RESEARCH ON THE RELATIONSHIP BETWEEN JAPANESE CORPORATE CULTURE AND CORPORATE INNOVATION CAPABILITY *

Jianna Huang
Chinese Graduate School,
Panyapiwat Institute of Management,
Thailand
E-mail: 846077942@qq.com

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Abstract

There are many studies on the relationship between corporate culture and innovation capability, but less research on the relationship between corporate culture and innovation capability. This paper incorporates Japanese corporate culture, corporate innovation power and innovation capability into the same subject for research, using quantitative research methods. After research, it is found that the corporate culture of Japanese companies has a very significant impact on innovation capabilities. Therefore, if Japanese companies want to improve their innovation capabilities, they must vigorously build corporate culture that can promote innovation capabilities from three dimensions: values, organizational structure, and interpersonal relationships. This research can provide a blueprint for the construction of corporate culture to foster strengths and circumvent weaknesses and maximize efficiency.

Keywords: Japanese enterprises; Corporate culture; Innovation ability; Innovation motivation;

Introduction

As we all know, the innovation capability of an enterprise is the key and source of power for the sustainable development and growth of the enterprise, which can not only bring huge benefits to the enterprise, but also promote the rapid growth of the enterprise's core competitiveness. Benefiting from the needs of the Korean War and the Vietnam War, Japan received strong support and a large number of orders from the United States after World War II. In addition to Japan's strong industrial base before World War II, Japan has achieved rapid economic development in the more than 40 years after World War II,especially in the precision instrument manufacturing, semiconductor industry, automobile industry and other industries for a long time in the world's first throne. When later generations studied this history, they all identified the unique culture and innovation ability of Japanese companies as one of the reasons for their economic take-off. However, with the signing of the "Plaza Accord" between Japan and the United States in the early 1990s and the subsequent bursting of the stock market and housing market bubbles, the Japanese economy began to enter a decades-long depression. In this regard, a large number of scholars have conducted research from the perspective of enterprises. The famous Japanese economist Nobuo Ikeda believes that "Japan's economic downturn is closely related to the lack of innovation capabilities of Japanese companies, and the reason for this situation lies in Japanese corporate culture. It has been difficult to provide an effective impetus for the innovation capabilities of Japanese companies." In order to deeply explore the relationship between Japanese corporate culture and corporate innovation capability, this paper takes Japanese corporate culture as an independent variable, corporate innovation capability as a dependent variable, corporate innovation motivation as an intermediary variable, and takes corporate culture Z theory, corporate culture element theory,

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technology The theory of innovation dynamics is the theoretical basis, using a combination of literature overview method, questionnaire survey method and data statistics method, taking Japanese companies as the research object, following the research route of "theoretical analysis - empirical analysis - countermeasures and suggestions", focusing on the following aspects: The following aspects are discussed: first, whether Japanese corporate culture has a significant positive impact on corporate innovation capability; second, whether Japanese corporate culture has a significant positive impact on corporate innovation momentum; third, whether Japanese corporate innovation momentum has a significant positive impact on corporate innovation capability Positive impact; Fourth, whether Japanese corporate innovation power has a mediating role between corporate culture and corporate innovation capabilities.

Objective of the Study

The research aims to study the relationship between Japanese corporate culture and corporate innovation capability.

Related Literature Review

The concept of "corporate culture" was discovered by Americans in the 1980s when they studied the reasons for the rapid rise of Japan's economy after World War II. Corporate culture is generally defined as the sum of spiritual wealth with its own characteristics created by enterprises, including entrepreneurial spirit, corporate quality, Corporate values, corporate environment and corporate image, etc. Song Na (2014) stated in "Characteristics of Japanese Corporate Culture and Its Reference Significance" that the reason why Japan can achieve economic take-off in a relatively short period of time is mainly due to Japanese corporate culture. Summarizing the previous research results, the research on Japanese corporate culture is still on the surface or inherent understanding, and is still at a relatively stable research level, ignoring the dynamic research with the times and combined with the external objective environment.

The power of enterprise innovation is the synthesis of various forces from inside and outside the enterprise related to the enterprise's innovative behavior. The research on the specific influencing factors of enterprise innovation power shows the characteristics of the benevolent and the wise. Malelba et al. (2017) take changing market demands as an important indicator, Heath (2017) believes that competitive pressures in the global environment force companies to innovate, and Tashman (2019) believes that improving productivity demand leads to innovation. Li Qianbing (2019) believes that five aspects of innovative culture, common vision, core competitiveness, entrepreneurship and innovation synergy mechanism stimulate innovation within enterprises.

Enterprise innovation capability is the synthesis of enterprise innovation decision-making, R&D, production, marketing and organizational capabilities. Zhang Huayao and Shi Xiaokun (2019) made a report on "Technological Innovation of Japanese Enterprises in Heterogeneous Complementarity and Internationalization" at the 5th Annual Conference on Science and Technology Policy, pointing out that Japanese enterprises are actively using the complementarity of other places. The transformation of innovation resources should not only see their conservative overall statistical results in the internationalization of innovation, but should also gain insight into quiet changes. In general, the research on the innovation capability of Japanese companies mostly focuses on the case analysis method, focusing on a specific company or a specific industry, and tends to technological innovation, while ignoring the

influence of corporate culture. In previous researches, corporate culture and corporate innovation capability are usually studied independently, or only slightly explained as one dimension, and there are few literatures that combine the two.

Research Objectives

1. To study the unique and distinctive corporate culture of Japanese companies is to specifically study their characteristic corporate goals, value systems, codes of conduct, and management principles, so as to understand the impact of corporate culture on corporate innovation capabilities and inspire companies to adjust their business. The direction of cultural construction, fostering strengths and circumventing weaknesses, so that corporate culture can better lead enterprises to exert their innovation capabilities.

2. To provide useful reference and reference for the research and policy adjustment of other countries' social transformation, social development, social governance, business and social and cultural relations, and government and business relations.

Research methods

Using quantitative research methods, this paper firstly describes the construction dimensions and influence effects of Japanese corporate culture, so that readers can clearly understand the important role Japanese corporate culture plays in the development and innovation of Japanese companies; through quantitative analysis methods to assume and verify Japanese companies The positive and negative effects of culture on innovation ability. details as follows:1. Literature overview method. 2. Questionnaire survey method. 3. Statistics method.

Related Literature Review

Theoretical framework

Corporate culture can affect the innovation ability of employees and managers by influencing their basic concepts and ideological and cognitive levels. This influence is mainly concentrated in two aspects. On the one hand, it affects the willingness of employees and managers. Due to the different ideological cognitions of employees and managers, their willingness to innovate and attitudes are also very different. Some employees, managers and enterprise groups are open to innovation, attach great importance to innovation activities, and have a strong willingness to innovate. In the context of today's innovation era, the rapid development of enterprises has a very direct relationship with innovation. Both individuals and enterprises should increase investment in innovation. However, some employees, managers and enterprises disapprove of innovation. They believe that once innovation is successful, it will bring benefits to the enterprise. However, in the process of innovation, a lot of enterprise resources need to be invested, which will bring huge risks to the stability of the enterprise.

They appear to be relatively passive in dealing with innovation issues, and even resist and fear innovation. On the other hand, it affects the corporate culture. A good corporate culture is the guarantee for engaging in innovation. The cultural atmosphere formed by the enterprise is the product of the corporate culture. A cultural atmosphere conducive to innovation can

subtly promote the emancipation of the employees and managers who are in it, and their fighting spirit is high, not only full of innovation power, They also dare to innovate and are good at innovation. Even if they encounter difficulties or face innovation failures, they can regain confidence. And a cultural atmosphere that is not conducive to innovation is bound to have the opposite effect. As practitioners of corporate culture and "subjects" of corporate innovation, employees and managers can fully perceive the degree of acceptance and conceptual understanding of innovation in the corporate culture. The final result of this perception is whether employees and managers have The drive and willingness to innovate and the ability to produce innovative results. This paper argues that the motivation and willingness to drive employees and managers to innovate is innovation motivation, and the ability to produce innovative results is innovation ability. Therefore, in the relationship between corporate culture and corporate innovation capability, it is feasible to consider the factor of corporate innovation power. From the analysis of the four dimensions of corporate culture above, we can see that the four dimensions of corporate culture: parent culture, vitality culture, hierarchical culture, and market culture will have a profound impact on the innovation willingness and innovation motivation of corporate managers and employees. The intensity of innovation willingness and the intensity of innovation motivation will further affect the ability of enterprises to launch innovative results. It is not difficult to see that this process is the logical relationship of "corporate culture - corporate innovation power - corporate innovation capability".

This paper constructs a theoretical framework on the relationship between Japanese corporate culture, corporate innovation dynamics and corporate innovation capabilities.

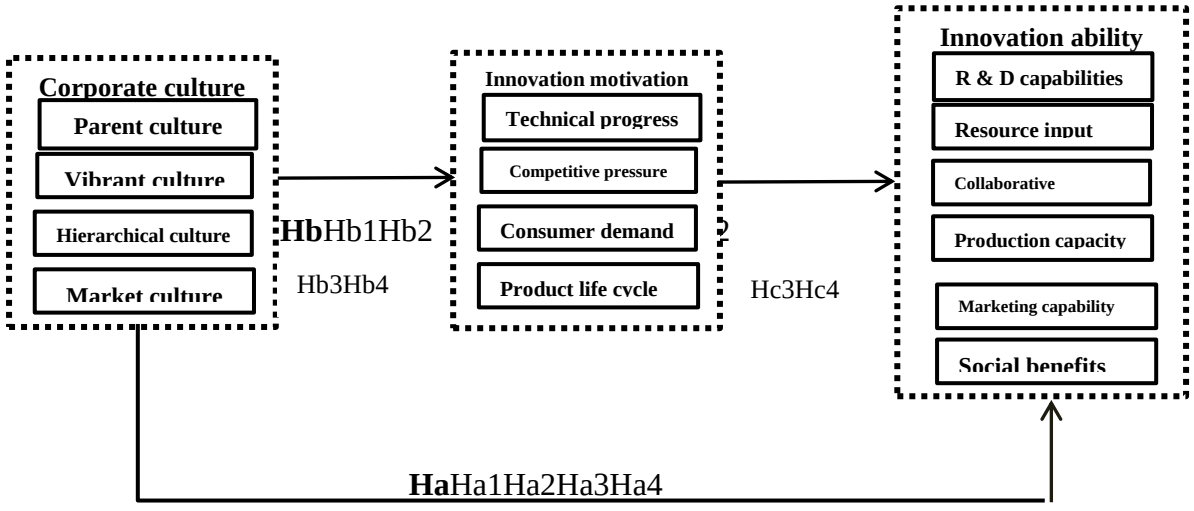

Figure 1: Detailed schematic diagram of the theoretical model

Survey design

The questionnaire is mainly divided into four parts, including: the basic information statistics of respondents, the Japanese corporate culture scale, the Japanese corporate innovation capability scale, and the corporate innovation power scale. Part 1: Basic Questions.

It is mainly based on the age, educational background, position, length of service of the interviewees, and the type and scale of the company they work for. Part II: Corporate culture of Japanese companies. This part of the content is based on the theory of corporate culture constituent elements of Japanese scholar Kono Toyohiro. After referring to the study of Japanese corporate culture by Dushepande et al (1993) and some other related literatures, it was made on the basis of the Organizational Culture Evaluation Scale (OCAI) and combined with the actual situation. The questionnaire was in the form of a Likert scale, the options were gradually transitioned from "completely disagree" to "completely agree", and the corresponding options were assigned according to the score of "1-5". The third part: the innovation ability of Japanese enterprises. This part of the content is based on Rutgers' innovation decomposition theory and deeply combines the actual needs of Japanese enterprises' innovation, and designs 25 items according to the 6 secondary indicators in the enterprise innovation capability factor model. The fourth part: the innovation power of Japanese enterprises. There are 8 questions in the questionnaire.

Questionnaire distribution and recovery

Due to the epidemic, it is inconvenient to travel far for research. Considering the time cost and many other factors, the author decided to use the Questionnaire Star software to conduct an online survey and research method, and finally collect and summarize. Facts have proved that this method not only facilitates the respondents to fill in the questionnaire, but also saves a lot of unnecessary trouble.

Specifically, on the one hand, we sampled students from MBA programs at Sun Yat-sen University School of Management MBA Education Center, Sun Yat-sen University-University of Minnesota CHEMBA, School of Business Administration of Guangdong University of Foreign Studies, Shenzhen University, Shantou University and other MBA programs. It has a high gold content and is also the first choice for Japanese business managers in Guangdong Province to study MBA. Compared with the grass-roots employees of Japanese companies, most of the MBA students are from the management level, and they have a deeper and more thorough understanding of the company's business philosophy, corporate culture, business strategy, and corporate innovation capabilities. On the other hand, samples were taken from Shiseido (China) Co., Ltd., Shantou Plus Instrument Co., Ltd., Guangzhou Honda Automobile Co., Ltd., Dongfeng Honda Engine Co., Ltd., Guangzhou Hitachi Refrigeration Co., Ltd., Toyota Industrial Management (Guangzhou) Co., Ltd., Huage Er (China) Fashion Co., Ltd. Guangzhou Branch, Zhongshan Bridge Chemical Co., Ltd., Nippon Paint (Guangdong) Co., Ltd., Casio (Guangzhou) Trading Co., Ltd., Hitachi Elevator (China) Co., Ltd. Shantou Branch, Guangzhou Sumitomo Corporation, Be able to understand Japanese corporate culture and corporate innovation capabilities in a comprehensive and three-dimensional manner. In addition, with the help of Japanese colleagues, investigations were carried out in many companies in Matsuyama City, Ehime Prefecture, Japan, such as: Miura

Industry, Nippon Shiken, Imabari Shipbuilding, Toyota Motor and other well-known companies.

In fact, a total of 809 questionnaires were collected, 801 valid questionnaires were obtained, and the effective rate was 99.1%. It supports the research needs of this paper, meets the prior expectations, and also meets the research needs of the project. This paper uses SPSS 25.0 statistical analysis software to analyze and process the collected data.

Data analysis

1.Descriptive Statistics

It can be seen from the data such as the minimum value, maximum value, average value, and standard deviation in the table below that the average values of the four dimensions are all distributed between 3.8 and 3.9. Compared with the full score of 5.0, it is relatively good, in which the average value of parent culture is the highest, reaching 3.921, indicating that Japanese companies have done a very good job in building parent culture and can form a consistent parent culture to a large extent through their own efforts. The second is hierarchical culture, market culture, and dynamic culture. Although there is a gap between the four dimensions of corporate culture, the gap is not prominent, and the largest gap is 0.056. However, there is still a certain gap compared with the full score, indicating that Japanese companies still have room for improvement in building a corporate culture that fits the background of the times, which needs to be strengthened in the future. However, judging from the sampling of the sample population, Japanese companies have formed a strong parental culture and hierarchical culture.

Table 1: Descriptive statistics of corporate culture

Descriptive Statistics

Variable name	N	Median	Mean	Std. Deviation
Parental culture	801	4.232	3.921	0.962
Vibrant culture	801	4.364	3.865	0.935
Hierarchical culture	801	4.521	3.894	0.924
Market culture	801	4.452	3.884	0.949
Valid N values (by	801			

The second is the descriptive statistics on the innovation ability of Japanese enterprises. The descriptive statistical results of corporate innovation capabilities show that the corporate innovation capabilities of the Japanese companies where the respondents are located are generally relatively strong. Specifically, among the six dimensions of innovation capability, the synergy capability is relatively weak, while the R&D capability is relatively strong. Among the samples drawn, the number of patent projects with R&D capability has the highest score, indicating that Japanese companies pay attention to patent project applications; the number of

scientific research equipment invested in innovation resource investment capability and the total assets of scientific research equipment have the highest scores, indicating that Japanese companies are very concerned about innovation. In terms of social benefits, the sampled enterprises also have good performance. The social benefit indicators include economic benefits and environmental benefits, both of which have high scores, indicating that these companies have a strong sense of social responsibility.

Table2: Descriptive statistics of innovation capabilities of Japanese companies

Descriptive Statistics

Variable name	**N**	**Median**	**Mean**	**Std. Deviation**
R & D capabilities	801	4.421	3.942	0.921
Resource input	801	4.352	3.884	0.932
Collaborative capability	801	4.474	3.621	0.941
Production capacity	801	4.365	3.746	0.924
Marketing capability	801	4.214	3.810	0.967
Social benefits	801	4.352	3.853	0.914
Valid N values (by list)	801			

The third is the descriptive statistics about the innovation power of enterprises. According to the setting of the previous article, the innovation power of enterprises is divided into four dimensions: technological progress, competitive pressure, consumer demand and product life cycle. Here, a descriptive statistical table of enterprise innovation power is made based on the measured data results. Among them, the average value of the four dimensions is the smallest of 3.882 and the largest of 4.264, all of which are distributed between 3.8 and 4.3, which is relatively good compared to the full score of 5.0. Among them, the average value of consumer demand is the highest, reaching 4.264, indicating that consumer demand It is one of the most important sources of promotion for enterprise innovation. Followed by technological progress, competitive pressure, the average value of the two were 4.123 and 3.985. The smallest mean is the product life cycle. Although there is a gap between the mean values of the four dimensions of corporate innovation, the gap is not prominent, and the largest gap is 0.382. However, there is still a certain gap compared with the full score value.

Table 3: Descriptive statistics of enterprise innovation dynamics

Descriptive Statistics

Variable name	**N**	**Median**	**Mean**	**Std. Deviation**
Technical progress	801	4.432	4.123	0.962
Competitive pressure	801	4.587	3.985	0.935

Consumer demand	801	4.491	4.264	0.924
Product life cycle	801	4.321	3.882	0.927
Valid N values (by list)	801			

2. Regression analysis

In this paper, the significance level is set to 0.05. It can be seen from the bottom that the Sig. values of the four variables in Model 1 are all greater than 0.05. Among them, the T value of parental culture is -.172, which is the smallest among the four variables and needs to be eliminated. The Sig. value of interpersonal relationship in model 2 is .781, which is greater than 0.05, and the T value is -.278, which is the smallest among the three variables and needs to be eliminated. Model 1 and model 2 are not available. In model 3, the T value of the vitality culture is 5.212, the significance is 0.000, and the probability p values of the significance test are all less than the significance level of 0.05; the T value of the vitality culture is 5.985, and the significance is 0.000. The probability p-values were all less than the significance level of 0.05. Therefore, market culture and vitality culture have a significant positive impact on corporate innovation capabilities, the hypothesis that hierarchical culture has a positive impact on corporate innovation capabilities has not been confirmed, and the hypothesis that parental culture has a negative impact on corporate innovation capabilities has not been confirmed, namely Assume that Ha2 and Ha4 are established, and assume that Ha1 and Ha3 are not confirmed.

Table4: Multiple linear regression analysis results of enterprise innovation ability (backward screening strategy)

	Model	Unstandardized coefficients		Unstandardized coefficients	T value	Sig.
		B value	Standard error	Beta value		value
1	(Constant)	22.532	33.355		.676	.501
	Parental culture	-.098	.570	-.091		
	Vibrant culture	.378	.553	.387	.682	.497
	Hierarchical culture	.423	.534	.392	.628	.547
	Market culture	.431	.563	.359	.766	.445
2	(Constant)	16.832	4.202		4.006	.000
	Vibrant culture	.471	.122	.483	3.853	.000
	Hierarchical culture	-.035	.126	-.034	-.278	.781
	Market culture	.526	.104	.439	5.064	.000
3	(Constant)	15.844	2.231		7.101	.000
	Vibrant culture	.531	.102	.443	5.212	.000
	Market culture	.495	.083	.508	5.985	.000

Regression equation	Innovation ability =15.844+.531* Vibrant culture +.495* Market culture
Correlation coefficient::0.994； Coefficient of determinationR²： 0.887。	

Regression analysis of corporate culture on the power of corporate innovation. In Model 4, the Sig. values of the four variables are all greater than 0, and the regression coefficients are all less significant. At the same time, the T value of parental culture is .527, the lowest among the four variables, which should be excluded. In model 5, the T value of the vitality culture was 6.437, and the significance was .000. The T-value for hierarchical culture was 4.160, both of which were significant at .000. The T value of market culture was 5.386, the significance was all .000, and the probability p values of the three variables were all less than the significance level of 0.05. To sum up, dynamic culture, hierarchical culture, and market culture have a significant positive impact on corporate innovation motivation, while the hypothesis that parental culture has a negative impact on corporate innovation motivation has not been confirmed. That is, the hypothesis of Hb2, Hb3, Hb4 was confirmed, while the hypothesis of Hb1 was not confirmed.

Table5: Multiple linear regression analysis results of enterprise innovation dynamics (backward screening strategy)

	Model	Unstandardized coefficients		Standardized coefficients	T value	Sig. value
		B value	Standard error	Beta value		
4	(Constant)	-6.452	19.980		-.323	.747
	Parental culture	.576	.337	.783	.527	.091
	Vibrant culture	.475	.331	.796	1.433	.155
	Hierarchical culture	.180	.341	.272	1.708	.599
	Market culture	.325	.364	.481	.652	.214
5	(Constant)	3.994	2.520		1.585	.116
	Vibrant culture	.401	.062	.546	6.437	.000
	Hierarchical culture	.305	.073	.510	4.160	.000
	Market culture	.268	.050	.449	5.386	.000
Regression equation		Innovation motivation =3.994+.401* Vibrant culture +.305* Hierarchical culture +.268* Market				

culture

Correlation coefficient::0.762; Coefficient of determinationR^2: 0.921。

The regression analysis of enterprise innovation power to enterprise innovation ability. Through the analysis of the following table, we can see that the T value of technological progress is 18.669, and the Sig. value is .000; the T value of competitive pressure is 22.296, and the Sig. value is .000; the T value of consumer demand is 19.608, and the Sig. value is .000. ; The T value of the product life cycle is 20.990, the Sig. value is .000, and the probability p value of the regression coefficient significance test of the enterprise innovation ability is less than the significance level of 0.005. Therefore, the enterprise innovation ability is closely related to technological progress, competitive pressure, consumer demand and The linear relationship of the four variables of the product life cycle is very significant. The final regression equation is innovation power=.255+18.669*technical progress+22.296*competitive pressure+19.608*consumer demand+20.990*product life cycle. To sum up, the four variables of enterprise innovation motivation all have a significant impact on the innovation ability of enterprises, and the four hypotheses of Hc1, Hc2, Hc3 and Hc have been confirmed.

Table 6: Results of Multiple Linear Regression Analysis of Enterprise Innovation Capability (Backward Screening Strategy)

Model 6	Unstandardized coefficients		Unstandardized coefficients	T value	Sig. value
	B value	Standard error	Beta value		
(Constant)	.097	.381		.255	.799
Technical progress	.933	.050	.252	18.669	.000
Competitive pressure	.988	.044	.296	22.296	.000
Consumer demand	.970	.049	.261	19.608	.000
Product life cycle	1.062	.051	.296	20.990	.000
Regression equation	Innovation motivation=.255+18.669* Technical progress+22.296* Competitive pressure+19.608* Consumer demand +20.990* Product life cycle				

Correlation coefficient::0.592; Coefficient of determinationR^2: 0.750。

Regression analysis of the mediating effect of corporate innovation dynamics. First, regression analysis of the mediating effect of technological progress on the relationship between corporate culture and corporate innovation capabilities. In model (7), the coefficient c($\beta = 0.005$, $P<0.001$) of the independent variable parental culture dimension is significant, the coefficient c($\beta = 0.013$, $P<0.001$) of the independent variable vitality culture dimension is significant, and the coefficient of the independent variable level culture is significant c($\beta = 0.035$, $P<0.001$) was significant, and the coefficient c($\beta = 0.042$, $P<0.001$) of the independent

variable market culture was significant. In model (8), the coefficient a(β = 0.023, P<0.001) of the independent variable parental culture dimension is significant, the coefficient a(β = 0.034, P<0.001) of the independent variable vitality culture dimension is significant, and the independent variable level culture dimension is significant. The coefficient a(β = 0.062, P<0.001) was significant, and the coefficient a(β = 0.038, P<0.001) of the independent variable market culture dimension was significant. In model (9), the independent variable is the coefficient of the parental cultural dimension. c'(β = 0.023, P<0.001) significant, the coefficient of the independent variable vitality culture dimension c'(β = 0.034, P<0.001) significant, the coefficient of the independent variable level of culture dimension c'(β = 0.062, P<0.001) is significant, the coefficient a of the independent variable market culture dimension is significant (β = 0.041, P<0.001), and the intermediary variable is the technological progress dimension b (β = -0.021, P<0.001) of corporate innovation power. After examining c, a, b, and c' in turn, it is found that c, a, b, and c' are all significant. To sum up, the technological progress dimension of an enterprise's innovation power depends on the relationship between enterprise culture and enterprise innovation capability. to mediation.

Table 7: Regression analysis of the mediating effect of technological progress on the relationship between corporate culture and corporate innovation capabilities

Variable name	Innovation ability Model 7	Technical progress Model 8	Innovation ability Model 9
(constant)	0.002	0.062	0.004
Parental culture	0.005***	0.023***	0.009***
Vibrant culture	0.013***	0.034***	0.024***
Hierarchical culture	0.035***	0.062***	0.031***
Market culture	0.042***	0.038***	0.041***
Technical progress			-0.021***
Adjust R-square	0.105	0.236	0.115
F	4.400***	9.973***	4.642***

Note: ***, **, *, + represent respectively: P<0.001, P<0.010, P<0.050, P<0.100

Regression analysis of the mediating effect of competitive pressure on the relationship between corporate culture and corporate innovation ability. In model (10), the coefficient c(β = 0.002, P<0.001) of the independent variable parental culture dimension is significant, the coefficient c(β = 0.025, P<0.001) of the vitality culture dimension is significant, and the coefficient c(β = 0.025, P<0.001) of the independent variable level culture β = 0.034, P<0.001) is significant, the independent variable market culture coefficient c(β = 0.014, P<0.001) is significant; in model (11), the independent variable parental culture dimension coefficient a(β = 0.015, P<0.001) significant, the coefficient of vitality culture dimension a(β = 0.028,

P<0.001) significant, the coefficient of independent variable level culture a(β = 0.065, P<0.001) significant, the coefficient of independent variable market culture c(β = 0.033, P<0.001) is significant; in model (12), the coefficient c'(β = 0.022, P<0.001) of the independent variable parental culture dimension is significant, and the coefficient c'(β = 0.048, P<0.001) of the vitality culture dimension is significant, The coefficient c'(β = 0.053, P<0.001) of the independent variable level culture is significant, and the coefficient c(β = 0.047, P<0.001) of the independent variable market culture is significant; the intermediary variable, the b value of the competitive pressure dimension of enterprise innovation power (β = -0.021, P<0.001) significant.

Table8: Regression analysis of the mediating effect of competitive pressure on the relationship between corporate culture and corporate innovation capability

Variable name	**Innovation ability** **Model 10**	**Competitive pressure** **Model 11**	**Innovation ability** **Model 12**
(constant)	0.002	0.062	0.004
Parental culture	0.002***	0.015***	0.022***
Vibrant culture	0.025***	0.028***	0.048***
Hierarchical culture	0.034***	0.065***	0.053***
Market culture	0.014***	0.033***	0.047***
Competitive pressure			-0.021**
Adjust R-square	0.105	0.236	0.115
F	4.400***	9.973***	4.642***

Note: ***, **, *, + represent respectively: P<0.001, P<0.010, P<0.050, P<0.100

Regression analysis of the mediating effect of consumer demand on the relationship between corporate culture and corporate innovation capabilities. In model (13), the coefficient c(β = 0.003, P<0.001) of the independent variable parental culture dimension is significant, the coefficient c(β = 0.026, P<0.001) of the dynamic culture dimension is significant, and the coefficient c(β = 0.026, P<0.001) of the independent variable level culture β = 0.043, P<0.001) is significant, the independent variable market culture coefficient c(β = 0.022, P<0.001) is significant; in model (14), the independent variable parental culture dimension coefficient a(β = 0.027, P<0.001) significant, the coefficient of vitality culture dimension a(β = 0.051, P<0.001) significant, the coefficient of independent variable level culture a(β = 0.017, P<0.001) significant, the coefficient of independent variable market culture c(β = 0.034, P<0.001) is significant; in model (15), the coefficient c'(β = 0.024, P<0.001) of the independent variable parental culture dimension is significant, and the coefficient c'(β = 0.033, P<0.001) of the vitality culture dimension is significant, The coefficient c'(β = 0.008, P<0.001) of the

independent variable level culture is significant, the coefficient c(β = 0.048, P<0.001) of the independent variable market culture is significant, and the mediating variable coefficient of consumer demand dimension b(β = -0.021 , P<0.001) significant.

Table9: Regression analysis of the mediating effect of consumer demand dimension on the relationship between corporate culture and corporate innovation capability

Variable name	**Innovation ability** **Model 13**	Consumer demand **Model 14**	**Innovation ability** **Model 15**
(constant)	0.002	0.062	0.004
Parental culture	0.003***	0.027***	0.024***
Vibrant culture	0.026***	0.051***	0.033***
Hierarchical culture	0.043***	0.017***	0.008***
Market culture	0.022***	0.034***	0.048***
Consumer demand			0.031***
Adjust R-square	0.105	0.236	0.115
F	4.400***	9.973***	4.642***

Note: ***, **, *, + represent respectively: P<0.001, P<0.010, P<0.050, P<0.100

Regression analysis on the mediating effect of product life cycle between corporate culture and corporate innovation ability. In model (16), the coefficient c(β = 0.024, P<0.001) of the independent variable parental culture dimension is significant, the coefficient c(β = 0.011, P<0.001) of the vitality culture dimension is significant, and the coefficient c(β = 0.011, P<0.001) of the independent variable level culture β = 0.052, P<0.001) is significant, the coefficient c of the independent variable market culture (β = 0.041, P<0.001) is significant; in model (17), the coefficient a of the independent variable parental culture dimension a(β = 0.027, P<0.001) significant, the coefficient of vitality culture dimension a(β = 0.028, P<0.001) significant, the coefficient of independent variable level culture a(β = 0.037, P<0.001) significant, the coefficient of independent variable market culture c(β = 0.029, P<0.001) is significant; in model (18), the coefficient c'(β = 0.031, p<0.001) of the independent variable parental culture dimension is significant, and the coefficient c'(β = 0.046, p<0.001) of the vitality culture dimension is significant, The coefficient c'(β = 0.065, p<0.001) of the independent variable level culture is significant, the coefficient c(β = 0.078, P<0.001) of the independent variable market culture is significant, and the mediating variable product life cycle dimension coefficient b(β = 0.044, p<0.001) is significant.

Table 10: Regression analysis of the mediating effect of product life cycle dimension on the relationship between corporate culture and corporate innovation capability

Variable name	Innovation ability Model 16	Product life cycle Model 17	Innovation ability Model 18
(constant)	0.002	0.062	0.004
Parental culture	0.024***	0.027***	0.031***
Vibrant culture	0.011***	0.028***	0.046***
Hierarchical culture	0.052***	0.037***	0.065***
Market culture	0.041***	0.029***	0.078***
Product life cycle			0.044***
Adjust R-square	0.105	0.236	0.115
F	4.400***	9.973***	4.642***

Note: ***, **, *, + represent respectively: P<0.001, P<0.010, P<0.050, P<0.100

Research result

The results show that 13 of the 16 hypotheses are supported, and 3 are not supported.

Table 11 :Research hypothesis testing results

Serial number	Hypothesis	Hypothetical content	Results
1	**Ha**	**The relationship between corporate culture and corporate innovation ability**	
2	Ha1	The parental cultural has a significant negative impact on corporate innovation capability;	Not confirmed
3	Ha2	The dynamic cultural has a significant positive impact on corporate innovation capability;	Confirmed
4	Ha3	The hierarchical cultural has a significant positive impact on corporate innovation capability;	Not confirmed
5	Ha4	The market culture has a significant positive impact on corporate innovation capability.	Confirmed
6	**Hb**	**The relationship between corporate culture and corporate innovation power**	
7	Hb1	The parental cultural has a significant negative impact on corporate innovation momentum;	Not confirmed

8	Hb2	The dynamic cultural has a significant positive impact on corporate innovation momentum;	Confirmed
9	Hb3	The hierarchical cultural has a significant positive impact on corporate innovation momentum.	Confirmed
10	Hb4	The market culture has a significant positive impact on corporate innovation momentum.	Confirmed
11	**Hc**	**The relationship between enterprise innovation power and enterprise innovation ability**	
12	Hc1	Technological progress has a significant positive impact on the innovation ability of enterprises;	Confirmed
13	Hc2	Competitive pressure has a significant positive impact on enterprise innovation capability;	Confirmed
14	Hc3	Consumer demand has a significant positive impact on corporate innovation capability;	Confirmed
15	Hc4	The product life cycle has a significant positive impact on the innovation ability of enterprises.	Confirmed
16	**Hd**	**Enterprise innovation power plays an intermediary role between enterprise culture and enterprise innovation ability**	
17	Hd1	Technological progress plays an intermediary role between corporate culture and corporate innovation capability;	Confirmed
18	Hd2	Competitive pressure plays an intermediary role between corporate culture and corporate innovation capability;	Confirmed
19	Hd3	Consumer demand plays an intermediary role between corporate culture and corporate innovation capability;	Confirmed
20	Hd4	Product life cycle plays an intermediary role between corporate culture and corporate innovation capability.	Confirmed

Research Summary

After research, this paper finds that Japanese corporate culture has a very significant impact on technological innovation ability. When building corporate culture, we should follow the principle of seeking truth from facts and proceed from the current specific reality of the company, treat the construction of various dimensions of corporate culture differently, and formulate different strategies for various dimensions according to priorities, so as to achieve the combination of focus and general, have a definite goal in the construction of corporate culture and continuously improve the construction of enterprise innovation values, This requires enterprises to change their thinking and understanding, pay more attention, strengthen

the daily training of enterprise executives and employees, clarify the direction and objectives of value construction, vigorously create an external environment conducive to the formation of values, and actively build a diversified and reasonable salary system.

From the regression analysis of Japanese enterprises, we can see that the enterprise organizational structure has a direct impact on the six indicators of innovation ability. First, continuously improve the enthusiasm and initiative of organization members to participate in decision-making; Second, strengthen the support for the innovation of organization members; Third, build a mechanism conducive to the coordinated development of technological innovation and corporate culture; Fourth, actively establish a correct concept of selection and employment; Fifth, create a good organizational culture atmosphere, such as vigorously creating an organizational culture atmosphere of "harmony, openness, inclusiveness and innovation".

From the regression equation, we can see that there is a strong correlation between interpersonal relationship and enterprise R & D ability, collaboration ability and production ability, and interpersonal relationship has a direct impact on Enterprise R & D ability, collaboration ability and production ability. Therefore, Japanese enterprises must pay full attention to the influence of interpersonal relationships in order to improve their innovation ability. The management mode of "people-oriented" should be implemented; Implement scientific career management; Strengthen the innovative spirit of entrepreneurs; Strengthen the spirit of cooperation among employees; Strengthen the professionalism of employees; Shape innovative corporate image to integrate technological innovation ability. In short, an innovative and enterprising corporate image can improve the overall innovation ability.

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