HOW TO IMPLEMENT A DEAL?

THE IMPACT OF CEO CHARACTERISTICS ON SYNERGY REALIZATION OF EUROPEAN TAKEOVERS

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WHY DO WE EXPLORE CEO CHARACTERISTICS?

- Anticipated synergy value needs to be effectively captured during the post-takeover process (e.g. Ahern *et al.*, 2010)

- CEO's impact on the PMI process contributes to the firm's ability to realize synergy value
  - CEO involvement affects the level of employee uncertainty during the post-takeover period (Weber *et al.*, 1996)
  - CEO involvement actively stimulates the sharing of communication between members of the combined firm (Bresman *et al.*, 1998)
  - Top management characteristics affect the realization of synergy value (Chatterjee *et al.*, 1992)

ROLE OF THE CEO IN THE M&A LITERATURE

- Finance literature: relation between CEO behavior and value-destroying acquisitions

  (e.g., Jensen, 1986; Roll, 1986; Malmendier and Tate, 2008)

- Strategy literature: relation between CEO characteristics and post-takeover integration

  (e.g., Chatterjee *et al.*, 1992, Weber *et al.*, 1996; Bresman *et al.*, 1999)

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ROLE OF THE CEO IN RECENT STUDIES

- Betrand and Schoar (2003): association between CEO FE and investment, financial and organizational policies
- Berry *et al*. (2006): association between CEO education and firm diversification
- Bamber *et al*. (2010): association between CEO age and CEO education and voluntary disclosure
- Kaplan *et al*.(2008): association between CEO characteristics and the success of LBO and VC firms

OUR RESEARCH QUESTION

Do CEO characteristics affect the realization of synergy value during the post-takeover period?

- Impact of CEO incentive alignment
  - CEO ownership
  - CEO founder status
  - CEO duality
- Impact of CEO skills
  - Age
  - Tenure
  - Education
  - Previous target business experience

SAMPLE

- Sample of intra-European M&As
  - Completed mergers and acquisitions (1997–2007)
  - Acquirer and target registered in EU27
  - Acquirer and target are listed firms
  - Non-financial acquirers
  - Acquired stake > 50% and initial stake < 50%
  - CEO of combined firm is former member of the acquirer
  - At least two years of post-takeover data available
  - Collected from Zephyr and Amadeus (BvD)

- 231 deals

INFORMATION ABOUT CEO CHARACTERISTICS

- CEO ownership information
  - Not readily available in annual accounts
  - Amadeus database (Bureau van Dijk)

- All other CEO-specific characteristics: hand-collected data
  - Founder status, CEO duality, CEO age, Tenure, CEO tenure, CEO MBA, CEO prior management/board positions
  - Annual accounts reported on the websites of the combined firms
  - Public company profiles of Bloomberg and Reuters

- To our knowledge, a unique data set in a European context

SUMMARY STATISTICS: CEO CHARACTERISTICS (TABLE 1; PANEL B)

	N	mean	median	st. dev.	min.	max.
CEO incentive alignment						
CEO owner (%)	162	66.049	1	0.475	0	1
CEO stake (%)	123	5.820	0.040	0.116	0	43.070
CEO founder (%)	199	18.090	0	0.386	0	1
CEO founding family (%)	199	22.111	0	0.416	0	1
CEO duality (%)	199	25.126	0	0.435	0	1
CEO skills - general						
CEO age (yrs.)	180	50.928	51.000	8.008	38.000	65.000
Tenure (yrs.)	184	10.924	9.000	8.500	0	31.000
CEO tenure (yrs.)	189	5.815	4.000	5.604	0	18.000
CEO education level						
CEO MBA (%)	185	13.514	0	0.343	0	1
CEO pre-deal experience in target business						
CEO target industry (%)	199	57.789	1	0.495	0	1

CALCULATION OF SYNERGY VALUE REALIZATION

- Operating synergies: Abnormal change in EBITDA up to five years after deal completion *(Gugler et al., 2003)*

$$\Pi_{C,t+n} = \Pi_{A,t-1} + \frac{K_{IA,t+n}}{K_{IA,t-1}} K_{A,t-1} \Delta_{IA,t-1,t+n} + \Pi_{T,t-1} + \frac{K_{IT,t+n}}{K_{IT,t-1}} K_{Tt-1} \Delta_{IT,t-1,t+n}$$

- Sales-based synergies: abnormal change in sales up to five years after deal completion *(Gugler et al., 2003)*

$$S_{C,t+n} = S_{A,t-1} \frac{S_{IA,t+n}}{S_{IA,t-1}} + S_{T,t-1} \frac{S_{IT,t+n}}{S_{IT,t-1}}$$

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CALCULATION OF SYNERGY VALUE REALIZATION

- Cost-based synergies: abnormal change in Operating costs/Sales up to five years after deal completion *(Huyghebaert and Luypaert, 2011)*

= industry-adjusted Operating costs/Sales (t+n) minus industry-adjusted Operating costs/Sales (t-1)

SUMMARY STATISTICS: OPERATING SYNERGIES (EBITDA), SALES-BASED SYNERGIES, AND COST-BASED SYNERGIES

	Change in EBITDA, divided by the pre-deal value of assets				Sales-based synergies				Cost-based synergies			
	N	mean	median	st. dev.	N	mean	median	st. dev.	N	mean	median	st. dev.
t+1	231	4.365 [0.000]	2.582 [0.000]	0.144	218	19.946 [0.000]	6.551 [0.000]	0.628	208	-2.773 [0.014]	-0.859 [0.052]	0.161
t+2	231	5.150 [0.001]	2.673 [0.000]	0.224	218	32.145 [0.000]	10.783 [0.000]	1.028	208	-1.299 [0.360]	0.134 [0.984]	0.204
t+3	188	3.868 [0.002]	3.219 [0.000]	0.164	175	41.162 [0.000]	17.207 [0.000]	1.243	169	-0.958 [0.598]	0.287 [0.659]	0.237
t+4	156	6.727 [0.002]	2.733 [0.000]	0.260	145	38.560 [0.000]	17.299 [0.004]	1.214	142	2.576 [0.476]	0.392 [0.331]	0.429
t+5	120	10.541 [0.001]	4.078 [0.000]	0.323	109	46.981 [0.002]	22.168 [0.027]	1.539	107	-3.398 [0.110]	0.163 [0.841]	0.218

Table 3	Y = Δ EBITDA/TA [t-1; t+2]					
CEO owner	**0.091**			**0.167**	**0.127**	**0.153**
	[0.020]			**[0.002]**	**[0.010]**	**[0.002]**
CEO founding family	-0.005			0.001	0.002	
	[0.914]			[0.989]	[0.976]	
CEO duality	-0.030			-0.047	-0.038	
	[0.462]			[0.286]	[0.411]	
CEO age		0.089	0.105	0.131	0.133	
		[0.538]	[0.463]	[0.394]	[0.422]	
Tenure		-0.041		**-0.091**		**-0.085**
		[0.147]		**[0.015]**		**[0.011]**
CEO tenure			-0.030		**-0.055**	
			[0.176]		**[0.073]**	
CEO MBA		-0.005	-0.006	-0.051	-0.044	-0.034
		[0.928]	[0.898]	[0.373]	[0411]	[0.538]
CEO target industry		**0.070**	0.053	**0.094**	**0.070**	**0.105**
		[0.050]	[0.117]	**[0.040]**	**[0.093]**	**[0.021]**
Block	0.012	0.018	0.019	0.011	0.006	-0.003
	[0.758]	[0.638]	[0.612]	[0.826]	[0.900]	[0.953]
Relsize	**0.151**	**0.174**	**0.165**	**0.190**	**0.185**	**0.199**
	[0.047]	**[0.031]**	**[0.043]**	**[0.021]**	**[0.033]**	**[0.018]**
Ln(Target size)	-0.016	-0.016	-0.018	-0.005	-0.014	-0.007
	[0.134]	[0.165]	[0.147]	[0.603]	[0.245]	[0.869]
Cross-border	0.039	0.051	0.051	0.013	0.018	0.018
	[0.445]	[0.206]	[0.197]	[0.795]	[0.727]	[0.678]
Horizontal	0.027	-0.028	-0.023	-0.006	-0.012	-0.013
	[0.537]	[0.490]	[0.560]	[0.903]	[0.803]	[0.756]
ACQ UK	-0.043	-0.001	0.008	-0.088	-0.067	-0.073
	[0.308]	[0.987]	[0.827]	[0.118]	[0.219]	[0.176]
Stock	0.052	0.052	0.042	0.014	0.012	0.009
	[0.268]	[0.235]	[0.339]	[0.800]	[0.827]	[0.869]
N	131	135	138	109	111	114
Adj. R^2	0.157	0.160	0.130	0.291	0.216	0.307

SALES-BASED SYNERGIES [T-1; T+2]

Table 4 (Panel A)			
CEO owner	**0.900**	**0.851**	**0.779**
	[0.011]	**[0.007]**	**[0.010]**
CEO founding family	-0.211	-0.203	
	[0.569]	[0.623]	
CEO duality	0.121	0.218	
	[0.653]	[0.390]	
CEO age	-0.911	-0.663	
	[0.244]	[0.386]	
Tenure	**-0.302**		**-0.350**
	[0.088]		**[0.029]**
CEO tenure		**-0.322**	
		[0.043]	
CEO MBA	-0.190	-0.211	
	[0.549]	[0.385]	
CEO target industry	0.333	0.260	0.293
	[0.210]	[0.268]	[0.223]
Control variables: results are robust			
N	104	106	114
Adj. R^2	0.222	0.213	0.240

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COST-BASED SYNERGIES [T-1; T+2]

Table 5 (Panel A)			
CEO owner	-0.092	-0.033	**-0.123**
	[0.187]	[0.659]	**[0.075]**
CEO founding family	-0.008	-0.027	
	[0.930]	[0.755]	
CEO duality	-0.084	-0.097	
	[0.196]	[0.189]	
CEO age	0.156	0.169	
	[0.337]	[0.373]	
Tenure	**0.124**		**0.119**
	[0.003]		**[0.003]**
CEO tenure		**0.084**	
		[0.010]	
CEO MBA	0.048	0.055	
	[0.436]	[0.284]	
CEO target industry	0.004	0.031	0.008
	[0.909]	[0.402]	[0.822]
Control variables: results are robust			
N	100	102	110
Adj. R^2	0.275	0.175	0.241

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ADDITIONAL TESTS

- The impact of ownership concentration
- The impact of the strategic rationale of the deal
  - Cross-border versus domestic deals
  - Horizontal versus industry-diversifying deals
- CEO characteristics and M&A type
  - Split-sample regression on cross-border vs. domestic deals and on horizontal vs. industry-diversifying deals with Heckman correction
  - Including expected synergies in the main regression model
- The impact of national cultural distance
- Findings are robust to including a number of firm-level characteristics

CONCLUSIONS

- Characteristics of the CEO affect synergy realization during the post-takeover period
  - **CEO ownership** positively affects the realization of operating synergies
  - **Longer-tenured CEOs** are associated with the realization of lower synergies
  - Pre-deal **experience** in the target business is positively associated with synergy realization
  - We report no evidence that the CEO's **age** or having an **MBA degree** is associated with the realization of more synergy value during the post-takeover period

- CEOs matter to European companies