

**ICLTIBM 2019****9<sup>th</sup> International Conference on Leadership, Technology, Innovation and Business  
Management: Leadership, Innovation, Media and Communication****THE RELATIONSHIP BETWEEN LEADERSHIP STYLES AND  
INNOVATION- CASE STUDY USING SEM**

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**Abstract**

The main objective of this study is to determine the relationship between leadership styles and innovation. For the employees of the National Electricity and Gas Distribution Company. The study included 104 questionnaires collected from the employees of the National Electricity and Gas Distribution Company in BECHAR. Data were analyzed using SPSS and AMOS. Which is used in modeling structural equations (SEM). After the questionnaires were adopted, the following conclusions were reached: There is no statistically significant relationship between autocratic style and innovation, there is statistically significant relationship between democratic style and innovation, there is statistically significant between relationship The Laissez-faire leadership style and innovation The study also concluded with a set of recommendations the most important of them: Instilling in individuals a sense of belonging to create and develop innovation and creativity, promoting democratic style and Laissez-faire leadership style because of their positive results on innovation, Holding seminars and workshops discussing leadership styles, and what is attributed to each style of advantages and disadvantages.

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*Keywords:* Leadership styles, autocratic style, democratic style, laissez-faire leadership style, innovation



## 1. Introduction

The accelerating trend of globalization and the changing technology have many companies positively promote innovation or individual creativity (Wu & Lin, 2018). It is worth mentioning that there are various factors in employees' innovation or creativity, and leadership might be the most influential factor in employee creativity. In particular, leadership's role in promoting innovation has been the subject of study over the past decade. Leadership is one of the popular subjects that are currently receiving attention in terms of research, theory, and practice. There are many strong indications that leadership is important for managing innovation (Denti & Hemlin, 2012). Somech (2006) believes that "it is corporate leaders who promote or prevent innovation management in the organization" (p. 135). The failure of innovation projects is probably due to ineffective leadership skills (Łukowski, 2017, p. 106). Through this paper we try to clarify the relationship between leadership styles and innovation.

Hypotheses of Research:

H1: There is a significant relationship between the Autocratic leadership style and innovation in the National Gas Electricity Distribution Company.

H2: There is a significant relationship between the democratic leadership style and innovation in the National Gas Electricity Distribution Company.

H3: There is a significant relationship between the Laissez-faire leadership style and innovation in the National Gas Electricity Distribution Company.

## 2. Literature Review

### 2.1. The Concept Of Leadership

According to Rost (1993), there are approximately 220 definitions of leadership concept, Wart (2003) argues that there are limitations to conducting scientific leadership research because it is difficult to find appropriate definitions of managerial leadership. So creating a defining leadership framework is a difficult task. In order to develop an understanding of the concept of leadership, we offer some definitions of leadership below:

According to Bass and Stogdill (1990), "in order to achieve organizational goals, leadership works to influence the attitudes and behaviors of individuals and the interaction within groups among themselves" (p. 21). Leadership is a process in which an individual influences a group of people in order to achieve a common goal (Northouse, 2018). Chemers (1997) defines leadership as "A process of social influence through which a person has the ability to help and support other people to reach a specific goal" (p. 3). The leadership style that leaders use to interact with their subordinates consists of a set of different characteristics, characteristics, and behaviors (p. 6). Wu and Lin (2018) defined leadership as the capability to affect a team achieving the objectives. Such an influential capability was perceived by people or teams.

According to Jackson and Parry (2011), leadership is the process of leaders using their skills and knowledge of a group of employees, to guide them in the direction that relates to the goals and objectives of the organization, Lee and Chuang (2009) believe that a superior leader meets secondary requirements in the process of achieving organizational goals, and not only inspires the potential of subordinates to enhance efficiency.

## **2.2. Leadership Styles**

### **2.2.1. Autocratic Style**

Autocratic leadership style is mission-oriented, more persuasive and efficiently manipulated to deliver a clear vision and vision of strategic goals (Clark et al., 2008). Followers of autocratic leaders are bore their time, awaiting the inevitable failure of this leadership and removing the next leader (Bass & Stogdill, 1990). The leader believes that humans are evil, weak, unwilling to work, unable to self-determination, and have limited causes. Therefore they must be directed, pushed and forced to work (Akor, 2014). The autocratic leaders are characterized by making vital decisions themselves (Dyczkowska & Dyczkowski, 2018). The autocratic leadership does not inculcate the learning mindset, which is necessary in proactive situations in order to motivate employees According to the experiences of Probst and Raisch (2005), autocratic leadership can make leaders have so much power that they can resort to negative impacts on an organization's performance. To enforce this, it will be implemented whether or not the minimum management agrees. Autocratic leadership also contributes to a low level of job satisfaction and confidence in the organization, because it limits the capabilities of other members to excel and discourages employee participation (Dalluay & Jalagat, 2016).

### **2.2.2. Democratic Style**

Democratic leaders often embrace a very collaborative, participatory and collaborative decision-making environment (Trinidad & Normore, 2005). In a democratic leadership style, employees are an important part of the decision-making process, so they are collaborative and participatory. The Democratic manager informs his staff of everything that affects their work and shares decision-making and problem-solving responsibilities (Khan et al., 2015). The Democratic Leader strives to be a regular member of the group spirit while doing a little work (Lippitt, 1960). Anderson (1959) defined the Democratic Leader “as the person who participates with other members in decision-making. He stressed that democratic leadership in most situations is related to the higher meaning. He denied the claim that democratic leadership is associated with low productivity and high morale and unlike autocratic leadership” (p. 204).

In democratic leadership, participation is an important and ideal feature of this leadership style. Therefore, participation is of a friendly, beneficial and encouraging nature (Choi, 2007). Collective and leadership participation in policy making is important in the style of democratic leadership. Access to organizational decisions of critical importance is related to the extent of strong communication between individuals and their consultation. Each member of the organization must be aware of the importance of

being in the decision-making process, this is one of the most important duties of a democratic leader (Dolly & Nonyelum, 2018).

### **2.2.3. Laissez-Faire Leadership Style**

According to the definition Luthans and Youssef (2007), laissez-faire style as “Abdicates responsibilities avoids making decision. In the authors viewpoint of the Laissez-Faire Leadership Style do not want their interference in decision making process. They usually allow their subordinates to have the power to make personal decisions about work. They are free to do work in their own way and they are also responsible for their decision. Normally Leaders avoids to making decision and they give subordinates complete freedom in the decision-making process, and they do not participate in working units (Chaudhry & Javed, 2012).

It maybe manifested in a lack of presence and/or being avoidant of intervention Laissez-faire leadership in lower perceived leader effectiveness (Wong & Giessner, 2018). Laissez-faire leaders They do nothing and this omission could have negative consequences for the institutions (VonBergen, 2012). Laissez-faire leaders who hide reinforcement (for example.), whether Intentional or unintentional, It may lead to negative impacts and consequences on the organization This finding is supported by research by Hinkin and Schriesheim (2008). An organization that does not have much staff in the long-term, this style does not suit them. In addition, it is not suitable for environments that need guidance, quick reactions and praise (Al Rahbi et al., 2017).

### **2.3. The Concept Of Innovation**

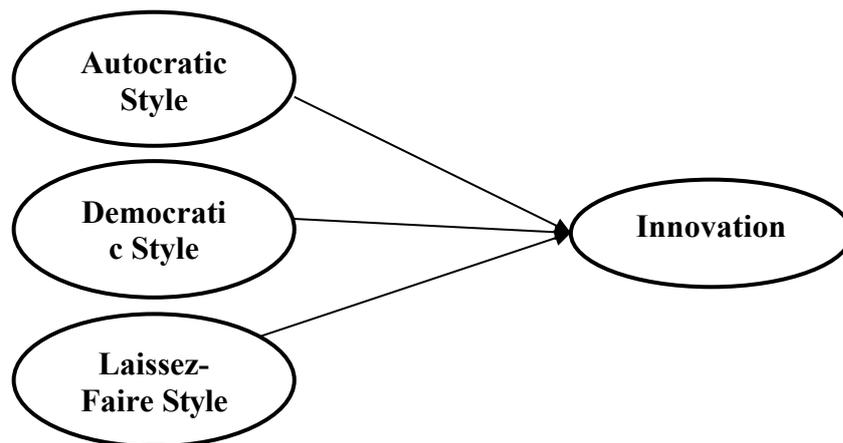
According to Twiss, innovation - is a combination of science, technology, management, and economics, because it aims to achieve novelty and proceeds from the emergence of an idea to the goal of marketing it in the form of a product that can be exchanged and consumed (Twiss & Goodridge, 1989). According to Covin and Miller (2014), it is the ability of a business enterprise to be up to date with a new idea, new technologies and improved creative processes to provide products. There is growing evidence from the literature that innovation plays a vital role in shaping corporate growth and competitiveness (Forsman & Temel, 2011)

There are different perspectives on the definition of innovation that analysis can be used to know. Innovation according to West and Farr (1990). It is the introduction and intentional application within a role, group, or organization of ideas, processes, products, or procedures, that are new to the business unit. Adopting concerned, designed to bring great benefit to the individual, group, organization and society. OECD (2005) defined innovation as “Implement a new or significantly improved product, marketing or business style, or a new organizational style within business practices, workplace organization or external relations” (p. 16). while Woodman et al., (1993) defined creativity as “It is a process of creating or presenting a new idea or a new and useful procedure or process “ (p. 295). There is a broad definition by Baregheh et al. (2009), “innovation aims to advance, compete, differentiate and position in the market, so organizations, through a multi-stage process, transform ideas into improved products, services, or processes” (p. 1325).

### 3. Materials And Methods

#### 3.1. Research Method And Conceptual Model Of Study

This study was applied in terms of objective and is descriptive in terms of data collection method. Data were collected by questionnaire through the survey method. The sample size was estimated using the Cochran formula to 135 members of the National Electricity and Gas Distribution Company BECHAR. The number of questionnaires distributed is 135, and 117 questionnaires were retrieved. After screening, 104 questionnaires were valid for statistical analysis. All elements were measured using a five-point Likert scale: strongly agree: (5 degrees), agree (4 degrees), neutral (3 degrees), disagree (2 degrees), strongly disagree (one score). Exploratory factor analysis was used to delineate elements, which hinder confirmatory factor analysis (having Factor loading less than 0.50). No element has been scrapped. Because all Factors loading are greater than 0.50 (see table2). This study also adopted the Structural Equation Model (SEM) to analyze data and test hypotheses through a program AMOS V.21. The Figure 01 illustrates the conceptual model of the study and consists of three leadership styles (Autocratic Style, Democratic Style, Laissez-Faire Leadership Style) and innovation.



**Figure 1.** The Conceptual Framework of the Research

#### 3.2. Demographic Characteristics of the Sample

**Table 1.** Demographic Characteristics of the Sample ( $n=104$ )

Demographic Variable	Sample Composition	Percentage
Gender	Men	84.2%
	Women	15.8%
Age	Less than 30 years	7.4%
	31-40 years	49.5%
	41-50 years	34.7%
	More than 51 years	8.4%
Education	Secondary and lower university	24.2%
	higher studies	64.2%
Work Experience	Less than 5 years	11.6%
	6-15	12.6%
	16-20	61.1%
	More than 21 years	7.4%
		18.9%

From Table (1) it is clear that the majority of respondents are the sex of males by 84.2%, while the percentage of females is 15.8%. The majority within the age group between 31-40 years is 49.5%, followed by the age group between 41-50 years with 34.7% and then 8.4% for the group for more than 51 years and 7.4% for the age group less than 30 years. The respondents have a university education level of 64.2%, the remaining percentage of secondary education level is lower by 24.2% and graduate studies by 11.6%, while the maximum percentage of professional experience is 61.1% with 6 to 15 years of experience, and 7.4% as the lowest percentage and they are experienced from 16 to 20 years.

### 3.3. Reliability And Validity

**Table 2.** Summary for all Constructs

Construct	Item	Factor loading	Cronbach alpha	AVE	CR
Autocratic Leadership Style	Q1	0,843	0,813	0,548	0,892
	Q2	0,810			
	Q3	0,685			
	Q4	0,500			
	Q5	0,641			
	Q6	0,881			
	Q7	0,750			
	Q8	0,660			
Democratic Leadership Style	Q9	0,725	0,839	0,611	0,886
	Q10	0,861			
	Q11	0,829			
	Q12	0,815			
Laissez-faire Leadership Style	Q13	0,749	0,763	0,679	0,864
	Q14	0,858			
	Q15	0,861			
	Q16	0,731			
	Q17	0,830			
Innovation	Q18	0,887	0,890	0,655	0,919
	Q19	0,865			
	Q20	0,858			
	Q21	0,660			

$CR = (\sum \kappa)^2 / [(\sum \kappa)^2 + (\sum 1 - \kappa^2)]$      $AVE = \sum \kappa^2 / n$      $K =$  factor loading of every item  $n =$  number of items in a mode

#### 3.3.1. Internal Reliability

The value of Cronbach Alpha is greater than 0.60. The internal reliability was achieved the required level (Refer Table 2).

#### 3.3.2. Construct Reliability

For all constructs, the CR value is greater than 0.60. The composite reliability was achieved the required level (Refer Table 2).

### 3.3.3. Average Variance Extracted

The value of AVE for all constructs are greater than 0.50. The required level was achieved. (Refer Table 2) All items in a measurement model are statistically significant. Other than that, the value of AVE for all construct is greater than 0.50. The Convergent Validity was achieved the required level.

**Table 3.** Discriminant Validity

Construct	ALS	LED	LLS	INNOV
ALS	<b>0,74</b>			
LED	-0,58	<b>0,78</b>		
LLS	0,63	-0,43	<b>0,82</b>	
INNOV	-0,36	0,71	-0,44	<b>0,80</b>

ALS : Autocratic leadership style LED: democratic leadership style LLS: Laissez-faire leadership style  
 INNOV: innovation

The bold diagonal values in the Table 03 are the square root of the AVE for the constructed. While the rest of the other values are the correlation between the respective constructs. The discriminant validity is achieved when the diagonal value in bold is higher than the values in its row and column. This condition is fulfilled if when looking at the Table 03, therefore the discriminant validity was achieved.

### 3.4. Evaluating Model Fit

**Table 4.** Model Fit Index

Index	$\chi^2 / df$	CFI	TLI	RMSEA
Acceptable value	Less than <b>3</b>	>0.9	>0.9	Less than 0.08
Score	<b>1.33</b>	0.94	0.93	0.05

According to table 4, general indexes of testing the structural equation model of the research show the appropriateness of the model's goodness of fit. This goodness can be resulted from the fact that  $\chi^2/df$  is less than 3, RSMEA is less than 0.08 and nearer to zero, and also because the indexes of CFI, TLI are nearer to 1; therefore, the proposed model has been confirmed and table 5 possesses all standards.

### 3.5. Hypotheses testing

**Table 5.** Summary of the Hypothesis Test Result

Hypothesis	Casual Path	Path Coefficient	P-value	T-Value	Estimate	Significant
H1	ALS→INNOV	0.53	0.100	1.645	0.301	No
H2	LED→INNOV	0.06	0.000	4.573	0.746	Yes
H3	LLS→INNOV	0.20	0.036	-2.100	-0.226	Yes

ALS: Autocratic leadership style LED: democratic leadership style LLS: Laissez-faire leadership style INNOV: innovation

**The first hypothesis:** There is a significant relationship between the Autocratic leadership style and innovation in the National Gas Electricity Distribution Company.

As shown in table (5), since observed value is equal to P-value and 0.100 is more than Sig level 0.05 and  $|T \text{ value}| < 1.96$ , so there is no relationship between the Autocratic leadership style and innovation in the National Gas Electricity Distribution Company with 95% confidence.

**The second hypothesis:** There is a significant relationship between the democratic leadership style and innovation in the National Gas Electricity Distribution Company.

As it is obvious in table (5), since observed value is equal to P-value and 0.000 is less than Sig level 0.05  $|T \text{ value}| \geq 1.96$ , so there is a relationship between The democratic leadership style and innovation in the National Gas Electricity Distribution Company with 95% confidence.

**The third hypothesis:** There is a significant relationship between the Laissez-faire leadership style and innovation in the National Gas Electricity Distribution Company

As it is shown in table (5), since observed value is equal to P-value and 0.036 is less than Sig level 0.05, and  $|T \text{ value}| \geq 1.96$ , so there is a relationship between The Laissez-faire leadership style and innovation in the National Gas Electricity Distribution Company with 95% confidence.

#### 4. Conclusion

Through statistical analysis of field research data, the following conclusions can be drawn:

there is no relationship between the Autocratic leadership style and innovation in the National Gas Electricity Distribution Company.

there is a relationship between The democratic leadership style and innovation in the National Gas Electricity Distribution Company.

there is a relationship between The Laissez-faire leadership style and innovation in the National Gas Electricity Distribution Company.

Based on the results of the research we can give some of the following recommendations:

Promoting democratic style and Laissez-faire leadership style because of their positive results on innovation.

The development of a sense of belonging is essential in the development of innovation and creativity.

Holding seminars and workshops discussing leadership styles, and what is attributed to each style of advantages and disadvantages.

Creation of a department for innovation and creativity that is interested in the creators and innovators, and benefit from them and help them.

To simplify the rules and procedures of the work procedures, and to move away from the centralization and strictness in the implementation of the issues, this would give employees a margin. It is freedom for employees to show their innovations on the ground.

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