



## The Influence of Organizational Culture on Leadership Effectiveness in Malaysian Manufacturing Firms

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### ABSTRACT

This study explores the impact of organizational culture on leadership effectiveness in Malaysian manufacturing firms, emphasizing the influence of Japanese organizational practices. Japan's industrial development has significantly shaped leadership styles in Malaysia's manufacturing sector. The research examines how organizational culture affects leadership effectiveness and identifies key cultural factors contributing to this relationship. A quantitative approach was used, collecting data from 120 respondents at Shin-Etsu Polymer (M) Sdn Bhd in Shah Alam, Selangor. The findings highlight that organizational culture is a crucial determinant of leadership effectiveness. A positive culture fosters open communication, employee engagement, and innovation, while a negative culture hinders leadership through poor communication and reduced employee involvement. The study emphasizes the need for firms to cultivate a supportive and collaborative organizational culture to enhance leadership effectiveness. Strategies such as encouraging teamwork, promoting innovation, and investing in leadership development can help organizations remain competitive. By actively managing their organizational culture, Malaysian manufacturing firms can strengthen leadership capabilities and achieve sustainable success.

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## 1. INTRODUCTION

The Look East Policy is an economic policy launched by the 4th Prime Minister of Malaysia, Tun Dr Mahathir Mohamad on 8 February 1982 to emulate the rapid development of countries in the East such as Japan in particular. Kaizen is a Japanese work culture that is applied in an organization and is very important to improve the quality of work, create innovation, manage work effectively, and face competitors in the future. This study also evaluates the influence of organizational culture on the effectiveness of leadership in Malaysian manufacturing firms. The influence that will be explained is related to the organizational culture that tends to manage using the way of eastern countries, and how the influence of the organizational culture of eastern countries that is applied to the manufacturing industry in on the effectiveness of leadership in the manufacturing industry in Malaysia after this policy is introduced.

## 2. LITERATURE REVIEW

### 2.1 Influence

The influence of leadership is a crucial aspect of productivity in any company, and it is one of the important employability skills in the manufacturing industry. Recent reviews take leadership as "a process whereby an individual influences a group of individuals to achieve a common goal (Northouse, P. G., 2018). It is a continuous debate that whether the leadership comes from the personal qualities of a leader, or a leader makes followership through what he or she does or believes (Selvarajah, T., et. al, 2024). To start with leadership, it is vital for every organization to have a leader rather than an administrator. This is because leaders make a great contribution with the existence of new management to the company by initiating organizational change (Azad., et. al, 2024) In an organization whether in the manufacturing industry or other sectors, having a good leader will lead the organization to thrive and move towards prosperity. The selection of the leader not

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only depends on the personal characteristics and gender diversity but also on the social and cultural factors along with his or her exposure towards life (Rozita Zahari., et. al, 2024, Bolden., 2010).

## 2.2 Organization culture

One of the variables identified in this study is organizational culture. There are many terms used by researchers that give different views but give almost the same meaning to show the meaning of organizational culture. The study being directed to the manufacturing industry that originates from Japan and was established in Malaysia in 1988. Organizational culture and corporate culture have been used as almost the same meaning, which were argued in 1980s. In general, the term organizational culture is used to refer to action patterns, collective norms, dominant values, etc. shared by organization.

According to Sackmann (1991), organizational culture will act as a control mechanism to create organizational commitment, achieve integration within organizations and help the organization adapt to the external changes. Organizational culture has a broad meaning. According to Dessler (2008), organizational culture is a characteristic of the values, traditions, and behaviour of employees in the company. Schein (2000) defines organizational culture as a pattern of basic assumptions that are discovered, created, or developed by a certain group with the purpose that the organization learns to overcome or overcome the problems that arise because of external adaptation and internal integration.

An organizational culture however consists of both the visible cues like workplace setting, dress code, myths and stories and non-visible cues like belief system, values, and norms in an organization (Chang & Lee, 2007). In fact, it is also known as values upheld and practiced by a group of organizational folks which differentiates them from other organizations (Suharti & Suliyanto, 2012). Although there are many definitions of organizational culture has been viewed as holistic, historically determined, and socially constructed, culture involves beliefs and behaviour, exists at a various level, and manifests itself in a wide range of features of organizational life (Hofstede et al., 1990)

Other than that, high-tech industries function in an environment characterized by three types of uncertainty: market uncertainty, technology uncertainty, and competitive volatility. In order to reduce such uncertainties which are risk towards the company business, high tech industries usually integrate advanced technology such as Internet of Things sensor (IoT) (Chong, P. L., et. al, 2022, Peng, C., et. al, 2024, C. Peng Lean and K. Feng Yuan, 2024), artificial intelligence (AI) software (Krishna S.R., et. al, 2022), AR and VR technology (Wonderful S.K., et. al, 2024), sensors and advanced electronics application (Chong, P. L., et. al, 2022) to enable smart automation and energy saving initiative in the manufacturing process (Basir R., et. al, 2024). Such automation can collect instantaneous data for proactive decision making in improving the manufacturing yield and managing quality control of products (Sannasy., et. al, 2024). Among the technologies, IoT is the most vastly implemented to enhance manufacturing process. IoT refers to a network of interconnected devices, sensors, and systems that collect and exchange data in real time via the internet (M. A. M. Qasem Albadani., et. al, 2022, C. Peng Lean., et. al, 2022). In manufacturing, IoT enables the seamless integration of

machines, tools, and monitoring systems, leading to more efficient, automated, and data-driven production processes. By using IoT technologies, manufacturers can optimize operations through predictive maintenance, track inventory, monitor equipment performance, and enhance quality control (Peng L.C., et. al, 2024, Silvia G., et. al, 2024). This connectivity allows for smarter decision-making, reduced downtime, and increased productivity, transforming traditional manufacturing into more agile and responsive smart factories (Swathi M., et. al, 2024, Dashini., et al, 2024). These technologies drive a shift towards a data-driven and innovation-centric culture, where decision-making is heavily influenced by real-time insights and automation. Leaders must adapt by fostering a culture that embraces technological change, continuous learning, and collaboration, as IoT and AI enable more interconnected, efficient operations. In this evolving environment, leadership effectiveness depends on the ability to guide teams through digital transformation, balancing technological adoption with human-centered approaches, while maintaining a culture that supports agility, innovation, and cross-functional collaboration in the highly competitive electronics and manufacturing sectors. Besides that, the state-of-the-art technologies used can also significantly impact the organizational leadership effectiveness and working efficiency in Malaysian manufacturing firms.

Furthermore, an organizational culture which implement effectiveness leadership can also improve ergonomics by fostering a work environment that prioritizes employee well-being and safety in Malaysia. A culture that emphasizes continuous improvement, teamwork, and employee engagement encourages leaders to implement ergonomic practices that reduce workplace injuries and enhance productivity (P. K. Ng., et. al, 2024). In such a culture, leaders are more likely to invest in ergonomic training, technology, and design improvements that align with the company's values of sustainability and worker safety. This, in turn, promotes a healthier work environment, reduces absenteeism, and boosts employee morale, contributing to overall operational efficiency and long-term business success. Hence, an organizational culture which supports employee development, harmony, customer orientation, social responsibility and innovation would be required to develop the needed competencies, attitudes, and work behaviour among the employees. Schein (1992) recognized organizational diversity according to the occupational profiles of workers.

The description of Malaysian national culture and its implications suggest that there is compatibility between it and organizational culture typology of Tsui et al. (2006). Malaysian society being collectivist would emphasize building skills, becoming masters of something, work for intrinsic rewards, value harmony and concern for community. Therefore, this makes the case for selecting the Tsui et.al. (2006) typology of organizational culture for measuring the culture of high-tech sector in Malaysia. Overall, the literature on organizational culture suggests that it is a complex and multifaceted concept that can have a significant impact on organizational behaviour and performance.

## 2.3 Leadership effectiveness

Researchers argue that both views are valid, as the effectiveness of actual leadership in organizational cultures varies over time and across contexts. At times, achievement in organizational performance is the result of prosperous and

conscious leadership, while at other times it may be the result of weak and lacking leadership. At the same time the culture change in the organization also shows the effectiveness of leadership for the contribution in the success of a company.

Researchers express various meanings and explanations regarding leadership effectiveness. Definition of a leader, as well as leader effectiveness, varies amongst researchers (Madanchian et al., 2018; Yukl, 2008). Furthermore, leadership effectiveness is the outcome when leaders can influence a group to perform their roles with positive organizational outcomes (Dhar & Mishra, 2001; Ha, et al. 2016; Madanchian & Taherdoost, 2019). Therefore, effective leadership can have impact on organizational performance. To evaluate an effective leader examining the consequences of a leader's actions is the most common outcome measure W. Bennis, 1995; Bennis, 2007; Dhar, 2016; Dhar & Mishra, 2001; Madanchian & Taherdoost, 2019).

Leadership effectiveness consider as an outcome when the individuals in the positions of leadership can impact on a group to perform their roles with positive organizational outcomes (Madanchian et al., 2017). To evaluate an effective leader, examining the outcomes of a leader's actions are the most common measure (Conger & Kanungo, 1998; Conger, 1998; Dhar, 2016; Dhar & Mishra, 2001; Madanchian et al., 2017). Effective leadership is recognized when the leader has ability to influence his/her followers or organizational unit in same way that obtains positive results (Madanchian et al., 2015).

Thus, in summarizing the role of leadership, researchers have defined organizational leaders as vision and mission builders (Zhu et al., 2005 ), motivator (Covey, 2003), team builders (Ulrich, Smallwood, & Sweetman, 2008), participative decision makers (Gamage & Pang, 2003; Northouse, 1997) and role model (Dran, 2004). In addition, leaders need to have effective communication skills (Anderson, 2006); the ability to develop trust (Byrne et al., 2014; Kouzes & Posner, 1987) and the will to recognize achievements (Bolman & Deal, 2003). This shows that effective leaders must perform a combination of several important roles for which they need potent combination of several characteristics, refer to Figure 1 below.

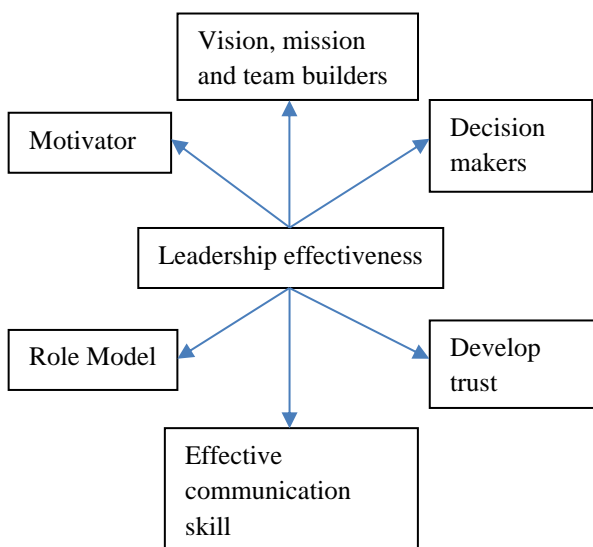


Fig. 1. Characteristics of effective leadership.

2.4 Conceptual Framework

Figure 2 illustrates the framework that underpins this study. The framework argues that the influence of leadership can influence the effectiveness of leaders and organizational culture. Overall, the conceptual framework will emphasize the influence of leaders between organizational culture and leadership effectiveness, highlighting the need for leaders to adapt to cultural dynamics and leverage culture as a strategic asset to achieve their goals.

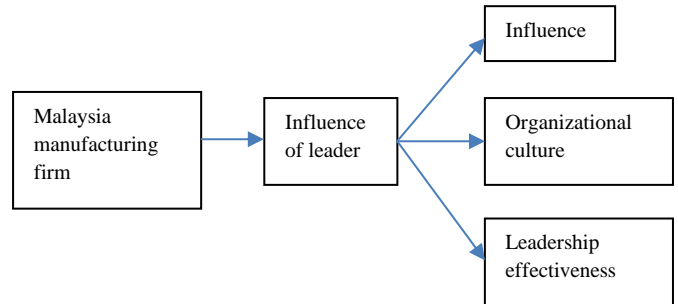


Fig. 2. Framework of effective leadership in Malaysia manufacturing firm.

3. METHODOLOGY

The aim of this study is also to identify the level of influence of leaders in organizational culture on the effectiveness of leadership in the Malaysian manufacturing industry. The methodology of the study conducted using research objective, research hypothesis, Sample and data collection was distributed to 110 respondents from the base of Shin-Etsu Polymer (M) Sdn Bhd in Shah Alam Selangor to achieve this objective. Research questions for respondents are conducted using demographic profiles, research hypothesis (by sections), and moderator variables (using SPSS) to key in the data. The results aim to conduct data collection using questionnaire and sample result. The objective of this study is to evaluate the influence of organizational culture on leadership effectiveness in Malaysia manufacturing firm. The initial research hypothesis postulated are as below:

H1: There is a significant influence of Japanese organizational culture on leadership effectiveness in the manufacturing industry at Shin-etsu polymer (m) Sdn Bhd.

H2: There is a significant influence of Japanese organizational culture on local organizational culture in the manufacturing industry at Shin-etsu polymer (m) Sdn Bhd.

H3: There is a significant influence of Japanese leadership on the effectiveness of leaders in the organizational culture of the manufacturing industry at Shin-etsu polymer (m) Sdn Bhd.

H4: There is a significant influence of Japanese Hierarchical organizational culture on the effectiveness of leadership in organizations manufacturing industry in Shin-etsu polymer (m) Sdn Bhd.

3.1 Instrumentation

This study was conducted by Shin-Etsu Polymer (M) Sdn Bhd in Shah Alam, Selangor. A total of 110 respondents from various ranks and positions in the organization were contacted. Efforts have been made to select as many respondents as possible. A quantitative survey ranging from operators to leaders in management positions was conducted through digital

and personal administration of structured questionnaires. Operators are those who are involved in the production and distribution of industrial products to be distributed to customers while leaders in administrative management are the CEO, head of department, head of operation, and the hierarchical organizational top management is questioned. Data collection was conducted by distributing a questionnaire in this study. The questionnaire was a modified questionnaire taken from existing models and divided into three sections i.e., section A, B and C. In Section A, the respondents (from all levels in organizations) were asked about the respondent's demographic profile, which was gender, race, age, marital status, level of education, year with supervisor position, number of subordinates and how often contact with the direct manager. For Section B, the researcher used the Multifactor influence and Leadership Questionnaire. Related with H1 and H2. There were four dimensions in this questionnaire, i.e., idealised influence, inspirational motivation, intellectual stimulation, and individual consideration. Each dimension has four to seven questions with five points Likert scale ranging from 1, "strongly disagree," to 5, "strongly agree". Alpha reliability of transformational leaders was. Meanwhile, Section C was about Organization culture related questionnaire with H3 and H4. This measurement was adopted from Scott and Bruce. The scale was ranged from five points Likert scale which is ranging from 1=strongly disagree to 5=strongly agree.

### 3.2 Data collection and sample

Data collection is the process of collecting information or data from various sources, through my research have done data collection using questionnaire. The data collected can be used for a variety of purposes, including research, analysis, and decision making. A sample, on the other hand, refers to a subset of the population from which the data is collected. By studying a representative sample of the population, researchers can draw conclusions about the population. Data collection to determine overall percentages and data analysis for demographic profile categories, research hypotheses and moderator variables to enter data using SPSS software.

Examples of data collection and samples collected through 110=n employee respondents from various job levels in Shinetsu polymer (m)Sdn Bhd. For collection data in demographic profiles, out of 110=n responded 94=n responded answer were received which shows a response rate of 78.3 percent. Most respondents were Single status (85.1%), male (55.3%), within the age range of 18-25 years (68.1%), worked at a previous company for more than 7-9 years (98.9%), and the current period and positions under 4-6 years. (93.6%). Meanwhile, Education levels is (SPM 35.4%, Diploma 28.4%, Degree 22.2%, Master 10.5 % and Phd 3.5% out of 100%).

## 4. RESULTS

This section will discuss the result of the study. The result presented in this study is based on the information gathered through survey questionnaires. One hundred and twenty (110) questionnaires had been distributed to all level workers at Shinetsu polymer (m) Sdn Bhd, however; only 94 participated in this survey. All data were recorded so that researcher would be able to review and make analysis for the findings. This section consists of three sections including a sample profile, ANOVA, and means.

### 4.1 Factor Analysis

Factor analysis is a statistical technique used to identify underlying factors or dimensions that explain the variation in a set of observed variables. It is used to identify patterns or correlations among many variables and reduce them to a smaller number of factors.

The influence of organizational culture on leadership effectiveness in Malaysian manufacturing firms can be studied using factor analysis by identifying the key dimensions of organizational culture and leadership effectiveness and determining the strength of their relationship. The observed variables could include things like employee attitudes, behaviours, and performance, as well as organizational values, norms, and practices.

Analysis of the factors to be studied based on the hypothesis that has been identified. The hypothesis identified is the relationship between the influence of Japanese organizational culture to the effectiveness of leaders, the relationship between the influence of Japanese organizational culture and local organizational culture, Japanese leadership culture to the effectiveness of leaders in organizational culture and Japanese organizational hierarchy to the effectiveness of leadership in organizations.

### 4.2 Sample profile

The demographic information of the respondents is tabulated in Table 1. The respondents' profile is segregated by gender, age, marital status, and working experiences. The details of the demographics are as below:

**Table 1.** Analysis for gender

	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	52	55.3	55.3	55.3
	Female	42	44.7	44.7	100.0
	Total	94	100.0	100.0	

From Table 1, we can notice that majority of these respondents are between 1years -3years working experience, which made up more than (44.7%) of the total sample. It is because the salaries offered by the company are adequate and has various forms of interest provided by employers. Analysis shows that 35.1% of the respondents are fresh graduates and only 13.8% of them are with 4 -6 years of working experience, and 5.3% of the respondents are 7 years and above working experience.

### 4.3 ANOVA Analysis

ANOVA (Analysis of Variance) is a statistical method used to test the differences between two or more groups. In the context of the influence of organizational culture on leadership effectiveness in Malaysian manufacturing firms, ANOVA can be used to analyse the data and determine whether there is a significant difference in leadership effectiveness across different levels of organizational culture. The sample data schedule for this study would include the following information:

- The organizational culture scores for each manufacturing firm in the sample.
- The leadership effectiveness scores for manufacturing firm in the sample

**Table 2.** One-way ANOVA Analysis for length of employment among employee with companies which instil effective leadership.

Topic	Source	Sum of Squares	df	Mean Square	F	Sig.
Importance of Japanese organizational culture	Between Groups	4.879	4	1.220	1.630	0.174
	Within Groups	66.610	89	0.748		
	Total	71.489	93			
Leader effectiveness in Japanese organizational culture	Between Groups	4.173	4	1.043	1.686	0.160
	Within Groups	55.072	89	.619		
	Total	59.245	93			
Japanese organizational culture affects the effectiveness of leaders	Between Groups	8.037	4	2.009	3.255	0.015
	Within Groups	54.942	89	0.617		
	Total	62.979	93			
Leadership practices or behaviors in Japanese organizational culture	Between Groups	8.831	4	2.208	3.612	0.009
	Within Groups	54.403	89	0.611		
	Total	63.234	93			
The effects of Japanese leadership applied in organizations	Between Groups	4.716	4	1.179	2.180	0.078
	Within Groups	48.135	89	.541		
	Total	52.851	93			
The impact on the organization is applied to the leader	Between Groups	4.669	4	1.166	1.829	0.130
	Within Groups	56.741	89	0.638		
	Total	61.404	93			

- The group or category that each manufacturing belongs to (e.g. high culture, medium culture, culture)

Furthermore, some of data collect for hypothesis establish using hypothesis the following information:

- Relationship between the influence of Japanese organizational culture to the effectiveness of leaders.
- The relationship between the influence of Japanese organizational culture and local organizational culture. Japanese leadership culture to the effectiveness of leaders in organizational culture.
- Japanese organizational hierarchy to the effectiveness of leadership in organization

**Table 3.** Mean analysis by gender.

Category	Gender	N	Mean	Std. Deviation
Quality of My Work	Male	52	3.4423	1.00354
	Female	42	3.3714	1.05385
Teamwork and Cooperation	Male	52	3.6731	0.89032
	Female	42	3.6667	0.89633
Achieve its Goal	Male	52	3.6731	0.78515
	Female	42	3.5714	0.78901
Group Work Treat	Male	52	3.5000	0.93731
	Female	42	3.2857	0.93479
Team Communication	Male	52	3.3654	0.92490
	Female	42	3.5000	0.83267
Team Collaborates	Male	52	3.3654	0.99221
	Female	42	3.3571	0.88993
Objective and Priorities	Male	52	3.5000	0.84130
	Female	42	3.5714	0.87901
Clarity Communication	Male	52	3.4231	0.88057
	Female	42	3.4762	0.82257
Manager Effectively Communicate	Male	52	3.3654	0.85571
	Female	42	3.3571	0.87763
Management Explain	Male	52	3.4423	0.83298
	Female	42	3.5238	0.78914

To conduct an ANOVA analysis, the sample data would be organized into groups based on the different levels of organizational culture (e.g. high culture group, medium culture group, low culture group). The mean leadership effectiveness score for each group would then be calculated, and the differences between the means would be tested to determine if they are statistically significant. Sample example data for one-way ANOVA analysis refer to table below.

#### 4.4 Means Analysis

To investigate this research question, a sample of Malaysian manufacturing firms would be selected, and data would be collected on both organizational culture and leadership effectiveness. The sample data schedule would outline the details of the data collection process, including specific variables that will be measured, the methods that will be used to collect the data, and the timeline for data collection. For example, the sample data schedule might include:

##### Variable 1: Organizational culture

- Method of measurement: Organizational culture assessment instrument
- Data collection timeline: Week 1-2

##### Variable 2: Leadership effectiveness

- Method of measurement multifactor leadership questionnaire
- Data collection timeline: Week 3-4
- Sample size: 10 Malaysian manufacturing firms
- Data analysis method: Multiple regression analysis

The data collected would then be analysed using statistical methods to determine the nature and strength of the relationship between organizational culture and leadership effectiveness in Malaysian manufacturing firms. The findings of the study could have implications for how organizations in this industry can improve their leadership effectiveness through cultural interventions. Sample example data for compare MEAN analysis refer to table below.

#### 4.5 Discussion

The detail of this correlation will further discuss as stated in Table 2 The result has shown that comparison between range lengths of employees is employees' spirit which is significant 0.009 between groups 2.009 and within groups is 0.617, and the higher significant selected from the question in the questionnaire is the quality of my work significant to 0.174

which is between groups is 1.220 and within groups is 0.748. The entire question selected from the question in the questionnaire is significant because the value is below than 0.5.

According to Table 3 has shown that the comparison of means for male respondents was higher compared to female respondents for all questions. It is indicated that the level of awareness of male respondents is higher than female respondents on the successful college management itself. In table 4.4 shown that the range of male was approximately 3.119 to 3.786 which is higher compared to the mean for female respondents which is 3.192 to 3.942. The highest mean is 3.942 which related to the question The influence of organizational culture on leadership effectiveness in Malaysian manufacturing firms.

## 5. RECOMMENDATION

The influence of organizational culture on leadership effectiveness can vary depending on the specific cultural context of the organization. In the case of Japanese culture in Malaysian manufacturing firms, here are some recommendations for how organizational culture can be leveraged to enhance leadership effectiveness:

**Emphasize teamwork and collaboration:** Japanese culture places a strong emphasis on group harmony and collective decision-making. In order to maximize leadership effectiveness in a Malaysian manufacturing firm, leaders should foster a culture that values collaboration and teamwork. This can be achieved through team-building exercises, cross-functional projects, and regular communication between teams.

**Encourage continuous improvement:** Another key aspect of Japanese culture is the focus on continuous improvement, or "kaizen." Leaders should create a culture that encourages employees to identify areas for improvement and to take ownership of their work processes. This can be done through regular training sessions, performance reviews, and the establishment of clear performance metrics.

**Foster a culture of respect:** Japanese culture places a strong emphasis on respect for authority and for one's colleagues. In order to maximize leadership effectiveness in a Malaysian manufacturing firm, leaders should foster a culture of respect that values open communication and constructive feedback. This can be achieved through regular feedback sessions, team-building exercises, and the establishment of clear lines of communication.

**Promote innovation and creativity:** While Japanese culture places a strong emphasis on tradition and stability, it also values innovation and creativity. Leaders should create a culture that encourages employees to think outside the box and to explore new ideas. This can be achieved through the establishment of innovation hubs, regular brainstorming sessions, and the allocation of resources for research and development.

## 6. CONCLUSION

Based on the available literature, it can be concluded that organizational culture has a significant impact on leadership effectiveness in Malaysian manufacturing firms. A positive organizational culture can lead to effective leadership by providing a supportive environment, fostering open communication, and encouraging employee engagement and empowerment. On the other hand, a negative organizational culture can hinder leadership effectiveness by creating a hostile work environment, hindering communication, and limiting employee involvement and innovation.

It is important for organizations to recognize the importance of organizational culture and its impact on leadership effectiveness. Companies should strive to cultivate a positive and supportive culture that enables their leaders to succeed and thrive. This can be achieved through various measures such as developing effective communication channels, promoting a culture of collaboration and innovation, and providing ongoing training and development opportunities for leaders and employees alike.

Overall, the relationship between organizational culture and leadership effectiveness is complex and multifaceted. By understanding and actively managing their organizational culture, Malaysian manufacturing firms can improve their leadership effectiveness and achieve greater success in today's highly competitive business environment.

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