ISSN 2616-5902 Vol. 4, Issue 9: 39-50, DOI: 10.25236/AJBM.2022.040906

Research on the importance of entrepreneurship with Chinese characteristics to the high-quality development of national enterprises

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Abstract: *The high-quality development of national enterprises plays a non-negligible role in the construction of the new development pattern. In order to promote the high-quality development of national enterprises, this paper explores the importance of entrepreneurship with Chinese characteristics for the high-quality development of national enterprises, and obtains some reference suggestions for the high-quality development path of national enterprises. First of all, taking the phenomenon of wild consumption as the starting point, using structural equations to analyze the impact of enterprises promoting patriotism on the social recognition of enterprises, the research results show that in today's high awareness of nation-al self-confidence and domestic products, enterprises actively assume social responsibility and carry forward patriotic feelings will make them gain more social recognition and social attention. Secondly, the entropy method is used to construct enterprise innovation indicators, and the correlation between enterprise innovation spirit and performance is studied, and the re-search results show that there is a significant positive correlation between the investment of enterprise innovation indicators and enterprise performance. Finally, the relationship between entrepreneurs' international vision and enterprise performance is analyzed by using the multiple regression method, and the results show that the impact of enterprise internationalization on performance shows a positive U-shaped relationship, which is a process from high to low to high. This study adopts the dimension of entrepreneurship with Chinese characteristics, and provides a new thinking perspective for the research on the high-quality development of national enterprises from the perspective of entrepreneurial spirit.*

Keywords: *national enterprise, high-quality development, entrepreneurship*

1. Introduction

Chinese national enterprises were born at a time of national and ethnic crisis, and from the beginning of its existence they have carried the heavy responsibility of national prosperity and rejuvenation. National enterprises are the new force of China's economic development, and how to promote high-quality development of national enterprises is a common concern of researchers. Nowadays, trade protectionism is on the rise, counter globalization is on the rise, the impact of the new epidemic is serious, and the world situation is complicated. As President Xi Jinping said, "China is in the midst of a major revolution that the world has not experienced in a century". Dealing with a century of challenges, building a new development pattern, and promoting high-quality economic development are inseparable from high-quality national enterprises.

There are more studies on high quality development of enterprises in existing domestic studies, but fewer studies on high quality development of nation enterprises. Although the research experience of high-quality enterprise development has important implications for the high-quality development of national enterprises, the development of national enterprises has its own special characteristics. Compared with conventional enterprises, national enterprises have a stronger emotional connection with their citizens. How to make good use of this emotional connection has a greater significance in promoting the high-quality development of national enterprises.

Entrepreneurship is an important driving force of China's rapid economic growth, which determines the direction and strategic goals of enterprises and is a determining factor of their production and development. The first priority of the entrepreneurial spirit with Chinese characteristics is patriotism. Promoting entrepreneurial patriotism in national enterprises plays an important role in strengthening their emotional connection with consumers, but only emotional connection can't promote high-quality development of enterprises. In order to further promote the development of national enterprises, it is also

ISSN 2616-5902 Vol. 4, Issue 9: 39-50, DOI: 10.25236/AJBM.2022.040906

important to promote other dimensions of entrepreneurship with Chinese characteristics.

This study aims to explore the relationship between entrepreneurial patriotism and corporate identity, entrepreneurial innovation and entrepreneurial international vision and corporate performance, and then to investigate the importance of entrepreneurship with Chinese characteristics in the high-quality development of national enterprises. To provide some feasible suggestions for the high-quality development of Chinese national enterprises.

2. Analysis of the Influence of Entrepreneurial Patriotism on Corporate Social Recognition

Compared with the capitalist society where enterprises emphasize profit first, patriotism has always been a glorious tradition of Chinese entrepreneurs. In the development history of Chinese enterprises, there have emerged one after another outstanding national entrepreneurs who share the worries of the country and are brave enough to take responsibility. They have actively assumed social responsibilities and made generous donations in times of national and social crisis. The new development pattern of national enterprises to vigorously promote the entrepreneurial patriotic spirit is the honor of entrepreneurs, more for the enterprise to provide development opportunities, social recognition. The promotion of entrepreneurial patriotism is not a one-man show for enterprises, but a two-way call for enterprises and consumers.

This paper uses the 2021 Henan flood disaster in which the national company ERKE donated huge sums of money to the disaster area despite its debt losses, which in turn triggered wild consumption by netizens, to study how a company promoting patriotism and actively assuming social responsibility will increase the public's brand recognition of its company, gain brand exposure, enhance consumers' willingness to consume its products, and thus provide it with opportunities for development.

In this section, SPSS 26 was used for sample data processing and AMOS 26 was used for model construction.

2.1 Structural equation model concepts

Structural equation model (SEM), which is also referred to as latent variable modeling (LVM) in academia, integrates two statistical methods, factor analysis and path analysis, in SEM and is categorized within the category of advanced statistics. Many latent variables such as education, psychology, and willingness, which are difficult to be directly counted by traditional statistical methods, are used to solve using structural equation models.

2.2 Conceptual model of the factors influencing wild consumption

2.2.1 Patriotic emotions

Patriotism is the core of the Chinese national spirit and is the emotional system connection between individuals and the country, which can be expressed as the love of the great rivers and mountains of the motherland, or the recognition of national policies and so on. In the Sheth-Newman-Gross model of consumption value, emotional value is one of the major factors influencing individuals' consumption decisions. Based on patriotism emotion individuals may have a preference for national companies and brands, which can influence individuals to produce irrational consumption behavior in special contexts.

2.2.2 Consumer awareness of national products

In China, some scholars view national product consciousness as a sense of bias toward a national brand by the community members of the national brand out of a sense of responsibility to their own national community, while others characterize national product consciousness as "consumer ethnocentrism," which emphasizes consumer hostility toward foreign products to a greater extent. In this paper, we think that consumers' awareness of national products is actually tied to national emotions and tend to support products sold in their own countries. It is the rise of consumer awareness of national products that provides opportunities for developing national companies to develop.

2.2.3 Media Influence

Media influence generally means the ability to sway the mindset and behavior of the general public through the dissemination of information. It can be said that in the majority of the time, people are influenced by a variety of external information. The enterprise's media campaign has a greater role in

ISSN 2616-5902 Vol. 4, Issue 9: 39-50, DOI: 10.25236/AJBM.2022.040906

increasing public brand awareness and capturing the industry market. The investment in media publicity of each enterprise also accounts for a large proportion of the total expenditure of the enterprise. Take Lanxiang Technical School as an example, the phrase "Which school has the strongest excavator technology? Shandong, China to find Lanxiang" makes Lanxiang technical school nationally famous.

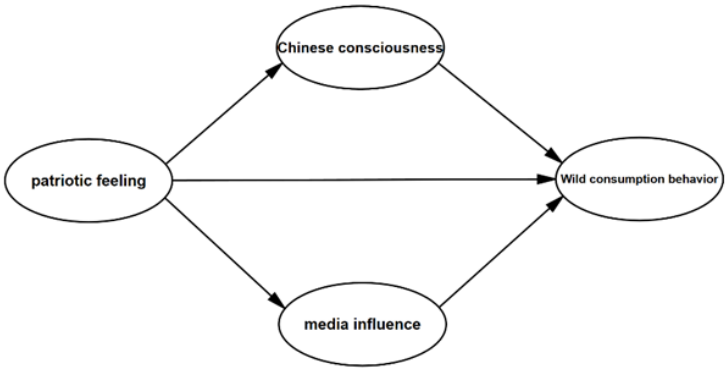

Figure 1: Research framework

Based on the above conceptual model, the following assumptions are made in this paper:

H1: patriotic feeling can influence consumer awareness of national products.

H2: patriotic feeling can influence media communication and thus media influence.

H3: patriotic feeling can influence wild consumption behavior.

H4: consumer national consciousness can influence wild consumption behavior.

H5: media influence can affect consumer national consciousness.

H6: Media influence can affect wild consumption behavior.

2.3 Empirical Analysis

2.3.1 Survey sample analysis

The data in this study were obtained in the form of questionnaires collected, with a total of 251 samples, of which 242 were valid, with a sample validity rate of 96.4%. The sample group was mainly young people aged 18-25 years old, accounting for 75.5%, followed by 25-30 years old (8.98%) and 31-40 years old (9.39%). In order to make the data more accurate this paper used a seven-point Likert scale with four dimensions and fourteen question items.

2.3.2 Model Data Analysis

Table 1: Convergence validity test table

Construct		S.E.	C.R.	P	Std.	SMC	CR	AVE
Patriotic feeling	PF1	0.047	7.438	***	0.535	0.286	0.729	0.482
	PF2	0.116	8.796	***	0.649	0.421		
	PF3				0.859	0.738		
The Chinese consciousness	TCC1				0.590	0.348	0.809	0.592
	TCC2	0.192	9.354	***	0.904	0.817		
	TCC3	0.179	9.018	***	0.782	0.612		
The media influence	TMI1	0.049	19.417	***	0.895	0.801	0.929	0.765
	TMI2	0.054	21.122	***	0.934	0.872		
	TMI3	0.060	19.356	***	0.893	0.797		
	TMI4				0.864	0.746		
Wild consumption behavior	WCB1				0.803	0.645	0.911	0.722
	WCB2	0.075	15.521	***	0.868	0.753		
	WCB3	0.076	14.106	***	0.808	0.653		
	WCB4	0.078	16.508	***	0.914	0.835		

The sample reliability Cronbach's alpha of 0.836 is bigger than the test of 0.7[1], which indicates that the reliability of this study is relatively good. The standardized estimates (Std. Estimate) of the three variables corresponding to patriotic sentiment and consumer awareness of national goods, and the four

ISSN 2616-5902 Vol. 4, Issue 9: 39-50, DOI: 10.25236/AJBM.2022.040906

variables corresponding to media influence and wild consumption in this study dimension all exceeded the standard value of 0.5, and the p-values of the estimated variables were all at the significant level of less than 0.001, thus showing the good aggregation validity of the potential variables in this study. (See Table 1 for specific data.) The AVEs of wild consumption, media influence, and national product awareness are all greater than 0.5 in terms of discriminant validity, while the AVE of patriotic sentiment is 0.482 which is lower than 0.5, but still within the acceptable range.

The calculated square roots of AVE for wild consumption behavior, media influence, national goods awareness, and patriotic sentiment are bigger than their correlation with other variables, and the correlation coefficients of each factor with other variables are lower than the Kronbach coefficients. This indicates that the discriminant validity results of the model are good (see Table 2).

Table 2: Analysis results of discriminant validity

	AVE	WCB	TMI	TCC	PF
WCB	0.722	0.850			
TMI	0.765	0.085	0.875		
TCC	0.592	0.213	0.562	0.769	
PF	0.482	-0.067	0.530	0.611	0.694

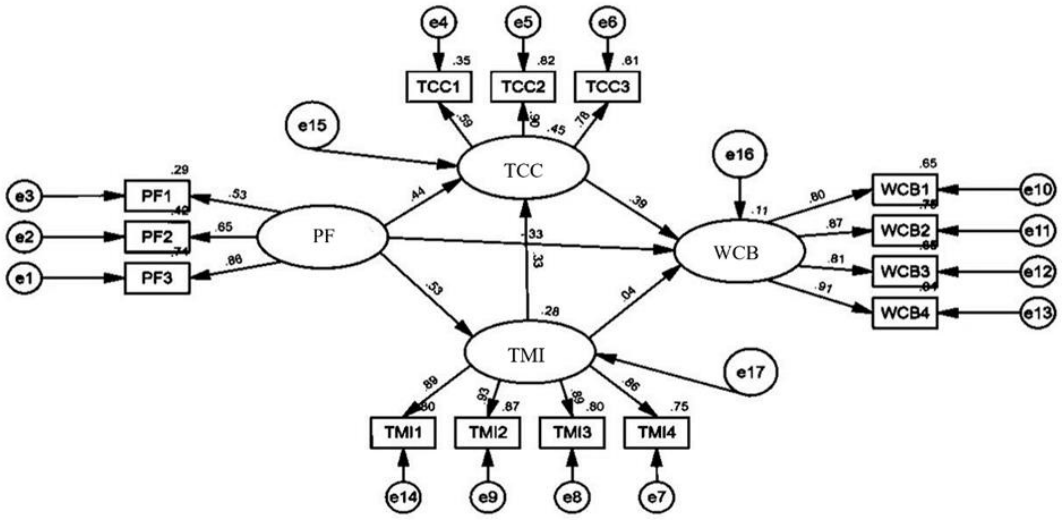

Figure 2: Results of the research model

Table 3: Test of hypotheses in the refined model

	UnStd.	S.E.	C.R.	P	Std.	R^2	Test results
H2	0.592	0.087	6.833	***	0.53	0.327	Supported
H1	0.322	0.07	4.593	***	0.437	0.453	Supported
H5	0.219	0.053	4.129	***	0.332		Supported
H4	0.849	0.244	3.473	***	0.391		Supported
H6	0.054	0.128	0.421	0.674	0.082	0.108	Unsupported
H3	-0.522	0.18	-2.905	0.004	-0.328		Unsupported

**p < .001.

From the results of the path analysis in Table 3, the truthfulness of the assumptions made in the previous section can be verified, and the following explanations are made in conjunction with the structural equation modeling and path analysis of the factors influencing consumers' wild consumption:

H1: There is a significant positive correlation between patriotic sentiment and consumer awareness of national products. The results indicate that strong feelings of Native Land Emotion and national pride will lead consumers to be more inclined to support national products, and support for national products and national enterprises is increasingly recognized by the public.

H2: Patriotism sentiment has a significant positive correlation with media influence. The results indicate that, driven by patriotic sentiment, mass media are more willing to report on national enterprises

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that actively take social responsibility, while consumers are more willing to pay attention to those national enterprises with patriotic spirit.

H3: Patriotic sentiment does not correlate with wild consumption behavior. The results indicate that consumers' patriotic sentiment does not directly contribute to wild consumption behavior; it needs to be adjusted by some medium.

H4: Consumers' sense of nationalism is significantly correlated with wild consumption. The reason is that consumers' national product consciousness contains both consumers' patriotic feelings and consumers' tendency to consume national products. When enterprises show their strong patriotic spirit and social responsibility, consumers' tendency to consume tends to be irrational, and their consumption purpose is no longer mainly to obtain the utility of goods, but to show their patriotic feelings and deep emotions for national products.

H5: Media influence has a significant correlation with consumer awareness of national products. The results indicate that after positive media evaluations of national brands that show patriotic sentiments, consumers enhance their national product awareness and generate stronger emotional tendencies and behavioral motivations.

H6: There is no correlation between media influence and wild consumption behavior. It is common to assume that consumers are more likely to engage in wild consumption behavior under media influence. However, in reality, wild consumption is more irrational and does not directly produce a greater degree of wild consumption under media influence alone.

2.4 Empirical conclusion

Wild consumption emerged in a special historical period and under specific background conditions. It is the result of the linkage between consumers' patriotic sentiment and national product consciousness, and its emergence shows to a greater extent that national enterprises are getting more and more attention and their patriotic behavior is generally recognized by the public. However, the wild consumption due to patriotic passion and national product consciousness is temporary, with the passage of time, the marginal utility decreases, the wildness will return to rationality, and the final decision of what brand and what product consumers buy depends entirely on the utility of the brand to consumers, and eventually rational consumers will still return to the goal of maximizing utility. Therefore, enterprises that rely only on patriotic sentiment and gain public attention and support are not destined for a long time, so the development of national enterprises should pay attention to both the spirit of innovation and international vision.

3. Analysis of the Influence of Entrepreneurial Innovation on Firm Performance

"Only through continuous improvement can there be continuous innovation and growth". In today's unpredictable market, enterprises have to keep innovating in order to meet the increasingly changing and diversified needs of consumers. Under the background of high attention and many opportunities, national enterprises should pay more attention to the spirit of innovation, be ready to meet the opportunities and improve the ability to grasp them. Only in this way can enterprises achieve the effect of "change is the key to success, and success is the key to longevity". Therefore, this section examines the influence of entrepreneurial innovation on firm performance from the perspective of entrepreneurial innovation capability.

3.1 Research hypothesis

Huilin Sun's study concluded that there is a strong correlation between entrepreneurs' innovation and firm performance[2]. Xinzhong Bao concluded that innovation research and development investment is positively related to firm performance[3]. In order to explore the relationship between entrepreneurial innovation spirit and firm performance in some manufacturing industries in China, the following hypotheses are made for the selected firms in this section based on the results of existing studies.

H1: Entrepreneurs' innovation ability and firm performance are positively correlated. The stronger the innovation ability of entrepreneurs, the better the firm performance.

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3.2 Data sources and index selection

Based on the industry classification criteria of the CSRC, listed companies in textile-related industries and food manufacturing industries under the manufacturing sector are selected as the study sample in this section. In order to reduce errors, samples of ST, *ST, missing data and data extremes are excluded. The final determination is made by selecting the annual data of 103 listed companies for 2021, with a total of 103 samples. The data in this section are all obtained from the Wind database and the annual reports of each listed company.

In existing studies, the research and development investment of enterprises is an important indicator to evaluate the innovation ability of enterprises and entrepreneurs. Based on previous studies, this section sets the indicators for evaluating the innovation capability of entrepreneurs as follows (Table 4).

Table 4: Evaluation index of entrepreneur innovation ability

Index	Index meaning	Index source
R&D staff ratio	Total R&D personnel / Total employees	Jain[4]
R&D expenses to main business income ratio	R&D expenses / Main business income	Nair[5]
R&D expense net profit ratio	R&D expenses / Net profit	Wang Jingyi[6]

3.3 Entropy method and its calculation steps

The entropy method first came from physics, "entropy" is a thermodynamic concept, widely used in thermodynamics, its essence is the degree of inherent chaos in the system, the more chaotic the system, the higher the entropy value. Subsequently, the concept of entropy was widely expanded to other fields, and the entropy method became an important objective evaluation and analysis method in statistics, economics and management. Its calculation steps are as follows.

3.3.1 Matrix construction

$$X = \{x_{ij}\}_{n\times m}, (i = 1, 2, 3, \dots, n; j = 1, 2, 3, \dots, m) \quad (1)$$

where x_{ij} is the original value of indicator j of enterprise i;

3.3.2 Non-negative treatment

Since some of the selected firms had negative net profits, all data were first non-negativized:

$$r_{ij} = \frac{x_{ij} - min(x_{1j}, x_{2j}, \dots, x_{nj})}{max(x_{1j}, x_{2j}, \dots, x_{nj}) - min(x_{1j}, x_{2j}, \dots, x_{nj})} \quad (2)$$

r_{ij} is the standardized index value;

3.3.3 Calculate the weight value pij for the jth indicator of the ith enterprise

$$p_{ij} = \frac{r_{ij}}{\sum_{i=1}^{n} r_{ij}} \quad (3)$$

Translate the value of p_{ij} to 0 and set it to 0.0001.

3.3.4 Calculate the entropy value ei for the jth indicator

$$e_j = -k \sum_{i=1}^{n} p_{ij} ln(p_{ij}) \quad (4)$$

where k is the reciprocal of the natural logarithm of the sample size, and the value of k in this section is 103.

3.3.5 Calculate the coefficient of variation gi for the jth indicator

$$g_j = 1 - e_j \quad (5)$$

3.3.6 Calculate the weight of the jth indicator(wi)

$$w_j = \frac{g_j}{\sum_{j=1}^{m} g_j} \quad (6)$$

3.3.7 Finally, the composite evaluation value (Si)of the ith sample is calculated

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$$S_i = \sum_{j=1}^{m} w_j p_{ij} \quad (7)$$

3.4 Empirical analysis

3.4.1 Comprehensive evaluation results of the entropy value method

Table 5: The entrepreneurial innovation capability evaluation values

Enterprise	Evaluation values	Enterprise	Evaluation values	Enterprise	Evaluation values
TIMES	0.0081	NHD	0.0017	Angel Yeast	0.0084
Guifaxiang	0.0021	LHG	0.0055	GETM	0.0027
YanKershop	0.005	JSSS	0.0012	Septwolves	0.0066
HUAFU	0.0029	Xin Hee	0.0082	YEIC	0.0041
SUNVIM	0.0077	BYHEALTH	0.006	SANYUAN	0.0021
XYT	0.0059	KORRUN	0.004	FUANNA	0.0057
LUOLAI	0.0061	Yanjan	0.0077	SD	0.004
JINDAN	0.0107	JONJEE	0.0073	ZJHM	0.0067
JIAXIN SILK	0.0053	Scitop Bio	0.0195	Milkground	0.0019
KDTECH	0.0058	BROS	0.0032	JOEONE	0.0031
JHSY	0.0091	Hiroad	0.0098	LANCY	0.0068
QIANHE	0.0042	BANGJIE	0.0078	YUMA	0.0088
GIUSEPPE	0.0122	BIOHIGH	0.0106	FCDW	0.009
MQR	0.0017	SMAC	0.0019	Wuhan	0.0189
Youngor	0.0019	NBOND	0.0093	inm	0.0037
HAI TIAN	0.008	ELLASSAY	0.0046	SUNRISE	0.0017
HUASHENG	0.0112	Peacebird	0.0037	RICHEN	0.0103
AIMER	0.0061	JHSP	0.0043	ZW	0.0084
JH Group	0.0056	Beingmate	0.0018	Black Sesame	0.0003
Hongxing Corp	0.0059	Zhuangyuan Pasture	0.0013	Hongdou Industrial	0.0015
Qianweiyangchu	0.0014	Seamild Foods	0.0005	Hengshun Vinegar	0.0077
GARDEN BIO-CHEM	0.0161	KINGDOMWAY	0.0063	JIANGSU LIANFA	0.0055
SANQUAN FOODS	0.0023	BRIGHT DAIRY	0.0004	Winner Medical	0.0097
CSPC Innovation	0.0075	LUYIN INVEST	0.0083	Zhongjing Food	0.0096
Teway Food	0.0045	Snowsky Salt	0.0106	Panda Dairy	0.0047
NANSHAN FASHION	0.0075	APPLE GROUP	0.0064	KE MING FOOD	0.0015
Fynex Textile	0.0048	Hanvo Safety	0.0128	Ribo Fashion	0.0078
Ligao Foods	0.0073	Guangzhou Restaurant	0.005	YANTANG DAIRY	0.009
Anzheng Fashion	0.0058	JiangSuSuyanJingshen	0.0075	Comefly Outdoor	0.0047
Namchow Food	0.0073	Shuangta Food	0.0118	JASAN GROUP	0.0052
DAZZLE FASHION	0.0067	AnHui Jinchun Nonwoven	0.0099	SHANGHAI CHALLENGE	0.0081
Vland Biotech	0.0193	Zhewen Pictures Group	0.0015	Sanyuan Biotechnology	0.0102
Zhejiang Xinao Textiles	0.0078	Xidamen New Material	0.01	Truelove Vogue	0.014
Xinjiang Tianrun Dairy Co.,Ltd.	0.0003	Shandong Bailong Chuangyuan Bio-Tech	0.0087	Zhejiang Natural Outdoor Goods	0.0082
Zhejiang Taihua New Material	0.0118				

After substituting the raw data of each index of all enterprises into the above steps for the entropy

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method, the entrepreneurial innovation capability evaluation value of each enterprise is obtained. The entrepreneurial innovation capability evaluation values of all sample enterprises are shown in Table 5.

3.4.2 Regression analysis

In this paper, regression analysis is used to verify the relationship between entrepreneurial innovation capability and firm performance. Based on the results of existing studies, this section uses return on ROA as the explanatory variable for measuring firm performance and the combined assessed value of all firms as the explanatory variable in a linear regression analysis (the software SPSS 26 was used for the regression analysis in this section), and the results of the analysis are presented in Table 6.

Table 6: Regression results of entrepreneur innovation evaluation value and firm performance.

Variable	Model 1
Evaluating Value	6.435***
	(4.195)
Constant	0.050
	(4.261)
F	17.601
Adjusted R^2	0.140

Note: ***, ** and * in the table indicate significant correlations at the 1%, 5% and 10% levels, respectively, with t-values in parentheses.

As shown in Table 6, the overall value of entrepreneurial innovation and ROA are significantly positively correlated at the 1% level with a coefficient of 6.435, which indicates that the improvement of entrepreneurial innovation can lead to the improvement of firm performance, and Hypothesis 1 is confirmed.

3.5 Empirical conclusion

In this section, the innovation ability of entrepreneurs is evaluated by the entropy method, and then the innovation ability of entrepreneurs is regressed with firm performance, and it is found that in the studied domestic manufacturing firms, the innovation ability of entrepreneurs has a significant positive relationship with firm performance, and the higher the innovation ability of entrepreneurs, the better the firm performance.

Innovation has always been the core element of entrepreneurship, and the innovative spirit of entrepreneurs is the key to the development of enterprises, even in the new development pattern proposed today, it is an essential part of entrepreneurship. Nowadays, the 21st century has seen the emergence of a large number of enterprises that have grown and developed due to innovation, but most of them have not only an innovative spirit, but also an international vision that is indispensable to the development and growth of their enterprises.

4. Analysis of the Influence of Entrepreneurs' International Perspective on Corporate Performance

Chinese traders out of the country, to the world has a long history. The development of national enterprises in the new era should not only be bigger and deeper, but also wider and broader. Entrepreneurs in the new era should open their eyes to see the world. In today's world of reverse globalization and serious economic and trade frictions, having an international vision that includes grasping international rules, understanding international demand, broadening international markets, and preventing international risks is also the key to dealing with various risk challenges. This section examines the impact of entrepreneurs' international perspective on firm performance from the perspective of firms' international market expansion.

4.1 Research hypothesis

In the existing studies on the relationship between the degree of firm internationalization and firm performance, different scholars have constructed numerous models of the relationship. According to Li Tianbao's conclusion, there is no unanimous conclusion on the relationship between the two in academia[7]. In the manufacturing industry, the conclusions are also not unified. Li Yuanjiang and others showed a positive U-shaped correlation between the two in the manufacturing industry, which means the performance of firms is poor at the beginning of internationalization due to large entry costs, but the

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performance of firms turns better as the degree of internationalization rises to a certain level and the various costs decrease[8]. Wang Rong proposed an S-shaped correlation between the two, i.e., there is an optimal level of firm's internationalization, and the firm's performance decreases when the firm increases its internationalization level again[9]. The results of all the above studies indicate that the degree of internationalization of a firm is not simply linearly related to firm performance.

According to the results of available studies, hypothesis 1 is proposed in this section as follows.

H1: The degree of internationalization of a firm shows a positive U-shaped relationship with firm performance. When the degree of internationalization of a firm is low, the degree of internationalization of a firm shows a negative relationship with firm performance; when the degree of internationalization of a firm deepens to a certain degree, the degree of internationalization of a firm shows a positive relationship with firm performance.

4.2 Data sources and variable selection

The industries to which the selected companies belong in this section are consistent with the previous section, but the selection of companies does not exactly match the previous section due to missing data and other reasons. In order to reduce errors, the samples of ST, *ST, no overseas business revenue yet, missing data and extreme data are excluded from this section. The final determination was made by selecting data for 66 listed companies for a total of five years from 2016 to 2020, for a total of 330 samples. The data in this section are all obtained from the Wind database and the annual reports of listed companies. The data were analyzed using the software SPSS 26.0.

Based on the available research results on the relationship between firm internationalization and firm performance, a total of five variables of three types are selected in this section (see Table 7 for details).

Table 7: Variable definition and meaning

Types of variables	Variable	Variable symbol	Variable meaning
Explained variable	Enterprise performance	ROA	Net profit / Average total assets
Explanatory variable	Degree of internationalization	FSTS	Overseas revenue / Gross business revenue
Control variable	Enterprise scale	LNSIZE	ln (Total assets)
	Ratio of liabilities	LEV	Total liabilities / Total assets
	Age of enterprise	AGE	Age of enterprise

4.3 Multiple regression model construction

Based on the available research results, the assumptions in this section and the setting of the above variables, the model in this section is set as follows.

$$ROA_{it} = \beta_0 + \beta_1 FSTS_{it} + \beta_2 FSTS_{it}^2 + \beta_3 FSTS_{it}^3 + \beta_4 LNSIZE_{it} + \beta_5 LEV_{it} + \beta_6 AGE_{it} + \varepsilon_{it} \quad (8)$$

In this model, $FSTS^2$ is the quadratic term of the degree of FSTS, $FSTS^3$ is the cubic term, the explanatory variable ROA_{it} it is the performance of firm i in year t, the explanatory variable $FSTS_{it}$ it is the degree of internationalization of firm i in year t, the others represent the values of this indicator in firm i in year t and ε_{it} it is the error term.

4.4 Empirical analysis

4.4.1 Descriptive statistical analysis

First, descriptive statistical analysis was performed for all variables. As shown in Table 8, the total number of valid cases is 330; the standard deviations of all variables are smaller than their corresponding means, indicating that the selected data do not have extreme values or outliers, and the degree of dispersion is not large; the maximum and minimum values of ROA are 0.345 and -0.209, respectively, indicating that there are large differences in corporate performance among the selected companies; the range of FSTS is [0, 1], and its maximum and minimum values are 0.992 and 0.001 respectively, indicating that there is a large difference in the degree of internationalization among the firms.

Table 8: Descriptive statistics

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Variable	N	Minimum	Maximum	Mean	Std. Deviation	Variance
ROA	330	-0.209	0.345	0.091	0.077	0.006
FSTS	330	0.001	0.992	0.352	0.282	0.080
LNSIZE	330	18.969	26.086	22.179	1.037	1.076
LEV	330	0.051	0.852	0.372	0.148	0.022
AGE	330	-4.195	27.997	10.992	7.111	50.563

4.4.2 Correlation and covariance analysis

According to Table 9, among the selected samples, all the variables are significantly correlated with each other, except for no significant correlation between FSTS and LEV; except for the positive significant correlation between LNSIZE and ROA, FSTS, LEV and AGE all show negative significant correlation with ROA, among which, the negative significant correlation between FSTS and ROA also tentatively verifies hypothesis 1.

Table 9: Correlations

Variable	ROA	FSTS	LNSIZE	LEV	AGE
ROA	1				
FSTS	-0.138*	1			
LNSIZE	0.132*	-0.395**	1		
LEV	-0.245**	0.103	0.339**	1	
AGE	-0.198**	-0.178**	0.474**	0.259**	1

Note: ***, ** and * in the table indicate significant correlations at the 1%, 5% and 10% levels, respectively, with t-values in parentheses.

According to Table 10, the variance inflation factor (VIF) of each variable is less than 1.7, which indicates that there is no serious multicollinearity among the variables.

Table 10: Collinearity statistics

Variable	Tolerance	VIF
FSTS	0.780	1.282
LNSIZE	0.599	1.669
LEV	0.807	1.239
AGE	0.764	1.309

4.4.3 Regression analysis

Table 11: Regression results of internationalization degree and enterprise performance

Variable	Model 1	Model 2	Model 3
FSTS	-0.005	-0.401***	-0.448***
	(-0.304)	(-8.923)	(-4.668)
$FSTS^2$		0.460***	0.598**
		(9.270)	(2.366)
$FSTS^3$			-0.102
			(-0.557)
LNSIZE	0.027***	0.030***	0.029***
	(5.640)	(6.879)	(6.548)
LEV	-0.151***	-0.132***	-0.130***
	(-5.188)	(-5.057)	(-4.912)
AGE	-0.003***	-0.002***	-0.002***
	(-5.218)	(-4.026)	(-4.029)
Constant	-0.420	-0.445	-0.430
	(-4.038)	(-4.805)	(-4.448)
N	330	330	330
F	17.988	35.339	29.438
Adjusted R^2	0.171	0.343	0.342

Note: ***, ** and * in the table indicate significant correlations at the 1%, 5% and 10% levels, respectively, with t-values in parentheses.

As shown in Table 11, with ROA as the dependent variable, model 1 introduces FSTS and each control variable into the regression, where the coefficient of FSTS is not significant, indicating that the

ISSN 2616-5902 Vol. 4, Issue 9: 39-50, DOI: 10.25236/AJBM.2022.040906

relationship between the degree of internationalization of the selected firms and firm performance is not simple linear; model 2 then introduces $FSTS^2$ into the regression, and the R2 of the model increases, indicating that the fit becomes better. Model 3 then introduces $FSTS^3$ into the regression, where the coefficients of FSTS and $FSTS^2$ are significant, while the coefficient of $FSTS^3$ is not significant. In addition, among the three models, the adjusted R2 of model 2 is larger than that of model 1 and model 3, and the fitting effect is the best. In summary, model 2 is selected in this section as the model to study the relationship between firm internationalization and firm performance.

Based on the significantly negative FSTS coefficient and the significantly positive $FSTS^2$ coefficient in Model 2, it is clear that among the firms studied in this section, there is a significant positive U-shaped relationship between the degree of internationalization and their performance, and when the degree of internationalization is 43.59%, the firm's performance is at the turning point of its positive U-shape. When the degree of internationalization exceeds the turning point, the further internationalization of the firm will make the firm's performance increase, which verifies hypothesis 1.

4.4.4 Robustness test analysis

In this section, the robustness test is conducted by replacing the dependent variable. Based on the research results, financial indicators such as ROE and ROS can also be used to evaluate corporate performance, and ROE is used in this section to replace ROA as the explanatory variable. When ROE is used as the explanatory variable, the coefficient correlations and covariances among the variables are not significantly different from those when ROA is used as the explanatory variable, so they are not listed here.

As in the regression analysis, $FSTS^2$ and $FSTS^3$ were gradually introduced into the regression, and the results are shown in Table 12.

Table 12: Robustness test results

Variable	a. Dependent variable: ROA			b. Dependent variable: ROE		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
FSTS	-0.005	-0.401***	-0.448***	-0.009	-0.539***	-0.453***
	(-0.304)	(-8.923)	(-4.668)	(-0.337)	(-6.974)	(-2.743)
$FSTS^2$		0.460***	0.598**		0.615***	0.364
		(9.270)	(2.366)		(7.215)	(0.838)
$FSTS^3$			-0.102			0.186
			(-0.557)			(0.589)
LNSIZE	0.027***	0.030***	0.029***	0.033***	0.036***	0.037***
	(5.640)	(6.879)	(6.548)	(4.162)	(4.903)	(4.899)
LEV	-0.151***	-0.132***	-0.130***	-0.172***	-0.146***	-0.150***
	(-5.188)	(-5.057)	(-4.912)	(-3.575)	(-3.249)	(-3.297)
AGE	-0.003***	-0.002***	-0.002***	-0.004***	-0.003***	-0.003***
	(-5.218)	(-4.026)	(-4.029)	(-4.308)	(-3.205)	(-3.193)
Constant	-0.420	-0.445	-0.430	-0.512	-0.546	-0.573
	(-4.038)	(-4.805)	(-4.448)	(-2.994)	(-3.432)	(-3.455)
N	330	330	330	330	330	330
F	17.988	35.339	29.438	10.245	19.893	16.602
Adjusted R^2	0.171	0.343	0.342	0.101	0.223	0.222

Note: ***, ** and * in the table indicate significant correlations at the 1%, 5% and 10% levels, respectively, with t-values in parentheses.

As shown in Table 12, except for the difference between the significance of coefficients of $FSTS^2$ in model 6 and the corresponding variables in the corresponding model 3 and the different sign of $FSTS^3$,the significance and sign of coefficients of the remaining variables are consistent with the above regression results, indicating that the above regression results are robust, which again test hypothesis 1.

4.5 Empirical conclusion

From the above analysis, it is concluded that among the enterprises studied in this section, the degree of enterprise internationalization has a positive U-shaped relationship with enterprise performance. That is, in the early stage of internationalization, the deepening of a company's internationalization will cause its performance to decline; however, as internationalization deepens and the enterprises pass the positive U-shaped turning point, the enterprise performance will gradually increase.

ISSN 2616-5902 Vol. 4, Issue 9: 39-50, DOI: 10.25236/AJBM.2022.040906

Since China's accession to the WTO, Chinese national enterprises have become more and more important in the international arena, and many of them have become models of "going out". However, the internationalization of enterprises is not always smooth, and there are many costs for enterprises to enter the international market, which may cause the enterprises to suffer a blow and the performance of enterprises to decline. But those national entrepreneurs with international vision, they use an international, long-term vision to look at the growth of the enterprise, when they encounter obstacles, they do not presume to be complacent, survive the difficulties, and promote the long-term development of the enterprise.

5. Conclusion

This study takes Chinese national enterprises as the research object and focuses on the importance of entrepreneurship with Chinese characteristics to the high-quality development of national enterprises, which is a useful supplement to the existing research on promoting the high-quality development of national enterprises and also provides the necessary reference basis for the further development of national enterprises. The results of the study reveal three main points: firstly, the wild consumption arises from the rising national self-confidence and awareness of national products in the background of the times, and its emergence shows to a greater extent that enterprises promote patriotic spirit and take social responsibility is not a unilateral effort of enterprises, but it will provide social recognition and development opportunities for enterprise development; secondly, enterprise innovation is an important factor for enterprises to continuously meet the diversified needs of consumers, and entrepreneurs promote the spirit of innovation and pay attention to the innovation indicators. Third, the development of enterprises should make good use of two markets and two resources, and the depth of internationalization of enterprises will show a U-shaped change, because the market dividend will generate a certain amount of performance income at the beginning, and as internationalization continues to deepen, the market dividend will disappear and the performance of enterprises will be reduced, but as long as enterprises continue to improve their own However, as long as enterprises continue to improve their strengths and continue to promote internationalization, their performance will continue to improve. "Only through hardship, hardship, ups and downs can show a person's brave and resolute character; only through the polishing of the difficulties and hardships can be like a piece of jade polished into a tool, showing the extraordinary beauty ". The development of national enterprises must be a coexistence of opportunities and hazards, only the courage to climb to reach the summit.

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