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RESEARCH ON FAMILY SOCIOEMOTIONAL WEALTH, PERFORMANCE BELOW ASPIRATION AND CAPITAL STRUCTURE: A BEHAVIORAL AGENCY APPROACH

PESQUISA SOBRE A RIQUEZA SOCIOEMOCIONAL DA FAMÍLIA, DESEMPENHO ABAIXO DA ASPIRAÇÃO E ESTRUTURA DE CAPITAL: UMA ABORDAGEM DE AGÊNCIA COMPORTAMENTAL

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Abstract: This article explores effect of family socioemotional wealth on capital structure, especially in the situation that the company is in a difficult or loss situation. Relation between family ownership and capital structure has been a leading research focus around the world for more than twenty years. However, existing empirical evidences on the relation between family ownership and capital structure have been inconclusive. According to behavioral agency (B.A.) theory, family owners preserve their socioemotional wealth by maintaining control of the firms. The more socioemotional wealth they have, the more effort they put to reduce firm control (risk-losing), thereby limiting the dilution of ownership status by increasing the capital structure. In order to explain the differences of the previous empirical evidences, this article applies a B.A. approach to investigate effect of family socioemotional wealth - the most vital dimensions of family ownership - on capital structure, with data from 390 companies listed in Vietnam from 2010 to 2020. the regression results show that family socioemotional wealth has a positive impact on capital structure, but with the existences of performance below aspiration, family socioemotional wealth have a negative impact on capital structure. The results of the study contributes to capital structure literature by explaining the difference between the capital structure of the family firms compared to the non-family firms according to socioemotional wealth and performance below aspiration. With these results, this paper has contribution in applying behavioral agency model to interpret the formation of capital structure.

Keywords: Capital structure. Socioemotional wealth. Performance below aspiration. Family ownership.

Resumo: Este artigo explora o efeito da riqueza socioemocional da família na estrutura de capital, especialmente quando a empresa se encontra em uma situação difícil ou de prejuízo. A relação entre propriedade (família) e estrutura de capital tem sido um dos principais focos de pesquisa em todo o mundo há mais de vinte anos. Entretanto, as evidências empíricas existentes sobre a relação entre propriedade (família) e estrutura de capital têm sido inconclusivas. De acordo com a teoria B.A., os proprietários familiares preservam sua riqueza socioemocional ao manter o controle das empresas. Quanto mais riqueza socioemocional eles tiverem, mais esforço farão para reduzir o controle da empresa

(perda de risco), limitando assim a diluição do status de propriedade por meio do aumento da estrutura de capital. Para explicar as diferenças das evidências empíricas anteriores, este artigo aplica uma abordagem B.A. para investigar o efeito da riqueza socioemocional familiar - as dimensões mais vitais da propriedade (família) - na estrutura de capital, com dados de 390 empresas listadas no Vietnã de 2010 a 2020. Os resultados da regressão mostram que a riqueza socioemocional familiar tem um impacto positivo na estrutura de capital, mas, com a existência de desempenho abaixo da aspiração, a riqueza socioemocional familiar tem um impacto negativo na estrutura de capital. Os resultados do estudo contribuem para a literatura sobre estrutura de capital ao explicar a diferença entre a estrutura de capital das empresas familiares em comparação com as empresas não familiares de acordo com a riqueza socioemocional e o desempenho abaixo da aspiração. Com esses resultados, este estudo contribuiu para a aplicação do modelo B.A. para interpretar estrutura de capital.

Palavras-chave: Estrutura de capital. Riqueza socioemocional. Desempenho abaixo da aspiração. Propriedade familiar.

Introduction

Family ownership is an important form of business ownership all over the world, so there has been a lot of research on this topic in the past 20 years. However, the research results on this topic so far have been inconsistent. There is evidence of positive relation between family ownership and capital structure (Tran & Nguyen, 2023); others suggest that the relationship is negative (Haider et al., 2021; Jansen et al., 2022; Segura & Formigoni, 2014; Strebulaev & Yang, 2013); and there are also studies that present a U-shaped relationship, or that family ownership is related to zero-leverage (Amin & Liu, 2020; Anderson & Reeb, 2003; Poletti-Hughes & Martínez, 2022). This inconsistency may be explained that research so far has focused almost exclusively on economic factors, while decision-makers are always influenced by non-economic, psychological, and emotional factors (Hansen & Block, 2021; Michiels & Molly, 2017).

The psychological factors of strategic decision making in the family firms compared to the non-family firms were first mentioned from the study of Wiseman & Gomez-Mejia (1998). Known as the B.A model, this theory systematizes the psychological factors of the family members into the concept of socioemotional wealth. There are strong evidences that family socioemotional wealth impacts the firms' strategic decisions (Cambrea et al., 2022; Chirico et al., 2020). And many studies have applied B.A. model into research of financial and risk management behaviors (Gómez-Mejía & Herrero, 2022; Llanos-Contreras & Jabri, 2021). With this approach, this article explores family socioemotional wealth effect on capital structure, especially in the situation that the company is in a difficult or loss situation.

1. Literature review

The family owners acknowledge the firms as an asset that has important significance to the family, not only measured through financial value, but also as a bond with the company, to identify family members through the company's activities, to influence on firm's staff and society, as well as to ensure family succession of the firms to the next generation.

From this point of view, socioemotional wealth plays a very important role and impacts every strategy decisions of the family firms. In order to preserve socioemotional wealth, the family firms can sacrifice financial assets or family interests to ensure the company's sustainable development. Numerous studies have demonstrated the role of socioemotional wealth on business and finance strategy decisions, such as acquisitions and mergers, investments, internationalization, business expansion, etc. (Swab et al., 2020). For measurement, prior studies viewed socioemotional wealth as a multidimensional concept, including the following aspects: family control, family identification associated with the company, family succession, and other social or emotional connections to the company (Comino - Jurado et al., 2021). Due to the difficulties of measurement these dimensions, some other studies suggest to measure socioemotional wealth by the most important dimensions only, as proxy for the other dimensions (Cambrea et al., 2022; Davila et al., 2022). Our article follows latter opinion to measure socioemotional wealth.

Furthermore, previous studies have showed that the role of socioemotional wealth become vital in the context that firms are at risk of losses or bankruptcy. When firms facing lasting losses, the family owner have a psychological fear and have loss-aversion rather than risk-aversion behaviors (Gómez - Méjía & Herrero, 2022; Hsueh et al., 2023). In this case, the representatives of the firms tend to accept a higher level of risk to remedy the loss, the higher the risk of loss, the higher the level of risk acceptance. Most studies use performance below aspiration to represent the risk of losses and demonstrate a relationship between risk tolerance and performance below aspiration in various areas such as: merger, internationalization of business operations (Fang et al., 2021; Xu et al., 2020), enhanced social responsibility (Hsueh et al., 2023), and many other business areas (Kotiloglu et al., 2021).

Conversely, studies on the role of socioemotional wealth in the field of capital structure have only been of strong interest since the last few years. These studies mostly consider the impact of socioemotional wealth on capital structure without considering psychological factors,

loss-aversion behaviors. Among them, Molly et al. (2019) explore two variables that represent socioemotional wealth are goals/representation (family board) positively affect capital structure. Similarly, family involvement represents socioemotional wealth that has a positive impact on capital structure. Some studies delve into situations where the shareholding of the firm is low, then family ownership factor increases the capital structure (Poletti-Hughes & Martínez, 2022), or when the firms have much socioemotional wealth, then family ownership has an negative impact on capital structure (Baixauli-Soler et al., 2021; Jansen et al., 2022).

According to B.A theory, family owners preserve their socioemotional wealth by maintaining control of the firms. The more socioemotional wealth they have, the more effort they put to reduce firm control (risk-losing), thereby limiting the dilution of ownership status by increasing the capital structure. Thus, the first hypothesis on the impact of socioemotional wealth on capital structures is formulated as follows:

H1: The family's socioemotional wealth has a positive impact on the capital structure.

In addition, while preserving family socioemotional wealth, the family owners of the firms also have loss-aversion behaviors. According to behavioral agency theory, loss-aversion exists when the firms have performance below aspiration (Wiseman & Mejia-Gomez, 1998). Performance below aspiration is the situation which firms' t-1 (ROA) was < both its t-2 ROA and the t-1 industry's median ROA (Lu & Wong, 2019). Performance below aspiration represent loss or bankruptcy risk, because the firms' performance are not only worse than itself historically, but also are worse than the other competitors in the same industry. In this situation, the CEO of non-family firms have loss-aversion behaviors, and accept more risky debt financing decision. In other words, performance below aspiration has a positive relationship with capital structure of non-family firms.

In contrary, family firms have different behaviors when they have performance below aspiration. The higher socioemotional wealth the families have, the more they are afraid of socioemotional wealth (higher loss). Therefore, in case businesses have performance below aspiration, families with high value of socioemotional wealth wants to avoid the risk of bankruptcy, while at the same time seeks to accept other risks in order to disperse risky activities (Fang et al., 2021). Other risky activities have the potential to overcome losses and have been shown to have a synergistic relationship with performance below aspiration such as investment, innovation, internationalization, mergers, entry into new industries... (Kotiloglu et al., 2021). Therefore, socioemotional wealth can moderate the impact of performance below aspiration on capital structure, forming the following hypothesis:

H2: Family socioemotional wealth reduce the positive impact of performance below aspiration on capital structure.

2. Methodology

The research data was collected from listed firms from 2010 to 2020, forming a panel data combining of time series and cross-observations data. Draw data provided by FiinGroup, a Vietnamese nationally recognized and market-leading data provider. The year 2010 was chosen as the starting point for data collection because the Vietnamese Securities Law took effect in 2007, but until 2010, the number of listed companies as well as the situation of information disclosure began to be more diverse. Firms in the financial services industry are excluded due to their specific capital structure. The final survey data set consists of 3,905 observations about companies over the years, including 2,760 observations about non-family companies and 1,145 observations about family companies. There are 390 listed firms, including 137 family firms in the data.

Industry data were collected according to the Industry Classification Benchmark (ICB) published by the FTSE group, similar to previous studies (Miroshnychenko & ctg., 2020). Data by industry and family ownership are presented in table 1:

Table 1: Firms categorized

Industry (2-digit ICB code)	Total		Non-family firms		Family firms	
IND	Freq.	Percent	Freq.	Percent	Freq.	Percent
Car	107	2.74	55	1.99	52	4.54
Chemical	221	5.66	131	4.75	90	7.86
Communications	58	1.49	55	1.99	3	0.26
Constructions	897	22.97	738	26.74	159	13.89
Consuming	208	5.33	121	4.38	87	7.6
Foods	444	11.37	250	9.06	194	16.94
IT	109	2.79	88	3.19	21	1.83
Industrial	525	13.44	438	15.87	87	7.6
Medical	155	3.97	99	3.59	56	4.89
Public_services	246	6.3	231	8.37	15	1.31
Real_estate	489	12.52	317	11.49	172	15.02
Resources	295	7.55	138	5	157	13.71
Retail	53	1.36	44	1.59	9	0.79
Tourism	98	2.51	55	2	43	4
Total	3,905	100	2,760	100	1,145	100

Models were developed as follows:

$BLEV_{i,t} = \beta 0 + \beta 1.BLEV_{i,t-1} + \beta 2.PBA_{i,t} + \beta 3.SEW_{i,t} + \beta 4.PBA\_SEW_{i,t} + \beta 5\text{-}10.CONTROL_{i,t} + u_{i,t}$

Variables in the research model was adopted from previous studies and summarized in table 2 below. Socioemotional wealth variables are measured by proxy variables as a result of factor analysis of 3 component variables: shareholding, board of management percentage and board of directors percentage, following Gomez-Mejia et al. (2018). This measurement is more comprehensive in comparison to the measurement of family control only (Cambrea et al., 2022; Davila et al., 2022). In addition, to test the robustness of the model, the research, family influence variable is used as another proxy of socioemotional wealth. The family influence variable is measured through the sum of shareholding, board of management percentage and board of directors percentage, as previous studies (Klein, 2000; Stock et al., 2023; Zellweger et al., 2006).

Table 2: Variable definition and measurement

Var	Abbreviation	Measure	Sources
Dependent variable			
Capital structure	BLEV	Book value of total debt scaled by total asset	(Haider et al., 2021; Tran & Nguyen, 2023)
Independent variables			
Performance below aspiration	PBA	PBA = 1 if conditions; PBA = 0 if otherwise.	(Lu & Wong, 2019)
Family socioemotional wealth	SEW	Factor analysis result of three variables: (1) family share percentage, (2) family composition of top management team, (3) family composition of board of directors.	(Gomez-Mejia et al., 2018)
Family influence	FIN	Sum of: (1) family share percentage, (2) family composition of top management team, (3) family composition of board of directors.	(Zellweger et al., 2006)
Control variables			
Non-debt tax shield	NDTS	Depreciation scaled by total assets	(Haider et al., 2021; Tran & Nguyen, 2023)
Market to Book	MTB	Firm's MV scaled by book value	
Liquidity	LIQ	Current asset scaled by total assets	
Profitability	PROF	Return after tax scaled by total asset	
Size	SIZE	Logarithm of total asset	
Tangibility	TAN	Tangible asset scaled by total asset	

With the above research model, there is an endogenous relationship between capital structure, profitability and liquidity as mentioned in previous studies (Nguyen & Nguyen, 2020; Sardo et al., 2021; Vo, 2017). Therefore, panel causality test (Lopez & Weber, 2017) and To resolve the endogenous and autocorrelation problems, System GMM estimate is applied in this study, following Labra & Torrecillas (2018).

4. Results

The results: quite similar to previous studies in the context of Vietnam (Nguyen & Nguyen, 2020; Vo, 2017). Overall, the capital structure of firms in Vietnam is quite high.

Table 3: Descriptive statistic's analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
All firms					
blev	3,905	0.5059	0.2067	0.0075	0.9510
ndts	3,905	0.0281	0.0342	0.0000	0.9108
mtb	3,905	1.3826	1.5065	0.0000	22.7243
liq	3,905	2.1238	3.2543	0.0800	110.9800
prof	3,905	0.1232	0.1375	-0.8088	0.9821
size	3,905	13.7906	1.3695	9.5148	19.8659
tang	3,905	0.2116	0.2078	0.0000	0.9617
Non-family firms					
blev	2,760	0.4934	0.2141	0.0110	0.9510
ndts	2,760	0.0307	0.0372	0.0000	0.9108
mtb	2,760	1.3837	1.4002	0.0392	18.7458
liq	2,760	2.1635	2.2306	0.1200	23.2500
prof	2,760	0.1263	0.1369	-0.8088	0.9548
size	2,760	13.7044	1.1894	9.5148	17.6957
tang	2,760	0.2270	0.2210	0.0000	0.9617
Family firms					
blev	1,145	0.535916	0.184447	0.0075	0.9394
ndts	1,145	0.02161	0.02472	0.00000	0.18610
mtb	1,145	1.37983	1.73672	0.00000	22.72430
liq	1,145	2.02818	4.91199	0.08000	110.98000
prof	1,145	0.11559	0.13883	-0.79470	0.98210
size	1,145	13.99858	1.71080	10.16840	19.86590
tang	1,145	0.17442	0.16613	0.00000	0.85860

To check the correlation between the variables in the study model, a correlation matrix analysis is performed and presented in table 4 below.

Table 4: Corr. matrix

	blev	fam	ndts	mtb	liq	prof	size	tang	VIF
blev	1								1.18
fam	0.0937	1							1.03
ndts	-0.0499	-0.1212	1						1.41
mtb	-0.0957	-0.0012	0.0241	1					1.14
liq	-0.393	-0.0189	-0.0541	0.0366	1				1.05
prof	-0.1344	-0.0356	0.109	0.2755	0.026	1			1.1
size	0.3068	0.0978	-0.0383	0.212	-0.1626	0.0046	1		1.1
tang	-0.0157	-0.1153	0.5246	0.0269	-0.1248	0.0175	-0.0047	1	1.41

To ensure the robustness of the study model, 4 models are applied. Model 1 using data of all family and non-family firms; model 2 using data of family firms only. Model 3 replaces the SEW variable with the FIN variable. Finally, model 4 replaces the SEW variable with the FIN variable, using data of the family firms only.

Table 5: System GMM regression results

BLEV	Model 1 (All firms / SEW)	Model 2 (Family firms / SEW)	Model 3 (All firms / FIN)	Model 4 (Family firms / FIN)
L.BLEV	0.792*** (57.07)	0.781*** (57.11)	0.792*** (57.20)	0.779*** (62.83)
PBA	0.0159*** (3.94)	0.0452*** (4.21)	0.0173*** (3.98)	0.0616** (2.76)
SEW / SFI	0.00751** (3.06)	0.0166*** (3.74)	0.0135** (2.86)	0.0336* (2.08)
PBA_SEW/ PBA_SFI	-0.0226*** (-4.85)	-0.0263*** (-5.12)	-0.0415*** (-4.57)	-0.0588** (-3.03)
NDTS	(0.27) (-1.90)	-0.838*** (-4.30)	(0.28) (-1.91)	-1.007*** (-5.00)
MTB	0.00235* (2.48)	0.00863*** (10.59)	0.00233* (2.45)	0.00858*** (10.55)
LIQ	-0.0149*** (-7.74)	(0.00) (-1.47)	-0.0149*** (-7.82)	(0.00) (-1.00)
PROF	-0.129*** (-16.15)	-0.155*** (-14.39)	-0.131*** (-16.50)	-0.162*** (-15.57)
SIZE	0.0130*** (4.12)	0.00 (0.19)	0.0124*** (3.92)	(0.00) (-0.47)
TANG	-0.0635** (-2.62)	0.0989*** (3.71)	-0.0678** (-2.73)	0.104*** (4.00)
_cons	(0.03) (-0.76)	0.00 (.)	(0.02) (-0.50)	0.111** (2.71)
Year dummy	Y	Y	Y	Y

Industry dummy	Y	Y	Y	Y
AR(1)	0.000	0.000	0.000	0.000
AR(2)	0.142	0.524	0.155	0.564
Hansen test	0.245	0.893	0.264	0.936
N	3482	986	3482	986

t statistics in parentheses

** p<0.05, ** p<0.01, *** p<0.001*

The regression results showed that both research hypotheses have been shown to be statistically significant. Accordingly, family socioemotional wealth has a positive effect on capital structure and plays a role in reducing capital structure when there is performance below aspiration. All 4 models have similar results, showing that the test results are robustness.

5. Discussion and Conclusion

The regression results show that behavioral agency model makes sense when applied to explaining firm capital structure Firms with high value of family socioemotional wealth demonstrate family commitment and attachment to the company, higher social responsibility, and also reduce asymmetric information. These consequences increase the firms' debt. This finding of this study is similar to previous studies (Comino-Jurado et al., 2021a; Molly et al., 2019; Poletti-Hughes & Martínez, 2022), however it is different in measuring family socioemotional wealth as multidimensional variable, and with data from a transition country.

Besides, unlike previous publications, this study has shown the role of the loss-aversion behavior of the family firms on capital structure. In particular, when there is performance below aspiration, the firms are at risk of losses or bankruptcy, because business performance continues to decline. The higher family socioemotional wealth the firms have, the more fear of losing this intangible asset, besides the financial asset from owning the company. Therefore, while non-family firms will take higher risks, focusing on a specific risk in hopes of recovering losses, family firms will seek to restore from loss by accepting other risk than increase capital structure (Fang et al., 2021). And family firms have higher capital structure in normal situation, but when faced with the risk of losses, due to the effects of socioemotional wealth, family owners will seek to limit the increase in capital structure This behavior will happen even when the family owners of firms must accept financial disadvantages to maintain their firms – their socioemotional wealth, as in the cases of acceptance of merger, business transformation, etc. that have been outlined in previous studies (Chirico et al., 2020; Kotiloglu et al., 2021).

In conclusion, this study contributes to the literature by explaining family firm's capital structure with a behavioral agency approach. Furthermore, it gives empirical evidence about the impact of family socioemotional wealth on capital structure in the context of a transition country. In contrary, there are some research limitations, which need to be supplemented and further studied in the future.

Limitation of study and future research direction

The first future research is expanding this study with data collected from both un-listed and listed firms, because the majority of family firms in Vietnam have not listed. Secondly, future research can perform for checking socioemotional wealth and capital structure relation through crisis, or Covid-19 pandemic.

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