



**University of West Hungary**

**István Széchenyi Management and Organisation Sciences**

**Doctoral School**

**The Honorable Manager:  
Sustainable Executive Management  
Compensation and Performance in  
German Family Businesses**

---

**Thesis of the Dissertation**

Tino Bensch, MBA

Sopron 2016

**Doctoral School:** Doctoral School Istvan Szechenyi - Management and Organization Sciences

**Thesis theme:** The Honorable Manager: Sustainable Executive Management Compensation and Performance in German Family Businesses

**Head of the Doctoral School:** Prof. Dr. Székely Csaba DSc

**Supervisor::** Prof. Dr. Janos Herczeg & Prof. Dr. Stefan Heinemann

## **1 Research Questions, Methodology and Structure**

The performance of listed companies in Germany and the compensation of its directors do not necessarily correlate positively. An executive who is paid above average is still no guarantee for a superior business performance (in terms of the share price). Sometimes a high compensation is paid, despite of an obvious lack of the management's performance, leading to disappointment and the investors to sell the company's shares.

Nevertheless listed companies in Germany are in the minority. The majority of the German companies is family- or owner-managed. About half of the companies in the CDAX can be classified as a family business, with responsibility and sustainability being the essential characteristics of this specific business. Especially in this context the compensation of its top management on the one hand and the performance of listed family companies on the other hand is an interesting question.

The concept of sustainability is broadly defined and for example includes corporate culture, compensation, environmental protection, social commitment, corporate social responsibility, etc. The board members themselves are a significant controlling and influencing factor on the business-related aspects of sustainability. They develop the mission, vision and long-term strategy of the company and lead the operational implementation. The board members have to act like role models: They should live their values personally with full commitment, as well as to make sure that the values are anchored in the target system of the company and are considered in its controlling. The general and basic assumption is that they act rationally.

But a rational acting manager like 'Homo Oeconomicus' can hardly be found in the real world. Therefore the New Institutional Economics considers the individuals to behave opportunistic. An opportunist in common sense is a person who finds out how the land lies, acts appropriately to certain circumstances and then takes advantage of it. An opportunistic manager in this context will act rather short term and profit-oriented. Obviously there can be a tension between means, goals and values.

Stock market-oriented family businesses have a corporate culture and a system of values that is designed for sustainability. The family or the founders hold a significant amount of shares of the company or are active in its management. In this context special attention is given to the long-term continued existence of the company and its reputation. Short-term profit targets in contrast to that only play a completely subordinate role.

Family businesses expect an honorable and upright behavior of their top management. In doing so the mercantile concept of the Honorable Businessman in the context of the discussion of sustainability can be also transferred to the profession of the manager today. This concept would include sustainability and ethics, as well as responsibility.

The manager of a listed company does not only act in his own interest, but also in the interest of the shareholders. The personal objectives of the manager should always be in line with the goals of the shareholders and the vision and mission of the company. The Honorable Manager as an ideal role model would follow exactly these goals, without showing any opportunistic behavior. In addition he would also keep any other stakeholders of the company in mind.

But assuming that every manager acts opportunistically to a certain degree, the personal performance objectives of managers also have to be connected with long-term corporate goals. In practice this is implemented mainly through variable salary components. The salary of an executive board member normally consists of a fixed and a variable component. The variable component can only be realized if the manager also achieves his growth and performance objectives in the long term.

Several scientific studies already focused on the compensation of the management, but in only very few of them the group of family businesses has been subject of investigation.

## **2 Hypotheses**

For this work the influence of the compensation of top managers / directors on the business performance of family businesses will be investigated by the following hypotheses:

- H1 Listed family businesses perform better than listed non-family businesses (with regard to the share price).
- H2 Fair pay / pay for performance compensation models established in the management correlate positively with the performance of family businesses.
- H3 Family businesses have implemented adequate compensation models, which take the business performance into account.

The theoretic classification initially discusses the ‘Honorable Manager’ based on the ‘Honorable Businessman’. Can the values of the Honorable Businessman be transferred to today's managers in the context of the debate about sustainability?

One key element within the concept of the Honorable Manager is an appropriate compensation. In this context executive payment is then discussed from a legal, ethical, and economic perspective. Particularly from an economic perspective the relationship between performance and executive payment is interesting and will be in focus.

Family businesses in Germany are a key driver of economic development. They can be characterized by their ownership and management structures and do not fall under any size restrictions. In the light of the available data only listed family businesses are analyzed in the context of the investigation. Due to the difficult operationalization of the concept of family businesses and the restricted publicly available data the following definition of the DAXplus Family index was used:

- the founding families hold at least a 25 percent share of the voting rights or
- sit in the management or supervisory board and hold at least a 5 percent share of the voting rights.

Is the performance of listed family businesses better than the one of non-family businesses? The managers are responsible for the performance of the company and will be vice versa compensated for their performance. Is the compensation responsible for a good or a bad performance? Is the manager on the one hand fairly rewarded for a good or a bad performance by the respective compensation models (fair pay) and can on the other hand the executive payment be considered efficient and fair for the company?

The data base of the investigation are the companies listed in the DAX 30 and the DAXplus Family 30. These indices represent the performance of the largest German family and non-family businesses.

### **3 Research Results**

#### **3.1 Compensation of CEOs**

Looking at the sums of the total direct compensation of the chairmen of the DAX 30 and DAXplus Family 30 companies, the chairmen of the DAX 30 companies alone received more than twice the direct compensation in the considered periods. Furthermore the sums of the total direct compensation continuously increased from 138 and 65 million euro in 2010 to 169 and 84 million euro in 2013. Only in 2014 the total direct compensation of the DAX 30 com-

panies stagnated, the total direct compensation of the family businesses even fell by 84 million euro to 78 million euro.

The per capita analysis of the compensation provides similar results. The average compensation of a CEO in a DAX 30 company continuously increased from 4.6 million euro in 2010 to 5.6 million euro in the year 2014. In family businesses the average compensation increased from 2.2 million euro in 2010 continuously to 2.8 million euro in 2013. In 2014 the average total direct compensation of CEOs declined to 2.6 million euro. The DAX 30 executives on average earned at least twice as much as CEOs in family businesses.

**Table 1: Compensation Ratio CEO DAX 30 vs. DAXplus Family 30**

	2010	2011	2012	2013	2014
<b>Per-</b> <b>cent</b> (mean)	210,7	221,9	205,0	200,9	215,9
(median)	279,4	286,8	217,5	214,2	234,4

Influence factors on the total direct compensation can be macro-economic conditions as well as other reasons; for example a higher volatility of the capital markets. Against this background managers would rather want a higher base salary and would want to see the performance-linked salary components reduced. For an even deeper dive in this context an analysis of the compensation components themselves would be needed to reveal further insights. This aspect was nonetheless due to another scope not carried out within the framework of the formulation of this thesis.

### **3.2 Performance of the Indices**

The performance analysis of indices (2010-2015) confirmed the better share price development of the family businesses in the investigation period. The development of the total return indices of DAX 30 and DAXplus Family 30 show a slightly higher performance of the DAX 30.

The development of the indices in the years 2010 and 2011 are close together. In 2012 the Blue Chip DAX 30 companies performed significantly better than the family businesses. In contrast to that the years 2013 and 2014 are characterized by a significantly better performance of the family businesses. In 2014 the DAXplus Family 30 achieved a double-digit growth, while the DAX 30 only had negative or low single-digit growth rates.

Regarding the comparison of the operational performance on the basis of return on equity family businesses performed better. The family businesses paid 16.8 percent interest on equity, while the DAX 30 companies generated only 11.7 percent.

Regarding the total shareholder return the family businesses showed a significantly higher performance as well. Here the average total shareholder return of the DAX 30 companies was 13.4 percent, compared to 23.6 percent of family businesses.

Also the Tobin's q can confirm the good performance of family businesses. DAX 30 companies as well as the family businesses achieved positive values. Striking is the significantly higher Tobin's q of the family businesses of 2.1 compared to 1.3 of the DAX 30 companies. This underlines a better performance, as well as it indicates positive earnings expectations of the investors of family businesses.

### **3.3 Pay for Performance Analysis**

The pay for performance analysis considers two performance indicators: net value added of shareholders and net return on equity. The term net means that the costs of equity capital are subtracted from the gross values. These are represented by the CAPM in the study. It has to be noticed in this context that the costs of equity capital are generally higher for the DAX 30 companies.

The first performance measure, the net value added of shareholders, represents the relative value of shareholders after deduction of the return requirements of the equity investors. Expectations supplied by the market are reflected in the stock prices of the companies. Therefore the net value added can be regarded as an ex ante indicator for the company's performance. In this research the total shareholder return was used and adjusted by the estimated costs of equity of the respective period.

The second indicator, the net return on equity, is calculated by dividing the consolidated net profit by the accounting equity. This can be regarded as an ex post indicator of business performance, because it is based on accounting data. The return on equity shows how the equity of a company has paid on interest during the period. For this research it has also been corrected with the estimated costs of equity in the respective period.

The methodology of the pay for performance analysis is based on a simple idea: only the company which generates a higher return on capital than is needed to spend on capital markets, increases the assets of its shareholders. The net value added and net return on equity are presented in the following table.

**Table 2: Net Value Added and Net Return on Equity DAX 30 vs. DAXplus Family 30 (2010-2014)**

Net value added (TSR - CAPM) in percent						
Index	Parameter	2010	2011	2012	2013	2014
DAX 30	(mean)	9,61	-25,23	19,55	11,05	-8,59
	(median)	6,83	-22,41	23,63	11,68	-3,76
DAXplus Family 30	(mean)	29,51	-26,89	18,02	36,72	9,74
	(median)	29,44	-24,77	11,15	29,97	5,22

  

Net return on equity (RoE - CAPM) in percent						
Index	Parameter	2010	2011	2012	2013	2014
DAX 30	(mean)	-2,59	0,94	-1,09	-1,28	2,29
	(median)	-2,62	0,66	2,00	3,85	2,87
DAXplus Family 30	(mean)	3,97	7,42	5,85	8,74	6,51
	(median)	1,61	5,20	4,78	6,40	6,45

The results of the pay for performance analysis of the DAX 30 companies and the DAXplus Family 30 companies are listed in the following two tables.

**Table 3: Pay for Performance-Analysis DAX 30 (2010-2014)**

Name	2010		2011		2012		2013		2014	
	PfP	Position	PfP	Position	PfP	Position	PfP	Position	PfP	Position
ADIDAS AG NA O.N.	49,5	14	69,7	13	73,6	17	86,1	3	61,4	24
ALLIANZ SE VNA O.N.	31,4	27	44,0	26	68,2	21	72,2	18	79,5	19
BASF SE NA O.N.	60,5	7	78,1	7	78,8	11	76,9	10	83,2	13
BAY.MOTOREN WERKE AG ST	57,0	9	70,2	12	77,3	14	75,3	14	82,4	16
BAYER AG NA	27,9	28	64,6	18	75,5	15	81,8	6	86,8	6
BEIERSDORF AG O.N.	46,8	17	85,3	5	84,0	5	84,8	4	85,7	8
COMMERZBANK AG	44,5	19	58,1	21	67,2	24	67,9	23	71,7	22
CONTINENTAL AG O.N.	42,4	21	68,1	14	100,0	1	97,4	2	96,8	5
DAIMLER AG NA O.N.	36,9	26	48,4	23	72,7	18	79,7	9	83,0	14
DEUTSCHE BANK AG NA O.N.	1,0	30	37,1	28	24,4	29	15,6	29	1,0	30
DEUTSCHE BOERSE NA O.N.	41,0	23	100,0	1	84,4	4	81,7	7	100,0	1
DEUTSCHE POST AG NA O.N.	61,1	6	64,4	19	81,2	6	100,0	1	86,4	7
DT.TELEKOM AG NA	39,3	24	54,4	22	46,8	28	73,6	17	83,0	15
E.ON SE NA	44,4	20	34,4	29	54,9	27	59,8	26	51,2	29
FRESEN.MED.CARE KGAA O.N.	62,2	5	89,3	4	74,4	16	75,1	15	97,6	2
FRESENIUS SE+CO.KGAA O.N.	70,6	4	98,8	3	81,2	7	84,0	5	97,4	3
HEIDELBERGCEMENT AG O.N.	22,9	29	44,4	25	64,0	25	66,9	24	64,0	23
HENKEL AG+CO.KGAA VZO	59,0	8	72,5	10	79,3	10	80,2	8	85,0	11
INFINEON TECH.AG NA O.N.	91,8	2	99,6	2	70,2	19	72,1	19	85,6	9
K+S AG NA O.N.	72,9	3	67,5	15	80,1	9	69,4	22	79,5	18
LANXESS AG	100,0	1	75,9	8	87,7	3	58,4	27	53,1	28
LINDE AG O.N.	48,4	15	66,4	16	68,2	22	71,6	20	76,8	20
LUFTHANSA AG VNA O.N.	52,6	13	47,1	24	88,1	2	70,4	21	60,6	25
MERCK KGAA O.N.	41,2	22	74,5	9	67,7	23	76,5	12	55,5	27
MUENCH.RUECKVERS.VNA O.N.	45,8	18	58,2	20	77,8	12	74,9	16	81,6	17
RWE AG ST O.N.	54,2	12	41,6	27	63,5	26	40,5	28	97,4	4
SAP SE O.N.	55,0	10	78,8	6	77,4	13	76,5	11	84,0	12
SIEMENS AG NA	48,0	16	65,9	17	68,4	20	75,6	13	85,2	10
THYSSENKRUPP AG O.N.	38,7	25	1,0	30	1,0	30	1,0	30	76,3	21
VOLKSWAGEN AG VZO O.N.	54,5	11	70,7	11	80,6	8	63,5	25	58,0	26



**Table 4: Pay for Performance-Analysis DAXplus Family 30 (2010-2014)**

Name	2010		2011		2012		2013		2014	
	PfP	Position	PfP	Position	PfP	Position	PfP	Position	PfP	Position
A.SPRINGER SE VNA	16,8	14	9,0	18	7,8	27	4,5	25	20,0	9
BECHTLE AG O.N.	14,6	16	8,7	19	12,3	17	7,2	13	17,7	15
CEWE STIFT.KGAA O.N.	18,3	12	12,3	10	12,4	16	9,2	7	16,8	19
CTS EVENTIM KGAA	32,3	6	14,2	7	18,1	6	10,0	6	19,7	10
DUERR AG O.N.	8,5	25	13,0	9	27,1	3	8,1	10	19,4	12
ELRINGKLINGER AG NA O.N.	13,3	20	8,1	20	12,2	18	5,5	21	13,0	26
FIELMANN AG O.N.	18,8	10	11,9	11	13,6	12	7,3	12	17,8	14
FRESENIUS SE+CO.KGAA O.N.	15,7	15	10,3	15	13,5	13	5,7	20	16,5	21
FUCHS PETROLUB SE O.N.	33,3	5	17,0	5	21,1	5	8,9	9	20,8	8
GERRY WEBER INTERNAT.O.N.	22,9	9	10,8	13	15,4	9	4,6	23	16,7	20
GFT TECHNOLOGIES SE	24,4	8	7,6	21	12,2	19	12,2	4	34,5	4
GRENKELEASING AG NA O.N.	13,5	18	11,2	12	15,2	10	5,9	18	20,9	7
HENKEL AG+CO.KGAA ST O.N.	10,8	22	9,0	17	13,4	14	6,2	14	15,5	23
KRONES AG O.N.	6,5	27	4,0	26	10,3	24	5,9	19	19,5	11
MANZ AG	9,0	24	7,0	24	10,4	23	11,3	5	11,7	27
METRO AG ST O.N.	3,2	28	1,7	29	1,0	30	1,0	30	1,0	30
NEMETSCHKE AG O.N.	64,7	2	20,9	4	30,5	2	24,5	2	44,4	2
PATRIZIA IMMOBILIEN NA ON	9,3	23	7,2	23	17,4	7	5,3	22	18,1	13
QSC AG NA O.N.	28,3	7	7,5	22	12,0	20	9,2	8	13,2	25
RATIONAL AG	38,4	4	25,9	3	26,7	4	15,1	3	26,2	5
SAP SE O.N.	11,8	21	10,4	14	13,1	15	6,1	16	16,3	22
SIXT SE ST O.N.	14,3	17	1,8	28	9,4	25	6,1	15	17,3	17
SMA SOLAR TECHNOL.AG	100,0	1	14,9	6	11,0	22	4,6	24	1,5	29
SOFTWARE AG O.N.	18,7	11	9,5	16	11,8	21	1,9	28	8,5	28
STRATEC BIOMEDICAL NAM.ON	17,1	13	26,1	2	15,2	11	6,0	17	38,0	3
STROEER SE	1,0	30	1,0	30	3,5	29	1,9	29	17,6	16
SYMRISE AG INH. O.N.	13,3	19	13,4	8	15,9	8	7,6	11	21,3	6
UTD.INTERNET AG NA	44,7	3	100,0	1	100,0	1	100,0	1	100,0	1
WACKER CHEMIE O.N.	6,5	26	3,5	27	4,6	28	2,1	26	13,9	24
WACKER NEUSON NA O.N.	2,8	29	6,1	25	7,8	26	2,1	27	16,9	18

In connection with the rankings mentioned above the “Relativer Performance-Gesamtwert” (RPGW) and the “Vergütungsabweichungsfaktor” (VGAF) are to be considered in more detail. The mean values of the RPGW of family businesses in each year of the examined period are higher than those of non-family businesses. Therefore the conclusion can be made that family businesses have got a better performance.

The VGAF only represents the deviation of total direct compensation and does not consider performance-based payments. Especially in family businesses the payments of the CEOs are not homogeneous and the difference in compensation is clearly visible. It is reflected in the standard deviation of the VGAF.

The mean values of VGAF are at a similar level for both family and non-family businesses. But the standard deviation of the VGAF at family businesses is significantly higher. This suggests a more heterogeneous height of compensation in this group.

The pay for performance analysis also shows significant differences in the performance-oriented compensation of the Chief Executive Officers.

### 3.4 Fair Pay-Analysis

The fair pay analysis verifies if the compensation of the top management is related to the actual performance of a company in terms of shareholder interests. Therefore the sum of the direct compensation of all CEOs in all companies of one index is recalculated and allocated to the other listed companies based on each company's individual performance.

The following two tables summarize the results of the fair pay analysis and represent the ratio of the actually paid total direct compensation of a CEO in contrast to the justified total direct compensation. The following ranking by Prinz & Schwalbach sorts the results in ascending order.

**Table 5: Fair Pay-Ranking by Prinz & Schwalbach (2011) DAX 30 (2010-2014)**

Name	2010		2011		2012		2013		2014	
	Pay / Fair Pay in %	Ranking	Pay / Fair Pay in %	Ranking	Pay / Fair Pay in %	Ranking	Pay / Fair Pay in %	Ranking	Pay / Fair Pay in %	Ranking
ADIDAS AG NA O.N.	103,1%	19	104,3%	19	47,4%	6	37,9%	4	91,8%	17
ALLIANZ SE VNA O.N.	159,6%	23	110,5%	20	118,8%	21	104,1%	19	102,8%	19
BASF SE NA O.N.	90,0%	17	121,0%	22	90,8%	16	93,0%	18	95,2%	18
BAY.MOTOREN WERKE AG ST	79,7%	14	114,1%	21	112,8%	20	121,1%	24	124,2%	24
BAYER AG NA	169,6%	25	85,5%	16	87,0%	15	76,4%	16	91,1%	16
BEIERSDORF AG O.N.	26,0%	2	25,5%	2	50,6%	8	43,9%	6	42,6%	5
COMMERZBANK AG	16,3%	1	17,5%	1	30,9%	1	30,5%	1	37,7%	3
CONTINENTAL AG O.N.	58,1%	8	59,0%	8	43,7%	5	55,6%	10	71,2%	9
DAIMLER AG NA O.N.	189,8%	29	184,1%	27	148,2%	25	127,4%	25	141,2%	26
DEUTSCHE BANK AG NA O.N.	187,0%	28	138,9%	25	237,5%	29	299,2%	29	285,5%	29
DEUTSCHE BOERSE NA O.N.	90,1%	18	62,1%	10	59,8%	11	58,0%	12	61,8%	8
DEUTSCHE POST AG NA O.N.	66,9%	9	57,8%	7	59,6%	10	47,2%	8	158,8%	27
DT.TELEKOM AG NA	81,0%	15	75,1%	14	91,2%	17	57,8%	11	74,2%	10
E.ON SE NA	135,4%	21	104,1%	18	123,8%	22	110,4%	21	86,1%	14
FRESEN.MED.CARE KGAA O.N.	75,4%	11	61,5%	9	83,0%	14	44,3%	7	45,7%	6
FRESENIUS SE+CO.KGAA O.N.	53,5%	7	35,3%	4	38,6%	2	40,1%	5	41,2%	4
HEIDELBERGCEMENT AG O.N.	105,6%	20	75,3%	15	72,0%	13	72,1%	14	112,6%	22
HENKEL AG+CO.KGAA VZO	85,6%	16	86,6%	17	103,6%	19	108,1%	20	115,6%	23
INFINEON TECH.AG NA O.N.	40,4%	5	65,6%	11	56,8%	9	32,7%	2	37,7%	2
K+S AG NA O.N.	33,2%	3	57,0%	6	48,1%	7	54,1%	9	36,9%	1
LANXESS AG	38,5%	4	67,2%	12	64,7%	12	58,0%	13	110,1%	21
LINDE AG O.N.	146,1%	22	124,3%	23	130,0%	23	121,0%	22	86,0%	13
LUFTHANSA AG VNA O.N.	72,3%	10	56,5%	5	42,4%	4	37,0%	3	82,3%	12
MERCK KGAA O.N.	77,4%	12	69,6%	13	102,3%	18	121,0%	23	159,4%	28
MUENCH.RUECKVERS.VNA O.N.	53,3%	6	34,7%	3	40,9%	3	75,8%	15	81,2%	11
RWE AG ST O.N.	198,5%	30	189,3%	29	142,8%	24	87,7%	17	54,7%	7
SAP SE O.N.	177,2%	26	188,7%	28	273,7%	30	333,3%	30	139,9%	25
SIEMENS AG NA	186,2%	27	169,8%	26	148,4%	26	167,9%	27	106,3%	20
THYSSENKRUPP AG O.N.	78,8%	13	137,4%	24	183,3%	27	161,8%	26	89,2%	15
VOLKSWAGEN AG VZO O.N.	169,4%	24	297,0%	30	223,2%	28	263,8%	28	292,6%	30

**Table 6: Fair Pay-Ranking by Prinz & Schwalbach (2011) DAXplus Family 30 (2010-2014)**

Name	Pay / Fair		Pay / Fair		Pay / Fair		Pay / Fair		Pay / Fair	
	Pay in %	Ranking	Pay in %	Ranking	Pay in %	Ranking	Pay in %	Ranking	Pay in %	Ranking
A.SPRINGER SE VNA	276,2%	29	268,9%	29	266,7%	29	229,3%	28	262,8%	28
BECHTLE AG O.N.	43,7%	12	53,1%	14	30,1%	9	37,6%	10	64,7%	12
CEWE STIFT.KGAA O.N.	29,3%	6	30,8%	8	30,6%	10	27,7%	7	29,7%	7
CTS EVENTIM KGAA	54,9%	14	61,8%	15	81,2%	17	84,1%	18	102,3%	20
DUERR AG O.N.	71,5%	17	82,6%	18	74,7%	16	120,1%	23	113,9%	21
ELRINGKLINGER AG NA O.N.	37,2%	9	44,8%	10	41,0%	12	65,8%	15	143,5%	23
FIELMANN AG O.N.	145,5%	23	142,9%	22	167,9%	26	165,0%	27	201,3%	27
FRESENIUS SE+CO.KGAA O.N.	124,8%	19	80,6%	17	82,6%	18	92,1%	19	97,3%	19
FUCHS PETROLUB SE O.N.	67,3%	16	71,3%	16	71,0%	15	81,1%	16	80,7%	15
GERRY WEBER INTERNAT.O.N.	147,6%	24	185,1%	26	151,0%	25	156,8%	25	153,1%	24
GFT TECHNOLOGIES SE	41,0%	11	47,3%	11	35,5%	11	33,2%	9	31,4%	8
GRENKELEASING AG NA O.N.	22,8%	4	25,0%	4	22,7%	7	22,5%	5	22,8%	4
HENKEL AG+CO.KGAA ST O.N.	201,0%	27	197,1%	27	221,3%	28	242,0%	29	271,8%	29
KRONES AG O.N.	97,4%	18	91,4%	20	84,0%	19	65,5%	14	47,1%	10
MANZ AG	30,4%	7	25,4%	5	17,8%	5	13,3%	3	28,9%	6
METRO AG ST O.N.	220,4%	28	170,6%	25	143,0%	23	96,3%	20	176,6%	25
NEMETSCHKE AG O.N.	21,4%	2	20,1%	3	10,2%	1	12,2%	1	22,5%	3
PATRIZIA IMMOBILIEN NA ON	40,2%	10	27,2%	6	22,2%	6	28,0%	8	39,0%	9
QSC AG NA O.N.	35,8%	8	52,5%	13	14,4%	3	45,1%	11	23,1%	5
RATIONAL AG	52,1%	13	48,9%	12	53,8%	13	56,9%	12	86,3%	17
SAP SE O.N.	410,5%	30	432,1%	30	583,6%	30	759,3%	30	328,0%	30
SIXT SE ST O.N.	162,8%	26	252,1%	28	174,6%	27	133,2%	24	129,9%	22
SMA SOLAR TECHNOL.AG	21,5%	3	29,8%	7	25,3%	8	17,0%	4	90,9%	18
SOFTWARE AG O.N.	143,2%	22	165,9%	24	149,8%	24	164,8%	26	194,8%	26
STRATEC BIOMEDICAL NAM.ON	7,9%	1	17,4%	2	17,3%	4	25,2%	6	21,9%	2
STROEER SE	139,6%	20	101,2%	21	99,8%	20	103,3%	22	77,1%	14
SYMRISE AG INH. O.N.	61,5%	15	40,9%	9	65,5%	14	63,3%	13	65,3%	13
UTD.INTERNET AG NA	23,6%	5	16,7%	1	13,2%	2	12,6%	3	16,3%	1
WACKER CHEMIE O.N.	140,9%	21	145,1%	23	116,8%	22	82,0%	17	85,4%	16
WACKER NEUSON NA O.N.	154,6%	25	84,5%	19	114,4%	21	102,6%	21	58,0%	11

The question now arises, if this ranking corresponds with the sense of justice of all involved stakeholders. From the perspective of shareholders it might as well be reasonable to consider lower fees of compensation as fair. The performance of managers should nonetheless be remunerated in line with their economic value add for the company. External comparisons should be taken into account as well. Furthermore supply and demand on the labor market for top managers can influence the level of compensation as well.

Therefore as a next step positive and negative deviations from the respective calculated fair pays were taken into account. The companies which paid their CEOs a total direct compensation approximately equal to the calculated fair pay compensation, now find themselves at the top positions of the rankings, which is then leading to a different picture of the fair pay analysis in contrast to the original ranking.

**Table 7: Fair Pay-Deviation DAX 30 (2010-2014)**

Name	2010		2011		2012		2013		2014	
	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking
ADIDAS AG NA O.N.	3,1%	1	4,3%	2	-52,6%	22	-62,1%	24	-8,2%	4
ALLIANZ SE VNA O.N.	59,6%	15	10,5%	3	18,8%	7	4,1%	1	2,8%	1
BASF SE NA O.N.	-10,0%	4	21,0%	7	-9,2%	4	-7,0%	2	-4,8%	2
BAY.MOTOREN WERKE AG ST	-20,3%	7	14,1%	4	12,8%	5	21,1%	8	24,2%	14
BAYER AG NA	69,6%	17	-14,5%	6	-13,0%	6	-23,6%	10	-8,9%	5
BEIERSDORF AG O.N.	-74,0%	29	-74,5%	29	-49,4%	20	-56,1%	22	-57,4%	24
COMMERZBANK AG	-83,7%	30	-82,5%	30	-69,1%	30	-69,5%	29	-62,3%	26
CONTINENTAL AG O.N.	-41,9%	18	-41,0%	18	-56,3%	24	-44,4%	18	-28,8%	17
DAIMLER AG NA O.N.	89,8%	24	84,1%	23	48,2%	13	27,4%	9	41,2%	18
DEUTSCHE BANK AG NA O.N.	87,0%	22	38,9%	12	137,5%	26	199,2%	27	185,5%	29
DEUTSCHE BOERSE NA O.N.	-9,9%	3	-37,9%	16	-40,2%	16	-42,0%	16	-38,2%	21
DEUTSCHE POST AG NA O.N.	-33,1%	14	-42,2%	20	-40,4%	17	-52,8%	20	58,8%	19
DT.TELEKOM AG NA	-19,0%	6	-24,9%	10	-8,8%	3	-42,2%	17	-25,8%	15
E.ON SE NA	35,4%	11	4,1%	1	23,8%	9	10,4%	4	-13,9%	10
FRESEN.MED.CARE KGAA O.N.	-24,6%	10	-38,5%	17	-17,0%	8	-55,7%	21	-54,3%	23
FRESENIUS SE+CO.KGAA O.N.	-46,5%	21	-64,7%	26	-61,4%	28	-59,9%	23	-58,8%	25
HEIDELBERGCEMENT AG O.N.	5,6%	2	-24,7%	9	-28,0%	11	-27,9%	12	12,6%	8
HENKEL AG+CO.KGAA VZO	-14,4%	5	-13,4%	5	3,6%	2	8,1%	3	15,6%	9
INFINEON TECH.AG NA O.N.	-59,6%	26	-34,4%	15	-43,2%	18	-67,3%	28	-62,3%	27
K+S AG NA O.N.	-66,8%	28	-43,0%	21	-51,9%	21	-45,9%	19	-63,1%	28
LANXESS AG	-61,5%	27	-32,8%	14	-35,3%	15	-42,0%	15	10,1%	6
LINDE AG O.N.	46,1%	13	24,3%	8	30,0%	10	21,0%	6	-14,0%	11
LUFTHANSA AG VNA O.N.	-27,7%	12	-43,5%	22	-57,6%	25	-63,0%	26	-17,7%	12
MERCK KGAA O.N.	-22,6%	9	-30,4%	13	2,3%	1	21,0%	7	59,4%	20
MUENCH.RUECKVERS.VNA O.N.	-46,7%	23	-65,3%	27	-59,1%	27	-24,2%	11	-18,8%	13
RWE AG ST O.N.	98,5%	25	89,3%	25	42,8%	12	-12,3%	5	-45,3%	22
SAP SE O.N.	77,2%	19	88,7%	24	173,7%	29	233,3%	30	39,9%	16
SIEMENS AG NA	86,2%	20	69,8%	19	48,4%	14	67,9%	14	6,3%	3
THYSSENKRUPP AG O.N.	-21,2%	8	37,4%	11	83,3%	19	61,8%	13	-10,8%	7
VOLKSWAGEN AG VZO O.N.	69,4%	16	197,0%	28	123,2%	23	163,8%	25	192,6%	30

**Table 8: Fair Pay-Deviation DAXplus Family 30 (2010-2014)**

Name	2010		2011		2012		2013		2014	
	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking	Fair Pay Deviation	Ranking
A.SPRINGER SE VNA	176,2%	21	168,9%	21	166,7%	18	129,3%	18	162,8%	20
BECHTLE AG O.N.	-56,3%	17	-46,9%	13	-69,9%	21	-62,4%	20	-35,3%	13
CEWE STIFT.KGAA O.N.	-70,7%	24	-69,2%	22	-69,4%	20	-72,3%	23	-70,3%	24
CTS EVENTIM KGAA	-45,1%	13	-38,2%	9	-18,8%	6	-15,9%	5	2,3%	1
DUERR AG O.N.	-28,5%	4	-17,4%	4	-25,3%	7	20,1%	6	13,9%	4
ELRINGKLINGER AG NA O.N.	-62,8%	20	-55,2%	18	-59,0%	17	-34,2%	10	43,5%	10
FIELMANN AG O.N.	45,5%	7	42,9%	7	67,9%	13	65,0%	15	101,3%	17
FRESENIUS SE+CO.KGAA O.N.	24,8%	2	-19,4%	5	-17,4%	5	-7,9%	4	-2,7%	2
FUCHS PETROLUB SE O.N.	-32,7%	9	-28,7%	6	-29,0%	8	-18,9%	8	-19,3%	7
GERRY WEBER INTERNAT.O.N.	47,6%	8	85,1%	12	51,0%	11	56,8%	12	53,1%	12
GFT TECHNOLOGIES SE	-59,0%	18	-52,7%	17	-64,5%	19	-66,8%	21	-68,6%	22
GRENKELEASING AG NA O.N.	-77,2%	27	-75,0%	26	-77,3%	23	-77,5%	25	-77,2%	27
HENKEL AG+CO.KGAA ST O.N.	101,0%	15	97,1%	15	121,3%	16	142,0%	19	171,8%	21
KRONES AG O.N.	-2,6%	1	-8,6%	2	-16,0%	4	-34,5%	11	-52,9%	18
MANZ AG	-69,6%	23	-74,6%	25	-82,2%	25	-86,7%	27	-71,1%	25
METRO AG ST O.N.	120,4%	16	70,6%	11	43,0%	9	-3,7%	3	76,6%	15
NEMETSCHKE AG O.N.	-78,6%	29	-79,9%	28	-89,8%	30	-87,8%	30	-77,5%	28
PATRIZIA IMMOBILIEN NA ON	-59,8%	19	-72,8%	24	-77,8%	24	-72,0%	22	-61,0%	19
QSC AG NA O.N.	-64,2%	22	-47,5%	14	-85,6%	28	-54,9%	17	-76,9%	26
RATIONAL AG	-47,9%	14	-51,1%	16	-46,2%	15	-43,1%	16	-13,7%	5
SAP SE O.N.	310,5%	25	332,1%	27	483,6%	27	659,3%	28	228,0%	23
SIXT SE ST O.N.	62,8%	12	152,1%	20	74,6%	14	33,2%	9	29,9%	9
SMA SOLAR TECHNOL.AG	-78,5%	28	-70,2%	23	-74,7%	22	-83,0%	26	-9,1%	3
SOFTWARE AG O.N.	43,2%	6	65,9%	10	49,8%	10	64,8%	14	94,8%	16
STRATEC BIOMEDICAL NAM.ON	-92,1%	30	-82,6%	29	-82,7%	26	-74,8%	24	-78,1%	29
STROEER SE	39,6%	3	1,2%	1	-0,2%	1	3,3%	2	-22,9%	8
SYMRISE AG INH. O.N.	-38,5%	11	-59,1%	19	-34,5%	12	-36,7%	13	-34,7%	11
UTD.INTERNET AG NA	-76,4%	26	-83,3%	30	-86,8%	29	-87,4%	29	-83,7%	30
WACKER CHEMIE O.N.	40,9%	5	45,1%	8	16,8%	3	-18,0%	7	-14,6%	6
WACKER NEUSON NA O.N.	54,6%	10	-15,5%	3	14,4%	2	2,6%	1	-42,0%	14

But just by the ranking itself a general statement on the performance orientation of salaries in family businesses cannot be made. The following table summarizes minimum and maximum, range and standard deviation of the fair pay deviation for the DAX 30 and the DAXplus Family 30 during the period of 2010-2014. The DAX 30 companies here show significantly lower ranges than the family businesses. Consequently compensations in the DAX 30 seem to better match with fair pay compensations than the compensation in family businesses; an observation which can also be supported by the standard deviations.

**Table 9: Minimum, Maximum, Range and Standard Deviation of the Fair Pay-Deviation DAX 30 and DAXplus Family 30 (2010-2014)**

		DAX 30				
		2010	2011	2012	2013	2014
<b>Minimum</b>		-83,7%	-82,5%	-69,1%	-69,5%	-63,1%
<b>Maximum</b>		98,5%	197,0%	173,7%	233,3%	192,6%
<b>Range</b>		182,1%	279,5%	242,7%	302,8%	255,7%
<b>Standard deviation</b>		0,558	0,606	0,626	0,772	0,618
		DAXplus Family 30				
		2010	2011	2012	2013	2014
<b>Minimum</b>		-92,1%	-83,3%	-89,8%	-87,8%	-83,7%
<b>Maximum</b>		310,5%	332,1%	483,6%	659,3%	228,0%
<b>Range</b>		402,6%	415,4%	573,4%	747,1%	311,7%
<b>Standard deviation</b>		0,905	0,943	1,131	1,382	0,823

### 3.5 Compensation and Performance Over Time

The performance of family businesses in general was significantly better in the period 2010-2014. Family businesses generated more than the required minimum return on equity of investors (calculated using the CAPM). In contrast to that non-family businesses only achieved the minimum interest required by shareholders.

**Table 10: Corporate performance DAX 30 vs. DAXplus Family 30 (2010-2014)**

		Net value added (in percent)				Net return on equity (in percent)			
		Cost of				Cost of			
Index		gross	equity	net	p.a.	gross	equity	net	p.a.
DAX 30	mean	66,8	60,4	6,4	1,3	58,6	60,4	-1,7	-0,3
	median	68,8	62,4	6,5	3,2	64,3	62,4	1,9	1,3
DAXplus	mean	119,0	51,6	67,3	13,4	84,8	51,6	33,1	6,5
30 Family	median	101,9	51,5	50,5	10,2	77,3	51,5	25,8	4,9

Against the background of a performance-based payment, compensation and performance should correlate. However from 2010 to 2013 the payments of both the DAX 30 companies and the family businesses increased continuously. Only in 2014 the total direct compensation

declined or stagnated. Therefore also other factors seem to influence the compensation, e.g. the size of the company. CEOs of DAX 30 companies earned on average twice as much as their counterparts in family businesses. However the range of salary payments among the family businesses is significantly larger.

But overall and in a nutshell one cannot speak of a pay for performance relationship in this context.

### **3.6 Answering the Hypotheses**

For the analysis of "The Honorable Manager: Sustainable Executive Management Compensation and Performance in German Family Businesses" the following hypotheses were tested:

- H1 Listed family businesses perform better than listed non-family businesses (with regard to the share price).
- H2 Fair pay / pay for performance compensation models in management correlate positively with the performance of family businesses.
- H3 Family businesses have implemented adequate compensation structures, which take the business performance into account.

Basis of the investigation were 30 companies of the DAX 30 (non-family businesses) and 30 companies of the DAXplus Family 30 index. Within a period of five years the family businesses generated a significantly higher performance.

The results of the analysis also show a significantly better performance of the family businesses with regard to the Tobin's q. In the period of five years family businesses achieved a Tobin's q of 2.1 in contrast to 1.3 in non-family businesses.

The return on equity in the same period showed 16.8 percent for family businesses in contrast to 11.7 percent for non-family businesses. Also the total shareholder return proves the better performance of family businesses.

Taking all these observations into account the hypothesis H1 can be confirmed: 'Listed family businesses perform better than listed non-family businesses (with regard to the share price)'.

In the course the investigation should clarify how family businesses have implemented pay for performance compensation models. To draw a conclusion the two indicators (RPGW and VGAF) were examined.

As a result here it can be stated that family businesses have not implemented a performance-oriented compensation of their Chief Executive Officers.

In the next step it was clarified how high the performance-oriented compensation should be (fair pay). This resulted in a significant deviation of performance-based payment for the family businesses, as well as for the non-family businesses.

Further based on the fair pay compensations minimum, maximum, range and standard deviation were calculated. According to this non-family businesses have implemented fair pay compensation structures better.

So in a nutshell the hypotheses H2 'Fair pay / pay for performance compensation models in management correlate positively with the performance of family businesses' and H3 'Family businesses have implemented adequate compensation structures, which take into account the business performance', can be contradicted.

### **3.7 Research results and Conclusion**

On the one hand family businesses perform better than non-family businesses, on the other hand they pay their CEOs significantly lower salaries on average than the considered non-family businesses.

Because of the high corporate returns family businesses are attractive investment targets for current and potential shareholders. In addition to the company's overall performance, investors also seem to consider the corporate culture and corporate non-financial values as well. In this context the expected minimum returns on the deposit of the equity investors and the cost of equity (as measured by the CAPM) are lower in family businesses than in non-family businesses. This speaks for a sustainable corporate culture of the family businesses and is also reflected in a lower cost of financing.

The compensation systems of family businesses nonetheless do not sufficiently consider the performance of the company. The family businesses have on average not implemented appropriate compensation structures and have the tendency to also underpay their CEOs.

The transfer of these results into practice reveals the following area of conflict: listed family businesses in Germany on average offer their shareholders better income returns, but their managers, compared to listed non-family businesses, absolutely and relatively seen a below average payment. This area certainly is a challenge for the sustainable corporate governance

of family businesses, which orientates itself at the Honorable Manager, and needs to be taken into special account in context of the “War for talents” in the future.

For non-family businesses it would on the other hand be interesting against the background of the sustainability debate, how family businesses despite obviously lower payment incentives, still perform better and which aspects (e.g. a unique company culture, the influence of the family or the structuring of the compensation system), which should be part of further detailed research, could be the drivers and best practices of the performance of family businesses.

Management board compensation is also being controversially discussed in public. In addition to the absolute height of the compensation also the attitude, virtues and the actual behavior of managers are increasingly being considered. Currently politics attempts to establish rules (e.g. with the German Corporate Governance Code), which should take into account the relative height of the management board compensation against the background of the sense of justice of the society, but also the free market economy. Especially shareholder objectives are in the spotlight here. But in family businesses this does not seem to be the primary benchmark. According to this, values which are lived in the family businesses, should also be taken more in account in legislation, as they apparently have a high level of acceptance in the society.

### **3.8 Critical acclaim and fields for further research**

The present analysis is limited to the respective largest family businesses and non-family businesses in Germany in the period of 2010-2014. This corridor is relatively narrow because of mainly the data availability of family businesses. In particular, the data of the compensations and compensation structures of the management boards of family business are limited. Therefore, there is a need for further research.

The relatively small total number of the companies prevented a valid analysis of the performance and the compensation with specific regards to the company size and its sector or industry affiliations. An expansion of the data base here could lead to further findings.

Only the total direct compensation of the chairman of the board was taken into account in the context of this thesis. Here, a more detailed comparison of the different components of the compensation of managers in family businesses and non-family businesses could also lead to further insights.

Family businesses are characterized, among many other aspects, by the participation of the family in the corporate bodies as well as their ownership interest in the company. How does



the level of ownership of the family or their participation in the company bodies affect the performance or the composition and total amount of the compensation? Do third-party managers get a higher payment than managers of the core family circle?

The analysis confirmed the better performance of family businesses in the survey period. But as the compensation structures do not reflect the company performance appropriately, it would be reasonable to identify other performance drivers. These could for example be reflected in the unique corporate culture, the influence of the family or the structuring of the compensation systems of the family businesses. Another interesting research question in this context would also be, whether these performance drivers could be transferred to the non-family businesses as well.

#### **4 Outlook**

For the evaluation of corporate performance as well as management performance currently often the neo-classical models are used. In particular it falls back to the shareholder value approach by Rappaport. The approach allows additional salary increases for board members in case of a good business performance. On the contrary there is only little sanctioning in case of poor company performance. But basically managers should be paid accordingly. However rising salaries on the one hand and declining revenues on the other hand, as well as high absolute numbers of compensations, frequently lead to public discussions.

In the competition for high-skilled executive managers and war for talents companies often argue in favor of high compensations. In contrast to that the family businesses show that good business development above average can be achieved at a relatively low compensation of the Chief Executive Officer.

Against this background the discussion about the limitation of executive salaries to x-times the salary of an ordinary employee seems at least permissible.

In the context of the current discussion regarding the justification of manager compensation several approaches are available to quantify compensation amounts which are perceived as being fair. Kluckow in his approach for example defines the just and reasonable compensation of a top manager to be maximum €600,000 per year.

Six of the investigated family companies actually adhere to this fair compensation limit. Against this background it would be interesting to further analyze how this relatively small payments can also lead to a better or worse performance of the company.

**Table 11: Family Business with average total compensation of the CEO <600.000 TEUR (2010-2014)**

Name	2010	2011	2012	2013	2014	mean
GRENKELEASING AG NA O.N.	473.498	625.428	607.061	608.351	621.665	<b>587.201</b>
MANZ AG	442.000	412.000	309.000	516.000	489.000	<b>433.600</b>
NEMETSCHEK AG O.N.	546.000	477.000	279.000	363.000	721.000	<b>477.200</b>
SMA SOLAR TECHNOL.AG	522.000	648.000	497.000	365.000	1.226.000	<b>651.600</b>
STRATEC BIOMEDICAL NAM.ON	166.400	445.000	452.000	613.000	666.000	<b>468.480</b>
UTD.INTERNET AG NA	538.000	549.000	452.000	537.000	547.000	<b>524.600</b>

On top of that the composition of the components of the compensation system itself seems to affect the sense of justice, too. Therefore an analysis of the composition of the total compensation against the background of a fairly perceived management compensation system, would be interesting as well. As a second step also the impact on the performance should be considered. Moreover the spread of the management board compensation among the executive board members could reveal further insights and interdependencies. Are large spreads of compensation supporting higher performance of the individual manager?

The biggest challenge is the quantification of the ‘Honorable Manager’, who is based on the properties of the ‘Honorable Businessman’. However this concept does not seem to have been implemented for the already hired managers. In non-family businesses the heterogeneous values of stakeholders contribute to that. In family businesses this concept is apparently more integrated, which is reflected in the negative fair pay deviations. The group of family businesses is very heterogeneous, which makes comparisons even more complex. Some have a much stronger capital market orientation, with a strong shareholder value focus. In others the focus rather seems to lie on the family itself. For further studies in the field of family businesses therefore a clearer distinction should be made. Challenges here will be the operationalization of the differentiation, as well as the availability of data.

## 5 List of Publications

- Bensch, T., Büscher, A., Hellwig, G., Jäger, T., & Reuse, S. (2013). Sustainable Investments Under Consideration of Their Diversification Effects in a Portfolio. In C. Székely (Hrsg.), *Social Responsibility - Sustainable Economy* (S. 1067–1074). Sopron: University of West Hungary Press.
- Bensch, T., & Drescher, A. (2015). Nachhaltigkeitsforschung: Der Wertbeitrag von Corporate Social Responsibility auf den Erfolg von M&A-Transaktionen in Deutschland. In E. Frère & S. Reuse (Hrsg.), *Risk- und Investmanagement am Finanz- und Kapitalmarkt; 7. Forschungsforum Finance* (S. 84–94). Essen: MA Akademie Verlagsund Druck-Gesellschaft mbH.
- Bensch, T., Jäger, C., & Jäger, T. (2011). World Events Impact the German Stock Market: DAX Analysis January 2000 to October 2009. In J. Balázs & C. Székely (Hrsg.), *Shifting Environment - Innovative Strategies* (S. 1214–1233). Sopron: University of West Hungary Press.
- Bensch, T., Jäger, C., & Jäger, T. (2012). World Events Impact the German Stock Market: DAX Analysis January 2000 to October 2009. *Journal of Economy & Society*, 4(Special), 3–25.
- Bensch, T., Jäger, C., Jäger, T., & Holsiepe, H. (2012). Alternative Approaches of Corporate Valuation Methods for Small and Medium- Sized Enterprises. In J. Balázs & C. Székely (Hrsg.), *Driving Forces of the Economic Development* (S. 1067–1090). Sopron: University of West Hungary Press.
- Bensch, T., Jäger, C., Jäger, T., & Janßen, M. (2013). CSR-Reporting Under Special Consideration of Drivers and Quality Criteria. In C. Székely (Hrsg.), *Social Responsibility - Sustainable Economy* (S. 1052–1066). Sopron: University of West Hungary Press.
- Bensch, T., Jäger, T., Jäger, C., & Holsiepe, H. (2013). Alternative Approaches of Corporate Valuation Methods for Small and Medium- Sized Enterprises. *Journal of Economy & Society*, 5(1), 3–26.
- Bensch, T., Rojahn, J., & Zureck, A. (2014a). Rationalität und Emotionalität bei Transfers: Die Aktienkursreaktion auf die Ankündigung von Spielertransfers. In *18. Jahrestagung Arbeitskreis Sportökonomie e.V. - Homo Oeconomicus und Homo Emotionalis der seltsame Fall des Dr. Jeckyll und Mr. Hyde im Sportmanagement* (S. 45–46). Arbeitskreis Sportökonomie.
- Bensch, T., Rojahn, J., & Zureck, A. (2014b). Rationalität und Emotionalität bei Transfers: Die Aktienkursreaktion auf die Ankündigung von Spielertransfers. In *18. Jahrestagung Arbeitskreis Sportökonomie e.V. - Homo Oeconomicus und Homo Emotionalis der seltsame Fall des Dr. Jeckyll und Mr. Hyde im Sportmanagemen*. University of Bayreuth.
- Bensch, T., & Zureck, A. (2013). Banken müssen umdenken: Young Professionals sind kritisch. Abgerufen 7. Februar 2015, von <http://www.finanzen.net/nachricht/private-finanzen/DIPS-Kolumne-Banken-muessen-umdenken-Young-Professionals-sind-kritisch-2757779>
- Breitweg, N. (2015). *Analyse des kommunalen Zins- und Schuldenmanagements unter*

- besonderer Berücksichtigung von Zinsderivaten.* (C. Jäger, E. Frere, & T. Bensch, Hrsg.). Aachen: Shaker Verlag.
- Bürger, S., Zureck, A., & Bensch, T. (2013). Erfolgssteigerung durch Work-Family-Balance. *bdvb aktuell*, (119), 26–27.
- Grobbel, L., & Bensch, T. (2013). *DCF and behavioral finance: analysis considering managers and stock analysts* (1. Aufl.). Köln: VAWW - Verlag für angewandte Wirtschaftswissenschaften.
- Jäger, C., Jäger, T., Hofmann, D., & Bensch, T. (2011a). Scientific Evaluation of Sound Branding as an Integrative Part of Brand Management. *Journal of Economy & Society*, 3(3-4), 48–69.
- Jäger, C., Jäger, T., Hofmann, D., & Bensch, T. (2011b). Scientific Evaluation of Sound Branding as an Integrative Part of Brand Management. In J. Balázs & C. Székely (Hrsg.), *Shifting Environment - Innovative Strategies*. Sopron: University of West Hungary Press.
- Jäger, T., Jäger, C., Hofmann, D., & Bensch, T. (2011). Bewertung von Humankapital bei M&A Transaktionen (Human Capital Evaluation under Special Consideration of M&A Transactions). In J. Balázs & C. Székely (Hrsg.), *Shifting Environment - Innovative Strategies* (S. 1257–1269). Sopron: University of West Hungary Press.
- Reiter, J., Frère, E., Bensch, T., & Zureck, A. (2013). *Finanzberatung: Eine empirische Analyse bei Young Professionals* (1. Aufl.). Essen.
- Reiter, J., Frère, E., Zureck, A., & Bensch, T. (2013). *Finanzberatung: Eine empirische Analyse bei Young Professionals* (2. Aufl.). Essen.
- Reiter, J., Frère, E., Zureck, A., & Bensch, T. (2014a). *Finanzberatung: Eine empirische Analyse bei Young Professionals* (3. Aufl.). Essen.
- Reiter, J., Frère, E., Zureck, A., & Bensch, T. (2014b). Kritische und selbstbewusste Bankkunden. In C. Bala & K. Müller (Hrsg.), *Beiträge zur Verbraucherforschung - Band 2: Der verletzte Verbraucher* (S. 61–83). Düsseldorf: Verbraucherzentrale NRW.
- Reiter, J., Frère, E., Zureck, A., & Bensch, T. (2015). *Finanzberatung: Eine empirische Analyse bei Young Professionals* (4. Aufl.). Essen.
- Zureck, A., & Bensch, T. (2014). Krisenvorbeugung durch gezielte Finanzkommunikation im Mittelstand. *bdvb aktuell*, (124), 24–25. Abgerufen von <http://epaper.koellen.de/bdzb/124/#24>
- Zureck, A., Bensch, T., & Böker, T. (2012). Success Factors for Private Equity Investments. In J. Balázs & C. Székely (Hrsg.), *Driving Forces of the Economic Development* (S. 1193–1216). Sopron: University of West Hungary Press.