

## Investigating management styles and determining their impact on increasing the organization's productivity

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### Abstract

*The research was conducted to determine the relationship between management styles and organizational productivity in the Children's Medical Center of Tehran University of Medical Sciences.*

*This predictive correlation study was conducted on 112 nurses and managers working in the treatment department, selected through random sampling. Data were analyzed using ANOVA, t-test, Pearson correlation, and linear regression analysis in SPSS version 16 software. The findings show that most of the styles are used in the studied organization. Beta coefficients for the autocratic style are equal to -0.391, consultative 0.251, collaborative 0.212, and transformational 0.172, with the collaborative style having the most direct relationship and, authoritarian style having an inverse relationship. According to the correlation coefficient between management style and organizational productivity,  $r = 0.790$ , and the values of significance level and t-statistics, it can be said that there is a significant and direct relationship between management style and productivity in the studied organization. The value of coefficient of determination shows that 87.2% of organizational productivity changes can be explained by productivity style variables. Considering the relationship between management styles and organizational productivity, it is not possible to use a specific style in organizations, and the use of different styles in different departments improves the organization's productivity.*

**Keywords:** Management style, Productivity, Linear Regression

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### 1. Introduction

Why are leaders important? Why do some organizations fail while others succeed, even thriving to exist for more than a century? Is there such a thing as an effective leadership style or behavior? Balbuena and Perez. [9]. An effective leader influences followers in a desired manner to achieve desired goals. Different leadership styles may affect organizational effectiveness or performance Nahavandi. [74]. a very different view of management styles in contrast to more traditional concepts stressing top to down power or the power to control subordinates. Current initiatives to reform education encourage managers to make important second-order changes such as building a shared vision, improving communication, and developing collaborative decision-making processes Castro. [26].

Applying efficient manpower and their capabilities to fit the needs of the organization and company is one of the most important organizational and productive challenges. Human resources are the basis of the plans and the specific program and the core of planning in achieving different policies. Hamdi et al. [48]. Organizational success depends on human resources, and in all production and service organizations, these

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are the human resources that are the core of the executive and the main supplier of the organization's interests Cugin et al. [30]. The importance of human resources in achieving organizational goals is crucial in this field. Solutions and programs that improve the performance and efficiency of the workforce and organization are one of the ultimate goals of a system. Productivity is a qualitative and quantitative component of maximizing the performance and functionality of each domain, and its purpose is manpower, exploitation to the optimum possible extent of the talents and abilities of the workforce, and management to achieve the designated program. Achieving productivity and proper utilization of the factors in its place requires proper management in certain areas Bloom et al. [20].

Therefore, management and leadership are a key factor in this regard. Leadership and organizational management refer to the formulation of policies and lines of specific administrative and commercial frameworks that the organization and company members meet by that movement and the basic needs of the organization Downe et al. [33]. What kind of leadership is most effective and what determines the leadership style results from the style of thinking and its related programs? Bierema. [18]. Thinking style addresses the conceptual framework and indicators of individual assessment of the environment and conditions that make decisions or conclusions in line with it. Goldman et al. [45]. In other words, the thinking style is an indicator that plans, evaluates, and concludes the basic and editorial principles of a person and organization, a thinking style that includes a variety of varieties, the product of the educational environment, the scope of knowledge and knowledge, experience, developmental structures, and it is the basis of decision making in different categories Bouhali et al. [21].

The survival of an organization lies in its ability to preserve its effectiveness and in its preparedness to accomplish its mission and goals Northouse. [75], which are achieved with the support of effective leadership. However, for leadership to be effective, the leadership style must be compatible with the motivational needs of the followers Buble et al. [24], The most recent research has shown that the contemporary leader is characterized by a supportive leadership style that shows leader's concern for subordinates' well-being and their personal needs. Leadership behavior is open, friendly, and approachable, and the leader creates a team climate and treats subordinates as equals Blanchard. [19]. Such a leadership style ensures the highest possible involvement of all the employees in achieving the company's goals, which then results in the rapid growth of production, employment, and standard of life Buble et al. [24], Therefore, thinking style and its related factors develops the leadership and management style of an organization or institution. Various research has shown that Joashi and Row. [23] emphasized that Leaders should acquire better cognition from their behaviors that influence their members' self-confidence as they form effects of workplaces through employee feedback and their employment. Armstrong. [4]. Human outcomes of poor leadership include employee stress, disenchantment, lack of creativity, cynicism high employee turnover, and low productivity. Poor leadership destroys the human spirit essential to ensure work effectiveness Robbins. [82]. Organizations today are moving towards more democratic structures that allow employees to influence the decisions made because of concern for quality and the requirement of a high degree of commitment by employees to their work. Rost. [84].

Given the existing gap in research concerning the impact of management styles on productivity in the field of medical organizations, this study has been conducted to evaluate the effect of management styles on productivity within medical organizations. The remainder of this article will discuss various management styles, organizational productivity, the relationship between management style and organizational productivity, the research background, findings, conclusion, and discussion.

## 2. Theoretical Foundation

### 2.1 Management style

The role of leaders in today's organizations has changed and the success of any organization relies on the leadership styles practiced by the leaders. According to Mintzberg [67], true leaders engage others with their consideration and modesty because they involve themselves in what they are doing not for individual gains. Mullins [72] defined leadership style as "how the functions of leadership are carried out and the manner that a manager chooses to behave towards an employee". A leader can be defined as a person who delegates or influences others to act to carry out specified objectives Mullins [74]. According to their organizational behavior fit model, the components of each organization should be aligned and fit with each other. In one of the latest models presented by Burton [25], they examine the organization from the perspective of 9 two-dimensional components and determine its appropriateness or lack thereof. These 9 components include 1- organization goals, 2- strategy, 3- environment, 4- configurations, 5- task design, 6- leadership style, 7- organizational climate, 8- coordination and control and 9- incentives Balbuena [9].

Today's organizations need effective leaders who understand the complexities of the rapidly changing global environment. If the task is highly structured and the leader has a good relationship with the employees, effectiveness will be high on the part of the employees. Good or effective leadership is in part due to good relationships between leaders and followers Lussier and Achua [63]. Various research has shown a direct and specific relationship between management styles with organizational commitment and loyalty to the organization Yahaya and Fawzy [98] with employee motivation and performance El-Zayat [36] with self-esteem.

There are many identified styles of leadership, while six types appear to be more common: transformational, transactional, autocratic, laissez-faire, task-oriented, and relationship-oriented leadership Frandsen [42]. The styles of leadership include bureaucratic, laissez-faire, charismatic, democratic, transactional, and transformational Mosaddegh and Yarmohammadian [68]. The transactional and transformational leadership styles are the current leadership organizational styles. According to Rees and French [80], the two leadership styles are associated with a society that no longer accepts the use of authority as a form of command.

#### 2.1.1 Autocratic

Adebakin and Gbadamosi [1] described an autocratic leader as one who is very conscious of his position and has little trust or faith in the subordinates, he feels that pay is a just reward for work and it is only the reward that can motivate. Authors such as Muczyk and Reimann [70]; Yukl [101]; and Bass [10] agreed that the autocratic leadership style is task-oriented, more convincing, and manipulative being efficient in communicating a clear vision and conceiving strategic objectives Clark et al. [29]. Most followers of autocratic leaders can be described as biding their time, waiting for the inevitable failure this leadership produces and the removal of the leader that follows Michael [66].

#### 2.1.2 Participative

Participation is one of the important ingredients in gaining employees commitment on an overall basis Griffin et al. [46]. Robbins [83] considered the distinction between the sharing of decisions with individual subordinates and with the group as a whole. He emphasized that the criteria for choosing the proper style include among others, the importance of acceptance of a decision by subordinates' time and cost minimization. Managers should therefore be able to analyze the relevant factors and decide on the degree of decision that would be appropriate Dvir et al. [34]. According to House and Mitchell [56], the participative leader possesses consultative behaviors, such as imploring subordinates for ideas before making an ultimate decision, (although, they retain final decision authority). The participative leader shares duties with subordinates by encompassing them in the preparation, decision-making, and implementation phases Wiesensthal et al. [96]. Fincham identified this type of style as one that involves the leader including

one or more employees in the decision-making process (determining what to do and how to do it). Participative management addresses the relationship between the organizations and the role of employees and stakeholders in all levels of organizational decision-making Ahmad et al. [2].

### **2.1.3 Transformational**

Transformational leadership is a stronger predictor of both job satisfaction and overall satisfaction" Linton [16]. Transformational leaders typically can inspire confidence and staff respect and they communicate loyalty through a shared vision, resulting in increased productivity, and strengthening employee morale, and job satisfaction Frandsen [42]. Transformational leaders are persons who show individual consideration to followers and inspire them to be at their best and develop their leadership skills Bass and Riggio [13]. Previous research has assumed that transformational leadership leads to transformations in followers—i.e., changes in their behaviors and, consequently, their attitudes and performance Schaufeli and Bakker [86]. Transformational leadership denotes the process of a leader motivating followers to strive for group versus personal goals through charisma, inspirational motivation, intellectual stimulation, and/or individualized consideration Bass [14].

### **2.1.4 Task-oriented**

Task-oriented leadership style involves planning of work activities, clarification of roles within a team or a group of people, objectives set as well as the continuing monitoring and performance of processes Yukl [102]. Task-Oriented leadership is a behavioral approach in which the leader focuses on the tasks that must be performed to meet certain goals or achieve a certain performance standard. The Task-Oriented leadership style covers some features of task management. Task management, requires coordination of job-related activities, giving importance to administrative activities, supervising product quality, and preparing financial reports. Thus, it can be concluded that leaders who adopt a Task-Oriented leadership style, focus on completing necessary tasks to reach organizational targets. One of the distinctive characteristics of these leaders is that they are less concerned with the employees, who are the critical agents to achieve the desired goals. On the contrary, they are more concerned with following a planned path to achieve specific organizational targets Rüzgar [85].

### **2.1.5 Relationship-oriented**

Relationship-oriented leadership is an approach that focuses on the job satisfaction, motivation, and work-life balance of the employees. The leaders who adopt this style, are focused on supporting, motivating, and developing their employees. They encourage teamwork and collaboration, by building positive relationships and encouraging communication. Relationship-oriented leaders prioritize the welfare of every single employee and do not hesitate to spend time and effort in meeting their individual needs. In this sense, they offer incentives like bonuses, try to deal with workplace conflicts, have more casual interactions with employees to learn about their strengths and weaknesses, and create a non-competitive work environment Rüzgar [85].

### **2.1.6 Consultative**

Consultative leadership is a type of leadership that focuses on the development of teams and makes use of the knowledge and experience of other people when developing plans and making decisions, e.g. Oshagbemi [77]. Leaders use communication to engage their teams to acquire their employees' views and perspectives Sutton et al. [90]. Thus, they can better steer followers into deliberative and practical choices, e.g., Bhattacharya et al. [17]. One form of leadership known as "consultative leadership" emphasizes others'

capacity to set goals and make societal decisions. To make intelligent, strategic choices, leaders regularly join for feedback that helps people perform their best with less effort, e.g. Hendriks and Lees [51].

## 2.2 Organizational Productivity

Organizations typically have two primary reasons for using performance appraisals. The first is the evaluative or judgmental function of appraisals, i.e. they are used for making administrative decisions about employees. The second function is developmental. Appraisals are designed to improve performance or the potential for high performance by identifying areas for improvement and growth (performance management). Performance management offers managers a system that is designed to minimize the shortcomings of traditional performance appraisal systems. performance management has three basic components: planning, managing, and appraising performance (performance management). Performance planning focuses on individual results; what an individual will achieve and how these results can be achieved. The manager's role is to help subordinates develop strategies and secure required resources Guinn [47]. Until now, organizational leaders rarely have figured out and considered happiness and joy as a part of the system they are managing. Hence, happiness in organizations is not considered a part of management style. Gradually, it became obvious that joy and fun at the workplace will decrease healthcare costs, enhance customers' loyalty, and increase productivity and profits Nahavandi [74].

## 2.3 Leadership styles and Organizational performance

The success and development of organizations are always among the primary objectives of any association. Therefore, the combined efforts of staff and leadership styles significantly influence an organization's success Castro [26]. Researchers recognize employee engagement and leadership styles as key factors in organizational success or failure (1).

Leadership is a crucial aspect of any organization, as it largely determines the organization's performance and outcomes Cagin [30]. Leadership is a management function that directs employees to achieve job objectives within a clear chain of command. It is evident that employee engagement is heavily influenced by their interactions with immediate and senior supervisors and peers. Employee engagement is complex and ongoing, requiring employers or management to find ways to enhance their employees' working experiences Bloom [20]. Leadership plays a critical role in improving workforce retention, career motivation, and efficiency Downe [33]. Effective leadership accelerates organizational development and is thus essential to organizational success Bierema [18].

A good leader understands the importance of employees in achieving the goals of the organization, and that motivating the employees is of paramount importance in achieving these goals. Different leadership styles bring about different consequences, which have a direct or indirect impact on the attitude and behaviors of the employees. Leadership is associated with employee performance Ogbonna and Harris [76]. The effectiveness of any set of people is largely dependent on the quality of its leadership—effective leader behavior facilitates the attainment of the follower's desires, which then results in effective performance Maritz [64]; Ristow et al. [81]. Phillips and Gully [79] suggested that at its best, leadership inspires and motivates employees to work hard toward organizational objectives and help the organization succeed. According to Hunter et al. [57], Leader behaviors affect subordinates' actions and perceptions, ultimately resulting in some type of desired outcomes. Employees require leadership and the leadership impacts each of them uniformly. According to Hiller et al. [53], Leaders and leadership can affect emotions, most remarkably in followers, thus it can be inferred that leaders can strongly influence employee performance and leaders' communication ability is significant to the employees. Leadership is the driving force in the organization of individuals, teams, and entire organizations Fayyaz et al. [39].

### 3. Background

According to Goh Yuan's studies, leadership style is significantly influenced by the leader's immediate and extended family, clan, and tribe. This study finds the linkages between organizational leadership and business ethics, thereby contributing to increasing the quality of organizational life which may have a positive influence on both members of the organization and the wider community Goldman [45]. Lu Ye's study explained employees' perceptions about the transactional or transformational leadership style of the executive, both have a highly positive correlation with perceptions about the executive's encouragement factors of its innovation climate Bouhali [21].

According to Rüzgar [85], various studies in the literature try to determine the effects of task-oriented and relationship-oriented leadership. While some of them show that Relationship-oriented leadership produces greater productivity Northouse [75], some show that task-oriented leaders create greater productivity and effectiveness Buble et al. [24]. According to the findings of Rüzgar [85], there is no statistically significant effect of Task-Oriented leadership style on the oriented dimension of LMX. On the other hand, it has been found that there is a statistically significant effect of Relationship-oriented Leadership Style on the oriented dimension of LMX. Thus, it can be concluded that leaders should try to scrutinize the effects of each leadership style thoroughly to make their employees work more beneficially and productively.

Bass and Avolio [12] in their studies established a correlation between transformational leadership style and motivation. Storsteth [89] found that a leadership style that was people-oriented was a key predictor for work motivation Buble et al. [24]. Voon et al. [95] found the influence of leadership styles on employees' job satisfaction in public sector organizations in Malaysia. They used factors like salaries, job autonomy, job security, and workplace flexibility. Out of these factors, they found that transformational leadership style has a stronger relationship with job satisfaction.

Another research related to the influence of leader-member exchange, change-oriented leadership, and also management by objective to performance using a balanced scorecard with employee engagement as a mediating variable, and the results show that management by objective partially affects employee engagement, but the variable change-oriented leadership partially has positive and significant impact to employee engagement. However, leader-member exchange partially has a negative and significant impact on employee engagement. Meanwhile, effect employee engagement partially affects to balanced scorecard Syahridlo et al. [91].

The Task-Oriented leadership style was found to relate to higher levels of quality of care based on the assessment made by relatives and staff Havig et al. [49]. Furthermore, increased patient satisfaction in acute care and home care settings is closely related to transformational, transactional, and collaborative leadership Heath et al. [50]; Wong [97]. Task-oriented leadership behavior relates to the extent to which the leader engages in determining where the project should be completed and who should comprise the project team. Conversely, relationship-oriented leadership behavior is the extent to which a leader engages successfully in complex communication scenarios Fiedler [40]. A study by Tabernero et al. [92] examining the role of Task-Oriented versus relationship-oriented found that relationship-oriented behavior roles had a positive effect on cohesion among team members. Conversely, Task-Oriented behavior roles were seen by team members as having higher levels of task accomplishment.

Pfeffer and Salancik [78] indicated that leaders exhibit task and relational-oriented behavior. The Michigan studies also supported two types of behavior; Task-Oriented behavior and relations-oriented behavior but the study also added up to the third category participative leadership. Task-oriented leadership functions are planning, scheduling coordinating work and activities with subordinates, and providing

technical assistance, in leadership style managers are more supportive and helpful towards subordinates they show trust, confidence and act friendly, and try to understand their subordinates' problems Yukl [102].

According to Lee, the ability of leaders to inspire their teams is crucial to the success of performance management. The motivational impacts of transactional and transformational leadership are distinct Lee [61]. If the leader is unsure of the best course of action and might use their team members' input, they should adopt a consultative style Mwai et al. [73].

## **4. Research Methodology**

### **4.1 Research Objectives**

The association of leadership style with organizational productivity was the objective of this study. Literature and several studies agree that without leadership employees would be lost. However, if there are effective leadership skills, the employees and the organization will be on their way to success and productivity, even when in a diverse culture.

### **4.2 Materials and methods**

This study employed correlational, causal, and descriptive research designs. The correlational design aims to determine the significant linear association between two variables: leadership style and organization productivity. But neither one variable causes the other. Causal research design tries to explain the cause-and-effect relationship between two variables; that is, leadership style affects organizational productivity. Furthermore, descriptive design is used to describe the characteristics of the population sample under investigation. In this study, we only describe the available data from the sample as they relate to the existing theories of leadership style.

### **4.3 Statistical population and sampling method**

Participants of this study were 112 persons who are currently employed at the Children's Medical Center in Iran. Of these respondents 22.9% were female and 77.1% were male. The average age is 38, where 25 is the youngest and 61 is the oldest. They have been working in the industry for an average of 12 years, where the minimum number of years in service is 6 and the maximum is 27. The educational of participants was diploma 11.4%, Expert 57.2%, and Master 31.4%.

To measure the leadership style and Production relationships, we used the leadership style description questionnaire that was originally validated by Salzman and Ander Kolk (1982), Ghasemalipour and Rahdar, [43], and the productivity questionnaire validated by Debra and Kandos (2017) provides a technique by which organizational members can describe the organizational productivity Jodaki and Hasanpor [58]. In this study, we used items for a concise with 18 items for 6 different styles of leadership and 21 items for productivity. The management style questionnaire with Cronbach's alpha of 0.842 and productivity of 0.838 indicates high reliability for the questionnaires.

### **4.4 Research question and hypothesis**

The main research question is what are the management styles and what is their relationship with productivity? The research hypothesis is that management styles have a significant relationship with productivity.

## 4.5 Data Analysis

To determine the strength of the linear association between leadership style and organizational productivity, we used the Pearson correlation as an analytical tool. At a given level of significance (5% in this case), this statistic can test the research hypotheses: whether or not to reject the first hypothesis that there is no significant linear association that exists between leadership style and organizational productivity.

To establish the causal relationship between leadership style and relationships (independent variables) and organizational productivity (dependent variable), we used linear regression. This analytical procedure allows us to summarize and study relationships between the two variables in the form of a linear equation, which can be used (if a significant coefficient exists) to predict the values of the dependent variable given specific values of the independent variables. Using this procedure demands that the data distributions are approximately normal and that the measures are of at least interval level. These conditions are satisfied by the properties of the data at hand, as the plot resembles a straight line. These statistical procedures, including the tests for internal consistency of instruments, were implemented using the computer software IBM® SPSS® version 16.

## 5. Analysis of the research hypothesis

### 5.1 Correlation test of variables

To determine the type of dependence of the independent variables with the dependent variable, a correlation test should be performed. Table 1 shows the result of the Pearson correlation test.

**Table 1.** Correlation test

Management Styles	correlation coefficient	Significance level	No.
Relationship-oriented style	0.766	0.000	112
Task-Oriented style	0.785	0.000	112
Transformational style	0.790	0.000	112
Autocratic style	-0.520	0.000	112
Participation style	0.735	0.000	112
Consultative style	0.792	0.000	112

Source: researcher's findings

The values in the table show that there is a significant correlation between research management styles and productivity based on the opinion of the respondents of the research statistical community. Only the Autocratic style has a negative relationship with productivity and other styles have a positive.

### 5.2 Regression

#### 5.2.1 Regression coefficients between variables

The regression coefficients are used to prove the following.

- 1- Proof of linear relationship between independent and dependent variables
- 2- Can changes in independent variables cause changes in the dependent variable?
- 3- Do the independent variables predict changes in the dependent variable?

Table 2 shows the results of the tests.



**Table 2.** regression coefficients

variable	Unstandardized coefficients		Standardized coefficients	t	Significance level	result
	B	standard deviation	Beta			
constant	3.352	0.227		14.766	0.000	accept
Relationship-oriented	0.086	0.039	0.158	2.181	0.031	accept
Task-Oriented	0.069	0.072	0.081	0.956	0.340	reject
Transformational	0.100	0.039	0.172	2.564	0.012	accept
Autocratic	-0.276	0.025	-0.391	-11.171	0.000	accept
Participation	0.123	0.038	0.212	3.227	0.002	accept
Consultative	0.177	0.059	0.251	2.979	0.004	accept

Source: researcher's findings

According to the values in the table, the hypothesis of a significant linear relationship between management styles and productivity is confirmed. The values show that the rate of change in the relationship-oriented style variable is equal to (0.158), Transformational is equal to (0.172), Autocratic is equal to (-0.391), Participation is equal to (0.212), and Consultative is equal to (0.251). Beta values indicate that Relationship-Oriented, Transformational, Participation, and Consultative styles have a positive and significant effect on productivity, and the Autocratic style hurts productivity. The Significance level of the Task-Oriented style is more than 0.05 and doesn't have a significant effect on productivity.

### 5.2.2 Coefficient of determination and analysis of variance

One of the necessary points in showing the amount of variance of the dependent variable is that the independent variables can show the variance (changes) of the dependent variable. This is determined by calculating the correlation coefficient R, the coefficient of determination  $R^2$ , the standard error of estimation, and Durbin-Watson's statistic. Table 3 shows the result.

**Table 3.** coefficient of determination

model	R	$R^2$	Adjusted coefficient of determination	standard error of estimation	Durbin-Watson's statistic
Regression	0.937	0.879	0.872	0.472	1.746

Source: researcher's findings

The value of the  $R^2$  statistic (adjusted coefficient of determination) shows that the components of management style can express 87.9% of the variance of the dependent variable (productivity). Also, the value of the Durbin-Watson statistic of the model is equal to the value of 1.746, which according to the criterion of acceptance of the Durbin-Watson statistic between 1.5 and 2.5, this issue shows the non-correlation of the independent variables.

### 5.2.3 Model goodness of fitness

To recognize the meaningfulness of the model and the appropriateness of the designed shape, it is necessary to perform a goodness-of-fitness and check this issue with its results. If the significance level of this test is acceptable ( $p < 0.05$ ), the hypothesis can be confirmed. The values in Table 4 show the result.

According to  $p < 0.05$ , it can be said that the assumption of significance of the regression model is confirmed with a confidence level of 95%. Therefore, at least one of the independent variables has a linear relationship with the dependent variable and so the results of the tests confirmed the significant relationship between management styles and productivity and these styles can predict changes in productivity.

**Table 4.** Model goodness of fitness

Model	Total Squares	D. f	Mean Squares	F	Significance level
Regression	169.770	6	28.295	126.555	0.000
remainder	23.476	105	0.224		
total	193.246	111			

Source: researcher's findings

#### 5.2.4 Kolmogorov-Smirnov test

The Kolmogorov-Smirnov test is used to check the normal distribution of the residual errors. To confirm the hypothesis of normality of the residual errors, the value of the significance level of the test for standardized residual must be higher than the value of the uncertainty error (0.05). The result of the test is described in Table 5.

**Table 5.** Kolmogorov-Smirnov test

Variable statistics	significance level	statistics K-S	No.	residual errors distribution
Standardized Residual	0.996	0.409	112	normal

Source: researcher's findings

Table 5 shows that the values of the significance level of all the tests are higher than the error level of the test therefore the distribution of residual errors is normal and the use of normal tests for research can be confirmed.

**H<sub>0</sub>:** The data distribution is normal

Therefore, according to the normal distribution, hypothesis testing and linear regression can be used to prove research hypotheses.

## 6. Findings

The values obtained for the Pearson correlation coefficients in the data show that there is a necessary correlation between the variables of management style and productivity ( $r=+0.790$ ) in the case study organization. Also, the correlation coefficient between productivity and autocratic management style ( $r=-0.520$ ), task-oriented ( $r=+0.785$ ), consultative ( $r=+0.792$ ), cooperative ( $r=+0.735$ ), relationship-oriented ( $r=+0.766$ ) and transformational ( $r=+0.790$ ). The Cronbach's alpha values for management style equal to 0.842 and productivity 0.838, show that there is a necessary reliability in the selected structure.

To evaluate the normality of the distribution of errors, the Kolmogorov-Smirnov test of linear regression residuals was used. The significance level values  $\text{sig.} = 0.996$  and  $t = 0.409$  show that the hypothesis of the normality of the distribution of errors is acceptable and therefore the use of the linear regression model for the problem is approved. Regression analysis of variance has been used to show the linear relationship between independent and independent variables. The value of  $\text{sig.} = 0.000$  ( $p < 0.05$ ) shows that at least one of the independent variables has a linear relationship with the dependent variable.

The  $R^2$  value was used to determine the power and value of predicting the variance of the dependent variable by the independent variables. The coefficient of determination of the test shows that the independent variables (management styles) predict a total of 87.9% of the variance of productivity changes ( $R^2 = 0.879$ ) in the studied organization. The influence of independent variables on productivity is determined based on the values of the Beta coefficient in the regression model. Beta values show that according to the respondents, the autocratic style with -0.391 has the greatest impact (negative or inverse effect) on productivity, and the relation-oriented style with 0.158 has the least positive impact. Consultative

style with 0.251, Participation 0.212, and transformational 0.172 are at the next level. The level of significance and the  $t$  in the regression model show that the task-oriented style with  $\text{sig.}=0.340$  ( $p<0.05$ ) and the  $t=0.956$  ( $t<1.96$ ) has no significant relationship and impact on productivity and will be removed from the model.

The estimation error value of  $Se = 0.472$  shows that the scatter of points around the regression line is low and therefore the required linear form is established between independent and dependent variables. According to the values of the regression table, the proposed equation for the relationship between changes in productivity in terms of changes in management styles in the studied organization will be as described in equation 1:

$$Y_{pr} = 3.352 - 0.276X_{AU} + 0.177X_{Co} + 0.123X_{PA} + 0.0086X_{RO} + 0.01X_{TR} \quad (1)$$

so that:

$Y_{pr}$ : productivity variable in the organization,  $X_{AU}$ : autocratic style change variable,  $X_{Co}$ : consultative style change variable,  $X_{PA}$ : participation style change variable,  $X_{RO}$ : relation-oriented style change variable,  $X_{TR}$ : transformational style change variable.

Task-oriented style has been removed from the equation due to not having a significant relationship with productivity.

The Durbin-Watson test is used to show the independence of errors in the model. The value of  $DW = 1.746$  shows that the absence of correlation between the errors is confirmed.

## 7. Result and Discussion

The research conducted using the proposed model and method has demonstrated a significant relationship between management styles and organizational productivity in the studied organization, as evidenced by the Pearson correlation. Based on the results, it can be concluded that with the right management style and a qualified manager, an organization can achieve its desired goals.

The research findings indicate that different management styles impact organizational performance and productivity in varying ways. Some styles have a positive and direct effect, enhancing productivity and increasing work efficiency, while others have a negative and inverse effect, potentially reducing productivity. Moreover, the statistical average and descriptive variables show that some management styles are utilized more frequently by managers than others, reflecting differences in their impact on organizational productivity.

Regression analysis revealed that managers' leadership styles collectively accounted for a significant portion (87.2%) of the variance in productivity changes. This finding aligns with Chiok's [28] research, which found that the leadership behaviors of Singaporean nurse managers explained 80.8% of nurses' productivity. Similarly, this result is supported by the research of Asmani and Nab [5], which also identified a significant but weak relationship between each leadership style and perceived productivity levels among nurses. The impact of leadership styles on organizational performance and productivity suggests that effective team leadership fosters a favorable work environment where synergy is achieved.

In conclusion, this study provides new evidence consistent with the path-goal leadership theory House and Mitchell [56], showing that managers adopt different leadership styles depending on the circumstances.

Velu et al. [93] also demonstrated that different styles are needed for different situations, and leaders must know when to apply a particular approach. Leadership is a dynamic process involving interaction between leaders and followers, where the leader seeks to influence followers to achieve a common goal.

Balbuena and Perez [9] highlighted in their study that leadership styles significantly influence organizational performance and productivity, with a strong association between leader behavior and school productivity. This is explained by the complementary roles that task- and people-orientations play in the leadership process. The widespread acceptance of team leadership (high concern for production and people) as the best approach to improving organizational performance and productivity supports this.

By identifying and analyzing the styles used by managers, the research found that authoritarian and consultative styles were the least and most utilized, respectively. This suggests that managers believe in adopting a style that relates to employees to maintain and enhance organizational productivity. Team management creates a favorable work environment where synergy is achieved. A relationship-oriented management style fosters a correct relationship between managers and employees, motivating employees to focus more on their work. This finding is corroborated by the research of Balbuena and Perez [9], Mohammed [69], Akpoviroro et al. [3], and Asamani and Nab [5], who studied leadership styles in a medical center. Their results indicated that while various leadership styles are employed, none is dominant, as the average score for each category was below 20.

The results of this research also showed that, according to respondents, the authoritarian style has the greatest (negative) effect on productivity. This finding is consistent with Velu et al. [93], who found that authoritarian leadership styles negatively affect performance. However, in Asamani and Nab's [5] research, the effect of the authoritarian style was positive. These variations suggest that different managers and their styles can have different impacts depending on the organization and the perspectives of respondents. The consultative style emerged as the second most influential. This finding underscores the importance of consultative management in the studied organization, where its use by managers is notably significant. The style involves setting specific goals, timelines, and feedback, with leaders consulting team members before making decisions. This collaborative approach is supported by Ekowati et al. [35], whose research confirmed that consultative leadership enhances productivity and facilitates participation. Consultative leaders value their team's input, assuming that employees possess the skills and knowledge to perform well, even if the leader makes the final decision Yu et al. [100].

Another style found to influence productivity is the collaborative style. The research indicated that both the use and impact of this style are significant in the studied organization. This finding aligns with Akpoviroro and Bolarinwa's [3] research, which demonstrated that participative leadership has a positive and significant effect on productivity. Collaborative leadership is an effective tool for increasing employee productivity, as noted by Mohammed [69], whose findings suggest that involving employees in decision-making significantly boosts productivity. Analytical results confirm that organizations using a participative leadership style enhance worker motivation, leading to more productive work performance. These findings are further supported by Brown [23], who identified worker participation in decision-making as a key motivational activity that enhances employee morale and productivity.

The transformational management style was found to be more commonly used than consultative, collaborative, and authoritarian styles, though its effect on productivity change is less pronounced. Respondents indicated that the transformational style has a less positive impact on people. According to Avolio and Gibbons [6], the primary goal of transformational leadership is to motivate followers to lead, with leaders challenging followers to think creatively and independently Bass and Avolio [11]. By

stimulating and empowering employees, transformational leaders encourage active engagement, leading to improved performance, as supported by the research of Den Hartog and Belschak [32] and Schmitt et al. [87]. Bakker's study [8] also showed that transformational leadership behaviors enhance work engagement and performance. The results of this research confirm the success of the transformational style in this context.

Based on the research findings, the relation-oriented style is the most applied but has the least effect on productivity in the studied organization. This result aligns with the research of Sfantou et al. [88], Fayyaz and Naheed [39], and Henkel [52], who found that a relationship-oriented style positively influences organizational performance and productivity. Similarly, Farley [38] noted that a relationship-oriented leadership style creates a more agile work environment, enabling members to act swiftly with the manager's trust.

Finally, leadership styles play a crucial role in determining quality measures in healthcare. According to the theoretical foundations, indicators, and statistical analysis of the research findings, both thinking and leadership styles influence organizational productivity. The studies suggest that there is no single best leadership style; managers should adapt their leadership behaviors to meet the needs of their members and specific environments.

## 8. Limitation of the Study

Some limitations were observed in this study. First, this study included a limited number of respondents from different sections of the hospital. This small sample size may affect the generalizability of the results to all employees and their leaders and their productivity. Second, the proxy variables used to model the relationships between leadership styles and organizational productivity were few and showed statistical collinearity characteristics.

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