

ภาวะผู้นำของผู้บริหารภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง  
RELATIONSHIP BETWEEN LEADERSHIP OF ADMINISTRATORS AND EFFECTIVENESS OF  
LEARNING ORGANIZATION ADMINISTRATION UNDER ZHANJIANG UNIVERSITY OF  
SCIENCE AND TECHNOLOGY IN GUANGDONG PROVINCE

<sup>1</sup>Liang Xian Wei <sup>2</sup>Thansaya Thassoapon

<sup>1</sup>นักศึกษาระดับปริญญาโท สาขาวิชาภาวะผู้นำทางการบริหารการศึกษา คณะศึกษาศาสตร์ มหาวิทยาลัยกรุงเทพธนบุรี

<sup>2</sup>อาจารย์ประจำหลักสูตรภาวะผู้นำทางการบริหารการศึกษา คณะศึกษาศาสตร์ มหาวิทยาลัยกรุงเทพธนบุรี

<sup>1</sup>Master's degree student Leadership in Educational Administration Faculty of Education Bangkok Thonburi University

Lecturer of Leadership in Educational Administration Faculty of Education Bangkok Thonburi University

Email: 6533300003.edu@bkkthon.ac.th

### บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อ (1) ศึกษาภาวะผู้นำของผู้บริหารภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง (2) ศึกษาประสิทธิผลของการบริหารองค์การการเรียนรู้ภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง และ (3) ศึกษาความสัมพันธ์ระหว่างภาวะผู้นำของผู้บริหารและประสิทธิผลของการบริหารองค์การการเรียนรู้ภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง

การวิจัยนี้เป็นการศึกษาเชิงสำรวจ ประชากรประกอบด้วย อาจารย์มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง สาธารณรัฐประชาชนจีน จำนวน 1000 คน กลุ่มตัวอย่างที่ใช้ในการวิจัยจำนวน 278 คน กำหนดขนาดกลุ่มตัวอย่างด้วยการเทียบตารางของเครจซี่และมอร์แกน และดำเนินการสุ่มตัวอย่างแบบง่าย เครื่องมือที่ใช้ในการวิจัยนี้เป็นแบบสอบถามมาตราส่วนประมาณค่า 5 ระดับ สถิติที่ใช้ในการวิเคราะห์ข้อมูล ได้แก่ ความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการหาค่าสัมประสิทธิ์สหสัมพันธ์

ผลการวิจัยพบว่า (1) ภาวะผู้นำของผู้บริหารภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง โดยรวมและรายด้านอยู่ในระดับมาก (2) ประสิทธิภาพของการบริหารองค์การการเรียนรู้ภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง โดยรวมและรายด้านอยู่ในระดับมาก และ (3) ความสัมพันธ์ระหว่างภาวะผู้นำของผู้บริหารและประสิทธิผลของการบริหารองค์การการเรียนรู้ภายใต้มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง โดยรวมและรายด้านมีความสัมพันธ์เชิงบวกในระดับปานกลางที่นัยสำคัญทางสถิติระดับ .05

---

**คำสำคัญ:** ความสัมพันธ์, ภาวะผู้นำ, ผู้บริหาร, ประสิทธิภาพ, การบริหารองค์การการเรียนรู้, มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีจีอันเจียง มณฑลกว่างตุง

---

### Abstract

The objectives of this research were: (1) to study the level of leadership of administrators under Zhanjiang University of Science and Technology in Guangdong Province; (2) to study the level of effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province; and (3) to study the relationship between leadership of

administrators and effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province.

The research was survey research. The population was 1000 instructors under Zhanjiang University of Science and Technology in Guangdong Province, the People's Republic of China. The sample consisted of 278 instructors. The sample size was determined by Krejcie and Morgan's table and obtained by simple random sampling method. The instrument used for data collection was a five-point rating scale questionnaire. The statistics used for data analysis were frequency, percentage, mean, Standard Deviation, and correlation coefficient.

The results of the research were found that: (1) leadership of administrators under Zhanjiang University of Science and Technology in Guangdong Province, overall and in each aspect was at a high level, (2) the effectiveness of of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province, overall and in each aspect was at a high level, and (3) the relationship between leadership of administrators and effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province, overall, and in each aspect had a moderate positive correlation at the statistical significance of the .05 level.

---

**Keywords:** Relationship, Leadership, Administrators, Effectiveness, Learning Organization Administration, Zhanjiang University of Science and Technology, Guangdong Province

---

## INTRODUCTION

The knowledge economy not only represents a change in the economic development pattern and social wealth growth but also the development of globalization and the impact of cultural diversity. Social and personal demands have shifted from rigidity to diversity and individuality. Organizations are facing an integrated and personalized market, however. It must stimulate employees' enthusiasm and creativity from within. Basics of changing relationships between employees and organizations: 1. Collaborate and share management themes. 2. Eliminate inherent conflict between employees and the organization. 3. Improve the sense of unity and life of employees and organizations. They should be aware of the change in management style of executives with leadership, that is, knowledge and abilities that can lead the organization to its goals.

Change is the essential feature and primary task of the era of the knowledge economy, and the era of the knowledge economy is an era of change. Change is no longer a specific activity at a particular time but has become the norm. The development of a social economy no longer directly depends on the traditional factors of production such as land, capital, and labor and their scale, quantity, and increment. Knowledge has transformed into the primary aspect of production in the era of the knowledge economy. At the same time, the multiplication cycle of learning and the half-life of personal knowledge are significantly shortened. With the development of productivity, the increase of social wealth, and the improvement of people's education level, work is increasingly required to reflect the value of people's

respect and human existence. Work is not only regarded as a means of making a living but also people's Self-actualization and self-transcendence. Work-study, study-to-work, and life-to-work have become a new way of working and living. Globalization, diversification and diversification, and the impact of culture have made the environment organizations face increasingly complex, systematized, and uncertain. Therefore, the viability of an organization depends on its ability to learn and on its ability to adapt to the scale and speed of change in its environment. As R.L. Daft (1999) stated, "In this world order, the administration's responsibility is to create organizational learning capabilities. In many industries, the ability to learn and change faster than competitors is perhaps the only decisive competitive advantage ". Under the market economy conditions, the government is no longer the sole supplier of educational resources. Colleges can also obtain educational resources from other social organizations and individuals through competition. In addition, foreign educational organizations have begun to enter China. The status quo of colleges and universities is not in a rigid and stable development state protected by the government but in fierce competition. The university administration must integrate the organization's learning capabilities and enhance the ability to adapt to the scale and speed of change in the uncertain environment, which is related to the College's future survival and development path.

From the above mentioned the researcher is interested in studying the relationship between these two variables in order to apply them to develop educational organizations with higher organizational performance.

### **Research Objectives**

1. To study the level of leadership of administrators under Zhanjiang University of Science and Technology in Guangdong Province.
2. To study the level of effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province.
3. To study the relationship between the leadership of administrators and the effectiveness of learning organizations administration under Zhanjiang University of Science and Technology in Guangdong Province.

### **Research Framework**

This study applies the learning organization concept from Peter Senge's *The Fifth Discipline: The Art and Practice of the Learning Organization* (1990) to the management of a learning organization, as well as Kouzes and Posner (1987) Summarize the leadership theory of "Leadership Challenge" in this paper. Five independent variable factors and five dependent variable factors define the concept of learning management for management personnel of Zhanjiang University of Science and Technology, as shown in Figure 1.1.

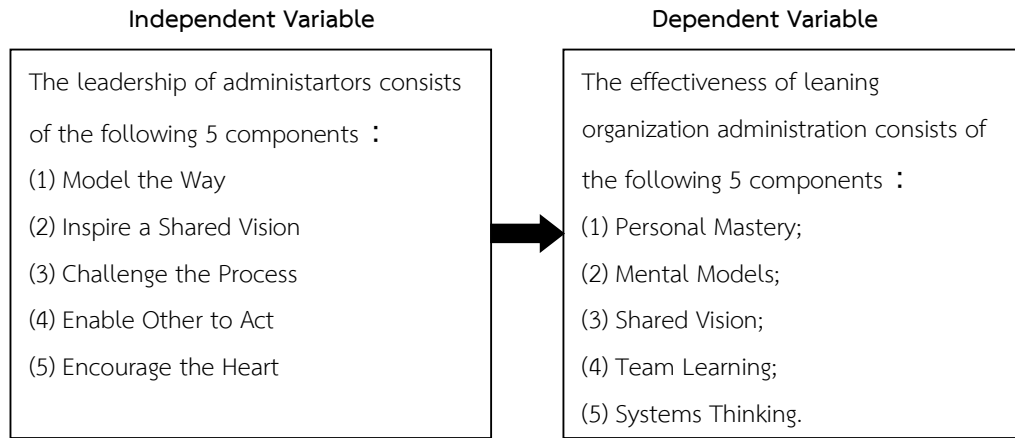


figure 1. Research Framework

## Research Scope

### Scope of Content

1. Leadership of administrators, according to the concept of Kouzes and Posner (1987), consists of 5 components as follows: (1) Model the Way; (2) Inspire a Shared Vision; (3) Challenge the Process; (4) Enable Other to Act; (5) Encourage the Heart.

2. Effectiveness of learning organization, according to Peter Senge (1990), consists of 5 components: (1) personal expertise, (2) mental models, (3) shared vision, (4) team learning, and (5) systematic thinking.

### Methods of conducting research

**Population:** The population in this study was 1000 instructors of Zhanjiang University of Science and Technology, and the number of instructors in the year 2023.

**Sample:** The sample for this study consists of 278 instructors from Zhanjiang University of Science and Technology in the year 2023. The sample size was determined via Krejcie & Morgan's table (1970) and obtained by simple random sampling.

### Research instruments

The instrument used in this study is the questionnaire, which is divided into the following 3 parts:

Part 1: The general information of the questionnaire survey, in the form of a checklist, including the education level and work experience of the instructors of Zhanjiang University of Science and Technology in Guangdong Province.

Part 2: Leadership of Administrator's questionnaire of Zhanjiang University of Science and Technology in Guangdong Province includes 5 components:

(1) Model the Way; (2) Inspire a Shared Vision; (3) Challenge the Process; (4) Enable Other to Act; and (5) Encourage the Heart.

Part 3: The effectiveness of learning organization administration questionnaire of Zhanjiang University of Science and Technology in Guangdong Province includes 5 components: (1) Personal Mastery; (2) Mental Models; (3) Shared Vision; (4) Team Learning; and (5) Systems Thinking.

#### Data analysis results

**Table 1:** General information of the respondents:

(n=278)

General Information	Number	Percentage
<b>3. Educational Level</b>		
1.1 Bachelor's degree	158	56.83
1.2 Higher Bachelor's degree	77	27.70
<b>Total</b>	<b>43</b>	<b>15.47</b>
<b>2. Work Experience</b>	<b>278</b>	<b>100</b>
2.1 < 10 years		
2.2 ≥ 10 years	183	65.83
<b>Total</b>	<b>95</b>	<b>34.17</b>

Table 1: was found that the instructors under Zhanjiang University of Science and Technology had the respondents had a bachelor's degree, 158 people representing 56.83%, and 183 people had less than 10 years of work experience, representing 65.83%.

**Table 2:** Show the Mean, Standard Deviation, and level of the leadership of administrators under Zhanjiang University of Science and Technology in Guangdong Province, overall and in each aspect 1-5

(n=278)

No.	Leadership of Administrators	( $\bar{X}$ )	S.D.	Level
1	Model the Way (X1)	3.67	1.038	high
2	Inspire a Shared Vision (X2)	3.67	1.054	high
3	Challenge the Process (X3)	3.61	1.064	high
4	Enable Others to Act (X4)	3.68	1.057	high
5	Encourage the Heart (X5)	3.68	1.050	high
	<b>Total</b>	<b>3.66</b>	<b>1.053</b>	<b>high</b>

Table 2: was found that the leadership of Administrators under Zhanjiang University of Science and Technology in Guangdong Province overall and in each aspect at a high level ( $\bar{X}$ = 3.66). Considering and in each aspect, it was found that all aspects were at a high level. Enable Others to Act and Encourage the Heart was at the highest mean ( $\bar{X}$ = 3.68), followed by Model the Way and Inspire a Shared Vision ( $\bar{X}$ = 3.67), and Challenge the Process was at the lowest mean. ( $\bar{X}$ = 3.61)

**Table 3:** Show the Mean, Standard Deviation, and level of the effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province, overall and in each aspect (n=278)

No.	effectiveness of learning Organization Administration	( $\bar{X}$ )	S.D.	Level
1	Personal Mastery (Y1)	3.59	1.069	high
2	Mental Models (Y2)	3.55	1.058	high
3	Shared Vision (Y3)	3.52	1.067	high
4	Team Learning (Y4)	3.58	1.057	high
5	Systems Thinking (Y5)	3.57	1.068	high
	<b>Total</b>	3.56	1.063	high

Table 3: was found that the effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province overall and in each aspect at a high level ( $\bar{X}$ = 3.56). Considering and in each aspect, it was found that all aspects were at a high level. Personal Mastery was at the highest mean ( $\bar{X}$ = 3.59), followed by Team Learning ( $\bar{X}$ = 3.58), and Shared Vision was at the lowest mean. ( $\bar{X}$ = 3.52)

**Table 4** The relationship between leadership of administrators and effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province

Variable	Model the way ( $X_1$ )	Inspire a shared vision ( $X_2$ )	Challenge the process ( $X_3$ )	Enable others to act ( $X_4$ )	Encourage the heart ( $X_5$ )	Leadership of Administrators ( $X$ )
1. Personal Mastery ( $Y_1$ )	.543**	.539**	.236**	.125*	.189**	.502**
4. Mental Model ( $Y_2$ )	.587**	.450**	.300**	.192**	.205**	.533**
5. Shared Vision ( $Y_3$ )	.369**	.531**	.480**	.384**	.390**	.664**
4. Team Learning ( $Y_4$ )	.191**	.392**	.555**	.513**	.517**	.670**
5. Systems Thinking ( $Y_5$ )	0.071	.226**	.349**	.567**	.577**	.553**
Effectiveness of Learning Organization Administration ( $Y$ )	.485**	.589**	.529**	.491**	.518**	.502**

\*\*Statistical significance level at the .01

\*Statistical significance level at the .05

Table 4.14: found that the Leadership of Administrators (X) with Effectiveness of Learning Organizational Administration (Y) in high correlation, overall, there was a positive correlation ( $r = .502^{**}$ ).

Among them, The relationship between different variables of leadership of administrators and effectiveness of learning organizational administration was positively correlated, in order to Inspire a shared vision ( $X_2$ ) with effectiveness of learning organizational administration has the moderate correlation ( $r=.589^{**}$ ), Challenge the process ( $X_3$ ) with effectiveness of learning organizational administration has the moderate correlation ( $r=.529^{**}$ ), Encourage the heart ( $X_5$ ) with effectiveness of learning organizational administration has the moderate correlation ( $r=.518^{**}$ ), Enable others to act ( $X_4$ ) effectiveness of learning organizational administration has the moderate correlation ( $r=.491^{**}$ ), Model the way ( $X_1$ ) with organizational climate has the moderate correlation ( $r=.485^{**}$ ).

### Conclusion

The research procedures consisted of three steps:

1. The leadership of administrators under Zhanjiang University of Science and Technology in Guangdong Province, overall, at a high level. Considering each aspect, it was found that all aspects were at a high level.

2. The effectiveness of learning Organization Administration under Zhanjiang University of Science and Technology in Guangdong Province, overall at a high level. Considering each aspect, it was found that all aspects were at a high level.

3. The leadership of administrators (X) and effectiveness of learning organization administration (Y) have a positive relationship at a high level ( $r=.502^{**}$ ) with a statistical significance at the level of .01

### Discussion

1. The leadership of administrators under Zhanjiang University of Science and Technology in Guangdong Province overall at a high level, considering that in each item, it was found that overall items were at a high level. Because leadership of administrators is positively related to the effectiveness of learning organization administration. Consistent with the research of Karabağ Kose, Esra; GÜÇLÜ, Nezahat (2017) Examining the Relationship between Leadership Styles of School Principals, Organizational Silence and Organizational Learning, as a result of the study; it was observed that there were positively or negatively significant relationships between the variables of transformational leadership, transactional leadership, organizational silence and organizational learning. The results of the regression analysis show that leadership styles and organizational silence are both significant predictors of organizational learning.

2. The effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province overall at a high level, considering that in each item, it was found that overall items were at a high level. May be because the leadership of administrators is positively related to the effectiveness of learning organization administration. Consistent with the research of Su-Chao Chang, Ming-Shing Lee (2007) A study on the relationship among leadership, organizational culture, the operation of a learning organization, and employees' job satisfaction, Both leadership and organizational culture can positively and significantly affect the operation of the learning organization. In

addition, the operation of learning organizations has a significantly positive effect on employees' job satisfaction

3. Relationship between leadership of administrators and effectiveness of learning organization administration under Zhanjiang University of Science and Technology in Guangdong Province at a moderate level. Because Organizational change cannot happen at all. If there is no initiative from the leader, administrators or leaders must make people in the organization accept and feel involved with the change

That administrator has because of the knowledge and abilities they can cultivate to become leaders It is something that effectively helps promote the success of educational administration. consistent with the research of consistent with the research of Mohamed, I.A.H. and Otman, N.M.M. (2021) Researchers believe that transformational leadership has a positive impact on organizational learning. This has a direct impact on improving innovation and creativity. Although there is some evidence in the literature but there is still a need to further examine these results in different types of organizations. Located in different parts of the world, it is recommended that senior managers strive to adopt the latest leadership styles. And support should be extended to change leaders to ensure the effectiveness of organizational learning programs. They focus on the most creative and creative aspects of the people and revenue generation process. Transformational leaders should be positioned at the top of the organization to create the necessary change. It also helps them move towards a better corporate culture and better learning. This is considered a starting step towards innovation and harnessing the creative potential of employees. in future research, It is recommended that future research be conducted using knowledge management as a mediator between transformational leadership and organizational learning, and consistent with the research of Li Zongkui (2019) "Research on the Cultural Construction and Development of University Learning Organizations" This article discusses the cultural construction and development of university learning organizations, and studies the impact of organizational culture on knowledge sharing, innovation and organizational change, in order to promote the construction and development of university learning organizations

## **Recommendations**

### **Recommendations of research**

1. Model the Way: Administrators should arrange meetings for school personnel on important occasions when school personnel have problems. Must rush to help without waiting for a request. Provide welfare benefits that are conducive to work so that personnel can relieve their worries at work.

2. Inspire a Shared Vision: administrators must have a clear management policy. Have a good relationship with university personnel Encourage teamwork and allow more personnel to participate in school development activities.

3. Challenge the Process: Administrators must have a technique. And how to deal with positive stress in the university to have a good working atmosphere, such as organizing seminars to exchange



knowledge and parties as needed Organize field trips to see work for personnel to make university personnel happy at work, which will result in quality work as well.

#### **Recommendations for the next research**

1. Study the reforms of other management organizations of Zhanjiang University of Science and Technology in Guangdong Province.
- 2.. Qualitative research should be conducted to gain insights into the participative administration of college administrators to expand educational opportunities in other theoretical works.

#### **Reference**

- Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.
- Daft, R. L. (1999). *The essentials of organizational management and design (W. A. Li, Trans.)*. Machinery Industry Press.
- Drucker, P.F. (1954). *The Practice of Management*. Harper & Row, New York.
- Edmondson, A. C. (1999). *Psychological safety and learning behavior in work teams*. Administrative Science Quarterly, 44(2), 350–383. <https://doi.org/10.2307/2666999>
- Krejcie, R.V., & D.W. Morgan. (1970). “*Determining Sample Size for Research Activities*”. Educational and Psychological Measurement. 30(3): 607 – 610.
- Kouzes, J. M., & Posner, B. Z. (1995). *The leadership challenge: How to keep getting extraordinary things done in organizations (2nd ed.)*. Jossey-Bass.
- Senge, P. M. (1990). *The fifth discipline: The art & practice of the learning organization*. Doubleday/Currency.