

Intergenerational Inheritance and Diversified Management of Listed Family Enterprises

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Abstract. This article takes A-share listed family businesses from 2003 to 2022 as a sample to examine the internal relationship between family businesses' intergenerational inheritance and diversification. The research results show that under the same conditions, companies in intergenerational inheritance are more likely to engage in diversification compared to those without intergenerational inheritance; The number of children has a positive moderating effect on the relationship between diversified management and intergenerational inheritance. This article not only enriches the relevant literature on intergenerational inheritance and diversified management of family businesses, but also provides some reference for the relevant research conclusions of family businesses.

Keywords: family business, intergenerational transfer, Diversified operations

1 Introduction

From July 2012 to July 2023, the number of private enterprises in China increased from 10.857 million to 44.575 million, a doubling in ten years. The proportion of private enterprises in the total number of enterprises has also increased from 74.9% to 92.3%, and the number of employees has increased from 104 million to over 400 million. In terms of taxation, the contribution rate of the private economy has increased from 48% to 59.6%, and in terms of employment, it has increased from 32.1% to 48.3%.

At present, most family businesses in China are facing the issue of power transfer from the older generation of entrepreneurs to the next generation, and have reached the peak of intergenerational inheritance. The "China Modern Family Business Survey Report" released by Forbes in September 2023 shows that as of July 2023, out of the 2422 listed companies listed on the A-share market, 1394 were private enterprises. Private enterprises are divided into family businesses and non family businesses, with family businesses accounting for up to 49% of the total. Among all family businesses listed on the A-share market, 231 are undergoing intergenerational inheritance, and 45 have completed it. Although only 7% of all family businesses have completed intergenerational inheritance, it has increased by nearly 52% compared to last year. The "succession era" of family businesses has brought about an unprecedented wealth migration movement; But inevitably, in the process of wealth transfer, it is precisely the most vulnerable moment for this enterprise. A survey by McKinsey shows that

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the average lifespan of family businesses worldwide is 24 years, of which only about 30% can be extended to the second generation, less than 13% can be passed on to the third generation, and only 5% can continue to create value for shareholders after the third generation. Diversification is a typical long-term development strategy with high risks and returns. When conducting diversified operations, enterprises face the dual challenges of intergenerational inheritance and transformation and upgrading. And whether the second generation is willing to engage in diversified development during this critical period, whether it can withstand pressure, successfully transform, bring new vitality to the enterprise, and promote high-quality development of the enterprise. Exploring this issue has certain practical significance; In recent years, family businesses have entered a peak period of intergenerational inheritance. A large amount of research on intergenerational inheritance has mainly focused on corporate performance^{[6][9][11][15]}, corporate innovation^{[5][10][12][13]}, model systems^{[8][11][14]}, and philanthropy^[7]. There are also some studies on family businesses from the perspectives of second-generation cultivation and succession^{[2][8]} or paternalism^[5], with few studies conducted from diverse perspectives^{[1][3][4]}. This article also examines the moderating relationship between the number of children and intergenerational inheritance and diversification, enriching relevant research on intergenerational inheritance.

2 Research Theory and Hypothesis

As the heirs of a family business, the second generation can obtain the management or ownership of the enterprise, but in order for the company's employees to deeply believe, recognize, and follow them, they also need to make certain contributions to the company during or after the intergenerational inheritance process. However, due to the fact that the first generation founded the company, shared the ups and downs with the company, witnessed the growth of the company, and the trust of the company's employees in the leaders of the first generation gradually deepened over a long period of time and wind and rain. Therefore, during the intergenerational inheritance period, it is easy for them to attribute their achievements to the first generation and count the mistakes on the successors of the second generation. In such a context, it is also difficult for second-generation inheritors to make any achievements in their original business direction. Therefore, second-generation inheritors are more willing to choose to prove their abilities in new fields, which is to choose diversified management. On the one hand, they can avoid being compared between the first and second generations by others. On the other hand, in new fields, the second generation can also boldly operate without worrying about the negative impact of failure on the original business of the enterprise.

Based on the above viewpoints, this article proposes the following assumptions:

H1: Under the same conditions, enterprises in intergenerational inheritance are more likely to engage in diversified operations compared to those without intergenerational inheritance.

In the process of intergenerational inheritance, when a family business has multiple children, there is often fierce competition between them in order to obtain legal inheritance rights. Among the children, in order to gain the attention of their parents, compete for resources, and obtain final control, they are likely to choose to diversify their operations. On the one hand, it can fully demonstrate one's abilities, and on the other hand, it can also avoid direct competition with other children.

H2: Under the same conditions, the number of children will positively regulate the relationship between diversified management and intergenerational inheritance.

3 Research Design

3.1 Sample selection and data sources

Since 2003, A-share listed companies have been required to disclose information. Therefore, this article selects the data of listed companies from 2003 to 2022 as the observation sample. According to Forbes' recognition of family businesses, family businesses are businesses that are fully owned or controlled by the family, and at least two or more family members are actually involved in business management. Therefore, companies with a total of 25% or more control rights held by the founder or their family members are selected. Based on the database of private listed companies provided by CSMAR, obtain a sample of enterprises that actually control human type as natural persons or families; Secondly, based on the actual controllers, shareholding status, board members, and executive team members disclosed in the prospectus and annual report of the listed company, a sample of family businesses that meet the definition is selected based on blood and marriage connections; Then, based on family kinship, further screening and classification of samples of the second generation of the family that have entered the company's board of directors, supervisory board, or executive team. And process the data as follows: (2) Excluding insolvent companies; (3) Remove missing values and shrink the data. A total of 15963 effective observation samples were obtained. The data on diversified business operations of enterprises comes from the WIND database, while the financial data and family governance data of enterprises come from the Guotai An database.

Variable Definition

This article adopts the approach of Han Zhongxue et al.^[1], using the Hufendar index and entropy index methods to reflect the distribution and concentration of enterprises in different businesses, and to measure the diversification of enterprises. Among them, the larger the value of the Hufendar index (HHI), the lower the level of diversification, while the entropy index method used for robustness testing, the larger the value, the higher the level of diversification; For the measurement of independent variables, this article defines family intergenerational inheritance (stage) as the situation where the second generation of family heirs (including sons, daughter-in-law, daughters, son-in-law, and other relatives) hold the position of chairman or general manager in the family business. When intergenerational inheritance occurs, assign a value of 1, otherwise it is 0. To control for the impact of other company characteristics on the regression results, the control variables selected in this article are OwnershipProportion, SeparationRate, LEV, AGE, SIZE, GROWTH, CASHFLOW, DirNumber, ConcurrentPosition, IN DB and Degree.

3.2 Model design

To test the above hypothesis, the following model (1) was designed. Among them, represents the level of enterprise diversification, represents the intergenerational inheritance of family businesses, represents the common intercept term of all enterprises, represents the region and annual dummy variables respectively, and represents the unique intercept term and

interference term of enterprises respectively. In order to reduce the interference of abnormal data, this article conducted 1% and 99% tail reduction processing.

$$HHI = \beta_0 + \beta_1 \text{stage}_{i,t} + \beta_2 \text{OwnershipProportion}_{i,t} + \beta_3 \text{SeparationRate}_{i,t} + \beta_4 \text{LEV}_{i,t} + \beta_5 \text{AGE}_{i,t} + \beta_6 \text{SIZE}_{i,t} + \beta_7 \text{GROWTH}_{i,t} + \beta_8 \text{CASHFLOW}_{i,t} + \beta_9 \text{DirNumber}_{i,t} + \beta_{10} \text{ConcurrentPosition}_{i,t} + \beta_{11} \text{INDB}_{i,t} + \beta_{12} \text{Degree}_{i,t} + \sum \text{Province} + \sum \text{Year} + u_i + \varepsilon_{i,t} \quad (1)$$

4 Empirical analysis

4.1 Descriptive statistical analysis

Table 1. Descriptive Analysis

Variable	Obs	Mean	Std.dev.	Min	Max
Dyh_HHI	15,962	0.833	0.227	0.121	1
stage	15,962	0.861	0.346	0	1
OwnershipProportion	15,962	36.40	16.68	0.000600	97.43
SeparationRate	15,962	0.882	0.188	0.000800	1.227
LEV	15,962	0.366	0.194	0.00708	0.996
AGE	15,962	12.12	6.272	0	32
SIZE	15,962	5.840e+09	1.910e+10	5.390e+07	4.890e+11
LEV	15,768	0.176	0.171	0.00512	5.523
CASHFLOW	15,589	2.830e+08	1.680e+09	-3.180e+10	6.550e+10
ConcurrentPosition	15,846	0.409	0.492	0	1
GROWTH	15,962	0.759	29.51	-2266	2355
degree	15,962	3.286	1.395	1	7
DirNumber	12,689	8.328	1.567	0	16
INDB	12,654	0.373	0.0540	0	0.750

From the table1, it can be seen that the average level of diversification (HHI) is 0.833, with a standard deviation of 0.227, a minimum value of 0.121, and a maximum value of 1, indicating that diversification among family businesses is common but varies greatly. The average stage of intergenerational inheritance is 0.861, indicating that 86.1% of family businesses have entered the stage of intergenerational inheritance, and the distribution of control variables is also within a reasonable range.

4.2 Analysis of Multiple Regression Results

Table 2. Regression Results

	coefficient	T value	coefficient	T value
stage	-0,016***	(-3.17)	-0,029***	(-4.55)
OwnershipProportion			0,001***	(3.47)
SeparationRate			0,026**	(1.99)
Zcfzl			-0,009	(-0.76)
AGE			-0,006***	(-12.86)

SIZE	-0,000	(-1.61)
LEV	0,002	(0.12)
CASHFLOW	-0,000	(-1.09)
ConcurrentPosition	0,009**	(2.19)
GROWTH	0,000	(0.39)
degree	0,008***	(5.54)
DirNumber	0,003*	(1.92)
INDB	0,035	(0.79)

From the table 2, it can be seen that regardless of whether the control variable is included or not, family intergenerational inheritance has achieved a significant negative regression of 1%, and the diversification during the intergenerational inheritance period is 0.029 higher than that without intergenerational inheritance, indicating that the second generation of family heirs tend to engage in diversification to gain internal recognition within the enterprise. In the control variable, the number of board members reached a significant level of 0.1, the deviation rate between the two powers, and the situation of the chairman and general manager concurrently holding positions reached a significant level of 0.05. The actual proportion of ownership of the listed company by the controller, the company's listing date, and the education level of the second generation also reached a significant level of 0.01.

Table 3. Regulatory effects

	coefficient	T value	coefficient	T value
stage	-0,023***	(-3.10)	-0,023***	(-3.14)
c_NOC			-0,002	(-1.24)
new			-0,008*	(-1.74)
OwnershipProportion	0,001***	(3.39)	0,001***	(3.53)
SeparationRate	0,035**	(2.34)	0,035**	(2.32)
Zcfzl	-0,012	(-0.88)	-0,012	(-0.89)
AGE	-0,006***	(-11.36)	-0,006***	(-11.30)
SIZE	-0,000	(-0.58)	-0,000	(-0.63)
LEV	-0,011	(-0.63)	-0,010	(-0.59)
CASHFLOW	-0,000*	(-1.74)	-0,000*	(-1.72)
GROWTH	0,000	(0.44)	0,000	(0.46)
ConcurrentPosition	0,013***	(2.84)	0,012**	(2.57)
degree	0,008***	(5.09)	0,008***	(5.07)
DirNumber	0,004**	(2.05)	0,004**	(2.15)
INDB	0,075	(1.55)	0,076	(1.58)

From the table 3, it can be seen that after decentralization, there is a significant negative correlation between intergenerational inheritance and diversified operation, regardless of whether interactive items are added or not. The interaction term is significant on the basis of 0.1, indicating that the number of children plays a significant promoting role in the relationship between diversification and intergenerational inheritance. Hypothesis 2 is validated.

4.3 Robustness test

To verify the reliability of the above regression results, the following different methods were used for robustness testing.

Firstly, change the measurement method for corporate diversification by replacing the Herfindahl index with the entropy index, and re regress. The results are shown in the table 4. It can be found that after changing the measurement method, the regression results are consistent with the previous ones. Hypothesis 1 is validated.

Secondly, by reducing the control variables and referring to Wang Shuo et al.'s robustness test, we reduced the proportion of ownership of the listed company owned by the actual controller, the deviation rate between the two rights, the education level of the second generation, and the number of board members, and conducted a new regression. The regression results showed no significant fluctuations, indicating that the regression results were robust.

Thirdly, shorten the time, shorten it to 2012-2022, and conduct regression again. The regression results are not too volatile compared to before and remain stable.

Fourthly, control the regions, select Fujian, Shanghai, Jiangsu, Zhejiang, Guangdong, Tianjin, and Beijing as developed regions, assign a value of 1, and assign a value of 0 to other provinces for regression. The results are shown in the table, and the regression results are basically consistent with the previous conclusions. The research conclusion is robust.

Table 4. 4 robustness tests

	Change measurement method	Delete Control Variable	reduce hours	Return to developed regions
	Dyh_entro	Dyh_hhi	Dyh_hhi	Dyh_hhi
stage	0,047*** (4.09)	-0,024*** (-3.69)	-0,030*** (-4.47)	-0,040*** (-4.78)
control variable	control	control	control	control
Fixed time	control	control	control	control
Regional fixed	control	control	control	control
Fixed by the company	control	control	control	control
Obs	12199	12199	11207	8330
Adj-R2	0.0621	0.0651	0.064	0.738

5 Conclusion and Discussion

This article takes A-share listed family businesses from 2003 to 2022 as a sample to examine the internal relationship between family businesses' intergenerational inheritance and diversified management. The research results show that under the same conditions, companies

in intergenerational inheritance are more likely to engage in diversified management compared to those without intergenerational inheritance; The number of children will positively regulate the relationship between diversified management and intergenerational inheritance. These research conclusions have some reference for family businesses that are about to enter intergenerational inheritance: family businesses need to make full use of this critical period of coexistence of crisis and opportunity, give more control to second-generation members, enable them to dare to diversify operations, make decisions from a new perspective, and promote the development of the company, leading the company to a new level.

In addition, research also has certain limitations: firstly, manual collection and integration of some data may result in some errors; Secondly, only the diversification of enterprises during the intergenerational inheritance period was considered, and due to the small sample size of enterprises completing intergenerational inheritance, the diversification of enterprises after completing intergenerational inheritance for a period of time was not considered.

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