



Online-Appendix zu

„The M&A Behavior of Family Firms“

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Appendix

Appendix 1: Overview of the identified Literature

Author, Year	Journal	Rating (ERIM)	Publication Type	Title	Research Question/ Thematic Focus	Key Findings
Alberti & Pizzumo, 2013	International Journal of Entrepreneurship and Innovation Management	N.A.	Academic Journal/Article	Technology, Innovation and Performance in Family Firms	The differences between family firms and non-family firms	Family firms are expected to adopt both a more conservative and long-term approach. The risk aversion of family businesses plays a particularly important role in strategy setting.
André et al., 2014	Journal of Management Governance	N.A.	Academic Journal/Article	Family firms and high technology Mergers & Acquisitions	High Technology M&A	In general, high technology M&A presents a risky form of M&A as it combines high growth potential and high risks. High tech M&A is primarily driven by the goal of acquiring technical expertise and cutting-edge technology. Thus, technology acquisitions reflect the firm's situation of not being able to develop valuable knowledge-based resources internally or taking too long/costly to develop by itself. Family firms are more likely to forgo profitable, innovative strategies by high technology acquisitions due to the increasing risks and threats towards the family firms survival.
Angwin, 2007	Advances in Mergers and Acquisitions	N.A.	Book Series	Motive Archetypes in Mergers and Acquisitions (M&A): The Implications of a Configurational Approach to Performance	Why do managers continue to transact merger & acquisition (M&A) deals, in massive number and dollar terms, when so many are deemed to fail?	Principle-agent theory influences M&A decisions in firms as managers act rationally to maximize their profits at the expense of both the firm and shareholders. Besides, managers can also behave in ways that are associated with hubris (excessive trust), causing inappropriate M&A decisions.
Astrachan, 2010	Journal of Family Business Strategy	N.A.	Academic Journal/Article	Strategy in Family Business: Toward a multidimensional Research Agenda	Research agenda	The family commitment has a decisive influence on the family firms, especially concerning the strategy in comparison to non-family firms. Family firms are value-oriented and therefore, pursue goals other than financial ones. Family firms, in particular, are following a trend that highlights their long-term relationships and identifies the family with brand equity.
Braga et al., 2017	Review of International Business and Strategy	N.A.	Academic Journal/Article	The Innovation and Internationalisation Processes of Family Businesses	Generating insights into the process of innovation and internationalisation within family firms	Innovation and internationalization are essential strategies for family firms due to the opportunity to guarantee the future existence and success of family firms. Furthermore, it appears that family firms are tended to enter markets if innovation is regarded as mean to new distribution channels, entry into new geographical markets, and to reduce of the costs of production and/or commercialization.

Source: own illustration based on identified literature

Appendix 1: Overview of the identified Literature (continued)

Author, Year	Journal	Rating (ERIM)	Publication Type	Title	Research Question/ Thematic Focus	Key Findings
Broekaert & Andries, 2016	Small Business Economics	P	Academic Journal/Article	Innovation Processes in Family Firms: The Relevance of Organizational Flexibility	Successful innovations based R&D and organizational flexibility	Family firms are less engaged in R&D as expected but are more flexible in their organization in order to create new products, and even outperform non-family owned businesses in terms of process innovation. Family firms are focusing on value creation for the family, family harmony/continuity, and risk aversion.
Calipha et al., 2010	Advances in Mergers and Acquisitions	N.A.	Book Series	Mergers and Acquisitions: A Review of Phases, Motives, and Success Factors	What we have learned and what we still do not know?	M&A is a fundamental management approach used by companies to enter new markets, overcome a competitor, and acquire resources such as technology, locations, or people. Besides, M&A is seen as an opportunity to achieve synergy effects by consolidating companies.
Caprio et al., 2011	Journal of Corporate Finance	P	Academic Journal/Article	Ownership Structure, Family Control, and Acquisition decisions	How does ownership and family control influence the decision to take part in M&As as an acquirer or as an acquired company?	There is a negative correlation between ownership and the probability of initiating a takeover. Moreover, family firms are less prone to acquire a target, mainly if family control cannot be ensured. In particular, the owner families do not usually want to limit their level of control and thus also do not want to make value-adding acquisitions in order to reduce risks. Besides, family firms favor growing internally rather than externally.
Casprini et al., 2017	Journal of Knowledge Management	N.A.	Academic Journal/Article	How Family Firms execute Open Innovation Strategies: The Loccioni Case	How do family firms execute an Open Innovation strategy? How do family firms manage internal and external knowledge flow?	The acquisition of external knowledge is negatively affected by two factors: (a) negative attitudes towards external knowledge, and (b) the inability to identify valuable external knowledge sources (Burcharth et al., 2014; West & Bogers, 2013). Furthermore, it is challenging to value and assimilate knowledge, e.g., dependence on the internal knowledge base.
Chrisman et al., 2015	Journal of Product Innovation Management	P	Academic Journal/Article	The Ability and Willingness Paradox in Family Firm Innovation	Innovation	The probability of acquisitions undertaken by family firms depends highly on the willingness to the family firm. Here, the acquisition of innovation provides both advantages and disadvantages. However, it appears that family firms are less inclined to acquire innovation because of the risks and uncertainties associated with it.
Classen et al., 2014	Small Business Economics	P	Academic Journal/Article	Innovation in Family and Non-family SMEs: An Exploratory Analysis	Innovation	<i>"Whereas family SMEs have a higher propensity to invest in innovation at all, conditional on investing in innovation, these companies do so less intensively than their non-family counterparts. Family SMEs further tend to outperform non-family SMEs in terms of process innovation outcomes when controlling for innovation investment."</i> (Classen et al., 2014)

Source: own illustration based on identified literature

Appendix 1: Overview of the identified Literature (continued)

Author, Year	Journal	Rating (ERIM)	Publication Type	Title	Research Question/ Thematic Focus	Key Findings
De Massis et al., 2015	Journal of Small Business Management	S	Academic Journal/Article	Product Innovation in Family versus Nonfamily Firms: An Exploratory Analysis	Innovation	There is evidence that family firms and non-family firms differ in terms of the product innovation process. Further, family firms are more inclined to be involved in innovation processes which are linked to the development of market incremental new products. Concerning the innovation processes in family firms, they depend highly on external sources of knowledge and technologies.
Defranq et al., 2016	Journal of Family Business Strategy	N.A.	Academic Journal/Article	Influence of Family Ownership on the industry-diversifying nature of a firm's M&A strategy: Empirical evidence from Continental Europe	Influence of Family Ownership on the Industry-Diversifying M&A Strategy	Family firms are unique due to the relation between the family and the firm as the family wealth is heavily tied up and undiversified in the firm. Family firms follow a highly focused value strategy and thereby concentrate on the core competencies. Further, family firms are generally less likely to engage in unrelated M&A. Although family firms are more reluctant to engage in M&A, family ownership influences the propensity of undertaking unrelated M&A in family firms positively.
Filser et al., 2016	International Journal of Innovation Management	P	Academic Journal/Article	Innovation in Family Firms: Examining the Inventory and Mapping the Path	Innovation	In particular, growth and survival (both driven by innovation as mean) have an essential role for family firms. Family firms have limited financial, technological and knowledge resources as it is corresponding with their aversion towards control loss. However, family firms tend to be more open and willing to access external resources during the process of innovation. Innovation is regarded as a significant contributor to both the economic success and survival of the family firm. Moreover, innovation is the primary source of achieving competitive advantage and therefore, companies need to innovate to remain competitive continually.
Florio et al., 2018	International Journal of Public Sector Management	N.A.	Academic Journal/Article	Motives of Mergers and Acquisitions by State-owned Enterprises: A Taxonomy and international Evidence	What are the rationales and motives of M&A by state-owned enterprises?	The motives for M&A can either be divided into shareholder value maximization or benefit maximization. Maximizing shareholder value is associated with efficiency gains, risk mitigation, geographic diversification, or increasing market dominance. Maximizing utility is associated with maximizing compensation, building an empire or a comfortable life.
Fuetsch & Suess-Reyes, 2017	International Journal of Innovation Management	P	Literature Review	Research on Innovation in Family Businesses: Are we building an Ivory Tower?	Innovation	<i>"Innovation can be key to the creation of competitive advantages and thus plays a central role in business performance and business growth."</i> (Fuetsch & Suess-Reyes, 2017) In general, family firms are more inclined to follow innovation strategies which are exploitative and focus on incremental innovations.

Source: own illustration based on identified literature

Appendix 1: Overview of the identified Literature (continued)

Author, Year	Journal	Rating (ERIM)	Publication Type	Title	Research Question/ Thematic Focus	Key Findings
Gomez-Mejia et al., 2010	Journal of Management Studies	P*	Academic Journal/Article	Diversification Decisions in Family-Controlled Firms	How do family firms diversify?	Compared to non-family firms, family firms as a whole have fewer diversification activities both at home and abroad, but prefer familiar regions. The reason for this behavior is backed by the risks associated with diversification pursuits, especially the loss of socio-emotional assets and financial difficulty. Moreover, family firms do not want to involve third parties in their decision-making as this leads to a loss of control - the owning family makes most decisions.
Gomez-Mejia et al., 2015	Journal of Management	P*	Academic Journal/Article	In the Horns of the Dilemma: Socioemotional Wealth, Financial Wealth, and Acquisitions in Family Firms	Dilemma of strategic decision making: whether to maintain current socioemotional wealth or pursue prospective financial wealth?	Family firms tend to be reluctant to acquire, and when an acquisition takes place, they prefer related objectives. The vulnerability appears to be the most critical determinant in the choice between related and independent goals. Besides, ownership and behavioral motives also have a significant impact on acquisition activity.
Haleblian et al., 2009	Journal of Management	P*	Academic Journal/Article	Taking Stock of What We Know About Mergers and Acquisitions: A Review and Research Agenda	Consolidation of insights into M&A	<i>"Value Creation (market power, efficiency, resource redeployment, market discipline)</i> <i>Managerial Self-Interest/Value Destruction (compensation, hubris, target defense tactics)</i> <i>Environmental Factors (environmental uncertainty, regulation, imitation, resource dependence, networks ties)</i> <i>Firm Characteristics (acquisition experience, firm strategy and position)." (pp.472-478)</i>
Kotlar et al., 2013	The Journal of Product Innovation Management	P	Academic Journal/Article	Technology Acquisition in Family and Nonfamily Firms: A Longitudinal Analysis of Spanish Manufacturing Firms	Acquisitions	The acquisition of technology from external sources is regarded as an essential competence for sustained success in innovation. In general, family firms are less inclined to acquire external technology as it is associated with the family firms' aversion towards control loss; however, they are more inclined to engage in more open approaches in order to access external technology (if specific protection mechanisms exist). However, there is a trade-off based on the cost perspective between the relative costs of developing internally and buying a technology (external acquisition).
Miller et al., 2009	Strategic Management Journal	P*	Academic Journal/Article	Family Ownership and Acquisition Behavior in publicly-traded Companies	Link between Family Ownership and Acquisition Behavior	Firms with a significant share of family ownership are highly interested in maintaining the control of the firm in order to hand it over to the next generations. Therefore, these firms are more likely to concentrate the wealth by diversifying the firm portfolio as it allows to reduce the risks of their wealth. As such, the propensity to undertake diversifying acquisitions increases with the level of family ownership.

Source: own illustration based on identified literature

Appendix 1: Overview of the identified Literature (continued)

Author, Year	Journal	Rating (ERIM)	Publication Type	Title	Research Question/ Thematic Focus	Key Findings
Nguyen et al., 2012	Journal of Business Finance & Accounting	P	Academic Journal/Article	Motives for Mergers and Acquisitions: Ex-Post Market Evidence from the US	What are the motives behind mergers and acquisitions?	According to the data, 73% of the acquisitions relate to marketing timing, 59% to agency motives/hubris, and 3% to industry and economic shocks (pp. 1358-1359). Besides, the paper shows that most mergers are based on various motives. It, therefore, seems complicated to have an objective view of the motives, but these motives can be divided into either value-enhancing or non-value-enhancing motives (p.1359).
Nieto et al., 2015	Journal of Small Business Management	S	Academic Journal/Article	Understanding the Innovation Behavior of Family Firms	Innovation Behavior	Family firms are undertaking fewer innovation activities and less inclined to access external sources of innovation. Furthermore, family firms are more likely to engage in incremental rather than radical innovations. Family firms are innovative, even if they are limited in their resources and innovation behavior.
Requejo et al., 2018	Journal of Family Business Strategy	N.A.	Academic Journal/Article	European Family Firms and Acquisition Propensity: A comprehensive Analysis of the Legal System's Role	How does the legal system in which such firms operate directly affect their reluctance to undertake acquisitions?	The involvement of the owner family makes family firms reluctant to make acquisitions; however, with increasing shareholder protection, the probability of acquisitions undertaken by family firms increases. Also, it appears that family firms also have varying preferences, but are still concerned about losses of socioemotional wealth (including losses of corporate control).
Shim & Okamuro, 2011	Journal of Banking & Finance	P	Academic Journal/Article	Does Ownership matter in Mergers? A comparative Study of the Causes and Consequences of Mergers by Family and Non-family Firms	What are the differences in merger decisions and the consequences between family firms and non-family firms?	A key determinant of mergers is the ownership structure of the acquiring firm. It appears that the mergers commenced by non-family firms are more likely and more advantageous.
Worek et al., 2018	Journal of Family Business Strategy	N.A.	Academic Journal/Article	Acquisitions, disclosed goals and firm characteristics: A content analysis of family and nonfamily firms	How do family firms differ from nonfamily firms in their acquisition goals?	Since family firms include both economic and non-economic objects in their business and have a distinct ownership structure, family firms behave differently with their principal characteristics in M&A activities. In particular, asset concentration and the degree of control are considered to be one of the most critical drivers for M&A in family firms. Seven target categories are identified. The data shows that family firms reveal fewer financial objectives in their deal announcements and are more susceptible to problematic investments.

Source: own illustration based on identified literature

Appendix 2: Overview of the Acquisition Goals identified by Worek et al. (2018)

Goal Category	Disclosed Goals
Finance	Financial resources Profitability Cost reduction Revenue Short-term equity investment
Innovation	Technology expertise Innovation initiatives R&D
Stakeholder	Service Corporate social responsibility Green and sustainability Workforce Long-term relationship
Resources	Manufacturing capability/capacity Management expertise Distribution network Marketing and/or sales network Critical mass Raw materials Economic of scale and scope Complementary competencies
Market Competitiveness	Exploit synergies Strengthen core business Productivity Product quality Leadership position Strengthen country position Strengthen market position Customers Speed Product pricing
Strategy	Restructuring Cultural fit Strategic reorganisation/repositioning Local business opportunities Niche player/specialization Strategic fit Simplifying ownership structure Prevent hostile takeover Market access
Expansion	Growth Product portfolio expansion Geographic expansion Turnkey supplier Diversification Brand addition

Source: own illustration based on Worek et al. (2018)

Appendix 3: Overview of the Interviews

Family Firm	Interviewee	Guideline	Channel	Length
Firm A	-	Shared	Phone	28 minutes
Firm B	-	Shared	Phone	41 minutes
Firm C	-	Shared	Phone	36 minutes
Firm D	-	Shared	Email	N.A.
Firm E	-	Not Shared	In-person	28 minutes
Firm F	-	Shared	Phone	24 minutes
Firm G	-	Not Shared	In-person	39 minutes
Firm H	-	Not Shared	In-person	27 minutes
Firm I	-	Not Shared	In-person	21 minutes
Firm J	-	Shared	In-person	43 minutes
Firm K	-	Shared	In-person	41 minutes
Firm L	-	Shared	Phone	32 minutes
Firm M	-	Not Shared	Phone	27 minutes
Firm N	-	Not Shared	In-person	15 minutes
Firm O	-	Shared	Phone	14 minutes

Source: own illustration based on conducted interviews

Appendix 4: Exposé to Contact Family Firms



Bachelor Thesis: The M&A Behavior of Family Firms A Qualitative Analysis of the Acquisition Goals and the Role of Innovation in Acquisitions

Topic of the Bachelor Thesis:

Due to the lacking understanding of innovation and M&A in family firms, this study follows the call from contemporary literature to analyze the acquisition goals of family firms by a qualitative approach to enrich the theory. Therefore, the goal of this qualitative study is to extend the current findings in the literature by complementary and profound insights into innovation and M&A in family firms.

Research Question:

What influence the family has on the firm?
How important is growth?
Which goals are driving the acquisition activities in family firms?
What role does innovation has in the acquisitions?

Interview Procedure:

Conducting an interview with a duration of 30-45 minutes via personal or phone about the family firm's M&A behavior and acquisition goals. The identified insights provide the foundation as well as the source of my qualitative thesis.

My Persona:

My name is Jinhao Shu, and I am in my sixth semester of studying International Business Administration at WHU - Otto Beisheim School of Management in Germany. I have interned with foodspring, Genuine German, and SMP Strategy Consulting. Motivated by my background, I would like to focus more on family firms and find out how essential these firms are to the economy.



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WHU - Otto Beisheim School of Management

The WHU - Otto Beisheim School of Management is one of the best and most renowned German business schools and enjoys a high national and international reputation. Founded in 1984 by the Chamber of Industry and Commerce in Koblenz as a university "by business for business", WHU has become a role model for future-oriented research and teaching in the field of business administration.

Chair of Family Business

Family firms are numerous and can be found in almost every industry. At the same time, family-owned companies work differently than free float firms. For this reason, the Chair of Family Businesses is concerned with researching the particularities of both German and international family firms. The main areas are innovation/entrepreneurship/strategy, governance, and succession.

Appendix 5: Interview Guideline

**Interview Questions for my Qualitative Bachelor-Thesis about
“Innovation as the driving factor of M&A activities in Family Businesses”**

1) General Information About the Family Business and the Interviewee

- When and by whom was the company founded?
- When did you take over the management and from whom? (Which generation?)

2) Specific Information About the Family Business

- Number of employees?
- Turnover?
- Geographic location?
- Industry?
- Generation?
- Share of Family Ownership?
- Share of Family Management?

3) Influence of the Family on the Family Business

- What influence does the business-owning family has on the company and decision making?
- What positions do family members have in the company?
- Do any values or traditions influencing the company exist?
- What is the readiness to assume risk?

4) Goals of the Family Business

- How would you define the corporate strategy of the company?
- What are your economic goals? Why are these goals important?

5) General Understand of M&A and Innovation

- What does M&A mean to your company?
- What does Innovation mean to your company?

6) Firm’s Approach of Being Innovative

- How does your company innovate?
- Does your company differentiate between product and process innovation? Which one does your company favor?

- How does your company create product innovation (internal vs. external)?
- How does your company create process innovation (internal vs. external)?
- **Does your company differentiate between incremental and radical innovations? Which one does your company favor?**
 - How does your company engage in incremental innovation (internal vs. external)?
 - How does your company engage in radical innovation (internal vs. external)?

7) **Firm's Approach of Undertaking M&A**

- How important is inorganic growth for the development of your company?
- What is your firm's experience in M&A?
- Why is your company undertaking M&A (e.g., stability, profitability, growth)?
What are the driving factors (links to: finance, innovation, stakeholder, resources, market competitiveness, strategy, expansion)?
- What role does innovation has as a driving factor of M&A in your company?
- What risks/uncertainty/limitations does your company associate in engaging in M&A?
- How does external and internal innovation differentiate in your company? What are the key takeaways of previous acquisitions?

8) **Research & Development (R&D)**

- What share of annual revenue does your company spend on R&D?
- Does your company collaborate with external partners (accessing external resources)?

Appendix 6: Coding Scheme to illustrate the Influence of the Family on the Family Firm

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> • <i>"Much information goes to the family members because they are very interested in the business. They want to be informed and stay informed. This is a strict requirement, and if the management does not follow this, it will quickly become noticeable."</i> (Firm G) • <i>"The family has a decisive influence. What the supervisory board is in the group is the advisory board in the family business. So there the shareholders are informed about the business development and goals so that the owners feel informed. A key to the success of a family business is that the owners or the families feel informed. There is definitely a difference between informing and feeling informed."</i> (Firm G) 	Interest	Influence of the Family on the Family Firm
<ul style="list-style-type: none"> • <i>"This is a strict requirement, and if the management does not follow this, it will quickly become noticeable."</i> (Firm G) • <i>"The family has a decisive influence. What the supervisory board is in non-family firms is the advisory council in family firms. There, the shareholders are informed about business development."</i> (Firm G) • <i>"The family is represented on the advisory council. This council consists of five persons, two of whom are delegated by the respective owner families."</i> (Firm A) • <i>"The advisory board is dominated by the family."</i> (Firm L) • <i>"Yes, there are cases where we have canceled M&A project because the family, the group management, or the advisory board did not agree."</i> (Firm L) 	Involvement	
<ul style="list-style-type: none"> • <i>"There is a significant relationship between family values and business strategy. In particular, all family values are an essential part of the business strategy."</i> (Firm L) 	Values	

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 7: Coding Scheme to illustrate the overall Family Firm Goal

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> • <i>"We are a very long-term oriented firm. We are a very independent firm as you can see based on our equity ratio: almost 50%. We are independent of banks. We are like a Gallic village if you like. We are risk averse and prefer stability and profitability growth rather than fast growth also leads to managerial problems."</i> (Firm L) • The first acquisition was mainly driven to increase stability and profitability for the family firm as the firm faced financial constraints during the second generation (Firm N). 	Stability	Overall Family Firm Goal (Survival/Durability)
<ul style="list-style-type: none"> • <i>"We are a very long-term oriented firm. We are a very independent firm as you can see based on our equity ratio: almost 50%. We are independent of banks. We are like a Gallic village if you like. We are risk averse and prefer stability and profitability growth rather than fast growth also leads to managerial problems."</i> (Firm L) • The first acquisition was mainly driven to increase stability and profitability for the family firm as the firm faced financial constraints during the second generation (Firm N). • <i>"The existence of the company is secured through the economy. There is no focus on profitability. Profitability is a means to an end to secure the existence of the company."</i> (Firm G) 	Profitability	
<ul style="list-style-type: none"> • <i>"The goal, of course, is always to grow."</i> (Firm E) • <i>"It is a philosophy of us to grow healthy or to grow within a healthy frame."</i> (Firm E) • <i>"We understand growth as a way to be stable, independent, and profitable in order to develop; therefore, growth is not a goal for itself."</i> (Firm L) 	Growth	

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 8: Coding Scheme to illustrate the Growth of Family Firms

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> • <i>"We are risk averse and prefer stability and profitable growth rather than fast growth which can lead to managerial problems. We do not follow all trends, but we analyze all business options carefully and decide on the possibility of leading to sustainable development."</i> (Firm L) • <i>"The goal, of course, is to grow. It is a philosophy of us to grow health or to grow within a healthy frame."</i> (Firm E) 	Organic Growth	Growth
<ul style="list-style-type: none"> • <i>"In this respect, the acquisition of companies has made a significant contribution to our growth in recent years. It has accounted for a more substantial proportion of our overall growth than organic growth."</i> (Firm M) • <i>"Notably, in the last five to six years, we have gained more through acquisitions. In some companies [of our firm portfolio], following organic growth, we have even occurred losses because of the challenging market conditions in the toy industry."</i> (Firm M) • <i>"The history of the Firm M is marked by acquisitions in the last 20 years. And it is also part of our growth strategy to grow through existing structures and sales units, now worldwide. But it can also simply leverage synergies by taking over small companies that, for example, are not yet positioned worldwide."</i> (Firm M) • <i>"Inorganic growth has a significant role in family firms. Thus, family firms are engaging in acquisitions."</i> (Firm K) • <i>"In principle, we can say that of the revenue we have today, about half comes from acquisitions."</i> (FIRM A) • Inorganic growth is important for the firms (Firm I). Inorganic growth in terms of M&A was and is very important to increase profitability (economies of scale) and expand the market share (Firm N). • <i>"M&A is not implemented based on the position we want growth through acquisitions but for the sake of growth."</i> (Firm L) 	Inorganic Growth	
<ul style="list-style-type: none"> • <i>"Firm K is also aiming to grow both organically and inorganically."</i> (Firm K) • <i>"Notably, in the last five to six years, we have gained more through acquisitions. In some companies [of our firm portfolio], following organic growth, we have even occurred losses because of the challenging market conditions in the toy industry."</i> (Firm M) 	Combination of Organic Growth and Inorganic Growth	

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 9: Coding Scheme to illustrate the M&A Behavior

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> ● “[T]he focus is on organic growth. However, that is not so easy in a niche market. When opportunities have arisen in the past, we always said that we would try our luck, [...]. However, when we were able to acquire something, then we also did it.” (Firm J) ● “M&A is intended to positively influence the business by which we can acquire new competencies or competitive edge through speed or the like.” (Firm L) ● “In principle, we can say that of the revenue we have today, about half comes from acquisitions.” (Firm A) ● “We have done it ourselves in many years, but in recent years we have tended to acquire more.” (Firm F) ● “All acquisitions are discussed in the advisory board. There is a board meeting four times a year. More significant acquisitions need to be approved by the advisory board. In the beginning, when you started with acquisitions, the shareholders were more skeptical because you simply didn't have the experience. Since Firm A now has a very successful track record, confidence in M&A has increased.” (Firm A) ● “If there is a possibility to grow inorganically with an acquisition, then we definitely do it.” (Firm I) ● “M&A is intended to positively influence a business where we can acquire new competencies or a competitive edge through speed or the like.” (Firm L) ● “In principle, we can say that of the revenue we have today, about half comes from acquisitions.” (Firm A) 	<p style="text-align: center;">High Willingness to make Acquisitions</p>	
<ul style="list-style-type: none"> ● “Now, we have a strategy change which we completed five to ten years ago. Now, we are focusing on greenfield investments.” (Firm G) ● “The company XX was a typical case of opportunity. The company offered itself as part of a collaboration that we already have with the company. [...] It was financially-distressed, and that is why they asked us if we did not want to join or acquire.” (Firm O) 	<p style="text-align: center;">Low Willingness to make Acquisitions</p>	
<ul style="list-style-type: none"> ● “In the M&A process, there is always a weighing. Do I now buy [acquire] something? [...] Or do I do it myself?” (Firm F) ● “In the M&A process, there is always a weighing. Do I now buy something? I usually have to pay the return on the innovation of the person who sells it to me. Or do I do it myself? How much HP do I need or how high are my investment contribution and the risk that I have to take to do it myself?” (Firm F) ● “For example acquisition target: Before the acquisition, we had to decide between developing a high-quality adult filler from scratch, a greenfield approach, at home or acquiring target and having the product in the firm's portfolio right away. We decided to buy target company, and thereby we have made a leap in time and can develop the product further from there. It was not an option to develop the adult filler organically, because it simply takes too long and consumes too many resources. So, it was the right decision to make an acquisition.” (Firm L) ● “That [a complement to the firm's portfolio] has been missing so far. It would have cost us three to five years and many millions of euros with an unknown outcome in R&D. Now, we have simply bought ourselves into it. So, we can act overnight.” (Firm K) ● “So we've tried to seize opportunities. Otherwise, the focus is on organic growth. However, that's not so easy in this niche market. We always have that when opportunities have arisen, said we try our luck. But we have never been so far away that we have said that we are now buying at any price. We have always been commercially cautious, and we have not got everything we have tried to get. This may also be traditional in the genes here. However, if we were able to buy something, then we also hit it.” (Firm J) ● “In the end, the market is very close to each other. You know each other, you know what you're buying and whom you're buying from. You know what the firm can do and what it cannot do.” (Firm K) ● “When I'm talking about product diversification, I'm not far from deciding whether to develop it organically or just develop it further based on an acquisition afterward.” (Firm L) 	<p style="text-align: center;">Decision-Making (Buy vs. Make)</p>	<p style="text-align: center;">M&A Behavior</p>

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 10: Coding Scheme to illustrate the Acquisition Goals

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> • “M&A plays a role in expanding technology. In particular, to extend knowledge and thereby generate additional revenue.” (Firm C) • “In this context, M&A was added laterally, so that a few years ago we participated in an eCommerce platform, namely geizhals. This way we have learned that with leads, i.e., from the forwarding of interested parties to others, it is possible to generate revenues and thus also a business model in the network with the smallest amounts.” (Firm F) 	Finance	Acquisition Goals
<ul style="list-style-type: none"> • “The reasons for buying were not in the sense that we buy innovation. However, on the other hand, if we buy something else that we don't already do ourselves today, then it's also a kind of innovation because we're going into a topic where we aren't today and believe that we're better off with it at the end of the day.” (Firm B) • “If you look at our acquisitions, you can easily see that they were linked to the components area. There, we try to acquire core components and core knowledge in order to integrate our knowledge. So, that one plus one does not result in two, but in three.” (Firm K) • “The markets we had served were not a) growing and b) market leading to the extent that growth in speed was only possible with a broadening of the technology portfolio. That is why we made acquisitions.” (Firm C) • “M&A plays a role in expanding technology. In particular, to extend knowledge and thereby generate additional revenue.” (Firm C) • “We try to reach different market segments, and it is easier to achieve this by purchasing a specialist than to develop something from your own brand. In this respect, we have also done this.” (Firm J) • “The last acquisition was company A, an American company that we bought last autumn. They are active in radio control cars and model cars, mainly in the US market. They have a very experienced R&D organization in Hong Kong and China. They have an excellent costing team. That means they can analyze precisely how much the products can cost in production. When a product goes into development, they always look over the 3D structures and improve them from the production point of view. Especially for these two categories: remote-controlled cars and model cars. That was one reason why we said these are two categories of essential importance as they were already available at Firm M. So through the acquisition, we could apply this outstanding expertise to the product segments of our company.” (Firm M) 	Innovation	
<ul style="list-style-type: none"> • “It's essential for me to be honest with the people. [...] Personally, I have the underlying attitude that the secret of why companies are successful is the employees. Therefore, it is crucial to pick up the right employees, and I have respect for every single employee, no matter if she/he is in our management or works in our warehouse. Everyone is important. Only the employees are decisive.” (Firm H) • “Trust and working together with our employees are the be-all and end-all of the company. There is nothing more important than this. We are always trying to do the maximum, especially in an unbeneficial situation, for them. For example, when our employees, i.e., our family face financial problems, we are more than happy to support with private loans in order to bridge constraints. Furthermore, we also do our best to create an attractive work environment. In particular, if someone needs time off for a specific time for any reason, we are more than willing to find a solution in order to help our employees.” (Firm I) • “We try to develop solutions for our customers so that they say: yes, it was a good decision to go to Firm J. We are massively dependent on this. What we are doing here can only be in the interests of our customers. Then we will all be successful. The customers have their success, and we have our success.” (Firm J) 	Stakeholder	

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 10: Coding Scheme to illustrate the Acquisition Goals (continued)

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> ● <i>“We really don’t have much experience with that. Well, you go through life with open eyes. You don’t know whether it will be interesting to acquire a firm at some point. Well, it depends. [...] Is there perhaps a bottler or producer who would be complementing or who has the whole infrastructure, machines and further afield? Something like that would certainly be conceivable.”</i> (Firm E) ● <i>“If you look at our acquisitions, you can easily see that they were linked to the components area. There, we try to acquire core components and core knowledge and integrate our knowledge so that one plus one does not result in two, but three.”</i> (Firm K) ● <i>“We always try to do things where we are not easily interchangeable. We try to bundle goods, and at that time these company acquisitions had the goal of growth and therefore also turnover. When you buy a company, you buy the distribution and the sales at the same time. Of course, the main goal was to increase sales.”</i> (Firm H) ● <i>“For example, I am currently considering buying an upstream business. It is a small company that has its own collection of wool. It’s a kind of producer/supplier of ours, where I have to consider whether we can do it if sales stagnate.”</i> (Firm H) 	Resources	
<ul style="list-style-type: none"> ● <i>“Then in recent years, we have tried to expand our liquid gas product portfolio by addressing a specific clientele – the one who has been dealing with the topic of proprietary tanks. We also made an acquisition there [...]. We aimed to address this clientele under a different brand name.”</i> (Firm J) ● <i>“Our business is politically influenced by the fact that we provide 70% of the classic liner traffic for cities and municipalities. The cities determine a lot of what has to be done. So the own initiative is conditionally desired because there are many subsidies and public funds flowing. That is why our acquisitions tend to be motivated by the following question: If we don’t buy it, but a competitor buys it, how will the market change for us? Also, it is partly influenced by the fact that you stand better on several legs next to the classic liner traffic.”</i> (Firm B) ● <i>“The last acquisition was company A, an American company that we bought last autumn. [...] They have a very experienced R&D organization in Hong Kong and China. They have an excellent costing team. That means, they can analyze precisely how much the products can cost in production. When a product goes into development, they always look over the 3D structures and improve them from the production point of view. [...] So through the acquisition, we could apply this outstanding expertise to the product segments of our company.”</i> (Firm M) ● <i>“We can simply leverage synergies by acquiring companies that are not yet positioned worldwide.”</i> (Firm M) ● <i>“Yes, as I have already said. The most significant effect with us is the international synergy that we can leverage in something like this [e.g., acquisitions]. That means we take over a small company like Corolle, for example. [...] We bought this company and now have the opportunity by our international sales structure [...] to take up the products of this smaller company and market them in the respective local markets, globally.”</i> (Firm M) ● <i>“Then we bought a company at lake Tegernsee. The aim was to position ourselves around Munich.”</i> (Firm B) ● <i>“A strong idea of how can I take precautions by strengthening the digital sector and let the company as a whole participate in this huge media change [...] That has been the decisive driver, and it still is today.”</i> (Firm F) ● <i>“For example, I am currently considering acquiring an upstream business. It is a small company that has its own collection of wool.”</i> (Firm H) 	Market Competitiveness	Acquisition Goals

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 10: Coding Scheme to illustrate the Acquisition Goals (continued)

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> ● <i>“Our business is politically influenced by the fact that we provide 70% of the classic liner traffic for cities and municipalities. The cities determine a lot of what has to be done. So, the own initiative is conditionally desired because there are many subsidies and public funds flowing: That's why our acquisitions tend to be motivated by the following question: If we don't buy it, but a competitor it. How will the market change for us? Also, it is partly influenced by the fact that you stand better on several legs next to the classic liner traffic. Thus, in addition to classic liner traffic, we also bought scheduled services in the region. Then, we bought a company at lake Tegernsee. The aim was to position ourselves around Munich.”</i> (Firm B) ● <i>“Regarding the group strategy, you could portray M&A as hedging because, because you're more stable on three legs than on two. Therefore, it is also mean to secure the stability and the independence of the firm and thus more important than the will for growth.”</i> (Firm L) ● <i>“We are now also active in another area, namely in the field of heating construction. We took over company X five years ago (2014). [...] A strongly growing heating engineer for the industrial and commercial sector. A little also in the private area. We are now also trying to develop this private sector, but it is relatively small compared to the other sector. This is a further pillar for us, where we integrate the topic of innovation, questions of energy, efficiency into the energy supply. We also want to learn what it means, which technology is in demand in the market now? Where do we have to develop? What does decentralized energy supply mean? Technology at the customers? Together with company X, we are now learning what is needed and how to implement it sensibly for our customers.”</i> (Firm J) ● <i>“We are a full-range supplier, which means that we sell everything you can imagine to textiles, including healthcare. With these acquisitions, we have invested very heavily in specialization and will focus on wool and haberdashery, because it is not so easy to copy these products.”</i> (Firm H) 	Strategy	
<ul style="list-style-type: none"> ● <i>“[...] today, we are very dependent on our suppliers and [...] many of them are in an awful economic situation. I am, now, trying to build something up for myself and become more independent by acquiring a smaller company [supplier].”</i> (Firm H) ● <i>“We bought companies in order to open new markets and support our growth.”</i> (Firm D) ● <i>“And for office supply, it was the product portfolio because there were no such fountain pens in our product range, but a desire to extend the existing product portfolio.”</i> (Firm L) ● <i>“Let's say, there is a situation in which we are not sufficient or not present in a particular region. We would simply acquire a company that also produces tile adhesives there. That would in principle be a market entry or geographic expansion. You buy a market share to be in this market. We are currently looking very active in South America. We are also in an acquisition process there because we have no business there yet.”</i> (Firm A) ● <i>“If I am planning a market entry and there is a potential partner in the target country who is already successful, who could help us, or who has a complementary portfolio to mine, then this makes it much easier to enter the market. That's exactly what happened in the case of cosmetics: It also enriched our product portfolio, but primarily the geographic reach was relevant.”</i> (Firm L) ● <i>“It is the portfolio reach to be able to introduce, in particular, a new category or a new product line, notably, in terms of geographic reach. If I am planning a market entry and there is a potential partner in the target country who is already successful and could help us or has a complementary portfolio, then an acquisition makes it much easier to enter the market.”</i> (Firm L) ● <i>“As we come from the sightseeing business in Munich, we bought the sightseeing business in Frankfurt. Another reason was that a global player wanted to enter the German market. That's why we told ourselves that if we had the opportunity to buy it, we'd buy it because a) it's profitable but expensive and b) we're trying to prevent someone new from entering the market.”</i> (Firm B) 	Expansion	Acquisition Goals

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 11: Coding Scheme to illustrate the Relation between Innovation and Acquisitions

1st Order Categories	2nd Order Themes	Aggregate Dimensions
<ul style="list-style-type: none"> ● <i>"In this respect, innovation serves the success of the group."</i> (Firm J) ● <i>"Without innovation, we have little or no chance to develop and grow in the market. It is undoubtedly an important topic, but innovation can be developed in very different ways."</i> (Firm M) ● <i>"I can only survive in the market if I do something where the customer says: Yes! I think this service is good. This is what I want. – In this respect, my drive for innovation is always one that has to please the customer! I can't innovate otherwise."</i> (Firm J) 	<p style="text-align: center;">Innovation as Key to Success</p>	<p>Relation between Innovation and Acquisitions</p>
<ul style="list-style-type: none"> ● <i>"Innovation is part of our strategic position. [...] And you can only be or remain a differentiator by innovation."</i> (Firm L) ● <i>"Innovation is like Oliver Kahn according to the saying: Always further!"</i> (Firm G) ● <i>"The innovation should not be limited to technology but should be placed in the context of a company's business and strategy."</i> (Firm K) 	<p style="text-align: center;">Innovation as part of the Strategy</p>	
<ul style="list-style-type: none"> ● <i>"Innovation is not an end in itself"</i> (Firm J) ● <i>"I don't believe that innovation is the ultimate goal but rather a means to an end. However, a significant one because it helps you to achieve your company goals. I don't think that innovation should be seen in isolation, because it's part of the whole. It would help if you had it, and you can't do without it."</i> (Firm E) ● <i>"The motivation to do M&A is based on the strategy to grow and expand a specific market position, and as a result of this, especially, innovation was a means to end."</i> (Firm C) ● <i>"Acquisition is always a means to an end."</i> (Firm O) ● <i>"Innovation and synergies arising from the M&A process or the acquisitions are a means to an end to increasing the Group's sales and profitability. Yes, that's true! That is certainly true."</i> (Firm M) 	<p style="text-align: center;">Innovation as Means to End</p>	
<ul style="list-style-type: none"> ● <i>"For us, the acquisition is not a systematic instrument of innovation. We innovate, but we don't innovate by acquisitions, at least not systematically. When I say that acquisition is not a systematic instrument of innovation, it only means that we don't rule out something like this in our business model. It is more likely to be driven by opportunity."</i> (Firm O) ● <i>"We also cooperate with external institutes or development partners to innovate."</i> (Firm O) ● <i>"We try to reach different market segments, and it's easier to achieve this by purchasing a specialist [i.e., technology expertise] than to develop something from your brand."</i> (Firm J) ● <i>"With company X we have saved an internal innovation through the acquisition."</i> (Firm K) ● <i>"The markets we had served were a) not growing and b) market-leading to the extent that growth in speed was only possible with a broadening of the technology portfolio and that is why we made acquisitions."</i> (Firm C) 	<p style="text-align: center;">Likelihood of Innovation as Driver of Acquisitions</p>	

Source: own illustration based on conducted interviews (1st Order Categories modified to include quotes instead of concepts)

Appendix 12: Overview of the Propositions

Number	Category	Proposition
1	Growth	<ul style="list-style-type: none"> • Growth, mainly, inorganic growth provides the foundation on which family firms can obtain stability and profitability. The mean of acquiring other firms leads to sustainable development and the survival of family firms.
2a	Likelihood of Acquisitions	<ul style="list-style-type: none"> • The likelihood of acquisitions undertaken by family firms increases (decreases) with unbeneficial (beneficial) circumstances, in the context of ability, costs, and time, for making something.
2b	Likelihood of Acquisitions	<ul style="list-style-type: none"> • The likelihood of acquisitions undertaken by family firms increases (decreases) with both higher (lower) willingness of the business-owning family to make acquisitions and increasing (decreasing) independence of the family firm.
3a	Acquisition Goal Category	<ul style="list-style-type: none"> • Family firms are primarily undertaking acquisitions of other firms because of expansion. Thereby, growth, product portfolio expansion, and geographic expansion are decisively influencing in the likelihood of acquisitions.
3b	Acquisition Goal Category	<ul style="list-style-type: none"> • The likelihood of acquisitions undertaken by family firms increases (decreases) significantly with the importance (unimportance) of expansion goals, namely, growth, product portfolio expansion, and geographic expansion as acquisition goals.
4a	Acquisition Goal Category	<ul style="list-style-type: none"> • Besides the goal category expansion, family firms are also undertaking acquisitions of other firms because of market competitiveness. The acquisition goals, namely, to exploit synergies and strengthen the market/country position are significantly influencing the likelihood of acquisitions.
4b	Likelihood of Acquisitions	<ul style="list-style-type: none"> • The likelihood of acquisitions undertaken by family firms increases (decreases) significantly with the importance (unimportance) of goals leading to market competitiveness, namely, to exploit synergies and strengthen the market/country position as acquisition goals.
4c	Likelihood of Acquisitions	<ul style="list-style-type: none"> • For family firms, the significance of exploiting synergies drives the probability of acquisitions positively due to the occurring synergies, for the acquiring or acquired company, to increases the market competitiveness.
5a	Acquisition Goal Category	<ul style="list-style-type: none"> • Besides the goal categories expansion and market competitiveness, family firms are further undertaking acquisitions of firms because of innovation. The acquisition goal, namely, obtaining technology expertise is significantly driving the likelihood of acquisitions.
5b	Likelihood of Acquisitions	<ul style="list-style-type: none"> • The likelihood of acquisitions undertaken by family firms increases (decreases) significantly with the importance (unimportance) of goals increasing innovativeness, precisely, to obtain technology expertise as acquisition goal.
6	Likelihood of Acquisitions	<ul style="list-style-type: none"> • The incorporation (non-incorporation) of multiple acquisition goals from different goal categories increases (decreases) the likelihood of a family firm to engage in the acquisition of companies.
7	Acquisition Goal Category	<ul style="list-style-type: none"> • In comparison to the goal categories mentioned above, finance, stakeholder, and resources have a minor relevance as a driver of acquisitions. Hence, family firms are less likely to engage in acquisitions solely based on these three-goal categories as drivers.
8a	Importance of Innovation	<ul style="list-style-type: none"> • The more important innovation is for family firms, the more likely they will engage in acquisitions driven by innovation.
8b	Importance of Innovation	<ul style="list-style-type: none"> • The importance of innovation for family firms drives acquisitions positively. As high levels of innovativeness in family firms aim to achieve other goals, the acquisition of innovation serves as a means to an end.

Source: own illustration based on conducted interviews