

## The work environment and its impact on administrative creativity: A case study of Sudan University of Science and Technology

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Send Article Date: 07 /04/2021 Date of acceptance of the article: 17/11/2021 Publication date: 06/06/2022

### Abstract

The study aimed to know the attitudes of workers towards the work environment and its impact on administrative creativity at the Sudan University of Science and Technology, the descriptive analytical approach was used, the study found an effect of the work environment (organizational structure, training, incentives and rewards, and working conditions) in administrative creativity. There is no effect of technology on administrative creativity. The university has highly qualified and skilled human cadres in the use of technology. The study concluded with a set of recommendations, among which the university administration should strive towards increasing employee salaries and incentives in order to prevent leakage. It also recommends providing all the necessary needs that enable workers to practice their work efficiently and effectively, and to take care to keep pace with the technological development associated with its work.

**Key words:** organizational structure, working conditions, creativity

### Introduction

Studies have shown that creativity is based on both prior knowledge and diligent experimentation, and creativity develops through a planned process and is a predictable system in addition to being a random process that may lead to unknown results. (Green, 2011, 25). With job creativity, the goals of the institution can be achieved, its continuation and development, and the human element is the most important element in the organization environment, the creativity requires the ability to sense the existence of a problem that requires treatment, and then the ability to think differently, and administrative creativity comes as a basic requirement for any organization, that it supports the strength of any organization in distinguishing it from other organizations, and this does not come unless there is an appropriate work environment that prompts individuals to highlight their creative abilities and employ them appropriately, in order to reach Unique and appropriate ideas and solutions (Al-Mashoot, 2011).

This article discusses “administrative creativity,” a strategy that leads managers to act with greater initiative and creativity. administrative Creativity encourages officials and employees to propose ideas, after that organizational processes are used to evaluate them. This is relevant for seasoned employees and lower managers who, based on their knowledge, position and experience may have much to offer. administrative Creativity complements traditional top-down, leader-driven approaches by promoting leadership at lower levels of the organization (Riccucci & Thompson 2006; Rickards & Moger 2006).

### **The Statement of the Problem**

Many of the previous studies dealt with the dimensions of the work environment from the perspective of (international accounting standards, knowledge sharing, job satisfaction) and the studies that dealt with managerial creativity dealt with it from the perspective of (organizational variables, transformational leadership, creativity impediments). This study came to bridge the gap by addressing the impact of the work environment on administrative creativity. Because the Sudanese organizations' need for creativity has become an urgent and important requirement.

Among those organizations is the Sudan University of Science and Technology, which seeks to achieve excellence in performance, and to maintain its continuity in a competitive environment, especially at the present time. Including the intense competition for the development of the human element, considering that the human being is the cornerstone of the creative process, and in order for institutions to adopt this concept, a special organizational environment must be available aimed at nurturing creativity, developing and creating the appropriate organizational climate for it. And the changing conditions that organizations are experiencing today, whether they are political, cultural, social or economic conditions that require organizations to respond to the changes in a way that affects administrative creativity and the organization’s survival and continuity. From this concept, the research problem emerges with the following question: Is there an impact of the work environment on administrative creativity in Sudanese universities?

### **The Objectives**

The main objective of this study is to identify the effect of the work environment on administrative creativity at the Sudan University of Science and Technology, by achieving the following objectives:

Determine the level of importance of the work environment at the Sudan University of Science and Technology.

Determine the level of administrative creativity at the Sudan University of Science and Technology.

Determine the effect of work environment factors on administrative creativity at Sudan University of Science and Technology.

### **The importance**

The theoretical importance of the research appears in the following points:

This study seeks to link between work environment and administrative creativity.

Clarify the relationship between the dimensions of the work environment and administrative creativity.

It touched on one of the organizational concepts, which is administrative creativity, which is one of the important topics in modern management thought, being an important source of the organization's survival and sustainability, especially in institutions that seek to adopt a modern management strategy that allows the participation of workers in making decisions and exploiting opportunities, and increase their competitiveness and creativity.

Directing the attention of decision makers in the relevant public and private institutions to deal with the concept of work environment, and giving it sufficient attention, which has negative or positive effects on administrative creativity.

### **Study hypotheses**

Main hypothesis "There is no statistically significant effect of work environment factors (organizational structure, training, incentives and rewards, technology, work conditions) on administrative creativity at Sudan University of Science and Technology, according to the employees' point of view, and the following sub-hypotheses are derived from them:

There is no statistically significant effect of the organizational structure on administrative creativity.

There is no statistically significant effect of training on administrative creativity.

There is no statistically significant effect of incentives and rewards on administrative creativity.

There is no statistically significant effect of technology on administrative creativity.

There is no statistically significant effect of working conditions on administrative creativity.

### **Literature review**

#### **Previous studies**

**Tammour Zameela, (2019)** aimed to know the attitudes of workers about the role of the internal work environment in achieving administrative creativity, a case study in the Local Administration Directorate of the State of Ghardaia in Algeria, and the study found a weak relationship between the internal work environment and administrative creativity.

**Bin Rajm, (2018)** aimed to find out the relationship between the internal work environment and the administrative creativity of the employees in the directorates of youth and sports, and the study found a relationship between the internal work environment and administrative creativity.

**(Nabil, 2018):** Aimed at knowing the internal work environment and its relationship to administrative performance, a field study on private Yemeni universities. The study found a relationship between the internal work environment and administrative performance.

**Muhammad Ali Abdullah Ali, (2009)** aimed to know the role of internal environment factors in the organization and their impact on performance. And it reached a lack of trust among the employees, which led to a lack of honest knowledge sharing among the employees, and it also became clear that there is no institutionalization in the different departments.

**Saeed Muhammad Hamed Muhammad, (2009)** aimed to identify the degree of impact that organizational variables have on administrative creativity and concluded that designing the organizational structure in a way that accommodates modern technologies and ease of communication increases the degree of success of the creative process. From competition among employees and thus raising their efficiency and creativity, use negative incentives that make the employee fear any step he takes.

### **What distinguishes this study from previous studies?**

This study differs from previous studies because it focuses on administrative environment and its components. This study also focuses on the impact of the work environment on the administrative creative.

### **THE FIRST TOPIC :Work Environment and Administrative Creativity**

The topic includes the conception and definition of Environment, and its components, with its factors affecting the Internal Environment. It also includes the concept and elements of Administrative Creativity, and the skill of creativity.

#### **FIRST REQUIREMENT: Work Environment**

includes the conception and definition of Environment, and its components, with its factors affecting the Internal Environment.

#### **Firstly: work environment concept:**

The internal environment of the organization includes everything inside of the organization. Human beings are directors and subordinates, their reciprocal relationships, the extent of their loyalty, commitment, and motivation, the level of technology, the nature of work and the physical conditions of work such as lighting, ventilation, noise and cleanliness. As well as the moral conditions, that is, everything that affects the morale and productivity of departments and workers,

heads and subordinates. The analysis of the internal environment of the organization is useful in identifying the strengths and weaknesses of the organization. Strengths that could be strengthened and built upon and weaknesses that needed to be addressed. The areas that may embody the strengths or weaknesses of an organization are its subsystems. Such as marketing and production systems, human resources, financial affairs, research and development, and information. (Abu Al-Nasr, 2012 AD, 142) The internal environment of the organization represents the internal organizational environmental level that is specifically and precisely related to the administrative and organizational applications of the business organization. Therefore, the difference in the internal environment of business organizations is reflected by the difference in the capabilities of these organizations and their fundamental strengths or weaknesses, which may become a basic determinant of exploiting opportunities or dealing with threats in the external environment of the organization. (Subhi, Al-Ghalibi, 2011 AD, 56), and the issue of the internal environment is considered one of the recent topics that have been published recently in administrative studies, especially behavioral ones, as there are many researches interested in it, as well as being covered in most of the literature and organizational studies. Including its culture, traditions, and special ways to achieve its goals, which, in a group, constitutes its own climate for those who deal with it. (Al-Qahtani, 2012)

### **Secondly: Defining the work environment**

The internal work environment is greatly affected by the systems, procedures, leadership patterns, communications, and technologies used, as they are major influences whose impact cannot be overlooked. It defined as: "the techniques used in the work, the procedures, systems, work groups, communication patterns, the prevailing leadership style, etc." the consideration of the internal work environment resulting from the influence of these factors in concert, so also defined it as: the work". (Al-Zahrani, 2013), and he defined the work environment as an activity that includes a set of technical and administrative actions and procedures, concerned with studying the climatic and psychological conditions prevailing in the places of implementation of work within organizations in general and industrial in particular, and designing specialized programs in order to control or remove sources and causes of accidents And the potential diseases that human resources can contract during the performance of their work, resulting from the nature of these work, or from the climatic and psychological conditions surrounding them, in order to work to provide adequate protection means to avoid these risks and their negative effects on the safety and health of human resources in the workplace, or At least mitigating the impacts, and creating a sound and healthy

physical psychological work environment and climate, preserves these resources from any danger. (Aqili, 2005, 569).

### **Thirdly: Components of the internal environment**

The internal environment consists of the mission, goals, and planning activity of the organization. Organization leadership and basic leadership style. And organizational culture, in terms of strength and content. And the work force, its characteristics, and its motivations. And the union and professional associations and their activities. (Bernotti, 2004, 115)

### **Fourthly: Factors affecting the internal work environment**

The internal environment of the organization is affected by factors, in the forefront of which are the raw materials used in the work, human resources, financial and economic resources. (Al-Shammari, 2013) and other factors that can be briefly reviewed as follows:

1. **Leadership style**: The style of supervision and leadership is one of the main factors in determining the nature of the organizational climate within the environment of the organization. Authoritarian (centralized) supervision limits employees' initiatives and contributions, unlike the decentralized supervision that contributes to improving the internal work environment and increasing harmony and the desire for innovation, innovation and creativity.
2. **Administrative Policies**: Objective and fair administrative policies contribute to creating a comfortable atmosphere, encouraging organizational climate, and an organizational environment that promotes creativity and innovation. As for the administrative policies that are biased or random, or if they do not exist in the first place, their absence, inability, or misfortune brings a negative atmosphere and a frustrating regulatory environment that lowers the morale of workers and negatively affects their performance level.
3. **Professional values**: An organization in which values saturate the experience that respects the individual and is keen on its maturity, construction and prosperity, and preserves his dignity and respect, becomes a safe haven for continuity, survival and giving, unlike material, utilitarian and exploitative values that deal with the individual according to profit and loss equations or the saying give and take, or employ their needs and difficult circumstances in their favor. It contributes to their dropping out or motivating them to leave the organization at the right time.
4. **Organizational structures**: The more the organizational structures are flexible, open, accommodating to circumstances and understanding of situations, the more they encourage innovation, creativity, innovation and adaptation to situations. The inertia, red tape, the extreme centralization and

formalization of procedures and the hierarchy of communication lead to many problems that make the work environment dry and discouraging.

### **SECOND REQUIREMENT: Administrative creativity**

It includes the concept and elements of Administrative Creativity, and the skill of creativity.

#### **Firstly: The concept of administrative creativity**

The concept of administrative creativity stems from the general concepts of creativity itself. Creativity in management is related to new ideas in the field of management, product development, team leadership, customer service improvement, and all functions of knowledge management. There is a multiplicity and divergence of views on defining the concept of managerial creativity and its importance. There is no agreement among scholars about its definition and what it is, due to the complexity of the creative phenomenon itself on the one hand the multiplicity of fields in which the concept of creativity has spread on the other hand, which led to the difference in the theoretical principles of the concept of creativity due to the variation The jurisprudence of scholars and researchers and their different interests, as well as their scientific and cultural curricula and schools of thought. On the other hand, researchers face another problem on the subject of administrative creativity, which is the multiplicity of synonymous terms such as innovation, invention, genius and intelligence to the point where it is difficult to choose the appropriate definition for it. Despite the absence of consensus on a specific definition of administrative creativity, this is not strange, according to (Abdel-Hamid), as he says, "The attempt to reach consensus on a specific definition of this term may contradict the idea of creativity itself." (Hamida, 2014, 96) Administrative creativity is an integrated system in which the administrative organization and members of the organization participate, including managers and employees, as well as the environment of the organization. The monotony and routine practiced by the employees in performing their work, and therefore it is not expected that they will show creativity and distinction that contributes to pushing the development wheel for the better, and in view of the elements of the creative process, the cornerstone of it is the employee from whom the organization proceeds towards administrative creativity. (The Wheel, 2009, 9). There are many terms related to creativity, such as imagination: it is the perception or illusion of something that does not exist, and it is the first steps of creativity, and innovation: the same meaning of creativity, as well as renewal: the reuse of an old thing in a modern way. As well, the invention scientific creativity, and the intelligence: the speed of understanding and deduction. (Al-Suwaidan and Al-Adlouni, 2004, 19)

#### **Secondly: Skills related to creativity:**

Creativity requires special abilities that enable a person to approach his work in new ways. In particular, it is useful to do the following things when trying to encourage and spread creativity: (Rifai, Bassiouni, 2004 AD, 3) - Shattering normal thinking and adopting a new way of thinking: The level of creativity improves when people get rid of outdated ways of doing business - that is, when they think outside the specified range that you return to. Attaching himself to the past and limiting his thinking to it may kill creativity. Take a fresh look at everything around you, even those things that are familiar to you. In fact, the best innovative work is done by individuals who do - that is, they do not prepare themselves in the usual ways of doing business. Understand complexities: Instead of oversimplifying things, think of complex ways in which they have reciprocal relationships with ideas.

### **Thirdly: Elements of administrative creativity**

The creative capacity has basic components or elements and without it, it is impossible to speak of effective creativity. Its importance is represented in determining the measurement and level of creativity at the level of the individual, the group and the organization. Researchers have largely unanimously agreed in many studies on the following basic elements of creativity: originality, sensitivity to problems, flexibility, ability to analyze, fluency, and these elements can be illustrated as follows: (Reda)2003, 35)

1. **Authenticity**: (It is meant that the creative person has an authentic thinking, meaning that he does not repeat the ideas of those around him, and the criterion for judging the idea with originality is that it does not submit to the circulating ideas and it is recognized and its departure from the tradition and its distinction and distinction). The traditional style has increased the degree of originality of the idea and coming up with ideas and solutions to the problem or problems in a way different from that which others think of, provided that they are useful, scientific and practical.
2. **Sensitivity to problems**: (A creative person has the advantage of being able to perceive crises and problems in different situations more than others, and grope more than one crisis or problem that urges the search for a solution to it). Sense of the problem requires the creator to be able to precisely define all dimensions of the problem or crisis and to understand its implications with a clear vision through which he is aware of the shortcomings and errors, avoiding them, and supporting the positives through a deep understanding of the nature of the crisis or problem under consideration.
3. **Flexibility**: (It means the person's ability to shift the direction of his thinking or his approach to treating the problem from one situation to another, which means the ability of the individual to quickly adapt to new developments and



situations). Where flexibility means the difference and diversity of ideas that the creative individual brings, and therefore it is an indication of the degree of ease with which the individual changes a certain mental point of view or a certain position, and therefore the creator tries not to make himself captive to a certain approach or template as he has the ability to adapt to all circumstances, situations and data. The new change and its comprehension in a way that is characterized by freedom from traditional thinking patterns, as it resorts to updating work methods and adopting many methods of doing work and has a different view of things by looking from several angles and from new visions through which he can connect between divergent things that many believe that it is not possible to find a relationship or connecting them together, which helps to discover new relationships, interconnections, components and modern methods that were not familiar or existing before.

4. ***The ability to analyze***: (It means creative or innovative production that includes the process of electing or selecting and coordinating any new work into simple units to be reorganized). The creative person is distinguished by his ability to analyze and understand the elements of things and his understanding of the relationships between these elements and his possession of the ability to reorganize ideas and things according to well-studied principles, and through that he is able to bring about any change or renewal in the practical reality. Where an individual with the ability to analyze is described as a creative individual who can deal with an idea or action and then define its details. He can also address a simple idea or a simple outline of a topic and then expand it and draw his steps that lead to it being practical.
5. ***Fluency***: It means the ability to produce a large number and values of ideas in a specific unit of time, and it also refers to the multiplicity of ideas that the creative administrator can bring up, and the creative ideas are distinguished by their suitability for the requirements of the real environment. (Idris, 2018, 22) The creative person is superior compared to others in terms of the number of ideas that he proposes in a specific period of time on a specific topic. That is, the element of fluency is present in the individual whenever he is able to summon the largest possible number of ideas in a certain period of time, and with the increase of that ability, creativity increases and the degree of his growth increases.

### **THE SECOND TOPIC : Methodological framework for the study**

The topic includes It includes the Population and Sample, Study tool, The Methodology, Information gathering sources, Descriptive statistical methods, The

used statistical methods and Data Reliability Score Test. And also it includes the Test of study hypothesis

### **FIRST REQUIREMENT: Methodology**

It includes the Population and Sample, Study tool, The Methodology, Information gathering sources, Descriptive statistical methods, The used statistical methods and Data Reliability Score Test

1. **Population and Sample:** The study community means the total set of elements that the researcher seeks to generalize to the results related to the studied problem. The study population consists of the staff of the Sudan University of Science and Technology "West Wing". And their 925 employees. The easy (non-probable) sample was relied upon because it allows the researcher to collect information from community members who are in comfortable conditions for the researcher to collect data. The study sample consisted of (120) employees from various departments and colleges in the West Wing.
2. **Study tool:** The study tool is the method used by the study to collect the necessary information about the phenomenon under study. There are a number of tools used in the field of scientific research to obtain the information and data necessary for the study. The researcher relied on the questionnaire as a main tool for collecting information from the study population.
3. **The Methodology:** The researcher relied on the descriptive and analytical method, and its importance is evident in scientific research not in describing the apparent things, but rather in an effective method of collecting data and information. The descriptive approach aims to describe the nature of the relationship between the study variables represented in (work environment) as an independent variable and (administrative creativity) as a dependent variable.
4. **Information gathering sources:** The study used many sources that supported this study and achieving the objectives of this study. The sources were represented in the secondary sources represented in Arabic books and references, previous studies and research related to the subject of the study. And the primary sources that were the information collected for the first time by means of the questionnaire.
5. **Descriptive statistical methods:** Frequency distribution of answers, graphs, and percentages were used. And linear regression. The correlation coefficient is Pearson. To get the results as accurate as possible, SPSS statistical program was used.
6. **The used statistical methods :** The validity of the study tool requires calculating the reliability coefficient of Cronbach's Alpha in order to test the availability of the consistency and internal consistency between the answers to

the questions. Knowing that the statistically acceptable value of the Cronbach’s Alpha coefficient is 60%.

- Data Reliability Score Test:** To test the availability of stability and internal consistency between the answers to the questions, the reliability coefficient of Cronbach’s Alpha was calculated, and the statistically acceptable value for the Cronbach’s Alpha coefficient was 60%. The reliability test was performed on the responses of the respondents to the questionnaire for all its axes, and the results of the evaluation of the value of Cronbach's alpha were calculated. It is shown in the following table:

**Table 1 Results of the Cronbach’s Alpha test**

Phrases (Themes of the	The Alpha Cronbach
The organizational	0.85
Training	0.88
Incentives and rewards	0.83
Technology	0.87
Working conditions	0.82
Administrative creativity	0.91
<b>Total</b>	<b>0.94</b>

that is prepared 2020 from the field study data

It is evident from the above table that there is a very high degree of internal consistency in the answers for all the axes of the phrases, as the total percentage of the study axes reached 94%, which is greater than 60%, which enables us to rely on these answers in achieving the objectives of the study and analyzing its results.

**SECOND REQUIREMENT: Test the validity of the study hypothesis**

To answer the questions of the study and verify its hypothesis, the PIROSON correlation coefficient will be calculated to find out whether there is a statistically significant relationship at 0.05 or not. When performing the correlation coefficient test, this scale converts the nominal variables into quantitative variables, and then the linear regression test will be used to find out the direction of the relationship, positive or negative. We will detail it as follows:

Table 2 Correlations demonstrates the Pearson Correlation Coefficient test

	Correlation	H1	H2	H3	H4	H5	H6
H1	Pearson Correlation Coefficient	1					
	The probability value						
	The number of cases	100					
H2	Pearson Correlation	.443(**)	1				
	Sig. (2-tailed)	.000	.				
	N	100	100				

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H3	Pearson Correlation	.409(**)	.577(**)	1			
	Sig. (2-tailed)	.000	.000	.			
	N	100	100	100			
H4	Pearson Correlation	.352(**)	.557(**)	.539(**)	1		
	Sig. (2-tailed)	.000	.000	.000	.		
	N	100	100	100	100		
H5	Pearson Correlation	.395(**)	.454(**)	.575(**)	.543(**)	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.	
	N	100	100	100	100	100	
H6	Pearson Correlation	.444(**)	.327(**)	.335(**)	.230(*)	.286(**)	1
	Sig. (2-tailed)	.000	.001	.001	.021	.004	.
	N	100	100	100	100	100	100

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The above table shows that the scale (Pearson Correlation Coefficient) measures the intensity of the relationship between the two variables, which explains the extent of the influence of the relationship between the two variables, which explains the extent of the influence of the independent variable on the dependent variable, and it appears from this, the relationship is strong at the significance of 0.05, (\*\*) two stars or more appear. And when the relationship is weak, one star (\*) appears or not, this indicates that there is no effect from the above table, the following can be :

**Firstly: hypothesis (H1):** there is no statistically significant effect of the organizational structure on administrative creativity.

organizational structure	Correlation Coefficient	.444(**)	1.00
	Sig. (2-tailed)	0	0
	N	0.000 100	0.100 100
administrative creativity	Correlation Coefficient	.00	.444(**)
	Sig. (2-tailed)	0	0.000
	N	0.100	100

when looking at the above table, we notice the following appears: Pearson correlation coefficient (\*\*) 0.444, when the significance 0.000 indicates that there is a statistically significant effect between the two variables. Accordingly, that we reject the imposition of the nothingness (there is no statistically significant effect of the organizational structure on administrative creativity), and we accept the alternative hypothesis (there is a statistically significant effect of the organizational structure on administrative creativity).

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**Secondly: the hypothesis (H2):** there is no statistically significant effect of training on administrative creativity,

Training	Correlation Coefficient Sig. (2-tailed) N	.327(**) ) 0.001 100	1.00 0 0.100
administrative creativity	Correlation Coefficient Sig. (2-tailed) N	.00 0 0.100	.327(**) 0.001 100

and when looking at the above table, we notice the following appears:

Pearson correlation coefficient (\*\*) 0.327 when the significant 0.001 indicates that there is a statistically significant effect between the two variables. Accordingly, that we reject the null hypothesis (there is no statistically significant effect of training on administrative creativity), and we accept the alternative hypothesis (there is a statistically significant effect of training on administrative creativity).

**Thirdly: hypothesis (H3):** says (there is no statistically significant effect of incentives and rewards on administrative creativity),

Incentives & Rewards	Correlation Coefficient Sig. (2-tailed) N	.335(**) ) 0.001 100	1.00 0 0.100
administrative creativity	Correlation Coefficient Sig. (2-tailed) N	.00 0 0.100	.335(**) 0.001 100

and when looking at the above table, we notice the following appears: Pearson correlation coefficient (\*\*) 0.335 when the significance 0.001 indicates that there is a statistically significant effect between the two variables. Accordingly, that we reject the null hypothesis (there is no statistically significant effect of incentives and rewards on administrative creativity), and we accept the alternative hypothesis (there is a statistically significant effect of incentives and rewards on administrative creativity).

**Fourthly: hypothesis (H4):** (there is no statistically significant effect of technology on administrative creativity),

Technology	Correlation Coefficient	.330(*)	1.00

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	Sig. (2-tailed)	0.021	0
	N	100	0.100
administrative creativity	Correlation Coefficient	.00	.330(*)
	Sig. (2-tailed)	0	0.021
	N	0.100	100

and when looking at the above table, we notice the following appears: Pearson correlation coefficient (\*) 0.230 when the significant 0.021 indicates that there is no statistically significant effect between the two variables. Accordingly, that we accept the null hypothesis (there is no statistically significant effect of technology on managerial creativity), and we reject the alternative hypothesis (there is a statistically significant effect of technology on administrative creativity).

**Fifthly: hypothesis (H5):** (there is no statistically significant effect of work conditions on administrative creativity).

Work Conditions	Correlation Coefficient	.286(**	1.00
	Sig. (2-tailed)	)	0
	N	0.004	0.100
		100	
administrative creativity	Correlation Coefficient	.00	.286(**)
	Sig. (2-tailed)	0	0.004
	N	0.100	100

When looking at the above table, we notice the following is evident: Pearson correlation coefficient (\*\*) 0.286 when the significance 0.004 indicates that there is no statistically significant effect between the two variables. Accordingly, that we reject the null hypothesis (there is no statistically significant effect of work conditions on managerial creativity), and accept the alternative hypothesis (there is a statistically significant effect of work conditions on administrative creativity).

Finally, through the analysis of the above hypotheses, it becomes clear that (there is a statistically significant effect of work environment factors (organizational structure, training, incentives and rewards, and work conditions) on administrative creativity at the Sudan University of Science and Technology, except for the variable (technology) that has no significant effect on administrative creativity at Sudan University of Science and Technology. Discussion of hypothesis results.

The study results showed that there is a statistically significant relationship between work environment and administrative creativity, and the following hypotheses are branched out from it: There is a statistically significant effect of work environment dimension (organizational structure, training, incentives and rewards, and work conditions) on administrative creativity at Sudan University of

Science and Technology. Except for the variable (technology). The results of this study are in agreement with the study (Muhammad, 2009) entitled: “The Impact of Organizational Variables on Administrative Innovation: A Case Study of Shikan Insurance and Reinsurance Company”. The result is also in agreement with the study (Bin Rajm 2018), which aimed to find out.

The relationship between the internal work environment and the administrative creativity of employees in the directorates of youth and sports, which concluded the study to the existence of a relationship between the internal work environment and administrative creativity. This result also differed from the study (Zameela 2019), which aimed to know the attitudes of employees about the role of the internal work environment in achieving administrative creativity, a case study in the Directorate of Local Administration of the State of Ghardaia in Algeria, and the study found a weak relationship between the internal work environment and administrative creativity.

### **Conclusion:**

Including search results, recommendations.

The analysis results obtained show that the study found the dimensions of the work environment, the organizational structure, training, rewards, incentives, and work conditions more related to administrative creativity. It also showed the lack of connection to technology. In addition, University employees have contributions with new ideas in their field of work, and they also have the courage and courage to do creative work. As well, Workers have the ability to segment and analyze work tasks, and they are keen to know the shortcomings and weaknesses in their work. The workers are keen on the permanent development of bringing about a change in work methods, and they face skillful work problems. In addition, the university has qualified and highly skilled human cadres in using technology.

According to the discussion of the results, the researcher recommends the following points:

- Providing training opportunities for all employees in various departments and colleges, provided that the orientation towards training is as work teams and not as individuals in order to develop their skills and knowledge.
- The university administration should strive to increase the employees' salaries and incentives to prevent employees from dropping out, stop the loss of experience bleeding, and achieve job satisfaction.
- Providing all the needs that enable workers to carry out their work efficiently and effectively.
- Paying attention to keeping pace with the technological development associated with its business, and increasing the provision of all the necessary requirements for technology.

Future research will be in the direction to study the impact of administrative creativity on decision-making can be conducted. As well, the study of the impact of training programs on administrative creativity. In addition, the dependent variable (administrative creativity) can be divided into several dimensions. Furthermore, Extending the study sample to include all university employees (professors, employees, workers).

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