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Leadership style and company performance in the manufacturing industry

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ABSTRACT

BACKGROUND AND OBJECTIVES: Leadership styles will have different effects on company performance, so many literatures in China study the relationship between leadership styles and company performance in manufacturing. The purpose of this study is to investigate the relationship between leadership styles and company performance in Chinese manufacturing. As a result of ineffective management in leading employees, China is currently experiencing poor financial and marketing performance, which has resulted in poor business operations and lower productivity, both of which have a direct impact on the company's performance in China's manufacturing industry.

METHODS: This study adopts quantitative research method to collect data of factors affecting company performance through questionnaires, the sampling technique is snowball sampling. A total of 450 questionnaires were sent out to the respondents, and a total of 384 questionnaires were returned. Among them, 290 questionnaires were usable. A preliminary study was conducted to ensure that the adjusted questionnaire items were appropriate and valid for the study. In actual data collection, 290 responses were successfully collected in this study, with a response rate of 65%. The SPSS software was utilized to analyze the data in this study.

FINDINGS: Based on the quantitative data analysis, the findings found that dictatorial leadership style paternalistic leadership style, autocratic leadership style, and laissez-faire leadership style insignificantly correlated with company performance in China. Democratic leadership style significantly correlated with company performance in China. Further, research findings have been discussed in the discussion of results.

CONCLUSION: These findings may provide the purpose of this study that characterize company performance, confirm leadership style in the Chinese manufacturing sector, and apply performance theory to further analyze the effect of leadership style. The Tannenbaum and Schmidt leadership styles should suggest that leadership behaviour varies along a continuum, with a level of follower participation and involvement in

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INTRODUCTION

In 2021, manufacturing accounted for 27.44% of China's Gross Domestic Product (GDP), making it an indispensable industry in China's economic development (Li, 2018). Compared with the impact of the COVID-19 pandemic in 2020, China's manufacturing industry has recovered very quickly, which is an important condition to support the healthy development of the real economy and promote China's sustainable development (Erjavec et al., 2018). Manufacturing is the processing and production of goods through the interaction of labor and mechanical tools (Akparep et al., 2019). The sending and distribution of workers and supplies were significantly hampered when COVID-19 occurred, disrupting the global manufacturing industry, especially small industries, which like the rest of the firm, lacked methodical management and skilled leadership to lead it through the crisis and was thus seriously (Muenjohn et al., 2018). Therefore, good leadership is one of the important factors of sustainable development, and Tannenbaum and Schmidt Continuum is a very simple and easy-tounderstand leadership theory mode (Li, 2018). Which shows the level of freedom leaders choose to give to the team and the authority used by leaders' relationship between degrees (Ginesti et al., 2018). In China, due to ineffective management, the performance level of multiple manufacturing companies is low, resulting in the proportion of China's manufacturing industry in GDP decreased from 28.95% in 2015 to 26.18% in 2020 (Siagian et al., 2020). Management roles create unfair workplace and ineffective employee management, direct changes in operational productivity and company performance (Yu and Huo, 2018). Different leadership has different ways to build employee loyalty and trust. When a business is poorly run, it can do lasting damage to employee relations and lead to a toxic and unsavory work atmosphere that leads to poor business performance (Yu et al., 2018). Many companies' management failed to detect internal signs of disappointment and external changes in business decline (Bavoso, 2018). Due to poor management, many companies are faced with unethical practices, poor financial performance and high attrition rates that make it difficult to achieve set goals (Romule et al., 2020). The relationship between management and employees is always crucial to the success of a company because there is a direct cause-and-effect relationship between them, which helps achieve the common goals of the company (Chakraborty et al., 2018). There is a positive correlation between poor management and company performance, the management lacks adaptability to the opinions of subordinates, the rapidly changing business environment leads to the situation of making wrong decisions in strategic planning and forecast, and the company's financial or profit burden is high (Osadchy et al., 2018). The purpose of this research is to see how Tannenbaum and Schmidt's leadership style influences company performance in China's manufacturing business. It aims to learn why it's critical to figure out which leadership style is optimal for each employee to increase company performance. The innovation of this study is to display the effectiveness of a company's performance is influenced by its employees' skills and knowledge, technology, equipment, working environment, strategic setting, and human interaction process (Hamdan, 2018).Therefore, whether different leadership styles in Tannenbaum and Schmidt leadership have a significant impact on the performance of Chinese manufacturing companies, and what leadership styles are preferred by employees and can improve company performance, further research is needed. Environmental factors such as intense competition, changing customer needs, and the rate of technological development affect the performance of many businesses. Internally, the company faced challenges such as unethical business practices, high employee turnover, and poor financial management, all of which resulted in unrealized missions and visions. Because a variety of factors within a company affect its financial and marketing performance and help maintain its survival and competitive position, company performance remains an important research variable in the field of management (Nefdt, 2019). According to the literature review, in China, there are still few research on the relationship between Tannenbaum and Schmidt's leadership theory and manufacturing company performance (Chen and Appienti, 2020). To achieve these objectives, the research survey was conducted among employees in manufacturing at Shanghai, Jiangsu, and Zhejiang in March 2022.

Literature review

Empirical study on the relationship between Tannenbaum and Schmidt's leadership style and company performance

Company performance refers to a company's ability to achieve high profits, good product quality, market share, and good financial results over a period, whether the company can meet the needs of market stakeholders or its own survival goals (Kurilova and Antipov, 2020). In a competitive market, company performance may be considered as a criterion for judging whether a firm can satisfy the requirements of its stakeholders or accomplish its own survival goals. Dictatorial Leadership Style, Paternalistic Leadership Style, Autocratic Leadership Style, Democratic Leadership Style and Laissez-Faire Leadership Style were developed by Tannenbaum and Schmidt, who enhanced the characteristics of the dictatorial to laissez-faire dichotomy, resulting in five distinct leadership styles: Dictatorial Leadership Style, Paternalistic Leadership Style, Autocratic Leadership Style, Democratic Leadership Style, and Laissez-Faire Leadership Style (Davis and Silvestri, 2020). The anti-democratic leadership style creates a political environment in which the concentration of power in individuals must be limited to achieve positive change (Nefdt, 2019). This leadership style also lacks innovative ideas because individual groups are not allowed to participate in decision-making, which has a decision on the company performance (Ivanova et al., 2019). Paternalistic leadership is considered the worst leadership style because it treats employees like children who are not mature and infringes on their rights (Nidadhavolu, 2018). Employers are moving towards paternalistic leadership style over authoritative leadership style because leaders show more concern for employees' individual well-being and employees respond positively (Widodo et al., 2017). It has a beneficial impact on voice behavior, in which company confidence is critical, and the leader must show concern for employees by respecting their opinions (Sungur et al., 2019). Employee's dislike authoritarian leadership because it restricts their freedom. Autocratic leadership style limits innovative problem-solving solutions, and leaders should avoid using it because it has a bad for company performance (Peker et al., 2018). This leadership style focuses solely on performance rather than company welfare (Davis and Silvestri, 2020). Autocratic leadership has certain advantages, such as being useful in groups of people who lack direction and being effective in emergency situations by allowing quick decisions to be taken, which decreases tension and helps employees to focus (Davis and Silvestri, 2020). When actions must be decided quickly and without consultation with others, an autocratic leadership style is appropriate, it allows staff to focus on their tasks without worry, which some employees prefer (Nasab and Leila, 2019). Nevertheless, democratic leadership promotes employee motivation, engagement, and performance, and it is recommended that this leadership style be used in organizations for success (Nazarian et al., 2021). Democratic leadership has been proven in studies to have developing tendencies that boost company success (Breevaart and Zacher, 2018). On another way, Laissez-faire leadership ignores employee personal development because leaders believe employees are capable of handling responsibilities on their own, yet the results demonstrate a loss in company performance (Hao et al., 2018). Through the components of company performance, employees are the most important component of a company, creating value for the company and Key Performance Indicators (KPI), and the leadership style of managing employees has become an important part (Haran et al., 2020). Therefore, leadership is closely related to company performance and determines the enthusiasm and productivity of employees (Nazarian et al., 2021). Thus, company performance and leadership outcomes may be correlated, since it is an ongoing process of aligning performance with the strategic objectives of the organization through leadership (Wu et al., 2020).

Theoretical framework

Psychologically near leaders, according to contingency leadership theory, are like informal encounters that prioritize interpersonal ties, whereas psychologically remote leaders are separated and extremely work-oriented. According to the Tannenbaum and Schmidt Leadership Theory, leaders may use a variety of leadership styles and actions to affect their employees' performance (Tannenbaum and Schmidt, 1973). Because each sort of leadership style is dependent on distinct events, contingency leadership theory rejects that there are excellent or terrible leadership styles (Chen and Appienti,

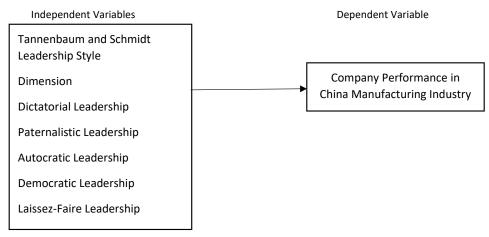


Fig. 1: Leadership style and company performance in the manufacturing industry

2020). The basic approach to leadership appropriate based on the environmental scenario that emerges in the context of a given action or behaviour is the Contingency Theory of Leadership. In this study, Contingency theory become secondary theory due to implement Tannenbaum and Schmidt Leadership Theory. Therefore, the contingency theory also one of the most reliable leadership theories (Waters, 2013). This diversity of evidence leads specialists to conclude that the situational environment influences a leader's performance. The Contingency Theory of Leadership contends that leaders should not be expected to lead in every event and that organizations should try to place leaders in the best possible situations (Finkelstein et al., 2008 in Waters, 2013). That's why various countries have experienced in dealing with the COVID-19 crisis. So that, it is still unknown when the pandemic will end because certain leadership styles are only appropriate for situations in specific countries while cannot be generalized. In this case, Fiedler (1967) created the notion of adaptive leadership, in which leaders establish leadership styles that are appropriate for employees' personalities, qualities, and talents. Different leadership styles are provided by Tannenbaum and Schmidt Leadership Theory, which may be chosen based on many criteria such as leaders' behaviors and workers' perceived traits. According to Chen and Appienti (2020), in emergent leadership style, there are two sorts of leaders: psychological closeness and psychological detachment. Authoritarian leadership style, paternalistic leadership style, authoritarian

leadership style, democratic leadership style, and laissez-faire leadership style are among Tannenbaum and Schmidt's five significant leadership styles (Davis and Silvestri, 2020).

MATERIALS AND METHODS

Survey design and data collection

ANOVA regression results were utilized to analyze the outcomes of hypotheses in this study to evaluate the influence of independent variables on the dependent variable in a regression analysis. As a result, the statistical analysis of this study was done using t-test procedures created in the twentieth century. This is a non-probabilistic, snowball sampling design. The questionnaires were generated on Google forms, and shared with family members, colleagues, and friends through email, WeChat, WhatsApp, etc., among employees in the manufacturing industry in China. The total number of targeted employees in China's manufacturing industry is 12.445 million (China Statistics Bureau, 2021). Therefore, the sample size of this study is 290 respondents for this study. A structured questionnaire was used in the study to assess the factors affecting company performance in China manufacturing industry by Tannenbaum and Schmidt Leadership Styles. Among them, Tannenbaum and Schmidt Leadership Styles, Dictatorial Leadership Style, Paternalistic Leadership Style, Autocratic Leadership Style, Democratic Leadership Style, and Laissez-Faire Leadership Style are variables (Luhana, 2014). The questionnaire is measured using Likert scale from score 1-5 statements in five points: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree. The pilot test is approximately 30-50 respondents from sample size. Following the pilot test, the full data collection will be carried out for preliminary run test, respondent demographic profile and hypothesis test (Diamantidis et al., 2019). Questionnaires were used to collect data. This data was analyzed using the SPSS package. Descriptive statistics and inferential statistics are two forms of data analysis. The questionnaire was with respect to the relationship between the two variables, and descriptive statistics were used to indicate the mean scores and percentages were used to describe the background of the respondents. Before conducting research, some preliminary steps must be taken, such as a letter of support from the college, a request from the school for permission to conduct a data collection study. The researchers will then be able to reach out to employees in the Chinese manufacturing industry to answer the questionnaire. The next step is to inform researchers how the research is being conducted online. To answer the questionnaire, the researcher should allocate 15 minutes to the respondents and then click the "submit button" to send it to the researcher. The time frame of the study is known as a one-off study or cross-sectional study because the data will only be collected once at a particular time from respondents of different backgrounds and answered once per respondent. That is, questionnaire survey is distributed to respondents, let them answer once, only collect data once. To avoid error and bias in the sample, the sample must be of sufficient size. However, in the researcher's operation and data analysis, although the sample size is large, the possibility of bias in the research will become smaller, but when the sample size exceeds a certain size, the results obtained will also be affected. The sampling error is determined by the formula to determine the sample size (Gill et al., 2010).

 $n=P(100-P) Z^2/E^2$

n is the required sample size

P is the percentage occurrence of a state or condition E is the percentage maximum error required

Z is the value corresponding to level of confidence required

The sample size of this study is based on Desired Accuracy with Confidence Level of 95% developed by

Gill et al., (2010). China's manufacturing industry has a total of 12.445 million employees in China (China Statistics Bureau, 2021). As a result, a sample size of 384 will be used. A total of 450 questionnaires will be distributed to China's manufacturing industry for this study.

RESULTS AND DISCUSSION

Reliability statistics and factor analysis for variables entering the analysis

As shown in Table 1, all Cronbach's Alpha values for the variable items are greater than 0.7, which indicates that the items meet the consistency of Internals' rule-of-thumb reliability test. These items are therefore considered reliable and acceptable for further analysis. Bougie and Sekaran (2019), reliability tests are used to measure the consistency of items with research constructs. Cooper and Schindler (2006) considered acceptable data for internal consistency with a Cronbach's Alpha value greater than 0.7. The results of the initial test reliability analysis of the variables in this study are as Table 1. Factor analysis is a technically similar construct that reduces variables exponentially and groups shared variables (Quinlan et al., 2019). The minimum standard proposed by Cooper and Schindler (2006) is that the Bartlett sphericity test of KMO measurement must reach 0.6. When the KMO statistic is below 0.5, factor analysis is not suitable for application, and redesign of the variable structure or the use of other statistics should be considered. As mentioned above, the rules for the KMO test are that the value must be above 0.6, and the significance value of Bartlett's sphericity test must be < 0.05 (Cooper and Schindler, 2006). The factor loading value for each item in the questionnaire should be larger than 0.6, and if the factor loading value is less than 0.6, the item should be deleted from the study (Tabachnick et al., 2007). However, because the sample size utilized in the pilot scale is 10% of the overall sampling, components with a factor loading value larger than 0.5 but less than 0.6 are acceptable (Cooper and Schindler, 2006). It can be seen from Table 1 that the KMO and Bartlett's sphericity test results of the dependent and independent variables all meet the rules and are suitable for further research.

Eigenvalues Test

Eigenvalues are used to pool variances to determine the number of eigenvalues greater than

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Table 1. Reliability and factor loading statistics results

Constructs	No of items	Items	Cronbach's Alpha	Factor Loading
Company	4	I am satisfied with my company's performance in the past.	0.826	0.619
performance		I am not worried that the company will terminate employees.		0.672
		I believed that my company is one of the top performing companies in the industry.		0.737
		It is very likely that I will be awarded with an increment		
		of salary as my company's financial position is strong.		0.604
Dictatorial Leadership	4	Leader orders his or her employees to perform specified duties or jobs.	0.778	0.694
Style		Leader warns his subordinates about the tasks that must be completed and when they must be completed.		.873
		Employees who did not follow conventional norms and regulations were disciplined by their leader.		0.664
		Leader makes it clear to all his or her subordinates that they must perform at the desired level.		0.607
Paternalistic Leadership	4	I maintain a friendly working relationship with my leader. Leader does little things to make it pleasant to be a	0.862	0.873
Style		member of the group. Leader helps subordinates overcome problems that stop		0.774
		them from carrying out their tasks. Leader behaves in a manner that is thoughtful of		0.623
Autocratic	4	subordinates' personal needs. Without consulting his or her subordinates, my leader	0.702	0.721 0.620
Leadership Style	4	takes his own judgments. Leader does not take suggestions from subordinates into account since he does not have the time.	0.702	0.689
		Within my department or team, my leader always has final decision-making authority.		0.684
		For prospective plans and projects, my leader does not solicit staff thoughts or comments.		0.633
Democratic	4	When my leader has a problem, he/she discusses with his	0.746	0.601
Leadership Style		or her employees. Leader is open to recommendations and ideas from his or her workers.		0.603
		Leader solicits advice from his or her staff on how to complete tasks.		0.657
		Leader asks for thoughts on what projects the team should work on.		0.685
Laissez-Faire Leadership	4	Leader empowers his or her subordinates to decide what must be done and how it should be done.	0.715	0.616
Style		Leader empowers new hires to make decisions without seeking approval.		0.615
		Leader doesn't keep an eye on his or her staff to make sure they're following the rules.		0.653
		Leader believes that everyone can lead themselves in the same way that he/she is.		0.624

1, to determine whether a variable is relevant to the study, and whether the structure and dimensions are appropriate (Cooper and Schindler, 2006). Tabachnick et al., (2007) proposed that only eigenvalues greater than 1 were of statistical significance for analysis, and furthermore, the number of eigenvalues greater

than 1 was 50 equals to 4 for variables in independent dimensional studies. If the number of eigenvalues greater than 1 is higher than the dimensionality of the independent variable in the study, a check is needed to determine whether the dependent variable is included in the test, as it should not be,

Table 2: Eigenvalues Test

Constructs			l Eigenvalues			Sums of Square	
	Items Tota		Variance Cum			% of Variance	
Company performance	I am satisfied with my company's performance in the past. I am not worried that the company will terminate employees.	1.785 1.628	44.629 40.709	44.629 85.337	3.413	85.335	85.337
	I believed that my company is one of the top performing companies in the industry. It is very likely that I will be awarded with	.311	7.765	93.102			
	an increment of salary as my company's financial position is strong.	.276	6.898	100.000			
Dictatorial Leadership	Leader orders his or her employees to perform specified duties or jobs.	6.900	34.498	34.498	6.900	34.498	34.498
Style	Leader warns his subordinates about the tasks that must be completed and when they must be completed. Employees who did not follow conventional norms and regulations were disciplined by	3.261	16.305	50.803	3.261	16.305	50.803
	their leader. Leader makes it clear to all his or her subordinates that they must perform at the	1.837	9.185	59.988	1.837	9.185	59.988
	desired level.	1.197	5.983	65.971	1.197	5.983	65.971
Paternalistic Leadership	I maintain a friendly working relationship with my leader.	1.176	5.878	71.849	1.176	5.978	71.849
Style	Leader does little things to make it pleasant to be a member of the group. Leader helps subordinates overcome	.981	4.907	76.756	1.107	3.778	74.568
	problems that stop them from carrying out their tasks.	.743	3.713	80.469			
	Leader behaves in a manner that is thoughtful of subordinates' personal needs.	.626	3.130	83.599			
Autocratic Leadership Style	Without consulting his or her subordinates, my leader takes his own judgments. Leader does not take suggestions from	.599	2.993	86.592			
Style	subordinates into account since he does not have the time. Within my department or team, my leader	.543	2.717	89.309			
	always has final decision-making authority. For prospective plans and projects, my	.471	2.356	89.309			
	leader does not solicit staff thoughts or comments.	.386	1.928	93.593			
Democratic Leadership Style	When my leader has a problem, he/she discusses with his or her employees. Leader is open to recommendations and	.300	1.500	95.093			
Style	ideas from his or her workers. Leader solicits advice from his or her staff on	.250	1.251	96.344			
	how to complete tasks. Leader asks for thoughts on what projects	.226	1.131	97.475			
	the team should work on.	.166	.831	98.948			
Laissez-Faire Leadership Style	Leader empowers his or her subordinates to decide what must be done and how it should be done.	.128	.642	98.948			
,	Leader empowers new hires to make decisions without seeking approval.	.113	.567	99.515			
	Leader doesn't keep an eye on his or her staff to make sure they're following the rules.	.055	.274	99.789			
	Leader believes that everyone can lead themselves in the same way that he/she is.	.042	.211	100.000			

and the eigenvalues greater than 1 are lower than the study. The dimensions of the independent variables were supported by the literature, will consider combining or eliminating dimensions (Hair et al., 2018). Tabachnick et al, (2007) mentioned that only eigenvalues of 1 or more are of statistical significance for analysis. As shown in Table 2, only one component has an eigenvalue greater than 1, which corresponds to the number of dependent variables in the study. Furthermore, Table 2 shows that there are five components with eigenvalues greater than 1, which also correspond to the dimensionality of the independent variables that this study intends to examine. This indicates that all questionnaire items, dependent variables, and independent variable dimensions in this study are complete and stable and can be further analyzed. Cooper and Schindler (2006) postulate that if the number of components combined in the correlation matrix from which eigenvalues are extracted is equal to the number of study variables, no further examination and modification of the item is required.

Multiple Regression – Coefficients

Bougie and Sekaran (2019), researchers should evaluate the regression outcome after confirming the multiple regression assumption. The assumption of multicollinearity for all of the componentes is validated, as shown in Table 3, all of the dimensions of the independent variable are having Variance Inflation Factor (VIF) value of less than 10, as recommended by Cooper and Schindler (2006). Furthermore, all of the tolerance values for the dimensions of the independent variable are larger than 0.1, the tolerance values for the dimensions of the independent variable suggest a low degree of multicollinearity. This means that the amount of skewness in the data for all of

the variables is within acceptable limits. According to Table 3, all four elements of leadership style were significant when examining each of the dimensions of the independent variable since the p-value for each factor was less than 0.05, which is the rule of thumb suggested by Bougie and Sekaran (2019). In other words, dictatorial leadership (p = 0.030, significant at the 0.05 level), paternalistic leadership (p = 0.011, significant at the 0.05 level), autocratic leadership (p = 0.018, significant at the 0.05 level), democratic leadership (p = 0.000, significant at the 0.05 level) and Laissez-faire leadership (p = 0.042, significant at the 0.05 level) are all significant predictors of company performance in China's manufacturing industry. Furthermore, democratic leadership has the highest beta coefficient (=0.226), indicating that it is the most important component, since it has the most impact on company performance. In comparison to the other characteristics, autocratic leadership has the lowest beta coefficient (= -0.034), and so has the least impact on company performance. Dictatorial (-0.129), paternalistic (- 0.170) and laissez-faire (- 0.030) leadership styles have a somewhat unfavorable impact on company performance. According to the statistical findings, only democratic leadership has a substantial positive connection (β = 0.226) with company performance in China's manufacturing industry. However, even though other leadership styles have a considerable impact on company performance in China's manufacturing industry, the link is negative (β= -0.129; $\beta = -0.170$; $\beta = -0.034$; $\beta = -0.030$). This suggests that in China manufacturing industry, company performance decreases when autocratic, dictatorial, paternalistic, and laissez-faire leadership styles are prevalent. The statistical findings demonstrating the negative impact are useful in better understanding how to use leadership style more effectively.

Table 3: Multiple Regression-Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.	Collinearity Statistics	
		В	Std. Error	Beta			Tolerance	VIF
	(Constant)	4.743	.304		15.594	.000		
1	Dictatorial	171	.079	129	-2.178	.030	.776	1.288
	Paternalistic	154	.061	170	-2.547	.011	.607	1.647
	Autocratic	037	.071	034	527	.018	.642	1.558
	Democratic	.187	.052	.226	3.573	.000	.677	1.476
	Laissez	026	.057	030	465	.042	.648	1.544

a. Dependent Variable: Company Performance

Discussion of Research Finding

The analytical assumptions are consistent with the specific analytical queries of this study to find the link between leadership and company performance. Table 4 summarizes the assumptions of this study.

H1: Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry

Regression results of ANOVA show that there is an insignificant relationship between Tannenbaum and Schmidt leadership style and company performance of Chinese manufacturing industry, so H1 is rejected. Leadership factors have a significant impact on company performance regardless of the type of leadership theory (Smajlovic et al., 2019). According to the current research results, when the leadership style factor is based on the path goal leadership model, it can significantly explain the 51.5% difference in the performance of Chinese manufacturing industry. Regression analysis shows that compared with other leadership theories; path-goal leadership model can better explain the impact of leadership style on company performance. While many researchers have found that company performance is affected by other factors, most of these factors are also related to the leadership style adopted in the organization, such as job satisfaction, company culture, and company welfare (Khan et al., 2019). Therefore, the leadership style adopted may be a dominant factor in a company's performance, according to the findings of the recommendations.

H1a: Dictatorial Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.

Regardless of the type of leadership theory, leadership factors have an impact on company performance, although significant relationship may be negative (Smajlović et al., 2019). Regression analysis shows that compared with other leadership theories; most paths of path-goal leadership model bring negative effects on company performance. When the style of path-goal leadership rises, company performance will decline. While many researchers have found that company performance is influenced by other factors, most of these factors are also related to the leadership style adopted in the organization, such as job satisfaction, company culture, and company welfare (Khan et al., 2019). Therefore, according to the suggested results, only by using leadership style reasonably can the company's performance be positively improved. According to research, dictatorial leadership has a negative impact on workplace outcomes such as team interaction, employee commitment towards the organization, task performance, helping, vocalization behavior, and organizational performance (Pellegrini and Scandura, 2008; Chan et al., 2013; Schuh et al., 2013; Chen et al., 2014; Duan et al., 2018; Harms et al., 2018; Shen et al., 2019). Researchers have discovered that authoritarian or dictatorial leadership has a detrimental impact on employee outputs in the workplace, based on intrinsic motivation theory (Zhang et al., 2014).

Table 4. Summary of Research Findings

No.	Hypothesis	Results
1.	H1a: Dictatorial Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.	Rejected
2.	H1b: Paternalistic Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.	Rejected
3.	H1c: Autocratic Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.	Rejected
4.	H1d: Democratic Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.	Accepted
5.	H1e: Laissez-Faire Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.	Rejected

H1b: Paternalistic Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.

The results show that in Chinese manufacturing companies, paternalistic leadership as a dimension of path goal leadership style has a significant relationship with company performance is rejected. From the beta coefficient table, the relationship between them is negative, indicating that the higher the paternalistic Leadership is, the company performance will decline. Nidadhavolu (2018) think paternalistic leadership is considered the worst leadership style because it treats employees like children who are not mature and infringes on their rights. Dedahanov et al., (2016) and Jogulu (2010) observed that paternalistic leadership is most effective when leadership is missing, particularly in small groups characterized by poor organization and time management, as difficulties in establishing and implementing effective strategies. In this case, depending on the factors utilized by researchers, different leadership styles may have a positive or negative association with organizational performance (Wang et al., 2010). So that, in this study, paternalistic leadership style has an insignificant relationship with company performance because paternalistic leadership style is not suitable to be implemented in the organizational even it will not give any successful intention to the leaders and employees.

H1c: Autocratic Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.

The results show that autocratic Leadership as a dimension of path goal Leadership style is significantly associated with company performance in Chinese manufacturing companies is rejected. According to the beta coefficient table, the relationship between the two is negative so is rejected, indicating that the higher autocratic Leadership, the company performance will decline. Peker et al., (2018) believed that autocratic leadership style limits Innovative problem-solving solutions, and leaders should avoid using it because it has a bad for company performance Style focuses on performance rather than company welfare, leading to negative perceptions of employees that adversely affect company performance. Previous

data also suggest that autocratic leadership has a negative impact on company staff performance. It shows that enacting an authoritarian policy would not affect worker productivity (Jony et al., 2019). Perhaps employees do not have the benefit of sharing expertise and experience to tackle the problem, low motivation can lead to poor performance. When an autocratic leader makes decisions, he or she is unconcerned about what happens to people, and the connection between employees and leaders might deteriorate (Jaafar et al., 2021). It causes the lower company performance to happen due to incorporate relationship between leader and employees.

H1d: Democratic Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.

According to the statistical findings, only democratic leadership has a substantial positive connection (β = 0.226) with company performance in China's manufacturing industry. The results show that democratic Leadership, as a dimension of path goal Leadership style, has a significant relationship with company performance in Chinese manufacturing companies. Therefore, H1d is accepted. According to the beta coefficient table, the relationship between the two is positive, indicating that the higher the Democratic Leadership is, the higher the company performance will be. Democratic leadership allows employees to have a say in how decisions are made, which free-living and productivity all improve their productivity (Chukwusa, 2018). Meanwhile, Shanmugam et al., (2020) believed that democratic leadership fosters solidarity among employees of all races and fostering an environment in which employees can openly express their opinions and emotions. Democratic leadership style has the benefit of allowing complex issues to be resolved quickly with employee involvement, who varying employee selfconfidence, responsibilities, productivity, and quality of work are all supported by the Hypothesis of H1d.

H1e: Laissez-Faire Leadership Style as a dimension of Tannenbaum and Schmidt Leadership Styles has a significant relationship with company performance in China manufacturing industry.

The results show that laissez-Faire Leadership, as a dimension of path goal Leadership style, has a

significant relationship with company performance in Chinese manufacturing companies be rejected. According to the beta coefficient table, the relationship between the two is negative so is rejected, indicating that the higher the Laissez-Faire Leadership is, the company performance will decline. Mahrani and Noorlailie (2018) believed that People view Laissez-Faire leadership to be contradicted because giving employees too much freedom leads to confusion, indecision, low motivation, and underused potential, all of which hinder company performance. At the same time. Hurd (2020) also supported the view that Employees' passion for their employment and faith in their leaders are harmed by Laissez-Faire leadership because employees regard their leaders as ineffectual, resulting in under performance and failure to meet company goals. Moreover, the findings from restaurants of Mymensingh, Bangladesh showed that company performance is proven to be negatively impacted by the laissez-faire leadership style (Jony et al., 2019) because the success of restaurants is not influenced by laissez-faire leadership. This technique works best when employees have a clear grasp of their roles and excellent analytical skills and when supervisors have a high level of employee trust and do not blame each other for mistakes.

Limitation and contribution

The interviewees' backgrounds are in the age bracket, with most of the interviewees being between the ages of 21 and 30. This will have an impact on the universality of research on manufacturing business performance. Future research should close this gap by ensuring that respondents come from a diverse range of backgrounds. Future studies could concentrate on context by examining a certain age group independently to better understand the relevant ages. Therefore, the limitation as a cross-sectional in this study can be gained if the study is employed as a longitudinal study for a deeper understanding of company performance in the manufacturing industry. In this case, this study provides a very favorable insight into the relationship between path-goal leadership style and company performance. In addition, this research not only has certain contribution to the industry, but also has certain contribution to the academic circle. It is useful in understanding the company performance of Chinese manufacturing businesses. The independent variable and pathgoal leadership style, suggests that this model has reference value for future researchers' leadership style research. Furthermore, the findings of this study can be used as a foundation for future research. The theoretical framework's importance provides an avenue for scholars to investigate this link. Finally, the success of this study can help scholars duplicate it in new situations or perform similar studies using different approaches. Company performance as the most important point of the organization, the key goal is the focus of company research. In the existing environment, in addition to survival, the company also needs to meet sustainable development and improve the company's performance level and company performance. As an important part of the company, leadership style plays a very important role in company performance and determines the work efficiency of employees. This study establishes some reasonable methods for Chinese manufacturing leadership style, leadership style will improve company performance. Leaders must implement accurate leadership style in management, which is suitable for the development of the company and can be accepted by employees. Only in this way can the company's performance be improved, and different leadership styles can be used in fundamentally different situations to effectively promote company performance. The analysis recognizes the importance of leadership style to company performance and helps improve company performance in China's manufacturing industry. Provide substantial help to the development of the company.

CONCLUSION

The financial and non-financial parts of an organization combine to generate company performance. These factors should be used to determine how successfully a company is executing its business strategy and areas for improvement. As an important part of the company, leadership style plays a very important role in company performance and determines the work efficiency of employees. This study establishes some reasonable methods for Chinese manufacturing leadership style, leadership style will improve company performance. Leaders must implement accurate leadership style in management, which is suitable for the development of the company and can be accepted by employees. Only in this way can the company's performance

be improved, and different leadership styles can be used in fundamentally different situations to effectively promote company performance. The analysis recognizes the importance of leadership style to company performance and helps improve company performance in China's manufacturing industry. Provide substantial help to the development of the company. A democratic leadership style improves company performance because it ensures that employees understand exactly what is expected of them and that they are more likely to achieve the desired goals. The knowledge gap revealed innovation by separating dictatorial and paternalistic leadership styles as new knowledge in the current study to meet the study's goal. It provides comprehensive knowledge to all industrial leaders, including dictatorial and paternalistic leadership. It has a positive effect on democratic leadership. However, dictatorial leadership and employee performance have an insignificant result due to the managerial approach that involves a dominant authority figure who acts as a patriarch or matriarch and treats employees. Instead of three factors (autocratic, democratic, and laissez-faire) that were evaluated with company performance, this study demonstrated novelty by distinguishing dictatorial and paternalistic leadership styles as new knowledge in the current study. As a result, it not only provides a comprehensive knowledge system of personnel management for academia, but also serves as inspiration for the manufacturing business by relating leadership theory to various variables ranging from dictatorial to paternalistic leadership styles.

AUTHOR CONTRIBUTIONS

L. Wei performed the literature review, experimental design, analyzed and interpreted the data, HL. Vasudevan, prepared the manuscript text, and manuscript edition.

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CONFLICT OF INTEREST

The authors declare no potential conflict of interest regarding the publication of this work. In addition, the ethical issues including plagiarism, informed consent, misconduct, data fabrication and, or falsification, double publication and, or submission, and redundancy have been completely witnessed by the authors.

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ABBREVIATIONS (NOMENCLATURE)

Τ	t-value
Sig	Significant
KPI	Key Performance Indicators
GDP	Gross Domestic Product
Но	Null hypothesis
n	Sample size
p-value	Probability value
R	Pearson correlation coefficient
r-value	Pearson correlation coefficient
R^2	Coefficient of determination
R ^{2 adj}	Adjusted coefficient of determination
VIF	Variance Inflation Factor

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