RESULTS AND DISCUSSION

After studying about the theoretical framework of the study variables as well as the nature of the relationship between them, we will try to jump down what has been theoretically studied on one of the Saudi Company, The Saudi Electricity Company, known by the acronym SEC, we chose the Najran unit.

The principal activity of Saudi Electricity Company is the generation, transmission, and distribution of electricity within the Kingdom - the largest economy in GCC. It is the leading

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producer of electricity and sole owner of the entire transmission and distribution network throughout the Kingdom, serving all types of customers.

Established by Royal Decree M/16 in December 1999 bringing together all former public utility joint stock companies into one entity. Direct government ownership of 74.3% with a further 6.9% owned through Saudi Aramco. Remaining 18.8% by the public in the Kingdom, both by institutions and retail investor. SEC is one of Saudi Arabia's largest employers with a current staff of 37,769 of whom 89% are Saudi nationals.

# First: The study sample

The sample is measured as one of the most used tools in such research because of the difficulty of communication with all employees, and the results that are achieved by honest and tangible answers. a random sample was made up for workers at the upper, middle and executive levels of management from the level of control and executive level in the institution Electricity Company, Najran Region Branch, We have intentionally diversified because the sample is mainly looking for diversity by focusing on different organizational levels, to identify different views on the subject of structural and technological change and the performance of workers.

The study population reached 534, and we selected a sample of workers, where 254 forms were dispersed to departments, agencies and directorates, and retrieved 192 forms of them. After reviewing and reviewing the recovered forms, we found that only 140 of them were used for analysis and discharge purposes in the statistical packages program (SPSS). Of the questionnaire papers.

The percentage of the sample of the study to the total population of the study is equal to 26.21%, which is statistically acceptable to express most of the views of employees on the subject of the impact of structural and technological change on the performance of human resources.

#### **Second:** the study tool

We planned the study survey to collect field data from the study sample. This survey was built after we determined the dimensions of the subject and its components and realized the significance of the required information and the importance of the topic, by our review of the level of management thought in the field of change and our review of many previous studies we have developed a form consisting of two sections:

Section One: Demographic information pertaining to the respondent (four) (04), and one question related to the organization is the job title.

Section Two: consists of (40) phrases that were developed by not reviewing the scientific basis of change in business organizations and the performance of workers in the management literature, and related topics, and the most important elements related to

Study and analysis of the main axes (variables) in this study: change in the organizational structure, change in technology, and then put a set of phrases in order to measure each axis according to the

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perception of workers (at different levels of organizational) on their performance.

Either many methods have been conducted in the delivery of the form, through direct distribution or distribution by the workers themselves, or the questionnaire method was adopted by interviewing a group of workers, to answer their queries on some aspects that seemed unclear to them in the questionnaire.

The distribution of the questionnaire and the response within a precise period were also taken into consideration in order to ensure that there were no significant changes in the internal and external environment of the work, which may affect the difference of responses according to the period under study.

Accordingly, the questionnaire included eighty-seven (40) phrases, in order to identify the impact of structural and technological change on the performance of workers. The questionnaire in its second section included three main axes in line with the research hypotheses.

The first axis: the change in the organizational structure, and includes sixteen (16) words distributed as follows:

Phrases (01 to 07) aim to identify the flexibility of the organizational structure of the institution under study, through periodic review and the introduction of new units, and the extent of general satisfaction with the current structure.

Phrases (08 and 09) aim to identify the change in authority and responsibility through the clarity of the latter after the process of change, and whether this has increased the process of delegation of powers to employees.

The statements (10 to 12) aim to know the extent of change in the lines of communication, with the aim of a permanent communication between officials and employees, as well as the flow of communications between the various departments, and whether the change was accompanied by the use of modern means of communication.

Phrases (13 to 16) to find out the extent of the involvement of workers in the decision-making process of change, as well as to spot the extent to reduce the centrality in the decision-making process related to change, and the image of the institution after the process of change.

Axis II: Change in technology used, including (7) seven phrases (17 to 23) to find out the reason for the adoption of technological change in the institution, is it in response to technological developments at the global level? Alternatively, is it needed to make the change work?

With regard to the use of ICT by the Corporation and its role in reducing the number of administrative levels and bureaucracy at work.

The third axis: human resources performance, we measure the performance of employees through the use of a measure that includes (17) seventeen phrases (24 to 40) were directed to employees, the aim of which is to try to identify the performance of employees in terms of efficiency and

effectiveness in the implementation of change.

# Third: the sincerity of the study tool

Alfa Cronbach technique was used to measure the constancy of the questionnaire. The coefficient of Alfa Cronbach was considered as the coefficient of total stability and the correlation of paragraphs.

Axe Axe's Content Number of Alfa Stability cronbach paragraphs coefficient First Change in organisationnel structure 16 0.90 Second Change in technologie use 07 0.859 17 Third Human Ressources Performance 0.895

Table 1: Stability coefficients (Alfa Cronbach) by axis

The total coefficient of stability (0.938), which is greater than (0.70), indicates that the resolution is a high degree of stability. (Annex 1)

# Fourth: Verification of hypotheses

- Testing the correlations between variables:

The correlation coefficients between form variables are in a table 8, the latter shows that the independent variables demonstrate that there is a relationship with the dependent variable, because all the correlation coefficient ratios between the independent variables and the dependent variable are more than (0.30). The following table shows:

Table (2): Pearson correlation coefficient between independent and dependent variables

Axe	Independent variables	code	Human ressources performance F_G
			Pearson correlation coefficient
First	Change in organisationnel structure	F_A	0.478
Second	Change in use technologie	F_B	0.528

See Appendix 2: Correlation coefficients between variables

In the table 9, where the variation ratio is explained by the independent variables from the discrepancy of the dependent variable, the rank of significance (sig) is (0.00) which is less than (0.05), and means that this relation is statistically acceptable. On the other hand, in other words that the independent variables explain the ratio. So, these variables can be used to forecast the values of the dependent variable (see Appendix 2).

#### Fifth -Evaluation of the study model:

- The consequences of the Model Summary table, which means the summary of falling off analysis, shows that the amount of the variability of structural and technological change from the variability of human resources performance (if the aptitude of independent variables to predict the values of the dependent variable) was (0.304) and when represented as a percentage (multiplied by 100 This

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means that our model accounts for 30.4% of the variance in the HR performance variable, which is a very rational result, especially when compared with some of the results shown in dedicated fields of statistics

To confirm the previous ratio, we tested the zero hypothesis. Multiplayer in a group Individuals equal to zero, and through the regression analysis of variance table (ANOVA), we find that the statistical significance (sig) is (0.00) which is less than (0.05) means that this ratio is Statistically acceptable.

- The results of Beta, which means the coefficients of the independent variables after converting them into standard marks as shown in Annex (5), showed that the technological change designated by the symbol (F\_B) was the most statistically significant, where the value of (Beta) corresponding to this variable (0.377) is statistically significant at a level less than (0.05), and was followed by the change variable, which includes the organizational structure, previously referenced by (F\_A) where the value (Beta) corresponding to this variable (0.219), which is statistically significant at the level of less than (0.05).

The results of estimating the basic model of the impact of structural and technological change on the performance of human resources at a confidence level of more than (95%), revealed that the independent variables according to the coefficient of determination set to explain (30.4%) of the changes that happen in the dependent variable (human resources performance). Our results show that there is a statistically considerable impact of structural and technological change on the performance of the human resource in the organization subject of the study at a degree of confidence of more than (95%), which is consistent with the theoretical expectations of the researcher (theoretical basis), and the preceding falling off equation can be represented by the model shown in appendix 6.

# Sixthly: Test results of the study hypotheses

- The first hypothesis: there is a statistically significant impact of the change in the organizational structure on the performance of resources in the Electricity Company, Najran Region Branch.

Note that the rate of (beta) which represents the coefficient of structural change variable, which we have referred to earlier in the symbol (F\_A) is equal to (0.216), and under the level of significance (sig) is equal to (0.027), and this ratio is less Thus, there is a statistically significant effect of structural change on the performance of the human resource in the institution under study, and the result is reception of the hypothesis

- The second hypothesis: there is a statistically significant impact of the change in the technology used on human resources performance in the Electricity Company, Najran Region Branch.

Note that the value of (beta), which represents the coefficient of technological change variable, which we referred to earlier in; the symbol (F\_B) is equal to (0.377). (0.000), this ratio is less than (0.05), and therefore there is a statistically significant effect of change in the organizational structure on the performance of the human resource in the institution under study, the result is acceptance of

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the hypothesis.

- The third hypothesis: There are differences of statistical significance of demographic variables and intermediate variables on the relationship between structural change, technology and human resources performance of the company under study.

The following sub-hypotheses emerge from this hypothesis:

The first sub-hypothesis: There are statistically significant differences on the structural and technological change and the performance of human resources in the unit under study attributed to the gender variable.

To test this hypothesis, the T-test was conducted to test the differences between the respondents' answers about the impact of structural and technological change on the human resources performance in the study company. Gender is revealed in Appendix (7). Less than (0.05) indicating.

There were statistically significant differences at the level of significance (0.05) on the change which includes technology accredited to the gender variable, while the axes of structural change and human resources performance reached a value level of 0.169 (0.662), respectively, which is values greater than (0.05). This means that there are no statistically significant differences at the level of implication equal to (0.05) in the axes of change in the organizational structure and human resources performance attributed to gender.

Generally, the value of the significance level of all axes is (0.293) and is greater than (0.05), which indicates that there are no statistically significant differences at the level of significance (0.05), on the impact of structural and technological change on human resources performance in the Electricity Company, Najran Region Branch. is attributed to gender, and the result is a rejection of the hypothesis.

The second sub-hypothesis: There are statistically significant differences on structural and technological change and human resources performance in the unit under study due to the age variable.

The data of the variance in the study was used to test the differences in the opinions of the study population on the impact of structural and technological change on the performance of human resources appropriate to age and the results are shown in Appendix No. 8, which reveal that the value of the significance level of the axes of change in the organizational structure and human resources performance was (0.011) ,These values were less than (0.05), indicating that there were statistically significant differences in the respondents' answers attributable to age, while the significant percentage in the technological change axis was (0.173) which is greater than (0.05).

The worth of the significance level of all axes is (0.062) which is greater than (0.05), which indicates that there are no differences between the respondents' answers about the impact of structural and technological change on the human resources performance in the company being studied due to age, the result is the rejection of the hypothesis.

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The third sub-hypothesis: There are statistically significant differences on both structural and technological change and human resources performance in the unit under study due to the educational level.

The questionnaire was used to test the differences in the opinions of the study population on the impact of structural and technological change on the performance of human resources in the company under study attributed to the educational level, and through Annex (9) we note that the value of the level of significance of the axis of human resources performance is equal to (0.002) which is lower Of 0.05, indicating the presence of statistically significant differences at the level of 0.05, while the significant percentage in the axes of structural change and technological change (0.293) (0.149) in that order and is greater than (0.05), which indicates the lack of statistically significant differences In the answers of the respondents in these two axes

The value of the significance level of all the axes is (0.111) which is greater than (0.05), which indicates that there are no differences between the respondents' answers about the impact of structural and technological change on the performance of human resources in the company subject to a study attributed to the educational level. To the aspiration of workers in change at all levels of scientific belief in the need to enhance performance through change.

Sub-hypothesis 4: There are statistically significant differences on both structural and technological change and human resources performance in the unit under study due to years of experience.

The questionnaire was used to test the differences in the opinions of the study population on the impact of structural and technological change on the performance of human resources in the institution being studied due to professional experience, and the results shown in Appendix No. 10, which shows that the value of the significance level of each axis is greater than 0.05, Which exposes that there are no statistically significant differences between the respondents' answers about the impact of structural and technological change on human resource performance attributable to years of experience, the result is the refusal of the hypothesis

Sub-hypothesis 5: There are statistically significant differences on both structural and technological change and human resources performance in the unit under study due to the functional level.

The questionnaire was used to test the differences in the views of the study sample on the impact of structural and technological change on human resources performance in the institution the Electricity Company, Najran Region Branch attributed to the functional level, and through the results shown in Annex (11), the value of the level of significance of the axis of change in the structure is equal to 0.023, which indicates the existence of statistically significant differences accredited to the serviceable level of this axis at the level of significance is 0.05, while the two axes change in the technology used and human resources performance was the level of significance for each of them is greater than 0.05, which means no statistically significant differences accredited to The functional level of these axes has changed, and the result is acceptance of the hypothesis.

In general, the value of the significance level of all axes is 0.356, which is greater than 0.05, which

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indicates that there are no statistically significant differences between the respondents' answers on the impact of structural and technological change on human resources performance due to the functional level, due to the conviction of employees to improve performance.

#### 8. CONCLUSION

Through the study and analysis of this subject, we concluded that change is one of the main issues affecting human resources and organizations alike, and its importance is that it has become one of the most important requirements for the progress and development of today's organizations,

It is no longer considered as a means used by some organizations depending on certain circumstances, which, once passed, return all efforts to recession and stability.

#### - Research results:

With regard to the impact of change in the organizational structure on the performance of human resources:

- The flexibility and compliance of the organizational structure each time is better able to develop the performance of human resources, because the flexibility of the organizational structure enables the creation of new units, as well as the integration of units with each other or change its organization or change in its powers, which is reflected positively on Human resources performance;
- The inflexible organizational structure has a negative impact on the aptitude of the organization to achieve the goals of change and hold back the creative capabilities of the human resource, due to the large number of administrative levels, which affects the efficiency of communication in the organization, and this reduces the enthusiasm of employees to provide better performance, and thus affected the ability of the organization To develop the capabilities and talents of their human resources
- The opinion of human resources on the nature of the organizational structure and its everyday jobs affect their ability to participate, the organizational structure, which is characterized by inflexibility and lack of change in line with changes in the environment of the organization, and does not allow any relationships for workers outside the framework leads to fear of workers outside this framework, as well as makes Employees who are not enthusiastic to suggest something that would improve performance and mislay them initiative and responsibility
- The power and the corresponding responsibility change and reallocate according to external and internal environmental conditions and variables, which require the restoration of powers, whether in the intensification of centralization or on the contrary in the openness to the decentralized direction of work, and there are many benefits to the delegation of authority and these benefits are growing more important as the size Change in the organization, delegation of authority exempts the manager from the details of the work, which takes a large part of his time and enables subordinates to make decisions without waiting for approval from their superiors, which

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increases flexibility and allows quick action, thus allowing workers to expand and ensure the continuity of safety performance

- Lack of effective formal communication leads to the prevalence of informal communication, the latter may create discord and disagreement and misinterpretation of the message of change, especially if the information is public and not official, enough to contain some fallacies to be believed by the workers, hence the imbalance in understanding the change Thus error in the performance of tasks;
- Communication has an a significant role in the process of exchanging and communicating information related to change between employees at their different organizational levels, which leads to changing their behavior towards good performance.

It means explaining change plans for staff and ensuring collaboration between them. Communication also contributes to motivating staff and coordinating their efforts. It also contributes to achieving satisfaction and morale and achieving understanding between employees and senior management, which reflects positively on performance.

With regard to the impact of technological change on the performance of human resources:

the achievement of any organization depends on its aptitude to cope with the continuous changes in the environment in which it operates, especially technological changes, which include the use of modern methods in production processes, in order to augment productivity or improve the quality of production, which necessitate attention to technological change, which has become a prerequisite for performance development In light of the rapid changes in the work environment;

- Technological change has a positive role; it is undeniable that the role of advanced technology in improving the performance of the organization, it helps to speed performance and cost savings, and contribute to the high efficiency of performance of individuals in terms of speed and reduce the loss of effort, time and information.

#### - Suggestions:

In light of the theoretical framework of the study and the results of this research, we present a set of suggestions, which we hope that contribute to the acceleration of change aimed at improving performance in the Saudi economic institutions in general and the Electricity Company, Najran Region Branch in particular, as follows:

- The need to rely on more flexible organizational structures, and away from traditional ones that do not work in front of those tremendous leaps in the types of organizational structures, as well as away from the central structures, which tend to power and centralization rather than sincerity, facilitation, ease and flexibility that support the processes of change.
- The change in the organizational structure should be in accordance with the work requirements, after careful study of the internal and external environment, and the change should be built on the

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recommendations of specialists from academics and professionals to avoid the inflation of the organizational structure.

- The need to determine the authority and responsibility of each administration and function so that there is no overlap in the powers, and reduce the centralization so as to delegate the powers to other levels, which leads to the speedy completion of work.
- . Approve the authorities to enable the administrative leaders to motivate workers and interest in the formation of administrative frameworks that take leadership approach to the practice of work, which has a positive impact in achieving organizational justice at work.
- -The need to activate the means of communication, formal and informal to communicate with workers and know the glitches in the work, and get new ideas may contribute to raise the efficiency of performance.
- -Stimulate all levels of management to work together better to make the change a success, especially in light of the field study that proved the absence of this kind of motivation, because the core of modern management is to work in a team and team spirit, because of the strong impact on the organization and its staff.

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# 10. Appendices

Appendix 1: Measurement of stability coefficients using the Alpha Cronbach method using SPSS.

N of Items	Cronbach's Alpha
140	.938

Appendix 2: Pearson correlation coefficient between independent and dependent variables

#### Correlations

		F_A	F_B	F_G
F_A	Pearson Correlation	1	.688**	.478**
	Sig. (2-tailed)		.000	.000
	Ν	140	140	140
F_B	Pearson Correlation	.688**	1	.528**
	Sig. (2-tailed)	.000		.000
	Ν	140	140	140
F_G	Pearson Correlation	.478**	.528**	1
	Sig. (2-tailed)	.000	.000	
	Ν	140	140	140

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Appendix 3: Summary of Regression Analysis

#### **Model Summary**

			Adjusted	Std. Error of
Model	R	R Square	R Square	the Estimate
1	.551 <sup>a</sup>	.304	.294	.56597

a. Predictors: (Constant), F\_B, F\_A

# Appendix4: Regression Variance Analysis (ANOVA)

#### ANOVA<sup>b</sup>

Mode	el	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.149	2	9.574	29.890	.000 <sup>a</sup>
	Residual	43.885	137	.320		
	Total	63.034	139			

a. Predictors: (Constant), F\_B, F\_A

b. Dependent Variable: F\_G

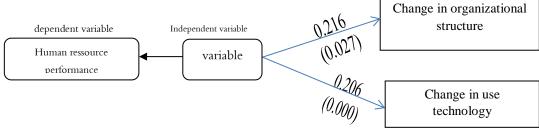
Appendix 5: The result of regression analysis

# Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.666	.210		7.943	.000
	F_A	.216	.097	.219	2.234	.027
	F_B	.306	.080	.377	3.838	.000

a. Dependent Variable: F\_G

Appendix 6: Regression Equation Model



<sup>\*</sup> Values on arrows indicate coefficients of independent variables, and values within parentheses indicate the level of significance.

Appendix 7: Independent S. T Test results for the differences between the respondents' answers on both structural and technological change and human resources performance attributed to gender

#### Independent Samples Test

		Levene's Equality of	Test for Variances	t-test for Equality of Means						
							Mean	Std. Error	95% Cor Interv a Diff e	lofthe
		F	Sig.	t	df	Sig. (2-tailed)	Diff erence	Diff erence	Lower	Upper
F_A	Equal variances assumed	1.908	.169	-1.495	138	.137	26342	.17616	61175	.08490
	Equal variances not assumed			-1.731	23.045	.097	26342	.15217	57818	.05134
F_B	Equal variances assumed	3.985	.048	995	138	.321	21323	.21425	63686	.21041
	Equal variances not assumed			-1.252	24.980	.222	21323	.17025	56389	.13743
F_G	Equal variances assumed	.191	.662	-2.205	138	.029	37899	.17188	71884	03914
	Equal v ariances not assumed			-2.406	21.958	.025	37899	.15753	70572	05227

Appendix 8: Results of One Way ANOVA between respondents' responses to structural and technological change and human resources performance attributed to age

#### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
F_A	Between Groups	5.083	3	1.694	3.846	.011
	Within Groups	59.916	136	.441		
	Total	64.999	139			
F_B	Between Groups	3.420	3	1.140	1.688	.173
	Within Groups	91.870	136	.676		
	Total	95.290	139			
F_G	Between Groups	6.489	3	2.163	5.202	.002
1	Within Groups	56.545	136	.416		
	Total	63.034	139			

Appendix 9: Results of One Way ANOVA between the respondents' answers on structural and technological change and human resources performance attribute to the educational level

#### ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
F_A	Between Groups	2.322	4	.581	1.251	.293
	Within Groups	62.677	135	.464		
	Total	64.999	139			
F_B	Between Groups	4.619	4	1.155	1.719	.149
	Within Groups	90.672	135	.672		
	Total	95.290	139			
F_G	Between Groups	7.386	4	1.846	4.480	.002
	Within Groups	55.648	135	.412		
	Total	63.034	139			

Appendix 10: Results of One Way ANOVA between respondents' answers on structural and technological change and human resources performance attributed to years of experience

#### ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
F_A	Between Groups	.717	3	.239	.506	.679
	Within Groups	64.283	136	.473		
	Total	64.999	139			
F_B	Between Groups	1.373	3	.458	.663	.576
	Within Groups	93.918	136	.691		
	Total	95.290	139			
F_G	Between Groups	1.867	3	.622	1.384	.250
	Within Groups	61.167	136	.450		
	Total	63.034	139			

Appendix 11: One Way ANOVA Results of Respondents' Response to Structural and Technological Change and Human Resources Performance Due to Functional Level Variable

#### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
F_A	Between Groups	3.481	2	1.741	3.877	.023
	Within Groups	61.518	137	.449		
	Total	64.999	139			
F_B	Between Groups	.061	2	.031	.044	.957
	Within Groups	95.229	137	.695		
	Total	95.290	139			
F_G	Between Groups	2.190	2	1.095	2.465	.089
	Within Groups	60.844	137	.444		
	Total	63.034	139			