# The Impact of Lean Leadership on the Creative Work Behavior: Perceived Organizational Support as the Moderator variable. An analytical study in the Iraqi health sector.

Rafid Hameed Al-hadrawi<sup>1</sup>, Mohammed Hamza Al-Abedi<sup>2</sup>

Abstract: The present study aims to test the effect of lean leadership (LL) on the creative work behavior (CWB) of employees through the moderating role of perceived organizational support (POS). The two researchers adopted the descriptive analytical approach to obtain and analyze data. The Iraqi health sector represented a field for the applied side of the study as the medical city of Imam Hussein in the Holy province of Karbala represented the research community, from which a random sample of medical and nursing staffs was selected; (302) employees. The two researchers used the modeling of the structural equation SEM in building the research model and testing its hypotheses. The results showed that lean leadership has a positive moral effect on creative work behavior. There is also a positive effect of perceived organizational support on creative work behavior. In addition to that, the results proved a positive contribution of the interactive variable, the perceived organizational support in the relationship between lean leadership and creative work behavior and increased the power of influence between them at the current level of research. Therefore, lean leadership has an important and effective role in finding and creating enhanced opportunities for creative behavior for medical and nursing staff on the one hand and Reducing the costs of providing service and health care on the other, through the interactive impact of perceived organizational support by assigning and assisting individuals in order to achieve and enhance thinking outside the box and unconventional behavior in their performance and encouraging them to distinguish as individuals or groups to improve the service and health care provided The lowest possible costs.

Keywords: Lean Leadership', Creative Work Behavior, Perceived Organizational Support, Structural Equation Model SEM.

#### INTRODUCTION

Organizations in their various sectors today operate in a dynamic environment that is greatly affected by changes and developments of technology and other fields which requires them to interact positively with these changes by finding and creating creativity in various areas of their activities of products and services. Many studies emphasized the importance of creativity and the need to create it in the behavior and orientations of workers (Shafi et al, 2020: 1). Employee creativity is the motive of change that provides an opportunity for organizations to create the future (Moghimi, &Subramaniam, 2013: 2). Because of the rapidly changing economy and the continuing globalization of business, employee creativity, which indicates the development of new and useful ideas about products, practices, services, or procedures, has become an increasingly crucial factor for organizations' survival and competitiveness (Sharifirad, M. S., 2016: 200). The health care sector is not different from other sectors. It is characterized by the need for change and continuous renewal in providing services and health care. Therefore, the two researchers believe that many organizations are constantly looking for different ways to find and encourage creative behavior among their members and to identify the factors that exist and enhance or prevent creative behavior within the organization. Leadership is one of the important factors that affect the behavior and creativity of working individuals (Shafi et al, 2020: 1), (Hughes et al, 2018). Several studies have shown that leadership is a key indicator of creativity and innovation among employees, team, and organization (Hughes et al, 2018: 549). Providing

<sup>&</sup>lt;sup>1</sup> 1,2 College of Administration and Economics, Dept. of Business Administration, University of Kufa-Iraq Corresponding author's E-mail: Rafidh.alhadrawi@uokufa.edu.iq

ISSN: 1475-7192

health care services is generally costly (Squires, D., 2012: 6 Monaco & Phelps, 1995: 248;). Therefore, it has become imperative to find leaders in health institutions that exist and encourage creative behavior in their employees on the one hand and work to streamline the costs of providing services and health care with continuous improvement on the other. Lean leadership is so close to this concept. Lean leadership is about accomplishing the right things to increase revenues by satisfying customers and reducing costs by eliminating all activities that do not add value to the product or service (Ballé, Michael, 2013: 2). Although the concept of lean was defined in the automotive industry, but the concept is no longer Limited to this type of industry. It is widely applied in various other industrial sectors including service and health. This concept is often described as an integrated socio-technical system whose main objective is to dispose of waste and reduce operational costs (Poksinska, B. et al, 2006: 2). So, it can be said that the missing link between mere waste reduction and graceful regulation that is constantly improving can be lean leadership (Dombrowski, &Mielke, 2014: 565). Healthcare institutions are ideal environments in which the benefits of leanness are reaped(Fine, B et al, 2009: 27). Lean leadership shows that the business model is the model that the company works on to achieve individual competitive advantage, which leads to advancing ideas in the absence of continuous improvement. In order to move forward and consider superior development strategies, there must be innovation and renewal of individual performance (Iyer R., 2017: 35).

But, although leadership and creativity of employees has received great attention from many researchers in the past, the two researchers have not observed studies that address lean leadership in its dimensions and its impact on behavior, creative work of individuals in health institutions, or the nature of this relationship. The present study is an attempt to shed light on lean leadership in health institutions and investigate their association with the creative behavior of individuals and the nature of their relationship in light of the concept of perceived organizational support. Organizations and directing their higher management can have an important role in relation to enhancing the creative behavior of their individuals on the one hand and finding leadership patterns that are appropriate with that on the other. This is achieved through the concept of perceived organizational support. Forms of organizational support can help and encourage employees to be self-directed and self-managing. Thus, it enhances their entrepreneurial spirit (Kanten&Ulker, 2012: 1016). So, employee creativity can be considered An important result of perceived organizational support. It is important to encourage management practices that include this (Akgunduz, et al, 2018; 106; Nazir et al, 2019). Therefore, the perceived organizational support involves The core of an interactive variable. It is necessary to check other variables to predict the creative behavior of individuals to form a strong relationship with the results of lean leadership. *The present study deals specifically with the following research questions:* 

What is the relationship between lean leadership and creative work behavior?

What is the relationship between perceived organizational support and creative work behavior?

Is there any relationship between perceived organizational support, lean leadership and creative work behavior?

This study also adds to the literature through testing the relationship of lean leadership and creative work behavior and testing the relationship between perceived organizational support and creative work behavior. In addition, the present study is expected to add to the literature through testing the interactive impact of perceived organizational support in the relationship between lean leadership and creative work behavior in the context of health care institutions as health care institutions face many issues such as meeting The increasing demand for various health services and care that is characterized by renewal and continuous development in order to meet the diverse needs and requirements of society. Creativity is almost limited in health institutions due to the lack of serious interest in this aspect and the adoption of routine work mechanisms. Therefore, institutions that are interested in providing services need And health care to leaders who have sufficient qualifications and capabilities to deal with various health requirements and needs and keep pace with global challenges, which are characterized by high costs in light of severe economic recession. This leadership must be accompanied by organizational support recognized by senior departments in health institutions that increases the prediction of the positive impact of leadership towards creating and enhancing the creative behavior of its employees. That is why the focus of this study is on institutions that provide health and medical services and care.

# 2. Theoretical Framework And Hypotheses Development

# 2.1. Lean Leadership' (LL) style.

Over the years, the word lean has become a buzzword. It started with industrialization in the late eighties of the last century. But, now, it is almost everywhere. Examples are; lean services, lean entrepreneurship, lean thinking, and other examples. But, the basic concept is the same as maximizing the value of The customer with the minimum loss; surplus; manufacturing, which means providing more with less (Alefari, M et al, 2017: 756). This concept is often described as an integrated socio-technical system whose main objective is waste disposal and reduction of operational costs (Poksinska, B.

ISSN: 1475-7192

et al, 2006: 2). In order to successfully implement leanness, a profound cultural transformation is necessary, because merely applying leanness tools will not suffice, so it requires changing the culture in the organization. Leadership has a major role in achieving this (Bäckström, &Ingelsson, 2016: 125). Lean leadership is also the missing link between lean orientation tools and lean thinking as 80% of successful lean transformation is achieved by changing the behavior of leaders mental practices (Ashtiani). et al, 2017: 10). The institutions that offer a Healthcare and medical services are costly (Monaco & Phelps, 1995: 248; Squires, D., 2012: 6). So, it is an ideal environment in which the benefits of leanness are reaped. To understand the reason, managers of health institutions must first accept that the surplus equals opportunity; The more waste repeated steps, re-work, and movement exist in a process, the opportunity increases to convert that waste into value of activities or providing services, improving the quality and removing the waste from the stock". This leads to the release of capital for investment in a another place (Fine, B et al, 2009: 27). It is sometimes argued that leadership plays a key role in providing a context in which creative performance can be stimulated, among other things indicating that leaders must be supportive of participants (not control) in order to facilitate creativity (Tummers&Kruyen, 2014: 4). Lean leadership includes six dimensions (Al-Saeedi& Al-Hakim, 2017: 122- 129; Ljungblom, 2012):

- 1. Humility; A leader's awareness of oneself away from arrogance, which is manifested through simplicity and softness in dealing with employees, and the constant desire to achieve the best as a result of recognition of limitations.
- 2. Calmness; Calmness is the leader's sense of comfort and tranquility, which governs attitudes and behavior to deal with organizational challenges, even with obstacles and pressures at work as it helps to increase awareness and focus to solve problems by eliminating tension and confusion.
- 3. Wisdom; Wisdom is the leader's ability to put things into place based on solid facts and logical reasoning to achieve objectives under fluctuating environmental conditions, which require cognitive accumulation of life and organizational experiences and their various aspects.
- 4. Patience; The leader's ability to control continuing the work, exert efforts and perseverance to achieve the objectives, and deal with various challenges in work without complaining or despair in light of the difficult working conditions.
- 5. Objectivity; Objectivity is the leader's decisions, judgments, and rational dealing with different situations away from emotions, prejudices, and personal feelings.
- 6. Trust; It is the leader's awareness of capabilities and qualifications to achieve objectives and subordinates 'capabilities and their contribution to achieving those objectives. Lean leadership is based on more than one theory, including:
- 1. Path-Goal Leadership Theory; Based on this theory, leadership behaviors can be a source of influence and change of attitudes, motivation, individual and subordinate behavior (Farhan, B. Y., 2018: 17).
- 2. Leadership-Membership Exchange Theory; It relates to emotional support and the exchange of valuable resources between a leader and followers (Ballinger et al, 2010: 26).
- 3. Planned Behavior Theory; It indicates that the relationship between intentions and behavior indicates that people are likely to perform the behaviors they intend to do (Mclaughlin& Stephens, 2019: 4).

The leaders in organizations are trying to exert great pressure to find ways to increase creativity in their organizations. Due to the increasing globalization, competition, and technological change, they have different ways to influence individuals towards creating and promoting creativity in their organizations (Tummers&Kruyen, 2014: 4).

## 2.2. Effects Of Lean Leadership's (LL) On Creative Work Behavior (CWB)

Creativity is the essential component of every company or organization that helps it in being able to compete and survive in the market (Shafi et al, 2020: 1). Creativity is often presented as an imperative for the success of the organization and survival in the long run. Individuals are the subject of increasing attention by researchers (Çekmecelioğlu, et al, 2011: 890). Creativity refers to the implementation of creative ideas in the organizational context. Creativity is the development of ideas related to practices, procedures, products, and services (Çekmecelioğlu, et al, 2011: 890). Creativity is the production of new and useful ideas in all areas (Amabile, et al, 1996: 1154). Creative behaviors are simply that Intentional behaviors focused on generating new ideas. It is created as part of a process focused on creative outcomes and influenced by group and organizational characteristics. It may arise in response to the challenge of working and being open to new ideas and experiential thinking. Creative behaviors come from employees as well as their managers. The behavior of leaders has been identified as a trait that directly affects employee creativity (Stanley, T., 2016: 14). In this study, the two researchers define it as the unconventional behavior of the individual or group resulting from mental and intellectual processes that help to discover and solve problems or lead to improving or creating a new performance, service, or product consistent with the capabilities and objectives of the organization." The economic transformations have become dominated by the services

ISSN: 1475-7192

sector, which dominates all other sectors. A service revolution includes the health care services sector, which imposes new competition rules, new organizational methods, and new obligations. In the knowledge economy, ingenuity, dynamism, innovation, and technology are essential tools. An innovative and dynamic healthcare service strategy can help companies survive in the services revolution to be able to provide an effective response to health threats, help prevent disease, and increase collaboration between health care systems to adapt to key aspects of health care (Purcărea, et al, 2008: 198- 205). Creativity has become a subject of ever-increasing interest in enterprise managers. Hence, a greater understanding of the dynamics between the personal and the contextual factors responsible for creative performance in the work environment is required. There is a particular need to define the leadership role in creativity (Tierney et al, 1999: 591). Many studies have also found that there are positive relationships between supportive leadership behavior and employee creativity (Kahai et al, 2003; Unsworth, et al, 2005: 7; Tummers&Kruyen, 2014: 4). So, leadership is one of the factors affecting the behavior and creativity of working individuals (Shafi et al, 2020: 1). Lean leadership has an important role in creating creativity (Balle, et al, 2015: 30). The following hypothesis has been proposed:

- 1. Lean Leadership's (LL) significantly affects Creative work behavior (CWB).
- 2.3. perceived organizational support (POS) effects on Creative work behavior (CWB).

The perceived organizational support was included in the administrative literature during the eighties, as it has received great attention in the field of research in the past two decades. One of the reasons behind this interest is that the perceived organizational support provides an explanation of the relationship between employees and the organization. Employees show superior performance when their expectations are met by institutions (Gurbuz, et al, 2013: 3) The two researchers define the perceived organizational support as the extent to which individuals perceive that the organization is interested in their contributions, performance, and accomplishments in various aspects of well-being and meets their social, psychological and functional needs with a view to Positive impact on their occupational behavior. Social Exchange Theory has been used to explain why subordinates are obligating their supervisors to perform in ways that exceed what is required of them in the formal work contract (Settoon et al., 1996: 220). Organizational support assists and encourages employees to be self-directed and self-managing, thus enhancing Their entrepreneurial spirit (Kanten&Ulker, 2012: 1016). Perceived organizational support can play a major role in enhancing employee creativity as they will be motivated to raise the level of organization performance and productivity (Ibrahim et al, 2016: 210). It has a positive impact on Individual behavior and promotes employee creativity. It was also found that employees declare that they will continue to work in their organizations as long as their organizations take care of their well-being and give them important executive tasks. This indicates that if the institutions meet the needs of employees, appreciate them, their contributions and pay attention to their interests, the employees will feel satisfied with the work, which in turn will benefit the organization. It increases awareness of organizational support. Organizational interest in the well-being of its members encourages employees to take initiative, which is an important factor in increasing personal creativity in institutions (Akgunduz, et al, 2018: 106). Three dimensions have been identified POS (Tian et al, 2018; Beheshtifar et al, 2012):

- 1. Organizational Fairness; It means the fair allocation of resources and dealing through respect and openness with employees as it is an indication of the organization's concerns regarding its employees. More equitable allocation and more respect for employees would enhance the employee's sense of justice and reinforce perceived support from the organization.
- 2. Superior support; It is the degree to which employees make impressions of their superiors about their well-being, appreciation of their contributions, and the extent to which they support them in general so it represents the relationship between the individual with the manager.
- 3. Reward and environment; This is the financial return such as salary, bonuses, rewards..etc.) Or moral; thanks, appreciation, respect, promotion, etc.) and an appropriate organizational environment; appropriate working conditions of ventilation, lighting, and amenities. Several studies have shown that POS has a positive role towards employee creativity (Nazir et al, 2019; Akhtar et al, 2019; Ming-Chu & Meng-Hsiu, 2015; Altunoğlu&Gürel, 2015; Ibrahim et al, 2016). So, the following hypothesis has been postulated:

Perceived organizational support (POS) significantly affects creative work behavior (CWB).

# 2.4. Moderating role of perceived organizational support (POS)

Perceived organizational support is the general belief that the organization cares about the contributions and welfare of its employees. In other words, employees feel safe in their organizations and use the support they receive. Higher POS has shown that it enhances employee creativity behaviors. (Akgunduz et al, 2018: 106; Eisenberger et al, 2016: 3). Therefore, organizations must recognize employees as valuable sources of human capital. Moreover, the appropriate leadership style within the framework of perceived organizational support can be a positive role in promoting creative behavior among

ISSN: 1475-7192

individuals (Altunoğlu&Gürel, 2015: 177; Weaver Jr, CP, 2015: 79). The supportive environment for creativity is a critical factor in organizational performance. Employees with high organizational support demonstrate greater creativity (Akgunduz et al, 2018: 105- 106). Creativity can only be achieved with the support of the organization (Ibrahim et al, 2016: 210). (Altunoğlu&Gürel, 2015) emphasized that the more POS might lead To perform well in terms of innovation in organizations. Effective leadership should be the objective of any organization that wishes to be efficient and competitive through the positive behavior of its employees (Weaver Jr, C. P., 2015). POS has an important role in enhancing employee creativity by motivating them to raise the level of organization performance and productivity (Ibrahim et al, 2016: 210). It increases the level of satisfaction as it reduces work turnover and thus increases the creativity of the organization and also enhances its competitive position (Akgunduz et al, 2018: 105). The two researchers' claim that there is no study that examined the interactive effect of POS on the relationship between LL and CWB. Consequently, the following hypothesis explores the palliative role of POS between lean leadership and creative work behavior;

Perceived Organizational Support Moderates The Lean Leadership's (LL) and affects Creative work behavior (CWB). The Relationship Between Lean Leadership's And Creative work behavior Increases When Perceived Organizational Support is High And Vice Versa.

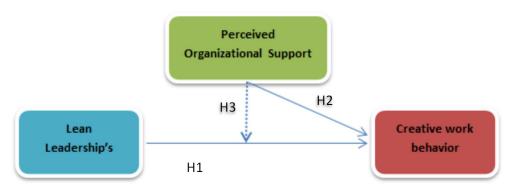


Fig. 1. The research models.

Note; Direct Effect, Interactive Effect.

# II. THE RESEARCH METHODOLOGY

# 3.1. The research context

The services and health care sector is one of the important sectors because it is directly related to human life and health. It also has a great economic significance as well. There is no doubt that all impact studies show the importance of the health sector in the economy of a region, country, or society (Doeksen et al., 1998: 67; Busseet et al., 2019: 7). Providing highquality health services is a global imperative for comprehensive health coverage. The importance of patient safety is emphasized, which is an essential component of quality care and is a global political commitment (Busseet et al., 2019: 3). So, the health services sector is witnessing great interest from government agencies. Countries in general are striving as much as possible to raise this important sector. They are at the top of the agenda of policy makers at the national, European, and international levels (Busseet et al., 2019: 3). The economic importance of the health sector can be demonstrated by the percentage of the total employment and Gross National Product-GNP associated with health activities (Doeksen et al, 1997: 1). The hospital can be one of the few economic entities that bring in money from abroad. It can have its investment in cash pumping operations in the local economy. Most of the communities are working hard on economic development to attract companies that produce an exportable commodity and bring in sales revenue. Services of hospitals are exported because they bring in money from abroad (Busseet et al., 2019: 7). Accordingly, the health sector is a major component of society's infrastructure. Moreover, attracting new companies to create jobs and economic growth can be very difficult without the provision of high-quality medical and health services (Doeksen et al, 1998: 66). Governments are encouraged to pursue more innovative business practices in the healthcare sector. Individuals are encouraged to participate in innovative processes. Focusing on creativity in health care arises in the context of a general interest in creativity within the context of contemporary culture (Brodzinski, & Munt, 2009: 277- 278). Creativity is concerned with dealing with daily challenges. Managers and employees can perform it to achieve the objectives of the organization (Al Shehri et al, 2013: 1857). The health sector in Karbala province was chosen for this study for the following reasons:

- 1. The health sector is witnessing a large and accelerated development in the provision of services and health care of all kinds although the level of service delivery in the country is still low. Therefore, there is a need to find and create creative behaviors among individuals in these institutions to keep pace with the developments witnessed in this important sector.
- 2. The costs resulting from providing services and health care to society is high in light of the lack of financial allocations. Therefore, there is a need for a leadership style capable of improving services and health care on the one hand and reducing costs on the other.
- 3. Studies dealing with lean leadership in health institutions are very few in general and in hospitals in particular. Moreover, no study was conducted showing the effect of perceived organizational support as an average in the effect of lean leadership on the behavior of creative work.

# 3.2. Sampling and data collection

The present study analyzes the correlation between lean leadership, Creative work behavior & Perceived Organizational Support from the viewpoint of Imam Hussein's Medical-City in Karbala. The data was collected from employees; Doctors and Nurses in Imam Hussein's Medical-City in Karbala- Iraq. The questionnaires were distributed among 480 employees; Doctors and Nurses. Therefore, SPSS v.21 was used to examine the 326 retrieved questionnaires. As a result of this, (24) questionnaires containing missing data were excluded. This case occurred as a result of the respondents not filling all the questionnaire items. After these questionnaires were excluded, The remaining questionnaires that are the subject to subsequent statistical analyzes reached (302) as shown in Table (1) and Table (2). It is found that most of males are 61 doctors and 240 nurses. Young employees are from (25-18) years. The majority are married. Bachelor's degree holders are the most. Years of experience; The largest number were participants whose period of experience ranged from (5-1) years. Before starting analysis, the two researchers analyzed the data to avoid any bias or invalid result.

Table (1). Description of respondents

Case	Percentage	Number
Distributed questionnaires	100	380
Non-refundable questionnaires	14	54
Returned questionnaires	86	326
Not fully filled questionnaires	7	24
Valid questionnaires	93	302

The Worker	Category	Participants	Participants percentage
Gender	Male	145	0.48
	Female	157	0.52
Tot	al	1	302
Social status	Married	206	0.682
	Single	93	0.308
	Others	3	0.1
Tot	al	302	1
Age	25-18	114	0.377
	33-26	87	0.288
	41-34	48	0.159
	49-42	33	0.109
	50 and More	20	0.067
Tot	al	302	1
Occupation	Physician	61	0.205
	Nurse	240	0.795
Tot	al	302	1
Education level	Ph.D	30	0.099
	Master	10	0.033

	High Diploma	18	0.06
	Bachelor	89	0.293
	Diploma	87	0.290
	High school	68	0.225
Total		302	1
	Less than one year	45	0.149
	5-1	98	0.325
Years of Experience	10-6	53	0.175
	15-11	34	0.113
	20-16	62	0.205
	21and More	10	0.033
Total		302	1

#### 3.3. Measurements

In this study, reliable and validated measurements were used. The medical and nursing staff survey questionnaire consists of three variables; Lean leadership (independent variable), creative work behavior (dependent variable), and perceived organizational support (interactive variable). (Ljungblom, 2012; Al-Hakim & Al-Saeedi, 2017) measures the lean leadership variable that has six dimensions: Humility, Calmness, Wisdom, Patience, and Objectivity. (Al-Daibat, 2016; Bin Trabeh and Rashid, 2018) scale was adopted to measure the variable of creative work behavior, which consists of seven dimensions: Fluency, Flexibility, Originality, Sensitivity to the problems, Risk and spirit of risk, risk taking, Changeability, and Communication capacity. (Tian et al, 2018; Beheshtifar et al, 2012) scale was adopted to measure the perceived organizational support variable, which consists of three dimensions: Organizational Fairness, Superior support, and Reward and environment. The five-Likert scale was adopted for all questionnaire items. 1 degree was given for each strongly disagree item. 5 degrees indicate strongly agree. Validity and reliability was verified and the data collected was evaluated using SPSS.25. To determine the factors and summarize the scale items, an Exploratory Factor Analysis (EFA) was applied. The data of Table (3); The Lean Leadership Variable Items (19) indicated that it is acceptable in terms of a sample size adequacy test (KMO) whose value was (0.951) which is higher than the approved range in this specific test (0.50) according to the opinion of the researcher Hair et al. (2010) This is confirmed by significant results (p <0.01) Bartlett's test shown in Table (3). The same procedure was followed for other constructs. As shown in Table (3), creative work behavior and perceived organizational support, the internal consistency was measured by Alpha Cronbach. The value of three constructs ranged from .937 to .967, all of which exceeded the cut-off value of 0.70 cut-off value recommended by Sekaran & Bougie (2010), which indicates excellent internal consistency of the questionnaire, as well as that all estimates of the test model for these three hypotheses came as reliable estimates with a significant level is (.001>) and are high estimates compared to the minimum levels allowed in this test Standardized Regression Weights which should be greater or equal (50 ≤SRW). In addition, the values of C.R. It is higher than the admission criterion of (1.96) as shown in Table (4). On the basis of these results, the mentioned hypotheses of correlation are accepted within the sample of (302) individuals. Table (3) Testing the adequacy of the sample size for the variables with the scale.

	Cronbach's alpha	KMO and Bart			
		Kaiser-Meyer-C of Sampling Ad	.951		
rship	.953	Fest of	Approx. Chi-Square	3903.914	
lean leadership		Bartlett's Test Sphericity	df	171	
lean		Bart Spho	Sig.	.000	
Creativ e Work Behavio r	Cronbach's alpha	KMO and Bart			
Cre e W Beh r	.967	Kaiser-Meyer-C	Kaiser-Meyer-Olkin Measure		

		of Sampling Ad	equacy.	
		Test of	Approx. Chi-Square	7389.194
		Bartlett's Sphericity	df	666
		Bar Sph	Sig.	.000
onal	Cronbach's alpha	KMO and Bart		
Organizational		Kaiser-Meyer-C of Sampling Ad	.931	
Ö	و ن ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا		Anneov	4136.230
	.937	Fest of	Approx. Chi-Square	4130.230
seived port	.937	lett's Test of cricity		210
Perceived Support	.937	Bartlett's Test of Sphericity	Chi-Square	

Table (4) Estimations of correlation hypothesis.

Path		Estimate	S.E.	C.R.	P	
LEL	<>	PEOS	.454	.052	6.065	***
PEOS	<>	CRWB	.449	.048	5.765	***
LEL	<>	CRWB	.359	.061	5.018	***

# III. RESULTS

## 4.1. Regression and structural equation modeling analysis

The direct impact hypothesis test.

The direct impact hypotheses in this study were the following two hypotheses:

First; Lean leadership has a positive and moral impact on creative work behavior.

Second: The perceived organizational support has a positive and moral impact on the creative work behavior.

In order to ensure the validity of these two hypotheses, the two researchers constructed a structural model that included the three research variables; Lean leadership, perceived organizational support, and creative work behavior. Figure (2) shows this model. Indicators of conformance quality parameters reached a RATIO of 2.018. It is less than 3. GFI, which is 0.923 that is greater than .90. RAMSE = 042 which is less than 50.0. In addition, the effect relationship factors were significant and positive for the two hypotheses. The impact factor for the first hypothesis reached (0.423) which states that lean leadership has a positive and significant effect on creative work behavior. This corresponds to the theoretical frameworks for the study of Usmani et al. (2019), Smith, A. (2016), Sotoudeh et al. (2015), Stanley, T., (2016), Shafi et al, (2020). The coefficient of influence for the second hypothesis was (0.478), which stipulated the presence of a positive and significant effect of perceived organizational support in creative work behavior. This also corresponds to the theoretical frameworks for the study of (Kanten&Ulker, (2012, Ibrahim et al.) 2016). ), Akgunduz, et al. (2018). In addition, the value of the explanation coefficient of the model was (593; (59.3%) of the changes that occur in the dependent variable; creative work behavior depends on lean leadership and perceived organizational support. The remainder of the changes that occur in the dependent variable; the creative work behavior which was (40.7%). Moreover, all estimates of this model appearing in Table (5) were reliable estimates with a significant level of (.01>> (.1t is a high estimate compared to the minimum allowed in this Standardized Regression Weights test that should be greater than or equal to (50 ≤SRW). Moreover, CR values are

higher than the accepted criterion of (1.96). Based on these results, the Hypotheses of direct impact within the sample of (302) individuals.

Figure (2) Direct Impact hypothesis testing model.

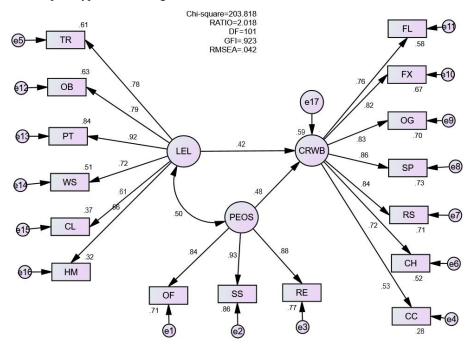


Table (5) Model Estimates for Direct Impact Hypotheses.

Path			Estimate	S.E.	C.R.	P
CRWB	<	LEL	.422	.057	3.951	***
CRWB	<	PEOS	.481	.067	3.833	***
НМ	<	LEL	.562	.107	9.750	***
CL	<	LEL	.608	.112	6.827	***
WS	<	LEL	.716	.069	12.933	***
PT	<	LEL	.918	.079	16.945	***
ОВ	<	LEL	.791	.092	14.616	***
TR	<	LEL	.778	.074	10.877	***
RE	<	PEOS	.879	.060	19.126	***
SS	<	PEOS	.930	.064	20.664	***
OF	<	PEOS	.843	.062	15.453	***
FX	<	CRWB	.821	.078	15.179	***

OG	<	CRWB	.834	.069	15.148	***
SP	<	CRWB	.857	.072	15.303	***
RS	<	CRWB	.842	.081	15.016	***
СН	<	CRWB	.723	.093	12.812	***
СС	<	CRWB	.528	.114	8.232	***
FL	<	CRWB	.759	.098	6.760	***

# Third; the interactive effect hypothesis test

In order to verify the hypothesis of the interactive effect that represents the actual addition to the present study, which states that perceived organizational support influences the interactive effect on the relationship between lean leadership and creative work behavior, the two researchers formed a structural model illustrated in Figure 3. It has achieved conformance quality indicators as the parameters of these indicators reached a RATIO of 2.205), which is less than 3. GFI = 0.924 which is greater than .90. RAMSE = 046 which is less than 50.0). In addition, the relationship coefficients for the Interaction Variable contained in Table 6 are significant and positive estimates.

In addition, the value of the explanation coefficient of the interactive model was (.76; (76%) of the changes that occur in the model. The results in table (7) indicate that all estimates of the interactive model are reliable estimates with a significant level of (.001) which is > than (p which are high estimates compared to the minimum allowed in this Standardized Regression Weights test that should be greater or equal ( $50 \le SRW$ ). Moreover, CR values are higher than the accepted criterion of (1.96). Based on these results, the hypothesis of interactive influence, which indicates that perceived organizational support improves the relationship between lean leadership and creative work behavior and increases the power of influence between them is accepted.

Figure 3: Interactive Impact Test model for perceived organizational support

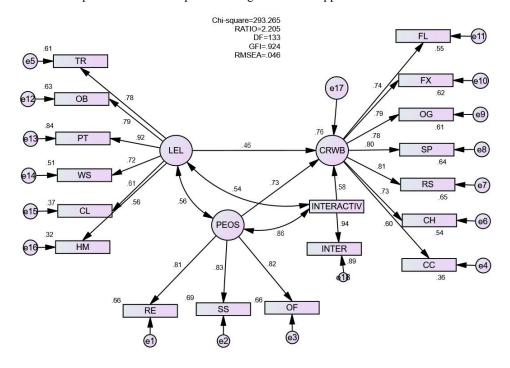


Table (7) Estimates of correlations with the interactive variable

Pathe		Pathe Estimate		S.E.	C.R.	P
LEL	<>	PEOS	.559	.033	7.014	***
PEOS	<>	INTERACTIV	.863	.215	10.922	***
LEL	<>	INTERACTIV	.538	.192	7.419	***

Table (7) Estimates of the model for the interactive effect hypothesis

Path	) Listii	nates of the model	Estimate	S.E.	C.R.	P
CRWB	<	INTERACTIV	.577	.054	10.230	***
CRWB	<	LEL	.458	.062	7.320	***
INTER	<	INTERACTIV	.861	.082	10.445	***
CRWB	<	PEOS	.727	.154	4.577	***
НМ	<	LEL	.562	.107	9.753	***
CL	<	LEL	.608	.112	6.825	***
WS	<	LEL	.716	.069	12.937	***
PT	<	LEL	.918	.079	16.959	***
OB	<	LEL	.792	.092	14.625	***
TR	<	LEL	.779	.086	13.325	***
OF	<	PEOS	.815	.050	18.097	***
SS	<	PEOS	.833	.061	18.484	***
RE	<	PEOS	.814	.084	11.434	***
FX	<	CRWB	.786	.073	15.398	***
OG	<	CRWB	.781	.064	15.245	***
SP	<	CRWB	.801	.065	15.652	***
RS	<	CRWB	.805	.073	15.728	***
СН	<	CRWB	.733	.085	14.208	***
CC	<	CRWB	.600	.106	11.116	***
FL	<	CRWB	.739	.096	8.341	***

# IV. DISCUSSION AND IMPLICATIONS OF THE PRESENT STUDY

The results of the present study indicate that lean leadership has a major impact on creative work behavior. Some previous studies also examined the relevant relationship, for example, the study of Sotoudeh et al. (2014) showed a significant leadership dimension (one dimension of the cybernetic management model) and employee creativity. Usmani et al. (2019) shows that the correct implementation of leadership behaviors leads to improved lean system success and high performance

ISSN: 1475-7192

sustainability as Smith, A. (2016) showed that there is an urgent need to increase competitiveness and find efficiencies and that lean promises to improve Quality and capacity while containing and reducing costs. Thus, it provides a competitive advantage. However, a shift to grace is not possible without appropriate lean leadership practices. In a study by Shafi et al, (2020) the results showed that it is possible through transformational leadership to enhance employee creativity through the interactive impact of self-motivated. Perceived organizational support according to Social Exchange Theory generates a positive motivation that corresponds to the support received by the employee. Therefore, through perceived organizational support, creativity can be created for individuals. Leaders should pay more attention to motivate employees and encourage them to come up with new ideas and use innovative ways to solve problems and reward achievements and help them become more creative. The results of the present study indicate that medical and nursing staff depend on leadership to motivate them to perform creatively. Creative employees are the golden key and the backbone that helps in maintaining the competitive advantage. L leadership helps institutions in encouraging employees and motivating them to show creative behavior in job performance. In addition, this study is the first experimental study in a health institution that demonstrates a positive interactive relationship for perceived organizational support in the relationship between lean leadership and creative work behavior. Consequently, the importance of lean leadership is evident in two important aspects. The first is to reduce the costs of providing services and health care, which are very expensive (Monaco & Phelps, 1995: 248; Squires, D., 2012: 6; Peter V., 2012: 34). The second aspect is that it Promotes and creates creative behavior to follow towards achieving the objectives of the organization. The present study attempted to enrich the current intellectual framework by demonstrating the modified interactive role of perceived organizational support between lean leadership and creative work behavior in a medical institution; Imam Hussein's Medical-City. The main contribution of this study is to analyze this relationship with a more in-depth study of each of the lean leadership, and to demonstrate the interactive role of perceived organizational support. According to the researchers 'knowledge, previous studies have not dealt with such issue before. Health institutions have a very great importance that stems from two things: it relates to human life and health directly. The development of these institutions and the improvement of their performance through the excellence and creativity of their human resources is an urgent necessity, especially in Iraq. The present study indicates that leaders must have enough knowledge, information, and skills required regarding the effect of leadership styles on creative behavior to follow towards improving organizational performance. It is suggested that the higher departments adopt the lean leadership style because it is an appropriate way to reduce the costs of providing services and health care, as well as to develop and enhance employee creativity.

# V. CONCLUSIONS

In light of the rapidly changing environment and the urgent need to provide health care services with high quality, the adoption of lean leadership practices; humility, calmness, wisdom, patience, objectivity, and trust for leaders of health organizations is imperative because it enables them to do the following:

# First; To think positively and provide them More time

Second; The costs resulting from the provision of services and health care in light of the lack of financial allocations is high. Third; The trend of lean leadership is towards continuous improvement and development in the field of services and products.

Attention to the creative work behaviors in the Iraqi health sector organizations will give these organizations more community confidence in them and enable them to provide services in innovative ways that positively reflect on the quality of service and the satisfaction and happiness of the beneficiaries.

The present study concludes that the lean leadership practices in the health sector have positive contributions in enhancing the creative work behaviors of employees. The organizational support provided by the researched organization increases the ability and confidence of employees to accomplish the tasks assigned to them in different creative ways and enhances confidence in them. It encourages them to work hard and provide high levels of performance in new ways.

The perceived organizational support has a positive interactive role in the relationship between lean leadership and creative work behaviors as it increases the power of influence between the two variables and strengthens, entrenches, and develops creative work behaviors among workers in the organization and encourages them to provide better. They have different levels of performance in different non-traditional ways. Perceived organizational support is a key factor in promoting and encouraging creativity among employees. Leaders and higher departments should give more attention to this variable.

# VI. LIMITATION AND FUTURE RESEARCH

The present study provided some useful ideas about the modified (interactive) role of perceived organizational support in promoting and achieving creative work behavior. But, the prospects for future studies are still present, in adopting and investigating other psychological, social and organizational factors that could affect negatively or positively on the behavior

ISSN: 1475-7192

of the creativity of employees in general and health personnel in particular. Taking samples from Imam Hussein's Medical City limits the generalization of the results to some extent as a result of the different cultural environments of other institutions. To generalize the results of this study, it is suggested to take a form or A sample that is environmentally and culturally different. The scope of the study has expanded. Emphasis has been placed on one variable; perceived organizational support as an interactive influence on the relationship between lean leadership and creative work behavior. However, future studies can consider other modified variables that can lead to building strong relationships between lean leadership and creative work behavior.

#### REFERENCES

Al-Hakim, L., & Al-Saeedi, J.,(2017), "Lean Leadership behavior and its Impact on The Relationship Between Organizational Cybernetics and Job Rotation to Develop Postmodern Employees" Submitted to The Council of the Faculty of Administration and Economics/ University of Kufa In Partial Fulfillment of the Requirements for the Degree of Master of Science in Business Administration

- 1. Akgunduz, Y., Alkan, C., &Gök, Ö. A. (2018). "Perceived organizational support, employee creativity and proactive personality: The mediating effect of meaning of work". Journal of Hospitality and Tourism Management, 34, 105-114.
- 2. Akturan, A., &Çekmecelioğlu, H. G. (2016). "The effects of knowledge sharing and organizational citizenship behaviors on creative behaviors in educational institutions". Procedia-Social and Behavioral Sciences, 235, 342-350.
- 3. Al Shehri, O. A. M., AlHarthi, A. S., & Al-Khatib, A. J. (2013). Patterns of creativity trends among health managers in health sector of Saudi Arabia, Riyadh region. *European Scientific Journal*, 99 (6):1857-7881.
- 4. Altunoğlu, A. E., &Gürel, E. B. B. (2015). "Effects of leader-member exchange and perceived organizational support on organizational innovation: The case of DenizliTechnopark". Procedia-Social and Behavioral Sciences, 207, 175-181
- 5. Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). "Assessing the work environment for creativity". Academy of management journal, 39(5), 1154-1184.
- 6. Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). "Assessing the work environment for creativity", Academy of management journal, 39(5), 1154-1184.
- 7. Balle, M., Jones, D. A. N. I. E. L., &Orzen, M. (2015). True lean leadership at all levels. Industrial Management, 57(1), 26-30.
- 8. Ballé, M. 2013). "Lean Leadership & People Development", Excellence Systems Group.
- 9. Beheshtifar, M., Ali-Nezhad, H., &Nekoie-Moghadam, M. (2012). "*Investigation of perceived organizational support on employees' positive attitudes toward work*". Interdisciplinary journal of contemporary research in business, 4(8), 432-442.
- 10. Bin Tarbah, Al Manasiriya, & Rashid.,(2018), "The effect of administrative empowerment on creative behavior among workers. A field study at Algeria Telecom", practical directorate for the communication of Ouargla, Doctoral dissertation.
- 11. Brodzinski, E., & Munt, D. (2009). Examining creativity in health and care.
- 12. Busse, R., Klazinga, N., Panteli, D., & Quentin, W. (2019). Improving healthcare quality in Europe.book
- 13. Doeksen, G. A., Johnson, T. G., & Willoughby, C. (1997). *Measuring the economic importance of the health sector on a local economy: A brief literature review and procedures to measure local impacts*. Starkville, MS: Southern Rural Development Center.
- 14. Doeksen, G. A., Johnson, T., Biard-Holmes, D., & Schott, V. (1998). A healthy health sector is crucial for community economic development. The Journal of Rural Health, 14(1), 66-72.
- 15. Dombrowski, U., &Mielke, T. (2014). "Lean leadership–15 rules for a sustainable lean implementation". Procedia CIRP, 17, 565-570.
- 16. Eisenberger, R., Malone, G. P., &Presson, W. D. (2016). "Optimizing perceived organizational support to enhance employee engagement". Society for Human Resource Management and Society for Industrial and Organizational Psychology, 2-22.
- 17. Fine, B. A., Golden, B., Hannam, R., &Morra, D. (2009). "Leading lean: a Canadian healthcare leader's guide". Healthcare Quarterly, 12(3), 32-41.
- 18. Hair, Jr. J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). "Multivariate data analysis: A global perspective". London: Pearson.
- 19. Hughes, D. J., Lee, A., Tian, A. W., Newman, A., &Legood, A. (2018). "Leadership, creativity, and innovation: A critical review and practical recommendations". The Leadership Quarterly, 29(5), 549-569.

- Ibrahim, H. I., Isa, A., &Shahbudin, A. S. M. (2016). "Organizational support and creativity: The role of developmental experiences as a moderator". Procedia Economics and Finance, 35, 509-514.
- 21. Ibrahim, H. I., Isa, A., &Shahbudin, A. S. M. (2016). "Organizational support and creativity: The role of developmental experiences as a moderator". Procedia Economics and Finance, 35, 509-514.
- 22. Kahai, S. S., Sosik, J. J., & Avolio, B. J. (2003). "Effects of leadership style, anonymity, and rewards on creativity-relevant processes and outcomes in an electronic meeting system context". The Leadership Quarterly, 14(4-5), 499-524.
- 23. Kanten, P., &Ulker, F. E. (2012). "A relational approach among perceived organizational support, proactive personality and voice behavior". Procedia-Social and Behavioral Sciences, 62, 1016-1022.
- 24. Kanten, P., &Ulker, F. E. (2012). "A relational approach among perceived organizational support, proactive personality and voice behavior". Procedia-Social and Behavioral Sciences, 62, 1016-1022.
- 25. Moghimi, S., &Subramaniam, I. D. (2013). "Employees' creative behavior: The role of organizational climate in Malaysian SMEs". International Journal of Business and Management, 8(5), 1.
- 26. Monaco, R. M., & Phelps, J. H. (1995). "Health care prices, the federal budget, and economic growth". Health Affairs, 14(2), 248-259.
- 27. Nadhir, S., Shafi, A., Atif, M. M., Qun, W., & Abdullah, S. M. (2019). "How organization justice and perceived organizational support facilitate employees' innovative behavior at work". Employee Relations: The International Journal.
- 28. Peter Valenzuela MD, M. B. A. (2012). Applying creativity to health care: learning from innovative companies. *Physician executive*, 38(5), 34.
- 29. Purcărea, L. V., Raţiu, M., &Purcărea, T. (2008). "Offering memorable patient experience through creative, dynamic marketing strategy". Journal of medicine and life, 1(2), 198-210.
- Sekaran, U., &Bougie, R. (2010). Research methods for business: A skill building approach (5th ed.). UK: John Wiley & Sons.
- 31. Shafi, M., Lei, Z., Song, X., & Sarker, M. N. I. (2020). "The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation". Asia Pacific Management Review.
- 32. Sharifirad, M. S. (2016). "Can incivility impair team's creative performance through paralyzing employee's knowledge sharing? A multi-level approach". Leadership & organization development journal.
- 33. Smith, A. (2016). "The impact of lean leadership on lean transformation in South Africa", (Doctoral dissertation, University of Pretoria).
- 34. Sotoudeh, S., Soleimani, M. & Bahar, G. S. (2014). "Determining The Relation Between Cybernetic Management Model And Employees' Creativity Hamadan's Youth And Sports Organizations", Indian Journal of Fundamental and Applied Life Sciences. Vol. 5 (S4), pp. 447-457.
- 35. Squires, D. A. (2012). "Explaining high health care spending in the United States: an international comparison of supply, utilization, prices, and quality". Issue brief (Commonwealth Fund), 10, 1-14.
- 36. Stanley, T. (2016). "Work environments, creative behaviours, and employee engagement" (Doctoral dissertation, Queensland University of Technology).
- 37. Tian, G., Cai, H., & Jiang, Y. (2018). "A Study of the Effects of Organizational Support on Organizational Learning based on Knowledge Management". Eurasia Journal Mathematics, Science Technology Education, 14(5), 1979-1986.
- 38. Tierney, P., Farmer, S. M., &Graen, G. B. (1999). "An examination of leadership and employee creativity: The relevance of traits and relationships". Personnel psychology, 52(3), 591-620.
- 39. Tummers, L., &Kruyen, P. (2014). "The influence of leadership on creativity: A systematic review of experimental studies".
- 40. Unsworth, K. L., Wall, T. D., & Carter, A. (2005). "Creative requirement: A neglected construct in the study of employee creativity?". Group & Organization Management, 30(5), 541-560.
- 41. Usmani, M., Sami, A., Baig, S. A., &Irfan, A. (2019). "The Chronological studies of lean and leadership for improvement of organizational performance". Journal of Public Value and Administration Insights, 2(2), 15-19.
- 42. Weaver Jr, C. P. (2015). "Perceived organizational support and job overload as moderators on the relationship between leadership effectiveness and job satisfaction". Emerging Leadership Journeys, 8(1), 79-100.