

# **DISSERTATION**

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# "Allocation of Decision Rights in Franchising"

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To Marijan

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#### **Declaration**

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#### **Abstract**

This dissertation analyzes the allocation of decision rights in franchising by utilizing two theoretical perspectives: property rights theory and transaction cost theory. Property rights theory explains the allocation of decision rights based on the importance of the intangible assets relevant for the generation of residual income. In accordance with this view, franchisors' intangible knowledge assets (system-specific business practices and intellectual assets) and franchisees' intangible assets (local market knowledge, and managerial skills and experience) are expected to have a significant influence on the allocation of decision rights to franchisees. The model based on the transaction cost view analyzes the effects of behavioral uncertainty, environmental uncertainty and transaction-specific investments. It is argued that these variables can have an influence on the governance of franchise relationships, i.e. how franchisors allocate decision rights to franchisees. Finally, in the extended transaction cost model, trust is included as a variable that moderates the relation between the transaction cost variables and the dependent variable.

Empirical results from the German franchise sector provide partial support for both theoretical perspectives, as well as for the extended transaction costs model. As predicted by the property rights theory, the franchisee's fraction of decision rights is negatively related with the franchisor's intangible system-specific assets. Furthermore, franchisees' less contractible innovation assets impact decision rights allocations more than contractible operation assets do. According to the prediction of transaction cost theory, environmental uncertainty relates negatively to the decision rights allocated to franchisees, confirming that franchisors delegate less decision

rights to franchisees when they are exposed to an uncertain market environment. However, contrary to the transaction cost expectations and in line with the incentive view of delegation, behavioral uncertainty is positively related to the allocation of decision rights to franchisees. This could imply that franchisors use decision rights delegation as an incentive. Finally, the extended transaction cost model provides strong support for the influence of trust both as moderator and as a direct effect. Trust functions as moderator in all tested relations. In addition, the significant direct effect of trust corroborates the relational governance view, which argues that trust as a social dimension has a direct effect on the governance of business relationships. It is also notable that the inclusion of trust in the transaction cost model substantially increased the explanatory power of the model.

The presented empirical results provide a valuable contribution to the following literature: (1) allocation of decision rights in franchising; (2) effect of trust in franchising; and (3) studies on governance of inter-firm alliances.

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#### 1. Introduction

Allocation of decision rights is a fundamental feature of the governance of firms as it has important implications for the internal hierarchy, contract design and organizational boundaries. In organizational economics literature, decision rights are defined as the rights and authority to decide about the deployment and use of the firm's assets (Hansmann 1996). Furthermore, organizational economics differentiates between non-residual (specific) and residual decision rights. Non-residual rights refer to decision actions, which are explicitly defined by the contract in the ex ante period (Demsetz, 1998; Grossmann and Hart, 1986), whereas residual decision rights refer to the authority about decisions concerning specific actions in the ex post period (Hendrikse and Windsperger, 2011).

Allocation of decision rights is not only an important issue within firms, but also in the establishment of inter-firm alliances. Inter-firm alliances are contractual arrangements between two or more legally independent business entities with the aim of producing joint added value (Bachmann and Witteloostujin, 2006). The number of inter-firm alliances has grown rapidly in the past two decades, mostly as a reaction to the rising uncertainty in the different layers of firms' environment, beyond the firms' direct control (Gulati and Gargiulo, 1999). Inter-firm alliances can be organized in a variety of ways, ranging from licensing and franchising, to consortia and equity joint ventures.

Like in any other inter-firm alliance, the problem of allocating decision rights represents a major issue in franchising. Franchising can be defined as a contractual arrangement between two independent business entities – namely, the franchisor (the owner of a brand and business concept) and the franchisee (an independent entrepreneur) – where the franchisor sells to a franchisee the rights to use the franchisor's trademark and business model to sell products or services. This concept of franchising, which is also used in this dissertation, is often referred to as *business format franchising*<sup>1</sup> (e.g. Bercovitz, 1999; Burton et al., 2000; Konigsberg, 2008; Rubin, 1978). In business format franchising, the franchisor grants an exclusive right to a franchisee to engage in the former's business on his/her own behalf, in a prescribed manner, within a certain geographical region and over a specified period of time. A franchisee thereby operates under the system trade name, owned and developed by the franchisor. In return, the franchisor receives financial compensation, mostly in the form of royalties and initial fees.

#### 1.1 Control and Autonomy in Franchising

The problem of allocating decision rights is an important dimension of a franchisor-franchisee relationship, and part of a broader domain revolving around one key question: How to establish and maintain the right balance between control and autonomy of franchisees? This question has motivated a variety of studies, which

<sup>&</sup>lt;sup>1</sup> The definition proposed by the US Department of Commerce identifies two types of "franchising": (1) "Product and trade name franchising", which represents an independent sales relationship between supplier and dealer in which the dealer[s] acquire[s] some of the supplier's identity (brand name). (2) "Business-format franchising", characterized by an ongoing business relationship between franchisor and franchisee and includes not only the product, service and trademark, but the entire business format itself (Konigsberg, 2008).

in general suggest that inherent tensions in franchisor-franchisee relationships require a system that allows not only for control and coordination, but also adaptation (e.g. Dant and Gundlach, 1999; Kaufman and Eroglu, 1998; Pizanti and Lerner, 2003). These studies also unanimously emphasize the importance of this issue, due to its effects on the motivation and incentives of both partners, and consequently on the performance of the entire franchise system.

Business format franchising is a specific type of marketing channel because of the particular model of profit sharing (franchise fees and royalty payments), standardized rules of operation (e.g. hours of operations, upkeep of facilities, service level, quality level) and the existence of different provisions which enable franchisors to monitor franchised outlets (Agrawal and Lal, 1995; Konigsberg, 2008; Lal, 1990). Therefore, the coordination of marketing channels structured as franchise relationships is more difficult since the franchisor and the franchisee are independent companies, each looking to maximize their own profit. Marketing channel literature which analyzed franchising suggests that coordination problems stem from differences in power and dependence (e.g. Dant and Gundlach, 1999; Dwyer et al., 1987; Hunt and Nevin, 1974; Quinn and Doherty, 2000), as well as from the imbalance related to incentives and monitoring (Argawal and Lal, 1995; Lal, 1990).

Empirical investigation of sources and consequences of coercive and noncoercive power in franchising by Hunt and Nevin (1974) argues that franchisors tend to rely primarily on coercive sources of power based on franchise contracts. Due to the franchisors' high bargaining advantage, franchise contracts are primarily designed to protect franchisors' interests and the coercive power is mostly used to control business decisions of the franchisees. Franchising is therefore characterized as an inter-firm network with unilateral dependency. Hunt and Nevin measure

franchisors' power by asking franchisees how they perceive their franchisors' degree of control over seven decision areas: hours of operation; bookkeeping system; products; determining local advertising content and media; pricing; standards of cleanliness; and number of employees. Other variables include franchisors' coercive and noncoercive sources of power, and franchisees' level of satisfaction. Besides the fact that franchisors mainly use coercive sources of power to control franchisees, results indicate that by relying on noncoercive sources of power, such as assistance in operations (location search, advertising, pricing, or training), franchisors can substantially increase their franchisees' satisfaction. Dant and Gundlach (1999) analyze forces of autonomy and dependence within franchise relationships. On a sample of franchisees from the US fast food restaurant industry, they test the effect of industry competition, franchisees' success, level of experience and multi-unit ownership on the franchisees' perception of dependence and autonomy. Empirical data confirms a negative relation between industry competition and franchisees' desire for autonomy. Furthermore, franchisees' dependence was positively related to the incidence of multi-unit ownership, suggesting that multi-unit franchisees greatly value their relationships with franchisors and are not inclined to opportunistically abuse their position. In general, the study shows that forces of autonomy and dependence coexist and vary across different operational domains of a franchise relationship. For instance, franchisees may experience a great deal of autonomy in customer service or personnel management, whereas in marketing, demand generation and pricing they defer to their franchisors. The study also suggests that franchisors should recognize and respect these domains to avoid conflicts. Finally, the authors describe four distinct franchisee profiles and suggest that franchisors' awareness of different profiles can help them understand franchisees' motivation and maintain a good relationship. In contrast, Lal (1990) and Argawal and Lal (1995) view royalty structure and monitoring mechanisms as the most important means of achieving optimal channel coordination and performance. Conducting an empirical test based on the model of Lal's (1990) study, Argawal and Lal (1995) show that an optimally set royalty rate balances franchisees' incentives to invest in service level and franchisors' incentives to invest in brand name development. Investment by both parties is crucial as it directly affects market demand and network success. The study also shows that with a higher royalty rate, franchisors also increase monitoring of the franchisees, even though increased monitoring actually causes franchisees' service level to decrease.

In general, these studies emphasize the problem of control and autonomy as one of the most important issues related to the governance of franchise networks.

#### 1.2 Decision Rights in Franchising

Extensive restraints and centralization of decision making imposed by franchisors may not only be very costly, but also detrimental for franchisees' motivation (Dant and Gundlach, 1999) and it may prevent franchisees from using their outlet-specific know-how efficiently (Windsperger, 2004). Excessive franchisee autonomy, on the other hand, may give rise to opportunistic behavior and agency problems, undermining the franchisor's ability to operate their franchisee network and resulting in a serious systemic crisis due to the diluted brand equity (Dant and Gundlach, 1999).

The fact of the matter is that franchisors must delegate a certain level of decision authority to franchisees, even at the cost of losing some control over local operations. Aghion and Tirole (1997: p.3) argue that "...transferring authority over activities or decisions that matter relatively more to the agent than to the principal, and for which the principal's overruling might hurt the agent, will facilitate the agent's participation in the contractual relationship." Both the importance of decision rights allocation for the governance of franchise networks and the research deficit in the existing franchise literature provided strong motivation for research in this area.

The discussed problem between control and autonomy in franchising has also been addressed by the decision rights literature. This literature seeks to understand and explain the decision structure in franchising by analyzing either, franchise contracts and particular contract provisions, or the structure of residual decision rights, which represent the real influence of the franchisor and the franchisee on decision making. Since franchising represents a contractual relationship between independent firms, franchisors transfer decision rights across the firm's boundaries through franchise contracts without transferring asset ownership (Baker et al., 2006; 2008; Lerner and Merges, 1998). A general consensus is that franchise contracts can provide incentives to both partners only if decision making authority and profit sharing are assigned in an efficient way (e.g. Arrunada et al., 2001; Brickley, 1999; Dnes, 1993; Mathewson and Winter, 1985; 1994; Rubin, 1978). Arruñada, Garicano, and Vazquez (2001) empirically investigate the allocation of rights over substantive decisions and the monitoring, punishment and reward mechanisms in franchise contracts between car manufacturers and dealers in Spain. The authors argue that the particular provisions determined by the contract are influenced by the scope of the opportunistic behavior of both the franchisors (manufacturers) and the franchisees

(dealers); and the scope of opportunism is determined by the strategic choices made by the car manufacturers: the size of the dealership network, market positioning of the produced cars (quality of the cars sold) and the timing of market entry. The dependent variable representing the allocation of decision rights to franchisors (manufacturers' discretion) was constructed by summing up the number of particular rights in three domains: completion, monitoring and termination rights. They test the effect of three independent variables on this index: average price of cars (indicating level of quality), the number of dealerships in the network and the length of the franchise relationship. Empirical results show that the franchisors have higher discretion, as their reputation and the price level of the cars increases. Higher reputation, however, results in a higher negative impact of the franchisees' opportunism. Furthermore, the authors report that the centralization of decision rights increases with the size of the dealership network. Interestingly, Asian manufacturers had significantly lower levels of centralization of rights, confirming previous empirical findings regarding the reliance of Asian manufacturers on nonverbal, trustbased agreements. In general, the analyzed contracts substantially restricted the decision authority of the franchisees, providing the franchisors with extensive rights to "complete" the contracts. Franchisors hold not only the rights to set the performance levels and incentives, but also the greater portion of monitoring and termination rights. This analysis corroborates the findings of previous studies, which show that franchisors hold an extensive portion of decision rights and rights to "complete" the contracts in unanticipated situations. Results support the agency theory view, suggesting that increasing the autonomy of agents (franchisees) may give rise to agency problems such as free-riding or shirking, with a decrease of brand name value as a direct consequence (Bercovitz, 2004; Klein, 1980; Lafontaine,

1992). This prompts franchisors to restrict franchisees' decision authority, and increases monitoring and centralization. Brickley (1999) analyzed three contractual provisions in franchise contracts: restriction on passive ownership, area development plans and mandatory advertising expenditures. Analysis suggests that the incidence of these provisions in franchise contracts increases with the externalities among units within a chain. Results also show that when a franchisee's profits do not provide sufficient incentives to work on firm-related tasks and make efficient investments, the franchisor is more likely to impose additional constraints on the franchisee's actions. Mathewson and Winter (1994) analyze a contract provision which grants the rights to add new franchisees to a specific territory. Empirical results of the study indicate that the right to block the entry of another franchisee into the market or a particular territory is allocated to a franchisee when this franchisee's effort is critical to the financial success of the franchise network. In a case study of 15 UK-based franchise systems Dnes (1993) analyzes the specific nature of several common provisions in the franchise contracts: control of the franchisee's lease, role of the specialized assets, the trade-marking of assets, the fee schedule, termination conditions, and noncompetition restrictive covenants. The study presents evidence of considerable sunk cost, i.e. transaction-specific investments, as well as of mechanisms such as trademarking and restrictive covenants, which increase asset specificity. Since case study analysis was the research method, the author was also able to collect qualitative data on contractual relationships. Based on the qualitative data, he argues that the governance of franchise relationships combines both written contracts and an unwritten (implicit) dimension that relies on the long-run value for both partners.

Despite the relatively large number of studies on specific decision rights in the franchise literature, the theoretical foundation of the allocation of decision rights between franchisor and franchisee remains largely unexplored. Notable exceptions are Azevedo (2009), Lopez-Fernandez and Lopez-Bayon (2011) and Windsperger (2004).

Windsperger (2004) examines the allocation of residual decision rights in franchising from the property rights perspective. Specifically, the study examines the effects of the franchisor's and franchisee's intangible knowledge assets on the allocation of residual decision rights to franchisees. According to the property rights view, the greater importance of the intangible knowledge assets for the generation of residual surplus should result in more decision authority. The allocation of decision rights to franchisees is measured by asking franchisors to assess their franchisees' influence on nine operational decisions: advertising, pricing, products, suppliers, employment, employee training, control system, local investments and financing of the local investments. The measure was then turned into a binary variable representing two states: centralized or decentralized decision making. The predictor variables are franchisors' and franchisees' intangible knowledge assets. Franchisors' intangible knowledge assets were operationalized by the annual number of training days and the advertising fee. Specifically, the number of training days grows with the rising importance of the franchisors' intangible system-specific assets. The advertising fee represents investments in the brand name assets and the costs of maintaining the brand name value. On the other hand, franchisees' intangible knowledge assets refer to franchisees' know-how advantage regarding the local market knowledge, quality control and innovation skills. The empirical results, obtained from a sample of Austrian franchise systems, indicate that the franchisor's

intangible system-specific and brand name assets have a stronger influence on the allocation of decision rights than do the franchisee's intangible local market assets. As predicted, the number of annual training days and the advertising fee lead to a higher centralization of decision making. Results confirm the property rights view, assuming collocation of decision authority and intangible knowledge. The hypothesis, which positively relates franchisees' local market knowledge with decentralization of decision making however, was not supported by the empirical data. Windsperger's (2004) study represents a valuable contribution to the literature on decision making in franchising, as it shows that property rights theory can explain this phenomenon. Property rights theory considers intangible assets, such as knowledge and intellectual capital or brand name, as important determinants of the allocation of decision authority, and intangible assets represent a central aspect of franchising. Therefore, further application of this theory can advance the understanding of the governance of franchise networks.

Azevedo (2009) investigates how the allocation of formal and real authority to franchisees is impacted by three variables indicating the level of standardization – brand name value, number of outlets and externality effects (a variable that captures the state of consumption in the same outlet or across different outlets of the chain). Expressed in the terminology of Aghion and Tirole (1997), the authors define formal decision rights as "the right to decide" and the real decision rights as "the effective control over decisions". The delegation index was constructed by measuring tasks prescribed in the franchise manual, proportion of company-owned outlets and monitoring intensity. As expected, experience before franchising, number of outlets and externalities all had a significant negative effect on the allocation of decision rights to franchisees. Years of franchising experience, on the other hand, show a

positive effect on the allocation of decision authority to franchisees. Contrary to the hypothesized relation, franchisees' initial investments (necessary to create an outlet) had a negative and significant effect. This may be explained by the fact that higher brand value results in a lower level of delegation, as delegation can have negative impacts on brand name value (e.g. due to the lower quality provided by franchisees in local outlets). From another point of view, this result relates initial investments to business size, suggesting that a larger business (in terms of franchise outlets) requires higher monitoring costs and more extensive tasks of codifying all operations and procedures, which represent control mechanisms.

Lopez-Fernandez and Lopez-Bayon (2011) investigate the determinants of decision rights delegation in the Spanish franchise sector based on hypotheses derived from agency and property rights theory and the relational view of governance. The first predictor variable refers to the franchisor's brand name value, operationalized by measuring advertising expenses per outlet and the share of franchise business in the total business. The second predictor variable refers to the relation-specific investments, which represent an economic self-enforcing mechanism, expected to diminish the free-riding hazard. The third predictor variable is trust, operationalized by the number of years of the parties' franchise relationship. Following the suggestions of Windsperger (2004) the authors account for the effect of franchisees' local market knowledge on the allocation of decision rights by looking at the sector of the franchise business, differentiating between service, restaurant and retail industries. The rationale behind this measure is the difference in expertise and knowledge necessary to serve local customers. For instance, in the service sector, the proportion of franchisees' intangible local market assets necessary to serve customers is assumed to be higher than in retailing. The delegation rights

index was constructed by measuring franchisors' assessments of the level of authority that franchisees have over five operational decisions: pricing, assortment, local advertising, interior design and employee training. Similar to Azevedo (2009), results confirm that franchisors' experience with franchisees (measured by years of cooperation) positively affects the level of delegated authority, due to the emergence of trust. Franchisors' intangible assets show a robust negative effect on the decision rights delegated to franchisees, as well as the variable advertising expenses, corroborating the findings of Windsperger (2004).

Regardless of the context and construct operationalization, all of the presented studies show that franchisors' brand name value has a negative effect on the decision making authority delegated to franchisees. Azevedo (2009) related brand name value to the experience before franchising assuming that a firm's reputation improves with the number of years it is active in franchising. Windsperger (2004) operationalized brand name value by using the advertising fee, whereas Lopez-Fernandez and Lopez-Bayon (2011) use the value of advertising expenses per franchised outlet. Using similar assumptions, Arrunada et al. (2001) relate the price of cars with brand value, suggesting that as the price (hence quality) increases, the extent of negative effects of franchisees' possible opportunism on brand value grows as well. These studies also investigate allocation of residual decision rights, suggesting that the real decision making authority of franchisees can differ from the decision authority defined by franchise contracts. Finally, they emphasize the importance of understanding the structure of real decision rights between franchise partners, as it has a direct effect on the success of franchise networks.

#### 1.3 Research Deficit, Research Questions and Contribution

To explain the allocation of decision rights in franchising, the existing literature has focused mainly on research frameworks generated from property rights theory (Windsperger, 2004) and agency theory (Arrunada et al., 2001; Azevedo, 2009; Lopez-Fernandez and Lopez-Bayon, 2011). Based on the property rights view, the allocation of decision rights between franchise partners is closely related to the distribution of the specific intangible knowledge assets between franchise partners (Windsperger, 2004). By having authority over decision rights, a partner is in a position to make efficient use of the respective assets to generate residual surplus. Windsperger (2004) and Lopez-Fernandez and Lopez-Bayon (2011) were able to empirically confirm the negative relation between franchisors' system-specific assets and the allocation of decision rights to franchisees, whereas the positive effect of franchisees' local market knowledge could not be confirmed. However, Windsperger's (2004) binary measure of the decision rights allocation tested two states - centralization and decentralization. More information about the degree of allocation could be provided by creating a continuous index of decision rights allocation, similar to Lopez-Fernandez and Lopez-Bayon (2011), who created a decision index composed of five operational decisions. A further possibility for extension of the previous research lies in accounting for the different levels of asset intangibility. To address these issues, Chapter 2 presents a property rights framework, which tests the effect of franchisors' and franchisees' intangible assets on the allocation of decision rights. Specifically, the research framework differentiates franchisees' intangible assets by the level of intangibility, and tests the

strength of their effect on the allocation of decision rights. The allocation of decision rights is operationalized as an index of nine operational decisions on which franchisees may have a certain degree of influence in the day-to-day operations. Furthermore, the test of the hypotheses is extended by examining the effects of property rights determinants on disaggregated decision rights. By applying Porter's value chain concept (Porter 1985), the disaggregation is based on the different areas of the value chain, such as product, advertising, price, human resource management, investment, and accounting system decisions. The aim is to identify which specific decision rights are delegated in the presence of different combinations of franchisor and franchisee intangible assets.

The existing franchise literature also calls for the application of other theoretical perspectives to analyze the allocation of decision rights in franchising, as the majority of existing studies applies the lens of property rights and agency theory. The extant stream of research on governance of inter-firm alliances has already made significant contributions to explaining the governance structure from the transaction costs theory perspective (e.g. Dahlstrom and Nygaard,1999a; 1999b; Gulati, 1995; Hoffmann et al., 2010; Lui and Ngo, 2004; Mellewigt et al., 2007; Poppo and Zenger, 2002; Ryu et al., 2008; Zaheer and Venkatraman, 1995). This theory has proved to be a powerful framework for analyzing the governance of inter-firm alliances and its applicability has been confirmed in a variety of contexts. However, with the exception of Dahlstrom and Nygaard (1999a; 1999b), the applicability of this theory has not been tested in the context of franchising, which represents an interesting research gap due to the compelling evidence on other types of alliances.

As mentioned above, the current literature on decision rights in franchising has applied either agency theory determinants (Azevedo, 2009; Lopez-Fernandez and Lopez-Bayon, 2011), or property rights theory determinants (Lopez-Fernandez and Lopez-Bayon, 2011; Windsperger 2004). Lopez-Fernandez and Lopez-Bayon (2011) additionally include a determinant of trust, whereas Azevedo (2009) tests the effect of initial investments — a determinant derived from the transaction costs theory. However, the problem of decision rights allocation (as a problem of governance) in franchising has not been investigated by applying a more comprehensive transaction costs model. One of the goals of this dissertation is to address this gap, and to test the applicability of transaction cost theory on decision rights allocation in franchising. The analysis is presented and tested in Chapter 3.

The notion that economic transactions are embedded in social relations has been advocated by the relational governance and social embeddedness view (Granovetter, 1985; Macneil, 1980; Nooteboom, 1996; Poppo and Zenger, 2002). It suggests that firms and the individuals within them are strongly entangled in social relations and that the recurrent exchange develops bonding and generates trust. By analyzing franchise contracts, Dnes (1993) also found that every franchise relationship consists of both formal written contracts and an unwritten, relational dimension. Nevertheless, transaction costs theory has been neglecting the effects of trust on the governance of economic transactions (Williamson, 1985). Aware of this missing dimension, a growing number of empirical studies combine transaction cost and relational determinants to explain the governance of inter-firm alliances (Gulati, 1995; Hoffmann et al., 2010; Mellewigt et al., 2007; Noteboom et al., 1997; Lui and Ngo, 2004; Poppo and Zenger, 2002; Ryu et al., 2008; Zaheer and Venkatraman,

1995). The research settings of these studies range from buyer-supplier and manufacturer-distributor relationships to different types of hybrid cooperation. Empirical evidence widely confirms the mitigating effect of trust on opportunism and conflict, and shows that the emergence of trust between alliance partners decreases the propensity to use hierarchical control modes. Results also indicate that the inclusion of trust in the transaction cost model increases the explanatory power of the model, as trust addresses an important dimension of economic transactions. Considering the evidence, the question emerges whether trust has an opportunism-mitigating effect in franchisor-franchisee relationships as well, and whether it will have a moderating effect on transaction cost determinants tested in the context of franchising. To address these questions, Chapter 4 presents an extended transaction costs model, which tests the moderating effect of trust on the relationship between transaction cost determinants and decision rights allocated to franchisees.

To summarize, the goal of this dissertation is, therefore, to provide answers to the following research questions:

- 1. What is the effect of property rights determinants on the allocation of residual decision rights in franchise networks?
- 2. What is the effect of transaction cost determinants on the allocation of residual decision rights in franchise networks?
- 3. Does trust moderate the relation between transaction cost determinants and the allocation of residual decision rights in franchise networks?

Each research question is addressed in a separate chapter, namely Chapters 2, 3 and 4, respectively.

Even though the main goal of this dissertation is to extend the literature on allocation of decision rights in franchising, it also provides a contribution to some other complementary fields of research. Specifically, the contribution can be divided into three different areas: First, the results of this thesis add to the franchise literature by extending the property rights view and applying the transaction costs theory to analyze the allocation of decision rights in franchise networks. Second, it contributes to the franchise literature by analyzing the direct and moderator effects of trust on decision rights allocation. Despite the different approaches of analyzing trust in franchising, to the best of my knowledge, no prior study tested its effects on the allocation of decision rights in franchising. Third, this study extends the literature on trust in franchising and inter-firm alliances by exploring the role of trust for the governance, i.e. decision rights allocation in franchise networks.

#### 1.4 Outline of the Study

The rest of the dissertation is organized according to the three research questions.

Chapter 2 presents the property rights analysis of the allocation of decision rights in franchising. The model tests the effects of franchisors' systems specific knowledge assets and franchisees' local market knowledge on the allocation of decision rights. A franchisor's system-specific knowledge assets are represented by the number of initial training days and the number of visits to the local franchised outlets. Franchisees' local market knowledge assets include less contractible

innovation assets and more contractible operation assets. Figure 1 shows the outline of the model.

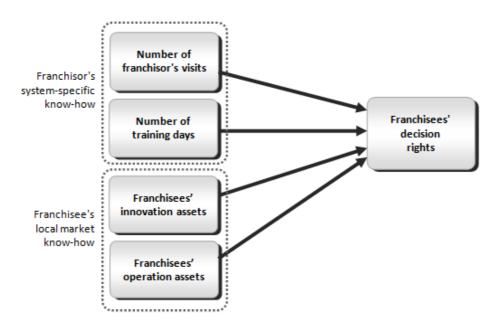


Figure 1: Conceptual framework used in Chapter 2

The hypotheses referring to the franchisor's system-specific knowledge assets predict that both the initial number of training days and the number of yearly visits to local franchised outlets will have a negative effect on the decision rights allocated to franchisees. The hypothesis referring to the franchisees' local market know-how predicts a positive effect on the allocation of decision rights. Furthermore, a stronger positive effect is expected from the franchisees' less contractible innovation assets than from more contractible operation assets. The empirical results are partially supportive of the presented hypotheses. First, empirical data partially confirms the negative effect of the franchisor's system-specific knowledge on the allocation of decision rights. Second, results also show that less contractible innovation assets have a stronger influence on a franchisee's fraction of residual decision rights than the more contractible operation assets.

Chapter 3 introduces a transaction cost explanation of the allocation of decision rights between franchisor and franchisees. Derived from the transaction cost theory, the model includes effects of environmental uncertainty, behavioral uncertainty and transaction-specific investments. Figure 2 shows the outline of the model.

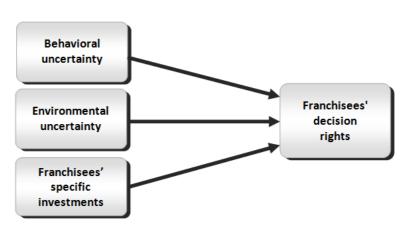


Figure 2: Conceptual framework used in Chapter 3

A negative effect on the allocation of decision rights is expected for both behavioral uncertainty and environmental uncertainty variables, whereas a positive relation is hypothesized for the transaction-specific investments variable. The empirical results provide partial confirmation of the transaction costs predictions. Contrary to expectation, behavioral uncertainty has a positive effect on the dependent variable. However, the effect of environmental uncertainty is confirmed, whereas the effect of transaction-specific investments could not be statistically confirmed.

Chapter 4 presents the extended transaction costs model by including the variable of trust. The model hypothesizes that trust moderates the relation between transaction cost determinants and the dependent variable. Specifically, it is expected that trust mitigates the negative effects of behavioral and environmental uncertainty.

The positive effect of transaction-specific investments is expected to be stronger. Empirical results are largely supportive of the hypotheses, revealing a strong direct effect of trust on the allocation of decision rights. The outline of the research framework is depicted in Figure 3.

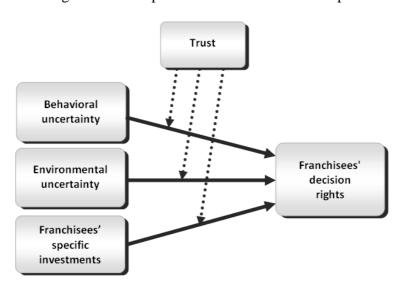


Figure 3: Conceptual framework used in Chapter 4

Chapter 5 provides a summary of the key findings and explains the contributions of the dissertation to the existing literature. It discusses the theoretical and practical implications of the findings, as well as the limitations of the study and possibilities for further research. Finally, Chapter 6 provides some concluding remarks of the dissertation.

#### 1.5 Empirical Setting

The German franchise sector provided a favorable empirical setting for conducting this research for a number of reasons. First, Germany is the largest European economy, having a large number of franchise systems which operate in the

market. The German franchise sector has been rapidly growing in the past decade, witnessing the number of franchisees rising by almost 80% and the number of franchisors by 35% in the period from 2001 to 2011. The yearly turnover generated by all franchise systems increased by 160% in the same period. According to the data provided by the German Franchise Association (DFV), 990 franchise systems operated in Germany in 2010. The greatest share of these was in the service industry (40%), followed by retailers (32%) and the gastronomy sector (15%), while the smallest share of the systems (12%) was categorized as belonging to the handicraft sector<sup>2</sup>. The size of the market provided a higher probability of obtaining enough usable questionnaires to conduct statistical analysis.

The second major reason for choosing the German franchise sector was the availability of data. The list of all franchise systems in Germany and their contacts is available in the directory of the German Franchise Federation (DFV) and "Franchise Wirtschaft" (a Bond's Franchise Guide type directory published in Germany). The latter also contains data on franchisors such as age, size, advertising fee and royalties, which provided more complete information about the whole set of German franchise systems and enabled comparison of the respondents' data to test the non-response bias. In addition, the "German Franchise Association" further supported the data collection.

Third and last, the proximity of the market to Austria (where the present dissertation was written) allowed for a more efficient use of limited resources, while having a high probability of obtaining the sufficient amount of data to conduct statistical tests.

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<sup>&</sup>lt;sup>2</sup>Source: Deutscher Franchise-Verband e.V.; www.franchiseverband.de

# 2. The Structure of Decision Rights in Franchising: A Property Rights Perspective

#### 2.1 Introduction

The governance structure of franchise relationships consists of two major components: residual income rights and residual decision rights. Residual income rights refer to the royalties and initial fees that are used as an incentive device in the franchise relationship. In recent decades, a dominant research stream in franchising has focused on the explanation of royalties and initial fees (Bhattacharyya and Lafontaine, 1995; Brickley and Dark, 1987; Dnes, 1996; Lafontaine, 1992; Lafontaine and Slade, 2001; Mathewson and Winter, 1985; Norton, 1988; Rubin, 1978; Sen, 1993; Windsperger, 2002; Vazquez, 2004). However, comparatively few studies have investigated the allocation of decision rights between the franchisor and franchisees (e.g. Arrunada et al., 2001; Azevedo, 2009; Windsperger, 2004). Franchisors use contracts to transfer decision rights across their firm's boundaries (Baker et al., 2006; 2008). For instance, they transfer authority to the franchisees to make local advertising and training decisions. In this paper, we use property rights theory to investigate the factors that influence the allocation of residual decision rights between the franchisor and franchisees.

Property rights theory differentiates between non-residual (or specific) decision rights and residual decision rights. Non-residual decision rights are explicitly specified in contracts (Demsetz, 1998) and refer to the use of contractible

(explicit) knowledge, which can be easily codified and transferred. Residual decision rights refer to the authority to influence the use of intangible (tacit) knowledge, which cannot be easily codified and specified in contracts. In franchising, residual decision rights refer to the authority to influence the use of the franchisor's system-specific assets and the franchisee's local market assets, which are intangible and hence difficult to specify in contracts.

This study presents a property rights explanation on the allocation of decision rights in franchising networks. It argues that the structure of decision rights depends on the contractibility of the franchisor's system-specific and brand name assets and the contractibility of franchisees' local market assets. The following hypotheses are tested: First, the franchisee's fraction of decision rights varies positively with the intangibility of local market assets, and negatively with the intangibility of systemspecific and brand name assets. Second, the research model differentiates between more and less contractible local market assets. The impact of less contractible local market assets (innovation assets) on the franchisees' fraction of decision rights is higher than that of more contractible local market assets (operation assets). Empirical results from the German franchise sector are largely supportive of these hypotheses. Furthermore, the central hypotheses tests are supplemented by a post hoc test which analyzes decision rights disaggregated according to the different areas of the value chain, such as product, advertising, price, human resource management, investment and accounting system decisions. The aim is to identify which specific decision rights are delegated in the presence of different combinations of franchisor and franchisee intangible assets.

The main contribution of this study is to extend the existing franchise literature on decision rights allocation (Arrunada et al., 2001; Azevedo, 2009; Lopez-Fernandez and Lopez-Bayon, 2011; Windsperger, 2004) by testing whether system-specific and local market assets have an influence on the structure of residual decision rights due to their non-contractibility. Specifically, it differentiates between more and less contractible local market assets and shows that only less contractible assets influence the allocation of decision rights. In addition, it attempts to improve and provide a finer cut to the measurement of the franchisee's local market assets (Windsperger, 2004). That is, decision rights are disaggregated according to value chain activity (Porter, 1985) and the impact of the property rights variables (systemspecific assets, brand name assets and local market assets) is tested on these disaggregated decision rights.

## 2.2 Decision Rights in Franchising

In organizational economics, the question of how to allocate decision rights has been investigated in several different organizational settings. Lerner and Merges (1998), Arrunada et al. (2001), Elfenbein and Lerner (2003), Brickley et al. (2003), Windsperger (2004), Higgins (2006) and Hu and Hendrikse (2009/10) all examine the allocation of decision rights in inter-firm alliances. Elfenbein and Lerner (2003) study the allocation of decision rights in contracts between website operators and content suppliers, arguing that the allocation of decision rights depends on the bargaining power of the parties. Higgins (2006) finds that such bargaining power makes a difference for the allocation of decision rights between pharmaceutical and

biotechnology firms. Brickley et al. (2003) argue that among commercial banks, local managers of independent small rural banks have a higher proportion of decision rights compared to branch managers of large banks because they have higher incentives to use the local knowledge of their customers.

Although franchising has been treated extensively in organizational economics, management, and marketing in the last two decades, the problem of allocation of decision rights between the franchisor and franchisees remains largely unexplored, with some important exceptions (i.e., Arrunada et al., 2001; Azevedo, 2009; Windsperger, 2004). Arruñada, Garicano, and Vazquez (2001) investigate the allocation of specific rights in contracts between car manufacturers and their dealers, such as completion rights, monitoring, and enforcement rights. Azevedo (2009) investigates the impact of brand name value on the allocation of authority in franchising networks. These studies, however, do not explicitly differentiate between decision rights and residual income (or ownership) rights, and they focus only on certain formal rights without examining the range of decision rights involved in the local outlets' value chains. In a third study, Windsperger (2004) examines the allocation of decision rights in franchising networks in Austria and shows that the centralization of decision making in franchise networks depends on the intangibility of franchisor's system-specific assets and the franchisee's local market assets.

This study extends the property rights explanation developed by Windsperger (2004) in two ways. First, it argues that local market assets are only relevant for the structure of residual decision rights if they are non-contractible. Differentiation between more and less contractible local market assets shows that only less contractible assets influence the allocation of decision rights. In doing so, the measurement of the local market assets by differentiating between more contractible

assets (operation assets) and less contractible assets (innovation assets) is also improved. Second, by applying Porter's value chain concept (Porter, 1985), decision rights are disaggregated according to the major value chain activities at the local outlet (i.e., decisions involving product, procurement, advertising, price, human resources, investments and the accounting system) to test the impact of the property rights variables.

This provides new insight into the structure of residual decision rights in franchising. For instance, franchisors' intangible system-specific assets are found to have a significant influence on procurement, human resource management and investment decisions, and the franchisor's brand name assets are found to have a significant effect on advertising decisions. The franchisee's intangible local market know-how has a significant influence on product and human resource management decisions.

Finally, this study also contributes to the empirical literature in organizational economics and management, which applies the concept of decision rights in interand intra-organizational settings. Empirical studies have mainly relied on measures of formal authority, such as organizational charts, job characteristics (titles, responsibilities) and contract clauses (e.g. Lerner and Merges, 1998; Aggarwal and Samwick, 2003; Colombo and Delmastro, 2004; Campbell et al., 2009; Higgins, 2006; Hu and Hendrikse, 2009/2010; Ortega, 2009; Vazquez, 2006; Wulf, 2007). This study represents an attempt to operationalize decision rights as real authority (Aghion and Tirole, 1997).

## 2.3 Property Rights View on the Allocation of Decision Rights

According to property rights theory, the structure of decision rights depends on the distribution of residual-income-generating intangible (non-contractible) assets between the franchisor and the franchisee (Barzel, 1989; Windsperger, 2004). Generally decision rights refer to strategic and operational decisions. Strategic decisions are primarily made by the franchisor and operational decisions are divided between the franchisor and the franchisee. Operational decisions include marketing decisions (price, product, promotion), human resources decisions (training, recruiting), and investment and procurement decisions. Jensen and Meckling (1992) point out that two ways of allocating decision rights exist: Either knowledge must be transferred to those with the right to make decisions or decision rights must be transferred to those who have the knowledge. This means that decision rights tend to be centralized in the franchising network when the costs of transferring local knowledge to the franchisor are relatively low. This is the case when the franchisor's portion of intangible assets is relatively high compared to the franchisee's intangible local market assets. In this case, the franchisor has greater bargaining power and can more easily acquire local market knowledge due to its relatively lower degree of intangibility. On the other hand, residual decision rights have to be delegated to the franchisees when their local market know-how is very specific and consequently knowledge transfer costs are very high. In this case, the bargaining power of the franchisees is relatively strong due to their non-contractible local market assets. Consequently, if it is important to take advantage of the franchisee's intangible local market assets in order to generate a high residual income stream, the franchisor must transfer residual decision rights to the local partner. In sum, the following property

rights proposition is formulated: The more important the franchisor's intangible assets for the generation of the residual income of the network relative to the franchisee's local market assets, the more decision rights are allocated to the franchisor and the less decision rights are allocated to the franchisee.

## 2.4 Analytical Framework and Hypotheses

The analytical framework tests the following hypotheses: First, franchisees' fraction of decision rights is positively related to the intangibility of their local market assets, and negatively related to the intangibility of the system-specific and brand name assets. Second, by differentiating between more and less contractible local market assets, the hypothesis predicts a stronger impact of less contractible local market assets (innovation assets) on the franchisees' fraction of decision rights than of more contractible local market assets (operation assets). The following figure shows the conceptual framework.

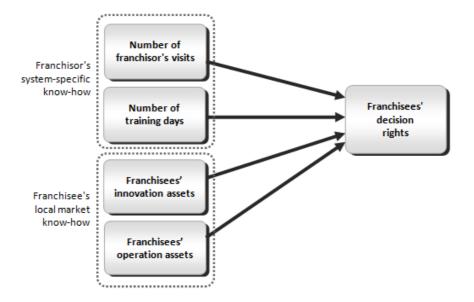


Figure 4: Property rights model

## 2.4.1 Franchisor's Intangible Assets

Franchisor's intangible assets refer to system-specific know-how (Hall, 1993; Klein and Leffler, 1981), which is characterized by a low degree of contractibility. System-specific know-how includes knowledge and skills in site selection, store layout, product development and procurement (Kacker, 1988). The transfer of intangible knowledge requires personal and face-to-face contact between the franchisor and the franchisees (Teece, 1981; von Hippel, 1994). Based on previous studies (Darr et al., 1995; Fladmoe-Lindquist and Jaque, 1995; Simonin, 1999), annual training days and the number of outlet visits are used as an indicator of the franchisor's intangible system-specific assets. An increase in the franchisor's intangible system-specific assets a higher number of face-to-face interactions (annual training days and local visits). It is therefore expected that the franchisor's intangible system-specific assets are related negatively to the franchisees' fraction of residual decision rights. Thus, the following hypotheses are formulated:

**Hypothesis 1a:** Decision rights allocated to franchisees are negatively related to the number of franchisor's visits at the local outlet.

**Hypothesis 1b:** Decision rights allocated to franchisees are negatively related to the number of training days.

# 2.4.2 Franchisee's Intangible Local Market Assets

These assets are the outlet-specific know-how involved in innovation and operation assets. Innovation assets are more explorative in nature and operation assets are more exploitative (Levinthal and March, 1993; March, 199). Innovation assets refer to local market knowledge (Kirzner, 1973) and innovation (Schumpeter,

1911), and operation assets refer to quality control, human resource management and administration (Wicking, 1995). Since innovation assets are characterized by a higher explorative component than operation assets, innovation assets are expected to show a lower degree of contractibility than operation assets. Consequently, by applying property rights reasoning, innovation assets are expected to have a stronger impact on the allocation of decision rights than do operation assets, which is summarized in the following hypothesis:

**Hypothesis 2:** The influence of the less contractible local market assets (innovation assets) on a franchisee's fraction of decision rights is higher than the influence of more contractible local market assets (operation assets).

# 2.5 Empirical Analysis

## 2.5.1 Data and Sample

The empirical analysis is based on a sample of 153 German franchise systems. The data was collected via a self-administered questionnaire, which was developed in several steps. After several preliminary refinements, in-depth interviews with franchise professionals from the Austrian and German Franchise Association and franchise consultants helped in finalizing the questionnaire and ensuring the face validity of the measures. A further step included a pre-test with 10 franchisors. Finally, the questionnaire was mailed to 485 franchise systems in Germany. The response rate was 31%, providing a sample of 153 franchise systems. Non-response bias was estimated by comparing early versus late respondents (Armstrong and Overton, 1977), where late respondents serve as proxies for non-respondents. No

significant differences emerged between the two groups of respondents. In addition, a check for common method bias was conducted based on Podsakoff et al. (2003). Harman's single-factor test was used to examine whether a significant amount of common method variance exists in the data. Common method bias was not found to be present. Given that the independent variables are fairly objective (e.g. training days, visits and initial investments), it is unlikely that the method biased the results.

# 2.5.2 Measurement

The independent variables, franchisors' system-specific assets and franchisees' local market assets, were measured using reflective indicators, whereas the dependent variable representing franchisees' portion of decision rights was constructed as a formative indicator.

# Dependent Variable

Decision Rights. This variable was measured by asking franchisors to assess the influence of franchisees on decisions in the following areas: procurement, price, product, advertising, recruitment, training, investment, finance decisions and accounting system. The assessment was done on a seven-point scale (1 = no influence, 7 = very high influence). By averaging the scale values, a decision index was constructed as a formative construct varying between 1 and 7. The higher the index, the higher is the franchisee's influence on residual decision making, i.e. the franchisees' fraction of decision rights.

Since the dependent variable is a formative construct (an index based on formative indicators), measurement development followed a procedure suggested by Diamantopoulos and Winklhofer (2001). The first step of the index construction was a clear definition of the domain the index should capture, which is the extent of the

franchisees' influence on particular operational decisions relative to the franchisor. A list of possible operational decisions was created by using the existing literature, by applying Porter's value chain concept (Porter, 1985) and by conducting exploratory discussions with franchise practitioners, as they possess practical experience concerning day-to-day operations, ensuring the content and face validity of the construct. The final set of items has to capture the whole domain of the latent construct and an excessive omission of indicators could change the composition of the construct (DeVellis, 2003; Diamantopoulos and Winklhofer, 2001; MacKenzie et al., 2005). Therefore, only non-significant and possibly redundant indicators were dropped. The validation process was conducted with the help of the AMOS software, applying the maximum likelihood method, which is theory-oriented and provides the parameter estimates that best explain the observed variances (Anderson and Gerbing, 1988). The validity of the indicators was assessed by estimating a multiple indicators and multiple causes (MIMIC) model recommended by Diamantopoulos and Winklhofer (2001). MIMIC allows a simultaneous estimation of  $\gamma$  parameters and a test of the overall model fit. This procedure is often recommended as a good alternative for testing the validity of a formative construct, because it is not dependent upon the structural model and can be either an exogenous or endogenous construct. Moreover, a formative construct is not restricted by any theoretical constraints, which enables the use of the construct in future research as well (Jarvis et al., 2003). The MIMIC model was created by using nine indicators as direct causes of the latent construct and by adding two reflective indicators which were also measured by the same questionnaire. The reflective indicators represent the level of franchisees' decision authority related to the franchisors' assessment of their overall ability to control franchisees, which should represent a manifestation of the different

levels of franchisee autonomy. Model fit indicators show good and acceptable values: df = 9, root mean square error of approximation RMSEA = .001, comparative fit index CFI = .99 and goodness of fit index GFI = .903. The validity of formative indicators was also assessed by estimating correlations, the variance inflation index and tolerance to test for multicollinearity. High correlation can cause a problem as the effects of highly correlated indicators cannot be distinctly determined (Bollen, 1989) and they might actually measure the same dimension of the formative construct. All correlation coefficients were found to be positive and relatively low, indicating no problems with multicollinearity. The maximum variance inflation factor is 4.16, but 7 of 9 indicators actually have values below 1.812. All the values are far below the suggested threshold of 10 (Belsley et al., 1980; Kleinbaum et al., 1988).

#### Independent Variables

The properties of the reflective latent variables were examined in several ways. First, the exploratory factor analysis was conducted for each construct to check for unidimensionality. Afterwards, the same procedure was run for all constructs simultaneously to check whether the same factor structure emerged. Both steps of the analysis supported the choice of the item sets. The reliability of the reflective constructs was assessed by computing Cronbach's alpha estimates. To further test the reliability, the sample was split in half and the test was repeated to confirm whether the same directions and results would be obtained. The internal consistency of measurement items within a single measurement was tested by splitting the measurement items, and testing single items in the regression. Internal consistency was confirmed, since items pointed in the same direction and provided results similar to those of the regression with original measures.

Franchisor's System-Specific Assets. Annual training days and the annual number of outlet visits are used as a proxy for the franchisor's intangible system-specific assets (e.g. Darr et al., 1995; Fladmoe-Lindquist and Jaque, 1995; Simonin, 1999).

Franchisee's Intangible Local Market Assets. Franchisee's intangible local market assets refer to innovation assets and operation assets. In the questionnaire, franchisors were asked to evaluate franchisee's intangible assets on a five-point scale. Based on Windsperger and Dant (2006), two domains of indicators, namely innovation assets and operation assets, were used to measure the local market know-how advantage of franchisees compared to managers of company-owned outlets. The domain of innovation assets refers to franchisors' perception of their franchisees' know-how advantage relative to company managers in two areas: innovation and local market knowledge. The domain of operation assets refers to franchisors' perception of their franchisees' know-how advantage relative to company managers in three areas: quality control, human resource management and administrative capabilities. Since innovation and local market knowledge are characterized by a higher degree of tacitness compared to administrative, human resource management and quality control capabilities, innovation assets are expected to show a lower degree of contractibility than operation assets.

#### **Control Variables**

Outlet Size. The size of the chain's outlets was included as control variable by using the natural logarithm of the sum of the franchisee's initial investments and initial fees. Franchise systems with larger outlets tend to be highly standardized and realize greater economies of scale in monitoring (Lafontaine, 1992). Thus, they delegate fewer decisions to franchisees.

Sector. A dummy sector variable was introduced and coded 0 for service and 1 for product franchising. Know-how intensity is expected to vary between product franchising and service firms (e.g. Blomstermo et al., 2006; Zeithaml et al., 1985). Since service franchises are characterized by a higher fraction of franchisees' intangible local market assets and product franchises are characterized by a higher fraction of franchisors' intangible system-specific assets, a higher proportion of residual decision rights should be transferred to the franchisees in the services sector. An overview of the measures is provided in the Appendix.

#### 2.6 Results

Descriptive data for the sample is presented in Table 1. The sample of 153 franchise systems is composed of 106 service and 47 product franchise systems. The average system size is 84 outlets. It is noteworthy that mean values of the indicators for franchisees' local market assets are closer to 5, indicating franchisors' tendency to assess capability advantages in favor of franchisees.

Table 1: Descriptive statistics

VARIABLE	N	Mean	Std. Dev.
Sector	153	0.31	0.46
Product franchising	47		
Service franchising	106		
Number of annual visits	151	5.67	5.68
Number of annual training days	144	8.91	13.17
Franchisees' local market assets			
Local market know-how advantage	133	3.91	1.25
Innovation capability advantage	134	3.40	1.34
Administrative capability advantage	135	3.22	1.33
Human resource management advantage	135	3.57	1.46
Quality control capability advantage	135	2.66	1.34
Total number of outlets	154	84.30	77.3
Initial investments (in EUR)	149	1,159,022.5	524,564.9
Age of system	153	17.01	9.95

The results in Table 2 indicate the level of decentralization of the different decision rights.

Table 2: Descriptive statistics for decision rights

VARIABLE	N	Mean	Std. Dev.
Advertising decisions	153	5.65	1.571
Price decisions	154	5.57	2.003
Product decisions	153	4.79	1.942
Recruiting decisions	154	6.81	.798
Employee training decisions	154	5.82	1.593
Procurement decision	154	4.19	1.963
Investment decision	154	5.82	1.780
Financing decisions	154	5.93	1.812
Accounting system decision	152	4.80	2.169

Results indicate that franchisors assess franchisees' influence on recruiting decisions as the strongest<sup>3</sup>, followed by employee training decisions, as well as investment and financing decisions.

A correlation matrix of the variables used in the regression is presented in Table 3.

Table 3: Correlation matrix

Variable	1	2	3	4	5	6	7
1. Decision rights	1	<u>-</u>	-	-		_	
2. Number of annual visits	219**	1					
3. Number of annual training days	082	.110	1				
4. Innovation assets	.139	007	.185*	1			
5. Operation assets	017	.085	147	.388**	1		
6. Outlet size	.065	.157	017	.007	020	1	
7. Sector	153	.123	128	171*	.105	.073	1

<sup>\*\*</sup> p < 0.01 \* p < 0.05 (2-tailed tests)

None of the correlation coefficients seem to be high enough to cause concern about multicollinearity (Hair et al., 1998).

To test the decision rights hypotheses, a multiple regression analysis with franchisees' fraction of decision rights as the dependent variable was conducted. The explanatory variables are the number of annual training days, number of annual visits, franchisees' innovation assets, franchisees' operation assets, outlet size and sector. In addition, the variance inflation factors are well below the rule-of-thumb

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<sup>&</sup>lt;sup>3</sup> Dant and Gundlach (1999) suggest that franchisees feel higher autonomy in certain domains, such as personnel management and local customer service functions. However, in other domains such as marketing, pull demand generation and pricing, they defer to franchisors to a higher extent (Dant and Berger, 1996).

cut-off of 10 (Neter et. al., 1985). Therefore, no indication of collinearity was detected.

The analysis proceeded in two steps: First, an index of nine operational decisions (see Appendix) was used as the dependent variable. Second, based on Porter's value chain (Porter 1985), the decision rights index is disaggregated according to the main value chain activities at the outlet: product, procurement, human resources (training and recruiting), price, advertising, investments (finance and investment), and accounting systems.

## 2.6.1 Regression Results

To test the property rights hypotheses, the following regression equation is estimated:

Decision Rights (DR) =  $\alpha + \beta_1 \text{Visits} + \beta_2 \text{Training days} + \beta_3 \text{Innovation assets} + \beta_4 \text{Operation assets} + \beta_5 \text{Outlet size} + \beta_6 \text{Sector}$ 

Table 4 shows the regression results for the hypotheses tests. The property rights hypotheses regarding the impact of the franchisor's intangible system-specific assets on the franchisees' decision rights are tested using the variables training days and visits. Hypotheses 1a and 1b predict a negative relation between training days and visits and the franchisees' decision rights.

Table 4: Regression results for aggregated decision rights

Dependent variable: DR index	Model 1	Model 2		
Intercept	+4.979 (0.587) ***	+7.349 (0.994) ***		
Annual number of outlet visits	+ <del>4</del> .717 (0.361)	- 0.021 (0.014)		
Annual number of training days	-	- 0.031 (0.012) **		
Innovation assets	-	+ 0.190 (0.045) **		
Operation assets	-	- 0.138 (0.100)		
Outlet size	+0.041 (0.044)	- 0.124 (0.070) *		
Sector	- 0.329 (0.176) *	- 0.369 (0.176) **		
N	146	118		
F-test	2.065	4.209***		
Adjusted R <sup>2</sup>	0.028	0.184		

Two tailed significance values indicate: \*\*\* p < 0.01 \*\* p < 0.05 \*p < 0.1 Standard errors in parentheses

The coefficient of visits is negative but not significant ( $\beta$  = -0.137), providing no support for Hypothesis 1a. The coefficient for training days, however, is negative and significant ( $\beta$  = -0.24, p <0.05), supporting Hypothesis 1b. An increase in the franchisor's system-specific know-how, as represented by training, relates to a lower portion of residual decision rights allocated to the franchisee. Hypothesis 2 is tested by using the variables innovation assets and operation assets.

Hypothesis 2 predicts that less contractible innovation assets have a stronger influence on the franchisee's fraction of residual decision rights than the more contractible operation assets. The coefficient for innovation assets is positive and significant ( $\beta$  = 0.206, p <0.05), indicating that less contractible local market assets (innovation and local market knowledge) strongly influence the allocation of decision rights between the franchisor and the franchisees. On the other hand, the coefficient for operation assets ( $\beta$  = -0.138, n.s.) is negative and not significant, indicating no evidence that more contractible local market assets (administrative

capabilities, human resource management, quality control) increase a franchisee's decision rights. One explanation for this negative coefficient is that quality control, human resource management and administrative issues can be more easily controlled by the franchisor. Overall, the results are consistent with the view that less contractible local market assets are more important than more contractible local market assets for the allocation of residual decision rights.

Regarding the control variables, the sign of the coefficient of outlet size is negative and weakly significant ( $\beta$  = -0.157, p < 0.10). This result implies that franchise systems with larger outlets tend to be highly standardized and thus delegate fewer decisions to franchisees. Regarding the sector, the sign of the coefficient is significant ( $\beta$  = -0.19, p < 0.05) indicating that more decision rights are transferred to franchisees when the company operates in the service sector. This can be explained by the nature of business in the service sector, which is characterized by higher outlet-specific know-how intensity than in the product franchising sector (Blomstermo et al., 2006).

Table 4 reports the unstandardized beta coefficients, but to evaluate the theoretical relevance of the empirical results the standardized regression coefficients from Model 2 need to be compared (Combs, 2010; Eden, 2002). The standardized betas have the following values: number of visits ( $\beta$  = -0.137, n.s.), number of training days ( $\beta$  = -0.24, p < 0.05), operation assets ( $\beta$  = -0.138, n.s.), and innovation assets ( $\beta$  = -0.206, p < 0.01). Thus, the standardized coefficients also indicate that non-contractible system-specific assets and non-contractible local market assets are important determinants of the allocation of decision rights in franchising networks.

## 2.6.2 Post Hoc Test: Disaggregated Decision Rights

The second step investigates the structure of decision rights disaggregated according to the major value chain activities at the outlet: advertising, price, product, procurement, human resources management, investment and accounting system decision. Table 5 shows the results.

Consistent with the property rights hypotheses regarding the franchisor's intangible assets (Hypothesis 1a and 1b), training days have a negative influence on franchisees' decision rights regarding decisions in procurement ( $\beta$  = -0.179, p < 0.10), human resource management ( $\beta$  = -0.279, p < 0.01) and investments ( $\beta$  = -.295, p < 0.01). The number of visits has a negative and weakly significant influence on investment decisions ( $\beta$  = -0.164, p < 0.10). This result indicates that the franchisor exercises more control over procurement, recruiting and training, as well as investment and finance when the system-specific know-how is considerable.

Consistent with Hypothesis 2 regarding franchisees' local market assets, only less contractible local market assets (innovation assets) significantly influence franchisees' fraction of decision rights, particularly in the areas of product ( $\beta$  = 0.272, p < 0.05) and human resource management ( $\beta$  = 0.201, p < 0.10). This indicates that franchisees' local market know-how is especially important when new products or services are introduced and when employees are recruited and trained.

The results in Table 4 reveal stronger effects of the independent variables on the decision rights related to investment, procurement and human resources decisions. Decision rights related to investment and procurement are typically held by the franchisor and decision rights related to product and human resource management decisions are influenced by both the franchisor and franchisee.

Table 5: Regression results for disaggregated decision rights

	Advertising	Price	Product	Procurement	HRM	Investment	Accounting System
Intercept	+ 9.393 (1.684) ***	+ 2.313 (2.291) ***	+ 7.167 (2.033) ***	+ 8.875 (2.089) ***	+ 7.718 (1.047) ***	+ 7.044 (1.798) ***	+ 7.260 (2.375) ***
Annual number of outlet visits	+ 0.024 (0.026)	- 0.043 (0.032)	- 0.036 (0.028)	- 0.019 (0.029)	+ 0.011 (0.015)	- 0.045 (0.025) *	- 0.051 (0.033)
Annual number of training days	- 0.023 (0.022)	+ 0.015 (0.027)	- 0.014 (0.024)	- 0.047 (0.025) *	- 0.036 (0.012) ***	- 0.068 (0.021) ***	- 0.010 (0.028)
Innovation assets	+ 0.003 (0.177)	- 0.014 (0.215)	+ 0.497 (0.191)**	+ 0.017 (0.196)	+ 0.186 (0.074) *	+ 0.227 (0.168)	+ 0.293 (0.223)
Operation assets	+ 0.046 (0.189)	+ 0.081 (0.229)	- 0.175 (0.204)	- 0.138 (0.209)	- 0.160 (0.105)	- 0.290 (0.179)	- 0.274 (0.238)
Outlet size	- 0.284 (0.133)**	- 0.253 (0.162)	- 0.238(0.144)*	- 0.261 (0.147) *	- 0.105 (0.074)	- 0.018 (0.126)	- 0.150 (0.168)
Sector (service = 0, product = 1)	- 0.444 (0.333)	- 0.485 (0.405)	- 0.408 (0.359)	- 0.949 (0.369)**	+ 0.168 (0.185)	- 0.593* (0.185)	- 0.504 (0.420)
	$F = 1.201  R^2 = 0.061$	$F = 0.899$ $R^2 = 0.046$	F = 2.854 $R^2 = 0.133$	F = 2.696 $R^2 = 0.126$	F = 1.889 $R^2 = 0.092$	F = 3.944 $R^2 = 0.174$	F = 1.721 $R^2 = 0.084$

Two tailed significance values indicate: \*\*\* p < 0.01 \*\* p < 0.05 \*p < 0.1 \*p < 0.11 Standard errors in parentheses

#### 2.7 Discussion

This study aims to explain the structure of residual decision rights in franchising networks by developing hypotheses from property rights theory. Property rights theory emphasizes the importance of the franchisor's and franchisees' intangible assets (system-specific assets and local market assets) for the generation of the network's residual income and hence for the structure of decision rights. The partner with more intangible assets should have a higher fraction of residual decision rights. The results obtained from the survey provide support for the property rights hypotheses. First, empirical data confirms that the franchisor's intangible systemspecific assets negatively influence the franchisee's fraction of decision rights. This reflects the franchisor's need to gain control when the complexity and specificity of the system know-how increases. Second, the results show that less contractible local market assets (innovation assets) have a stronger impact on the franchisee's fraction of decision rights than more contractible local market assets (operation assets). This implies that operation assets can be more easily controlled by the franchisor and specified in franchise contracts, thus requiring less transfer of residual decision rights to network partners (Hendrikse and Windsperger, 2011). These results are also consistent with Jensen and Meckling's view (Jensen and Meckling, 1992) that residual decision rights tend to remain centralized when franchisees' local market knowledge is less intangible and thus less costly to transfer. Conversely, residual decision rights tend to be delegated to franchisees when the franchisees have more intangible (less contractible) local market knowledge that is costly to transfer to the franchisor.

# 2.7.1 Implications for Research and Practice

This study has important implications for both researchers and franchisors. It finds empirical support for the impact of non-contractible assets on the structure of decision rights in franchising networks. Complementary to the agency-theoretical view (Arrunada et al., 2001; Azevedo, 2009), this study develops and extends the property rights explanation of the allocation of decision rights in franchising networks (Windsperger, 2004). It argues that local market assets are only relevant for the allocation of residual decision rights in franchising if they are non-contractible. To test this hypothesis, more and less contractible local market assets are differentiated, providing a finer cut measurement of franchisees' local market assets by differentiating between operation and innovation assets. Second, by applying Porter's value chain concept (Porter, 1985), decision rights are disaggregated according to the major value chain activities at the local outlet (product, procurement, advertising, price, human resource management, investment and accounting system decisions) and the influence of the property rights variables is tested on each of them separately. This analysis provides new insight into the structure of residual decision rights in franchise relationships. Specifically, intangible system-specific assets have a negative influence on franchisees' residual decision rights regarding procurement, human resource management and investment decisions. On the other hand, intangible local market assets have a positive influence on franchisees' decision rights regarding human resource management and product decisions. Evidently, the franchisor tends to increase control over decisions regarding core elements of system-specific know-how, such as procurement and investment decisions. Simultaneously, the franchisor transfers more control over decisions to the

franchisees in areas where the local market know-how is critical to the success of the system.

This study also contributes to the empirical literature in organizational economics and management, which applies the concept of decision rights in interand intra-organizational settings (Aggarwal and Samwick, 2003; Campbell et al., 2009; Colombo and Delmastro, 2004; Higgins, 2006; Hu and Hendrikse, 2009/2010; Lerner and Merges, 1998; Ortega, 2009; Vazquez, 2006; Wulf, 2007). It represents an initial step toward operationalizing residual decision rights as real authority (Aghion and Tirole, 1997).

Broader implications of this paper concern research in management and organizational economics. First, the property rights view is similar to the bargaining power theory of allocation of control in international joint ventures and strategic alliances (Blodgetts, 1991; Child et al., 1997; Harrigan and Newman, 1990; Higgins, 2006; Lecraw, 1984; Mjoen and Tallmann, 1997). According to the bargaining power theory, the allocation of decision-making authority is a function of the specific knowledge contributions of the partners. For instance, joint venture partners tend to exercise dominant control over those activities of the value chain where they have firm-specific advantages (Choi and Beamish, 2004). Hence, firm-specific advantages are related to intangible knowledge assets. However, compared to the property rights theory, bargaining power theory does not explicitly differentiate between more and less contractible knowledge assets.

Second, the presented property rights perspective is also consistent with the 'critical' assets view of control of Rajan and Zingales (1998), who argue that access

to critical assets (e.g. the franchisor's system-specific know-how, brand name and the franchisee's intangible market assets) increases control by network partners.

Third, this study is also related to the literature on vertical integration. Under given ownership, the allocation of decision rights determines the degree of vertical integration (Baker et al., 2006, 2008). For instance, the franchisor might increase vertical integration by having a higher control over decision rights. However, in the case of franchising, the respective degree of vertical integration under a given ownership structure is actually related to the allocation of residual decision rights between the partners.

Finally, the results of this study yield practically relevant knowledge for franchisors seeking to allocate residual decision rights in the franchise system. First, based on the property rights model, franchisors should allocate the decision rights according to the importance of their intangible system-specific assets relative to the franchisee's intangible local market assets. Second, based on property rights reasoning, franchisors should be aware of the fact that more tangible and hence more contractible local market assets appear less important for the allocation of decision rights. Consequently, the use of more contractible local market assets should be specified in greater detail in the franchise contract. Third, this study also provides franchisors with guidance on structuring the individual decision rights concerning the different areas of the value chain: Specifically, procurement and investment decisions should be controlled more by the franchisor when system-specific know-how is very important for the success of the system. On the other hand, human resource management and product decisions should be allocated more to franchisees when local market know-how is highly intangible. Simply put, by applying property rights

view, franchisors may be able to make better decisions regarding the structure of decision rights in their franchise networks.

#### 2.7.2 Limitations

This study has some important limitations: First, the influence of the franchisees' local market assets on the allocation of residual decision rights depends on measures based on the franchisors' evaluation of local market assets, but the franchisors' assessment could deviate from that of the franchisees. Including both perspectives would contribute to the reliability of the measure. Future research could make a contribution to this area by developing and testing measures based on both the franchisees' and the franchisor's evaluations.

Second, while the test of property rights theory provides interesting results, it could only explain less than 20 percent of the variance of the measured decision rights. This indicates that there are other variables, not included in this study, which impact the allocation of decision rights in franchising. In addition to property rights variables, agency and transaction cost variables as well as trust as a relational governance variable may influence the structure of decision rights. Each of these might contribute to knowledge about decision rights in the following way: Agency theory would focus on the impact of monitoring costs and free-riding on the delegation of decision rights. Delegation positively influences the partners' initiative and hence reduces monitoring costs. Consistent with predictions on ownership in franchising (Combs and Ketchen, 2003), it can be expected that delegation of decision rights is positively related to network growth. Furthermore, when a franchisor's reputation and brand name value are high, the potential costs of

franchisee free-riding increase (Azevedo, 2009). Hence, brand name value and the franchisor's degree of control over operational decisions are expected to be positively related. After taking the franchisors' and franchisees' specific asset investments into account, transaction cost theory might focus on the impact of environmental uncertainty on the allocation of decision rights. It is expected that environmental uncertainty is positively related to franchisees' decision rights because higher uncertainty requires more local information processing and adaptive capacity (Gulati et al., 2005; Williamson, 1991). Finally, according to the relational view of governance (e.g. Gulati and Nickerson, 2008; Gulati and Sytch, 2008; Macneil, 1980), trust as an informal control mechanism might influence the allocation of decision rights. For example, trust might reduce relational risk and enable the franchisor to reduce formal control over operational decisions at the local outlet.

A third limitation of this study is that it examined the impact of property rights variables on the structure of decision rights without investigating the performance implications of the allocation of decision rights for the franchisor. Future research has to investigate the relationship between the structure of residual decision rights and the efficiency of the franchise system. Property rights view suggests higher performance among franchising firms that set up a decision structure that is consistent with property rights theory.

# 3. A Transaction Cost Model of Decision Rights Allocation in Franchising

#### 3.1. Introduction

Franchisors govern their contractual relations by seeking an efficient allocation of decision rights between the headquarters and the franchisees. Existing studies on decision rights allocation in franchising have emphasized the importance and the complexity of this issue. Arruñada, Garicano, and Vazquez (2001) investigate the allocation of decision rights in franchise contracts between car manufacturers and their dealers. Specifically, they cluster decision rights under completion rights, monitoring, and enforcement rights, and analyze the effect of several determinants on the frequency of these rights in the contracts. They generally confirm that franchisors tend to hold more decision rights (specified ex ante) as the threat of franchisees' opportunism increases. The study corroborates the findings of the previous studies of franchise contracts, that franchisors control a major part of the decisions and that they are to a high extent able to "complete" contracts in situations not predicted or specified in the contract. Azevedo (2009) investigates the impact of brand name value and externality on the allocation of authority in franchise networks. Similar to Arrunada et al. (2001), empirical results show that the size of the franchise network relates negatively to the franchisees' decision autonomy. However, the number of years of franchise activity has a positive impact. Contrary to expectations, the level of franchisees' initial investments had a negative effect. Both studies apply an agency-theoretical view to develop the hypotheses and interpret the empirical findings. Windsperger (2004) examines the allocation of decision rights in franchising from the property rights perspective, showing that the centralization of decision making increases with the importance of franchisors' intangible system-specific knowledge. Lopez-Fernandez and Lopez-Bayon (2011) investigate the determinants of delegation by deriving hypotheses from agency and property rights theory. Similar to Windsperger (2004), they confirm the negative effect of the franchisor's intangible knowledge on the allocation of decision rights to franchisees. Furthermore, this study also corroborates the findings of Azevedo (2009) that the franchisor's experience with franchisees positively affects the level of delegated authority.

The present study extends the existing literature by developing a comprehensive transaction cost approach to explain the allocation of decision rights in franchising. The focus of transaction cost theory (Williamson, 1975, 1985) lies on finding the optimal governance model to minimize transaction costs mainly due to the opportunistic behavior of the transaction partner. Opportunistic behavior of a transaction partner is defined by Williamson as the self-interest seeking behavior embodied in calculated effort to select and manipulate information and hence mislead the transacting partners (Williamson, 1985, p.47)<sup>4</sup>. Transaction cost theory suggests

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<sup>&</sup>lt;sup>4</sup>In the context of franchising, franchisees' opportunism is frequently associated with the franchisees' failure to follow the system's established quality procedures (e.g. Hadfield, 1990), or free-riding on the tradename (e.g. Brickley and Dark, 1987; Klein, 1980). Choo (2005) provides several more

that the principal attributes of transaction which give rise to opportunism are environmental uncertainty, behavioral uncertainty and transaction-specific investments<sup>5</sup>. As the threat of a partner's opportunism increases, firms incorporate elements of governance which increase the safeguards against opportunism. Transaction costs theory suggests that hierarchical governance provides the strongest safeguards against opportunism, since administrative mechanisms of vertically integrated governance structures enhance sequential and adaptive decision making and facilitate the flow of information (John and Weitz, 1988).

Despite the vast literature analyzing the effects of transaction costs determinants on governance (see David and Han, 2003), only few studies investigate the influence of the transaction costs framework in the context of franchising. Dahlstrom and Nygaard (1999a) apply the transaction costs framework to analyze the effects and antecedents of opportunism in the context of franchise relationships in the Norwegian oil industry. Empirical data provides evidence that franchisors' opportunism has a lingering effect on the transaction costs. Formalization of interfirm cooperation can limit the opportunism, where formalization is defined as the extent to which the inter-firm relationship is governed by clear distribution of tasks and operating procedures. The authors suggest that the transaction costs framework should be complemented with other related theories, to increase the explanatory power of the transaction costs framework in the inter-firm context. Azevedo (2009)

examples of opportunistic behavior by franchisees, found in a case analysis of three different franchise systems. Franchisor's opportunism, on the other hand, is associated with shirking on investments in the system and brand name (Argawal and Lal, 1995), franchisors' holdup (Arrunada et al., 2001) and failure to support franchisees in an agreed way (Dahlstrom and Nygaard, 1999).

<sup>&</sup>lt;sup>5</sup> See David ana Han (2004) for an extensive review of the empirical literature which tests transaction costs determinants in different settings.

tested the effect of franchisees' initial investments (necessary to open a franchised outlet) on the delegation of formal and real decision rights to franchisees. Contrary to the prediction, a negative and significant effect was found and explained by the fact that higher initial investments are necessary in franchise systems with higher brand value. Consequently, higher brand value results in a lower level of delegation in order to reduce the potential negative impacts of opportunism on the brand name value (e.g. due to lower quality provided by franchisees in local outlets).

Motivated by the current research gap in the franchising literature and the call for the application of different theoretical perspectives to explain the governance structure of franchise firms (Combs et al., 2004), this study applies the transaction costs theory framework to analyze the allocation of decision rights in franchising. Specifically, it analyzes how transaction cost variables (namely behavioral uncertainty, environmental uncertainty and transaction-specific investments) affect the allocation of residual decision rights to franchisees. Empirical results of the tested model provide partial confirmation of the transaction costs predictions.

# 3.2 Analytical Framework and Hypotheses

The research model is presented in Figure 5. Three hypotheses test the effects of behavioral and environmental uncertainty, as well as transaction-specific investments, on the allocation of decision rights to franchisees. Even though transaction costs theory also considers the effect of frequency of transactions on

governance, this determinant has not been included in this research model as franchising represents a continuous relationship throughout the contract duration, and not a series of discrete repeated transactions. Frequency of transactions in that sense was therefore not taken into account.

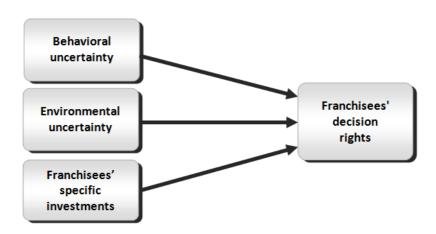


Figure 5: Transaction costs model

## 3.2.1 Behavioral Uncertainty and Decision Rights

According to the transaction cost theory, behavioral uncertainty results from various forms of dishonest behavior, such as cheating and shirking (Geyskens et al., 2006; Hennart, 1993; Rindfleisch and Heide, 1997; Sutcliffe and Zaheer, 1998). Williamson describes behavioral uncertainty as strategic non-disclosure, disguise, or distortion of information on the part of a transaction partner (1985: p.57). Some early studies that applied transaction costs theory (e.g. Anderson and Schmittlein, 1984; Anderson and Gatignon, 1986) defined this concept as the internal uncertainty that exists when a firm cannot accurately measure an agent's performance. Most of the later studies, which also associate this term with the difficulty in assessing the performance and behavior of transaction partners, use the term behavioral uncertainty

(e.g. John and Weitz, 1988; Poppo and Zenger 1998; Stump and Heide 1996). John and Weitz (1988) describe behavioral uncertainty as a situation when downstream partners have the possibility of making false claims about having faithfully executed an agreed activity. An increased risk of opportunism encourages the choice of governance structures that contain elements of hierarchy, since hierarchy entails more safeguarding mechanisms, and enables stricter control and greater evaluation capabilities (Geyskens et al., 2006). John and Weitz (1988) confirm on a sample of industrial goods manufacturers that the behavioral uncertainty of their distribution partners relates positively to the manufacturers' propensity for choosing vertical integration (hierarchy) of downstream distribution channels. In a study of the effects of different types of uncertainty on the choice to vertically integrate, Sutcliffe and Zaheer (1998) confirm a positive relationship between the behavioral uncertainty of upstream partners and vertical integration as predicted by the transaction costs theory. The authors emphasize that even screening for partners' trustworthiness and detailed specifications of contingencies in the contracts cannot completely eliminate behavioral uncertainty of transaction partners. Geyskens et al. (2006) conducted a meta-analysis of empirical studies from various disciplines and contexts that test the effect of transaction costs theory determinants on the choice between hierarchy and market. Their findings confirm transaction costs theory's prediction that behavioral uncertainty increases the tendency towards hierarchical governance modes. Finally, in the application of the transaction costs framework to explain firms' make-orcooperate decisions, Hoffmann et al. (2010) find that increased measurement difficulty regarding partners' performance significantly increases the tendency to vertically integrate instead of cooperate.

According to the previous findings and presented arguments, if a franchisor expects a higher risk of franchisee's opportunism due to the perceived inability to measure the franchisee's performance or capabilities, then the franchisor could modify the governance of the relationship to prevent or mitigate potentially detrimental behavior. In terms of decision rights' allocation, this could be reflected in tighter control over the franchisee's operational decisions. Hence, a negative relation between the franchisee's decision rights and behavioral uncertainty can be expected, which is formulated as the following hypothesis:

**Hypothesis 1:** Decision rights allocated to franchisees are negatively related to behavioral uncertainty.

# 3.2.2 Environmental Uncertainty and Decision Rights

Environmental uncertainty arises when contingencies, which characterize the context of an economic exchange, become difficult to predict and cannot be specified ex ante in the contract (Geyskens et al., 2006). According to the control view of governance (Williamson, 1975), firms increase their information-processing capacity by implementing elements of hierarchy if the coordination and control requirements increase due to environmental uncertainty. Celly and Frasier (1996) show on a sample of industrial product distributors that under high environmental uncertainty, arising due to the volatility in market demand, competition, and buyers' preferences, suppliers increase control of their channel partners' behavior as a means of safeguarding against opportunism. John and Weitz (1988) focus on business relationships between manufacturers and downstream distributors to test the effects of environmental uncertainty on the forward vertical integration of distribution

channels. Empirical data supports the transaction costs theory hypothesis regarding the positive relationship between environmental uncertainty and vertical integration. The authors suggest that authority structures facilitate more adaptive decision making and enable quicker resolution of conflicts due to the potentially different interpretation of environmental changes. Similarly, the extensive meta-analysis of transaction costs theory studies by Geyskens et al. (2006) shows that the variable of environmental uncertainty, measured similarly to the variable in this model, increases the tendency towards hierarchical governance. This relationship has been corroborated across different samples and settings in the reviewed studies.

If franchisors perceive high environmental uncertainty in terms of market volatility and demand fluctuations, a tendency toward increased control of the franchisees' activities can be expected. Specifically, a situation when franchisors face increased environmental uncertainty could exacerbate the problem of coordinating franchisees' activities. Franchisors can respond to such situations by applying a governance structure, which increases their ability to react to the volatile environment. Following the transaction costs theory, one relevant option is to impose greater control over operational decisions at the franchised outlets. Increased control over such decisions would shift a governance structure toward hierarchical governance. As argued in previous studies, hierarchical governance enhances sequential and adaptive decision making and facilitates information flows, which is particularly important when information about the external environment changes rapidly. Tighter control over franchisees' decisions could reduce the possible threat of franchisee opportunism and information asymmetry caused by an unpredictable environment. Accordingly, the following hypothesis is formulated:

**Hypothesis 2:** Decision rights allocated to franchisees are negatively related to environmental uncertainty.

# 3.2.3 Transaction-specific Investments and Decision Rights

Transaction-specific assets, tailored for a specific transaction, are difficult to redeploy or to use outside the particular transaction (Geyskens et al. 2006). Investing in transaction-specific assets therefore gives rise to the safeguarding problem, as such investments make transaction partners susceptible to opportunistic behavior. Transaction costs theory suggests that transaction-specific investments increase the partners' quasi-rents that can be expropriated by the less dependent partner (Klein, 2000; Williamson, 1985). Franchisees are required to make particular transactionspecific investments when they enter a franchise system and set up local outlets. These investments include obtaining and adapting premises, tools and equipment, specific software or computer systems, the advertising costs of launching the new business, etc. Much of the equipment and fittings is trademarked, which results in sunk costs due to the investments in such highly specific assets (Dnes, 1993). As the transaction-specific investments of franchisees increase, their quasi-rents are likely to exceed the potential hold-up gains from opportunistic behavior, creating a bonding effect. This bonding effect increases the self-enforcing range of contracts (Klein, 1995; 1996). Consequently, the hostage effect of transaction-specific investments could motivate franchisees to behave cooperatively in order to realize the relationship-specific quasi-rents (Katz, 2008; Williamson, 1983). In a case study of several UK franchise systems across different industries, Dnes (1993) confirms that franchisees' sunk investments ensure their motivation in making the local business

successful. This self-enforcing effect also saves franchisor's costs related to controlling and monitoring the franchisees, relative to managers of company-owned outlets. It can therefore be expected that specific investments by franchisees decrease the risk of opportunism, thereby reducing the franchisor's need to impose more intensive control of franchisees' actions by centralizing decision making. Hence, franchisees' decision rights should be positively related to the franchisees' transaction-specific investments. This is formulated as the following hypothesis:

**Hypothesis 3:** Decision rights allocated to franchisees are positively related to their transaction-specific investments.

# 3.3 Empirical Analysis

# 3.3.1 Data and Sample

The empirical data for this study was collected via questionnaires sent to German franchise systems. To obtain the list of all franchise systems active in Germany as well as their contact information, the directory of the German Franchise Federation (DFV) and "Franchise Wirtschaft" (a Bond's Franchise Guide type directory published in Germany) was used. The questionnaire was developed in several steps and refined and discussed in in-depth interviews with franchise experts and practitioners. These interviews also helped in assessing the face validity of the measures in the questionnaire. Finally, we conducted a pre-test with 20 franchisors in Austria. We used the key informant approach to choose the respondents for the data

collection (McKendall and Wagner III, 1997). Most of them were senior managers responsible for franchise expansion.

The questionnaires were sent to 485 relevant franchise systems. Despite a somewhat higher response rate, 137 questionnaires were usable, which corresponds to a rate of about 28%. The non-response bias was estimated by using the procedure proposed by Armstrong and Overton (1977) comparing early versus late-returned questionnaires on a number of variables from the questionnaire itself and from a selection available in 'Franchise Wirtschaft'. The analysis indicated that the non-response was not a concern, since no significant mean differences in these variables existed between questionnaires returned early and those returned late. Following Podsakoff et al. (2003), the common method bias was tested using Harman's single-factor test. The results do not point toward a presence of the common method bias.

#### 3.3.2 Measurement

#### Dependent variable

Decision rights. To measure franchisees' decision rights, franchisors were asked to assess the franchisee's influence on decisions in the following nine areas: procurement, price, product, advertising, recruitment, training, investment, finance decisions and accounting system. The strength of the franchisees' influence was assessed on a seven-point scale (1 = no influence, 7 = very high influence). A decision rights index was constructed by averaging the scale values, which range between 1 and 7. The higher the index, the higher is the franchisee's influence on residual decision making, i.e. franchisees' fraction of decision rights.

Since the dependent variable is a formative construct (an index based on formative indicators), measurement development followed a procedure suggested by Diamantopoulos and Winklhofer (2001). The first step of the index construction was a clear definition of the domain the index should capture, which is the extent of the franchisees' influence on particular operational decisions relative to the franchisor. A list of possible operational decisions was created by using the existing literature, by applying Porter's value chain concept (Porter, 1985) and by conducting exploratory discussions with franchise practitioners, as they possess practical experience concerning day-to-day operations, ensuring the content and face validity of the construct. The final set of items has to capture the whole domain of the latent construct and an excessive omission of indicators could change the composition of the construct (DeVellis, 2003; Diamantopoulos and Winklhofer, 2001; MacKenzie et al., 2005). Therefore, only non-significant and possibly redundant indicators were dropped. The validation process was conducted with the help of the AMOS software, applying the maximum likelihood method, which is theory-oriented and provides the parameter estimates that best explain the observed variances (Anderson and Gerbing, 1988). The validity was assessed by estimating a multiple indicators and multiple causes (MIMIC) model recommended by Diamantopoulos and Winklhofer (2001). MIMIC allows a simultaneous estimation of  $\gamma$  parameters and a test of the overall model fit. This procedure is often recommended as a good alternative for testing the validity of a formative construct, because it is not dependent upon the structural model and can be either an exogenous or endogenous construct. Moreover, a formative construct is not restricted by any theoretical constraints, which enables the use of the construct in future research as well (Jarvis et al., 2003). The MIMIC model

was created by using nine indicators as direct causes of the latent construct and by adding two reflective indicators which were also measured by the same questionnaire. The reflective indicators represent the level of franchisees' decision authority related to the franchisors' assessment of their overall ability to control franchisees, which should represent a manifestation of the different levels of franchisee autonomy. Model fit indicators show good and acceptable values: df = 9, root mean square error of approximation RMSEA = .001, comparative fit index CFI = .99 and goodness of fit index GFI = .903. The validity of formative indicators was also assessed by estimating correlations, the variance inflation index and tolerance to test for multicollinearity. High correlation can cause a problem as the effects of highly correlated indicators cannot be distinctly determined (Bollen, 1989) and they might actually measure the same dimension of the formative construct. All correlation coefficients were found to be positive and relatively low, indicating no problems with multicollinearity. The maximum variance inflation factor is 4.16, but 7 of 9 indicators actually have values below 1.812. All the values are far below the suggested threshold of 10 (Belsley et al., 1980; Kleinbaum et al., 1988).

### Independent variables

To develop valid and reliable reflective measures of independent variables, the procedure suggested by Churchill (1979) was followed. After defining the specific domain of each construct, items, which capture the domain, were generated from the relevant literature. Furthermore, focus groups and interviews with franchise professionals were used to refine the questionnaire and its measurement items.

The properties of the reflective latent constructs were examined in several ways. First, an exploratory factor analysis was conducted for each construct to check

for unidimensionality. Afterwards, the same procedure was run for all constructs simultaneously to check whether the same factor structure emerged. Both steps of the analysis supported the choice of the item sets. The reliability of reflective constructs was assessed by computing Cronbach's alpha estimates. To further test the reliability, the sample was split in half and the test was repeated to confirm whether the same directions and results could be obtained for both parts. The internal consistency of measurement items within a single measurement was tested by splitting the measurement items, and testing single items in regression. Internal consistency was confirmed, since items pointed in the same direction and provided results similar to those of the regression with original measures.

Behavioral uncertainty. Behavioral uncertainty arises from the inability to monitor and control the performance of local partners (Rindfleisch and Heide, 1997; Williamson, 1991). Similar to Zaheer and Venkatraman (1995) and John and Weitz (1989), behavioral uncertainty was measured by asking respondents to assess the following items on a 7-point Likert scale: difficulty to measure performance, control behavior, and assess the capabilities and competencies of the local managers (franchisees). Factor analysis confirmed the underlying construct, with all variables loading above the threshold of 0.70. Cronbach's alpha is 0.758.

Environmental uncertainty. The measure of environmental uncertainty in this study is based on Celly and Frazer (1996), and John and Weitz (1988). To measure this construct, respondents were asked to assess the following items on a 7-point Likert scale: possibility to forecast the local market development, and possibility to forecast fluctuations of outlet sales in the local market. Cronbach's alpha is 0.56, which is

relatively low. However, recent research assigns more significance in order to maximize validity rather than internal consistency (John and Benet-Martinez, 2000). According to Pedhazur and Schmelkin (1991) reliabilities above 0.5 can be viewed as acceptable under the condition of construct validity.

Franchisees' transaction-specific investments. According to the transaction cost theory, the choice of governance form is influenced by transaction-specific investments of franchisees (Klein, 1995; Williamson, 1983). In line with the findings of Dnes (1993), franchisees' transaction-specific investments were measured as the monetary value of their initial investments in tools, equipment and other fittings to set-up a local outlet, as required and instructed by franchisors. To ensure the precondition of linearity necessary for the linear regression analysis, logarithmic transformation was applied to normalize the skewed distribution.

#### Control variables

Sector. This is a dichotomous variable: 0 refers to service franchising and 1 to product franchising. Due to the difference in know-how intensity between product and services firms, the model controls for the effect of sector on the allocation of decision rights.

Size of the network. The size of the network is operationalized by the total number of outlets. From the transaction costs perspective, larger firms have a greater capacity to absorb risk and better coordination and control abilities (Erramilli and Rao, 1993). Arrunada et al. (2001) show that the size of a network (in terms of number of outlets) relates positively to the control of the franchisees' behavior, imposed through contract provisions. The reason is that larger networks have more horizontal

externalities, which can enable franchisees to earn higher quasi-rents. A negative effect of this control variable on the decision rights allocated to franchisees can therefore be expected. A summary of the measures is provided in the Appendix.

### 3.4 Results

Table 6 shows the descriptive statistics. The sample of 127 German franchise systems contains 81 "service franchising" and 46 "product franchising" systems. The decision rights index has a minimum value of 2.25 and a maximum of 7. The closer the index value is to 7, the stronger the franchisees' influence on operational decisions. A mean of 5.13 indicates a relatively strong influence of franchisees on the analyzed decisions.

Table 6: Descriptive statistics

VARIABLE	N	Mean	Std. Dev.
Sector	127		
Product franchising	46		
Service franchising	81		
Size	118	155.84	328.42
Franchisees' specific investments	114	130,942.0	22,819.0
Decision rights index	127	5.13	0.10
Behavioral uncertainty			
Measurement of performance	127	3.33	.140
Control of behavior	127	4.20	.136
Assessment of capabilities	127	3.35	.139
Environmental uncertainty			
Market development predictions	127	3.78	.145
Outlet sales predictions	127	4.01	.160

The descriptive statistics regarding the components of the dependent variable (decision rights-index) are presented in Table 7. The values from 1 to 7 represent the extent to which franchisees have influence on a particular decision (1 = no influence on the decision; 7 = very high influence on the decision). Generally, the mean values which are below 5.00 correspond to the decisions regarding suppliers, product, equipment and inventory procurement, innovation of products/services and controlling system. These decisions are closely related to the business concept (e.g. which product to offer, which inventory or equipment to use to ensure the quality level, which suppliers will provide final or intermediate products and which controlling system to use). On the other hand, the decisions in areas such as recruitment, employee' training, advertising and price setting, as well as investments and financing, are under a stronger influence of the franchisees. This may indicate

that franchisees' local market knowledge and managerial capabilities play a more important role for these decisions.

Table 7: Descriptive statistics for decision rights

Decision	N	Mean	Std. Dev.
Investment decisions	124	5.65	1.664
Financing decisions	125	5.64	1.802
Supplier decisions	126	4.33	1.971
Recruiting decisions	127	6.16	1.692
Employee training decisions	127	5.54	1.703
Product/ service decisions	127	4.86	1.910
Price decisions	126	5.30	1.869
Advertising decisions	127	5.56	1.395
Controlling system	126	4.69	1.982

Table 8 shows the correlations between the variables used in the regression analysis. None of the correlations appear to be large enough to cause concern about multicollinearity (Hair et al., 1998).

Table 8: Correlations between regression variables

Variable	1	2	3	4	5	6
1. Decision rights	1					
2. Sector	.038	1				
3. Size	.160	.053	1			
4. Behavioral uncertainty	.370**	045	.071	1		
5. Environmental uncertainty	085	102	.014	.129	1	
6. Franchisees' specific investment	.021	011	.088	.061	313**	1

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

## 3.4.1 Regression Results

To test the transaction cost theory hypotheses, the following regression equation was estimated:

Decision Rights (DR) =  $\alpha$  +  $\beta_1$ Behavioral Uncertainty +  $\beta_2$  Environmental Uncertainty +  $\beta_3$  Transaction-specific investments +  $\beta_4$  Sector +  $\beta_5$  Network size

Table 9 shows the results of the regression analysis. In Model 1, only the control variables of sector (service or product franchising) and size (number of franchised and company-owned outlets) are included. Results indicate that the control variables have no significant effects on the allocation of decision rights. Model 2 includes behavioral uncertainty, environmental uncertainty and franchisees' transaction-specific investments, and tests the effects of these factors on the franchisees' decision rights.

Table 9: Regression results

Depender	nt variable: DR index	Model 1	Model 2	
Control v	ariables			
	Constant	<b>5.190</b> *** (0.136)	<b>5.141</b> *** (0.133)	
	Sector	+ 0.032 (0.220)	+ 0.096 (0.212)	
	Size	+ 0.154 (0.000)	+ 0.117 (0.000)	
TC Varia	bles			
H1a/b	Behavioral uncertainty		+ <b>0.424</b> *** (0.102)	
H2 a/b	Environmental uncertainty		<b>- 0.177*</b> (0.112)	
H3 a/b	Franchisees' specific investments		+ 0.102 (0.113)	
	N	116	101	
	F-test	1.518	6.055***	
	R <sup>2</sup>	0.026	0.240	
	Adjusted R <sup>2</sup>	0.009	0.200	

Standardized regression coefficients are reported. \*\*\* p < .01; \*\* p < .05; \*p < .1 Standard errors in parentheses

Behavioral uncertainty has a positive and strongly significant influence on the delegation of decision rights ( $\beta = 0.424$ ; p < 0.01). Although the coefficient is significant, this result does not confirm Hypothesis 1, i.e. the predictions of transaction cost theory. A positive sign of the coefficient implies that franchisors delegate more decision rights when they encounter difficulties in measuring franchisees' performance and in controlling their behavior. This result is compatible with the incentive view of delegation (Aghion and Tirole, 1997). Under higher behavioral uncertainty, franchisors provide more incentives by delegation of operational decisions. The negative coefficient of environmental uncertainty is slightly supportive of Hypothesis 2 ( $\beta = -0.177$ ; p < 0.10). This result confirms that

franchisors tend to centralize decision making when perceived external uncertainty increases. As expected, the coefficient of initial investments, representing the effect of franchisee's transaction-specific investments on the allocation of decision rights, has a positive sign. However, the coefficient is not significant, and thus Hypothesis 3 could not be confirmed.

## 3.4.2 Post Hoc Test: Disaggregated Decision Rights

In the next step of analysis, the impact of transaction cost determinants is tested on disaggregated decision rights. Disaggregation of decisions was done according to the major value chain activities at the outlet: advertising, price, product, procurement, human resources management, investment and accounting system. For example, the human resource management variable represents the mean value of recruiting decisions and employee training decisions. The same procedure was applied to construct the investment decision variable (investment and financing decisions). Table 10 presents the regression results.

The results show that the positive effect of behavioral uncertainty is stable across all dependent variables. The standardized regression coefficients show similar levels as well. In general, this confirms a highly significant positive effect, tested for the aggregated decision right variable. The environmental uncertainty effect has a significant negative influence on the decisions concerning suppliers ( $\beta$  = -0.186, p < 0.10) and controlling system ( $\beta$  = -0.218, p < 0.05). All other signs, except those of investment decisions, are also negative as predicted, but none are statistically significant. This result could imply that franchisors centralize decisions regarding the

controlling system when they perceive demand and volume uncertainty, which is actually a tool for direct monitoring of outputs and results, and indirectly also of franchisees' behavior.

The variable of transaction-specific investments has a negative coefficient with regard to its influence on advertising decisions. Contrary to the prediction made in Hypothesis 3, the sign is negative. However, a non-significant F-statistic, which indicates a non-significant regression model, makes the interpretation of this result unnecessary. The disaggregation of decision rights has in general provided better insight into the decision structure in franchising networks. The results generally imply that franchisors may treat particular decisions differently. The explanation provided by the transaction cost model may reveal a general tendency, but it is evident that the decision rights structure could also be quite heterogeneous.

Table 10: Regression results for disaggregated decision rights

·	Decision rights						
	Product	Price	Advertising	Suppliers	HRM	Investment	Controlling system
Constant	4.782*** (0.133)	5.067*** (0.292)	5.498*** (0.213)	4.120*** (0.296)	5.617*** (0.222)	5.676*** (0.251)	4.684*** (0.287)
Control variables							
Sector	+ 0.017 (0.392)	+ 0.044 (0.388)	+ 0.061 (0.281)	+ 0.083 (0.333)	+ 0.124 (0.293)	+ 0.038 (0.333)	+ 0.102 (0.377)
Size	+ 0.116 (0.001)	+ 0.036 (0.001)	+ 0.112 (0.000)	+ 0.093 (0.001)	+ 0.101 (0.000)	+ 0.016 (0.000)	+ 0.113 (0.001)
Main effects							
Behavioral uncertainty	+ 0.231** (0.188)	+ 0.296*** (0.187)	+ 0.200** (0.135)	+ 0.248** (0.188)	+ 0.269*** (0.141)	+ 0.376*** (0.159)	+ 0.264*** (0.183)
Environmental uncertainty	- 0.117 (0.207)	- 0.157 (0.206)	- 0.144 (0.149)	- 0.186* (0.206)	- 0.108 (0.155)	+ 0.003 (0.110)	- 0.218** (0.199)
Franchisees' specific investments	- 0.069 (0.112)	0.015 (0.000)	- 0.077* (0.000)	0.009 (0.000)	- 0.051 (0.000)	- 0.124 (0.000)	- 0.153 (0.000)
N	103	102	103	102	103	101	102
F-test	1.727	2.624**	1.656	2.553**	2.463**	3.345***	3.200***
R²	0.081	0.119	0.078	0.116	0.112	0.148	0.142
Adjusted R <sup>2</sup>	0.034	0.074	0.031	0.071	0.066	0.104	0.097

Standardized regression coefficients are reported. \*\*\* p< .01; \*\* p < .05; \*p < .1; Standard errors in parentheses

#### 3.5 Discussion

The present study applies a transaction cost model to explain the allocation of decision rights in franchising. Empirical results from the German franchise sector provide partial support for transaction cost hypotheses. Consistent with transaction costs theory and the findings of previous empirical studies, a franchisee's influence on operational decisions decreases with environmental uncertainty. Specifically, when franchisors perceive higher environmental uncertainty in terms of market and demand volatility, they centralize decision making and allow for less influence on operational decisions on the part of franchisees. In the event of environmental uncertainty, franchisors encounter difficulties in interpreting external information and predicting future contingencies. This gives rise to information asymmetry and may become a fruitful ground for opportunistic behavior of franchisees. The effect of behavioral uncertainty on the allocation of decision rights is positive, which is contrary to the prediction of transaction cost theory. Instead of tightening control when perceiving behavioral uncertainty, franchisors seem to grant franchisees greater influence over operational decisions.

An explanation for this result can be found in the incentive view of delegation discussed by Aghion and Tirole (1997). By analyzing the incentive effect of delegation in the context of principal-agent relationships, they show that the delegation of decision rights increases agents' incentive to search for and process the information necessary to choose a project. If principals delegate decision authority which is relatively more important to the agent, then they facilitate the agent's participation in the relationship. Accordingly, in a situation of high behavioral

uncertainty, a franchisor may provide incentives and facilitate the franchisee's participation by delegating relevant decision authority instead of tightening control. This result is also consistent with arguments from agency theory, which justifies the use of incentive mechanisms to reduce one-sided moral hazards arising from the franchisor's inability to observe the franchisee's behavior (Lafontaine, 1992).

## 3.5.1 Implications for Research and Practice

The results of the present study have some important implications for both researchers and franchisors. First, complementary to the agency-theoretical and property rights perspectives, already applied in previous studies on allocation of decision rights in franchising, the present study shows that transaction cost theory can also provide some explanations for this phenomenon. Franchise managers seem to react to uncertain market conditions by increasing centralization of decision making. Application of transaction cost theory could further be applied in order to better understand the design of franchise contracts and the allocation of specific decision rights. However, in terms of theory development, the empirical results of this study provide only partial support for transaction cost hypotheses in the context of franchising. Further investigation would be necessary to corroborate these findings and test the explanatory power of this theory in the context of franchising.

A positive relation between behavioral uncertainty and franchisees' decision rights indicates that decision rights can also be used as incentives for franchisees and points to the incentive view of delegation. From a managerial perspective, the presented results could increase awareness of the fact that franchisees can have considerable influence on particular decisions regardless of contractual specifications.

Special attention should therefore be paid to formulating an appropriate informal governance of the system, as it affects franchisees' motivation and incentives to maximize system performance. A normative implication for the franchise managers could be to understand decision rights as incentives and eventually delegate a higher fraction of decision rights to franchisees when measurement and control problems arise. Delegation of decision rights can provide incentives for franchisees and increase their motivation.

#### 3.5.2 Limitations

Finally, these results should also be viewed in the light of some important limitations: Although the test of transaction cost theory provides some interesting results, only 24 percent of the variance of the decision rights index could be explained by the model. This indicates that there are other variables, not included in this model, that influence the allocation of decision rights to franchisees. Integration of different theoretical views in a single model could be an important line of inquiry for future research.

Results related to behavioral uncertainty indicate that the incentive view of delegation could be an interesting framework for investigating the allocation of decision rights and their effect on franchisees' performance. Furthermore, inclusion of relational governance variables or resource-based variables could provide some additional explanation. Relational governance variables, such as trust, have already been integrated in transaction cost models, and applied in different contexts (e.g. Gulati, 1995; Gulati and Nickerson, 2008; Poppo and Zenger, 2002; Zaheer and

Venkatraman, 1995), providing evidence of the importance of that dimension in business transactions.

Another fruitful research avenue is the inclusion of resource-based and capability-related determinants. According to resource scarcity and capability theory (e.g. Barney, 1991; Combs et al., 2004; Erramilli et al., 2002; Mayer and Salomon, 2006; Rindfleisch et al., 2011; Thompson, 1994), formal governance through allocation of decision rights aims at increasing the franchise system's governance capabilities and hence its competitive advantage (i.e. strategic rents) by efficiently exploiting the firm-specific resources, such as the franchisor's brand name and system-specific resources as well as the franchisees' intangible local market resources.

The result regarding the effect of environmental uncertainty, which confirmed the transaction cost theory prediction, should be cautiously interpreted in the context of transaction cost research and theory application. The conceptualization of this construct has been rather heterogeneous in empirical transaction cost literature. For instance, Gatignon and Anderson (1988) defined environmental uncertainty as a form of country risk. Some other studies conceptualize environmental uncertainty in the context of technological uncertainty, which refers to the inability to accurately predict technological requirements in the relationship (e.g. Heide and John, 1990; Hoffmann et al., 2010; Stump and Heide, 1996). A test of different dimensions of environmental uncertainty could therefore represent another research direction, which would advance the understanding of uncertainty and consequently of transaction cost theory.

Finally, this study examines the impact of transaction cost variables on decision rights without investigating the consequences on performance. Information

about the impact of decision rights on firm performance is very important for both researchers and practitioners. Future studies should, therefore, examine the relationship between the allocation of decision rights and the performance of the franchise systems.

# 4. The Moderating Role of Trust on Decision Rights Allocation in Franchising

#### 4.1 Introduction

Trust is one of the basic dimensions in any human interaction (Gambetta, 1988). Trust has been a subject of research in a wide array of disciplines such as social psychology, philosophy, economics, contract law, marketing, and business research. In the context of economic exchange, trust is often defined as the expectation that a partner will not engage in opportunistic behavior, even in the face of tempting short-term incentives (Mayer et al., 1995).

The traditional transaction cost literature has neglected the impact of trust on inter-firm governance (Williamson, 1975; 1985) as this theory primarily focuses on transaction cost effects of environmental uncertainty, behavioral uncertainty and transaction-specific investments. However, Williamson acknowledged in a later study (1991) that trust functions as a shift parameter by influencing the comparative cost of governance, and business persons rely on trust much more than initially assumed.

The notion that transactions are embedded in social relations has been advanced by the relational governance and embeddedness views, which suggest that firms and individuals within the firms are strongly affected by social relations (Granovetter, 1985; Macneil, 1980; Poppo and Zenger, 2002) and that the exchange develops bonding and generates trust (Nooteboom, 1996). Macneil (1980) set out the

foundations of the relational contract theory, which puts emphasis on the relational dimension of contractual relationships in the form of common norms of behavior. These norms, such as contractual solidarity, trust, flexibility, information exchange, as well as the share of benefits and burdens promote cooperation and the preservation of relationships and greatly affect the behavior of the transacting parties. Furthermore, Macneil also draws attention to extensive inter-firm contracts between large, legally independent firms, which involve substantial investments in transaction-specific assets. He argues that such large corporations are very complex and cannot be efficiently governed only by contracts specified ex ante. Rather, such undertakings can be successfully governed if the parties adopt a cooperative attitude and have mutual trust.

Granovetter (1985) develops the argument of social embeddedness by analyzing the problem of trust and malfeasance. He illustrates how transaction cost theory and the social embeddedness view, due to their different assumptions, can generate opposite predictions regarding the behavior of economic actors and the firm's choice of governance. Embeddedness of economic exchange in social structures generates trust and discourages misconduct and opportunism, which may damage reputation and discourage future transactions. The author concludes that the sociological and relational aspects of economic activity must be taken into account in business research. Heide and John (1992) analyze purchasing relationships between manufacturers and suppliers from the transaction cost theory perspective and include the effect of relational norms. They show that transaction cost theory has limits in predicting the governance choice if relational norms are not included in the analysis, as they facilitate the implementation of the desired governance structure. The authors

also suggest that relational norms protect against the abuse of control by a transaction partner. Poppo and Zenger (2002) show that formal contracts and relational norms (e.g. open communication, information sharing, trust, dependence and cooperation) complement each other.

Grounded in the arguments above, the application of the transaction cost framework, extended by relational variables to analyze the governance of inter-firm alliances, has rapidly expanded in the past few decades. Trust has been one of the most frequently used relational variables in such studies (e.g. Bradach and Eccles, 1989; Gulati, 1995; Chiles and McMakin, 1996; Hoffmann et al., 2010; Lui and Ngo, 2004; Mellewigt et al., 2007; Noteboom 1996; Ryu et al., 2008; Zaheer and Venkatraman, 1995). Gulati (1995) analyzed the choice between equity and nonequity alliances in a sample of over 2,400 inter-firm alliances across different sectors. Empirical results confirm that firms tend to choose looser governance structures with less control as they build confidence in their partners. The study stresses the importance of incorporating the social context dimension between exchange partners in the analytical framework of transaction cost theory. Zaheer and Venkatraman (1995) extend the transaction cost model by including trust to examine the choice of vertical control strategy in the context of insurance industry partnerships. Empirical results indicate that combining trust with the transaction cost framework significantly increased the percentage of variance explained, which largely supports the argument for inclusion of relational variables in the transaction cost framework in order to increase the predictive power of the theory. Finally, studies also show that higher trust exists in closer relationships between analyzed agencies and their carriers.

Chiles and McMakin (1996) develop several propositions regarding the choice of governance structure by integrating risk preference, trust and transaction cost determinants. They argue that including trust in the transaction cost framework increases the predictive power of the model. Bradach and Eccles (1989) suggest that, complementary to the static view of transaction cost theory, which considers each transaction independently, the inclusion of trust gives a dynamic view of relationships. Trust arises as relationships between transaction parties evolve, serving as a powerful control mechanism that reduces the threat of opportunism and the need for formal governance. The authors emphasize the importance of considering trust in analyzing hybrid governance structures such as franchising. Recently, Gulati and Nickerson (2008) analyzed how pre-existing trust influences the choice of governance and exchange performance. Results indicate that trust may function as a substitute for other governance modes, allowing for less formal control, and that it has a complementary effect on exchange performance as it reduces conflict and the costs of conflict resolution.

Most of the reviewed studies analyze trust as a main effect within the transaction cost framework. The role of trust as a moderator has, however, received much less attention (for exceptions<sup>6</sup> see Dekker, 2004; Hoffmann et al., 2010; Lui and Ngo, 2004; Mellewigt et al., 2007; Ryu et al., 2008). Lui and Ngo (2004) analyze architect-contractor partnerships by extending the transaction cost model with trust as an alternative control mechanism. The moderating effect of trust on the relationship between contractual safeguards and cooperative outcomes was confirmed. In a case

<sup>&</sup>lt;sup>6</sup>For a review of papers from different disciplines which examine trust as a moderator, see the literature review by Dirks and Ferrin (2001).

study of buyer-supplier strategic alliances, Dekker (2004) shows that goodwill trust weakens the association between transaction hazards and use of formal control. Mellewigt et al. (2007) confirm the moderating influence of trust on the relationship between asset specificity and contractual complexity. Their study emphasizes trust's mitigating effect on opportunism, showing that trust also reduces contractual complexity as a control device. Ryu et al. (2008) test the moderating effect of trust in the relationship between environmental uncertainty and the propensity for vertical control in buyer-supplier relationships. Results indicate that firms tend to loosen vertical control when they trust their exchange partners. Finally, Hoffmann et al. (2010) analyze the role of trust in firms' decisions to vertically integrate or cooperate. Both an opportunism-mitigating effect of trust that lowers transaction costs, and an opportunism-independent effect that increases the transaction value of the cooperation, were confirmed.

To summarize, the outlined studies confirm the extensive importance and benefits of trust for the governance of economic transactions and present arguments which speak for the integration of trust in the transaction cost model. An important benefit of trust is its opportunism-reducing effect, based on the expectations of mutuality of interest, which contradicts the discrete norm of opportunism suggested by transaction cost theory. Trust in inter-firm alliances also lowers transaction costs, such as specification costs, monitoring costs and enforcement costs, because it makes partners more aware of the rules, routines and procedures that have to be followed, making interaction run more smoothly. When it comes to the generality of the transaction cost framework, empirical studies also show that integrating trust into the

framework increases its explanatory power and its ability to predict the governance choice in inter-firm alliances.

Despite the large number of studies on trust in the context of inter-firm alliances, few studies explicitly investigate the role of trust in franchising (with the exception of Cochet et al., 2008; Croonen, 2010; Davies et al., 2011; Dickey et al., 2007). Dickey et al. (2007) investigate the influence of trust on franchisees' behavior and attitudes toward their franchisor. They argue that trust plays a critical role in reducing franchisees' opportunistic behavior in areas that are not covered by the contract. Based on a sample of US franchisees, they demonstrate that franchisees' trust in franchisors does reduce opportunistic non-compliance. Trust facilitates franchisees' positive attitudes such as satisfaction and perceived franchisor-franchisee relationship quality. The authors also show that trust in the franchisor's competence reduces the number of implemented innovations not approved by franchisors, which is also considered as a form of opportunistic behavior. Cochet et al. (2008) analyze franchisors' reliance on relational governance mechanisms (including trust) to attenuate agency problems arising from franchisee autonomy. The authors define relational governance through three main dimensions - harmonization of conflict, cooperation and trust. Based on a sample of 208 franchisor-franchisee dyads from the German franchise sector, they show that franchise firms use relational governance to counterbalance their loss of control associated with allocation of decision autonomy to individual franchisees. Distinguishing between three levels of franchisees' trust: personal trust, franchise system trust and institution-based trust; Croonen (2010) tests its effects on the strategic change process in franchise systems. Results suggest that franchisors should implement distributive, procedural or interactional fairness to generate and maintain franchisees' trust. Negative consequences, if franchisees perceive distrust or unfairness, can be franchisees' resistance or destructive responses in regard to change processes. Davies et al. (2011) examine how two distinct forms of trust, trust based on franchisor integrity and franchisor competence, are affected by franchisees' level of conflict and satisfaction with their franchisor, and how these trust dimensions influence franchisees' compliance. The findings confirm that both the level of satisfaction and conflict jointly determine the overall level of franchisee trust. In particular, increased conflict reduces the level of trust, which consequently reduces the franchisee's compliance.

The present study aims to extend both the existing literature dealing with trust in inter-firm alliances, and that which analyzes trust in franchising. Contrary to previous studies focusing on the influence of trust on franchisee compliance and performance, the present study aims to analyze its effects on the allocation of decision rights. The other contribution is to extend the literature on trust in inter-firm alliances (Gulati, 1995; Chiles and McMakin, 1996; Hoffmann et al., 2010; Lui and Ngo, 2004; Mellewigt et al., 2007; Noteboom 1996; Ryu et al., 2008; Zaheer and Venkatraman, 1995). As an extension to this literature, franchising is an interesting context, as it represents a type of recurrent, continuous relationships, thus providing an important context for the emergence of trust (Gulati, 1995; Gulati and Sytch, 2008).

## 4.2 Analytical Framework and Hypotheses

According to transaction cost theory, franchisors are expected to structure their decision making to minimize transaction costs. Due to its opportunism-mitigating effect, trust is expected to have a moderating effect on the relations between transaction cost variables and franchisees' decision authority. The moderating effect on each relation is represented by the dotted line in Figure 6.

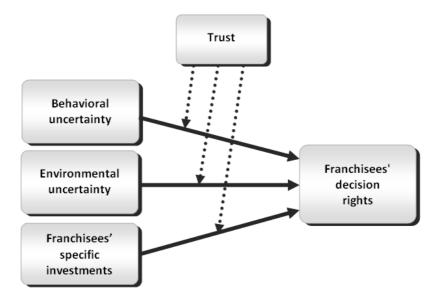


Figure 6: Extended transaction cost model

Trust is an exogenous variable. It represents franchisors' confidence in the reliability and integrity of their franchisees, and is a product of their experience and past interaction with these partners (e.g. Seppänen et al. 2007). Trust is based on the franchisor's perception of the franchisee's openness, honesty and readiness to share information. Under the influence of trust, the negative effect of behavioral and

environmental uncertainty is expected to be weaker, whereas the bonding effect of specific investments should be reinforced if franchisors perceive franchisees as trustworthy. The hypotheses regarding these expected moderating effects are presented in the next section.

## 4.2.1 Behavioral Uncertainty and Trust

As described more extensively in Chapter 3, transaction cost theory sees behavioral uncertainty as a problem of accurately monitoring the contractual performance of an exchange partner (Williamson, 1985). Behavioral uncertainty increases the risk of opportunism as it provides more room for dishonest and detrimental behaviors like cheating, shirking or distortion of information. In an application of the transaction cost model to explain firms' make-or-cooperate decisions, Hoffmann et al. (2010) analyze the moderating effect of trust on the relation between performance measurement difficulties and vertical integration. The authors use the concept of measurement difficulty as a definition of behavioral uncertainty. Trust is conceptualized as a perception arising from previous interactions and experience with the transaction partner. Empirical results confirm the moderating effect of trust on the probability to vertically integrate, i.e. to choose a high control governance model due to high behavioral uncertainty. The prevalence of trust lowers the fear of opportunistic behavior by the other partner, resulting in a tendency to decrease monitoring and control. In general, results confirm both the opportunismmitigating effect of trust that lowers transaction costs, and the opportunismindependent effect of trust that increases the transaction value of the cooperation.

This expectation supports the arguments of Dirks and Ferrin (2001) who describe the effects of trust on attitudes, perceptions, behaviors and performance, by analyzing trust both as a main effect and as a moderator. In the analysis of trust as a moderator, they suggest that trust helps individuals to interpret the past and assess the future behavior of another party. When the partner's actions are uncertain and somewhat ambiguous, trust reduces ambiguity via interpretation, shaping the perception of the partner's actions and thus the response to these actions.

Similar to these findings, it can be expected of franchisors to act in a similar way if they fear opportunistic behavior due to behavioral uncertainty. Specifically, if they perceive increased uncertainty regarding the franchisee's performance, competences and behavior, they are expected to impose stronger control over the franchisee's actions by centralizing decision making (see Chapter 3 for a thorough discussion of this main effect). However, if franchisors perceive franchisees as trustworthy, the perceived threat of opportunism is lower and franchisors have more confidence in franchisees' good intentions and fulfillment of their responsibilities. Trustworthy franchisees are expected to act in an open and honest manner and share information with their franchisors readily, which weakens the negative effect of uncertainty. Consequently, they require less control and are expected to have greater decision rights authority. In summary, if there is a high level of trust, the franchisor's need for hierarchical control through centralization of decision making will be lower. This is formulated as the following hypothesis:

**Hypothesis 1:** Trust weakens the negative relationship between behavioral uncertainty and the decision rights allocated to franchisees.

## 4.2.2 Environmental Uncertainty and Trust

Similar to the effect of behavioral uncertainty, the variable of environmental uncertainty also increases coordination requirements and fear of opportunism, resulting in the choice of a higher control mode, relative to the situation when such uncertainty is low. In the context of supplier-manufacturer dyads, Ryu et al. (2008) test the moderating role of trust on the relationship between environmental uncertainty and the propensity for choosing integration, i.e. vertical control. The applied concept of trust is similar to the concept of goodwill trust, referring to the partner's good intentions, sincerity and readiness to keep promises. Environmental uncertainty captures the uncertainties regarding market volume or prices, which are aspects of the external environment similar to the one used in this study. Empirical results confirm that trust plays a moderating role in the relationship between manufacturers' perception of environmental uncertainty and their propensity to control their suppliers. If manufacturers trust their suppliers, i.e. have confidence that their suppliers will not take advantage of an uncertain environment to act opportunistically, then the implementation of tighter control is regarded as unnecessary. This result is associated with the fact that trust reduces transaction costs, as tighter control would also require additional resources. Finally, the study shows that trust also increases satisfaction with the partner's behavior and performance.

Under conditions of high trust, a weaker negative effect of environmental uncertainty in the delegation of decision rights can be expected in franchising as well.

Trust is expected to reduce the perceived threat of franchisees' opportunism and to

facilitate information exchange and open communication between partners. This is especially important in situations of environmental uncertainty, as such conditions increase information asymmetry and also the difficulty of interpreting market information. If franchisors trust their franchisees, they are expected to rely more on their decisions in the situation of environmental uncertainty. This expectation is summarized by the following hypothesis:

**Hypothesis 2**: Trust weakens the negative relationship between environmental uncertainty and the decision rights allocated to franchisees.

## 4.2.3 Transaction-specific Investments and Trust

As suggested by transaction cost theory, investing in transaction-specific assets gives rise to the safeguarding problem, since such investments make one transaction partner susceptible to the other partner's opportunistic behavior. However, as discussed in Chapter 3, much of the franchisees' specific investments are actually sunk costs (Dnes, 1993), which creates a bonding effect and motivates partners to behave cooperatively in order to realize the relationship-specific quasi-rents (Katz, 2008; Williamson, 1983). As a consequence, the size of initial investments affects the franchisor's control over operational decisions. In the presence of trust, this positive effect of franchisees' specific investments on franchisees' decision authority is expected to be even stronger due to the bonding effect. In other words, trust should positively moderate the effect of transaction-specific investments on the allocation of decision rights to franchisees. This is formulated as the following hypothesis:

**Hypothesis 3:** Trust strengthens the positive relationship between transaction-specific investments and the decision rights allocated to franchisees.

## 4.3 Empirical Analysis

Empirical data for the present study was collected from German franchise systems via a questionnaire. The questionnaire was developed in several steps, refined and discussed in in-depth interviews with franchise experts and practitioners. The key informant approach was used to choose the respondents for data collection (McKendall and Wagner III, 1997). Most of them were senior managers responsible for franchise expansion. The questionnaires were sent to 485 relevant franchise systems. Despite a somewhat higher response rate, 137 questionnaires were usable for the analysis, which corresponds to a rate of about 28%. The non-response bias was estimated by comparing early versus late respondents (Armstrong and Overton, 1977). Furthermore, the respondents were also compared regarding their age, size, advertising fees and royalties to determine whether non-response was a problem for the data, because these variables were available in "Franchise Wirtschaft".

#### 4.3.1 Measurement

The model analyzed in this Chapter contains the same main effects and the same dependent variable as the transaction cost model presented in Chapter 3, Section

3.3.2. Therefore, this Chapter goes on to describe the measurement without describing the measurement development procedure.

### Dependent variable

Decision rights. To measure franchisees' decision rights, franchisors were asked to assess franchisees' influence on decisions in the following nine areas: procurement, price, product, advertising, recruitment, training, investment, finance decisions and accounting system. The strength of franchisees' influence was assessed on a seven-point scale (1 = no influence, 7 = very high influence). A decision index was constructed by averaging the scale values ranging from 1 to 7. The higher the index, the higher the franchisee's influence on residual decision making, i.e. on the franchisees' fraction of decision rights.

### Independent variables

Trust. The concept of trust, as defined in the present study, refers to the confidence that franchisors have in the reliability and integrity of their network partners (e.g. Seppänen at al. 2007). Specifically, trust was measured by asking franchisors to assess the following items on a 7-point Likert scale: level of confidence in their franchise partners, atmosphere of openness and honesty with their partners, readiness of franchisees to cooperate when they are trusted, and trustworthiness of their franchise partners. All factor loadings exceeded the threshold of 0.70. Reliability analysis was assessed by Cronbach's alpha (0.87).

*Behavioral uncertainty*. Behavioral uncertainty arises from the inability to monitor and control the performance of local partners (Rindfleisch and Heide, 1997; Williamson, 1991). Similar to Zaheer and Venkatraman (1995) and John and Weitz

(1989), behavioral uncertainty was measured by asking respondents to assess the following items on a 7-point Likert scale: difficulty to measure performance, control behavior, and assess capabilities and competencies of local managers (franchisees). Factor analysis confirmed the underlying construct, with all variables loading above the threshold of 0.70. Cronbach's alpha is 0.758.

Environmental uncertainty. The measure of environmental uncertainty used in this study is based on Celly and Frazier (1996) and John and Weitz (1988). To measure this construct, respondents were asked to assess the following items on a 7-point Likert scale: possibility to forecast local market development, and possibility to forecast fluctuations of outlet sales in the local market. Cronbach's alpha is 0.56, which is relatively low. However, recent research assigns more significance to maximize validity rather than internal consistency (John and Benet-Martinez, 2000). According to Pedhazur and Schmelkin (1991), reliabilities above 0.5 can be viewed as acceptable under the condition of construct validity.

Franchisees' transaction-specific investments. According to transaction cost theory, the governance form is influenced by transaction-specific investments of franchisees (Klein 1995; Williamson 1983). The natural logarithm of franchisees' initial investments represents franchisees' transaction-specific investments.

#### **Control Variables**

Sector. Due to the differences in know-how intensity between product and services firms, this variable controls whether sector has any influence on the allocation of decision rights. Previous studies have shown, that service franchise systems may require higher decision authority of franchisees than the retail franchise systems,

because more intangible and specific knowledge might be necessary to provide a service (Lopez-Fernandez and Lopez-Bayon, 2011).

*Network size*. The size of the network is operationalized by the total number of outlets. From the transaction cost point of view, larger franchise firms have a greater capacity to absorb risk and better coordination and control capabilities (Erramilli and Rao, 1993). Therefore, larger firms can realize economies of scale in coordination and monitoring, thereby increasing control over operational decisions.

#### 4.4 Results

The sample of German franchise systems contains 81 "service franchising" and 46 "product franchising" systems. Table 11 presents the descriptive statistics. The descriptive statistics of the trust components reveal that franchisors generally have a relatively high degree of trust in their franchisees.

Table 11: Descriptive statistics

VARIABLE	N	Mean	Std. Dev.
Sector	127		
Product franchising	46		
Service franchising	81		
Size	118	155.84	328.42
Franchisees' specific investments	114	130,942	22,819.0
DR Index	127	5.13	0.10
Behavioral uncertainty			
Measurement of performance	127	3.33	.140
Control of behavior	127	4.20	.136
Assessment of capabilities	127	3.35	.139
Environmental uncertainty			
Market development predictions	127	3.78	.145
Outlet sales predictions	127	4.01	.160
Trust			
Cooperation on partnership basis	127	6.10	.094
Information exchange between partners	127	5.38	.124
Existence of trust between partners	127	5.83	.099
Openness and honesty between partners	127	5.87	.097

Table 12 presents the correlations between the variables used in the regression analysis.

Table 12: Correlations between regression variables

Variable	1	2	3	4	5	6	7
1. Decision rights	1						
2. Sector	.038	1					
3. Size	.160	.053	1				
4. Behavioral uncertainty	.370**	045	.071	1			
5. Environmental uncertainty	085	102	.014	.129	1		
6. Franchisees' specific investment	.021	011	.088	.061	313**	1	
7. Trust	.357**	.096	.045	056	365**	.056	1

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

None of the correlations seem to be high enough to cause concern about multicollinearity (Hair et al., 1995).

#### 4.4.1 Regression Results

To test the moderating effects of trust, moderated regression analysis (MRA) was applied (Sharma et al., 1981). The scores of the main effects were mean-centered to avoid problems of multicollinearity. The correlations between the interaction terms and the centered main effect variables do not indicate any problems with multicollinearity. In addition, all VIF values in the model were below the cut-off value of 10, further indicating no problem with multi-collinearity (Belsley et al., 1980).

Model 2 shows the main effects without interactions, whereas the moderating effect of trust is tested in Models 3 to 6. Results are shown in Table 13. The coefficients in Model 1 show that the control variables have no significant effect on the allocation of decision rights. Model 2 tests the first-order effects on the franchisee's portion of decision rights. The results regarding direct effect of only transaction cost variables (excluding the main effect of trust) are described in detail in Chapter 3. Model 3 tests the moderating effect of trust on the relationship between behavioral uncertainty and decision rights allocated to franchisees. Hypothesis 1 predicts the negative relationship between behavioral uncertainty and franchisees' share of decision rights to be weakened under high trust. The interaction coefficient is negative and significant ( $\beta = -0.200$ , p < 0.05), indicating that trust as an implicit bond weakens the positive impact of behavioral uncertainty on the delegation of decision rights. The original transaction cost hypothesis predicts a negative relation

between these variables. The positive sign implies the use of decision rights as incentives when the perception of behavioral uncertainty increases. The result regarding the moderating effect of trust indicates that when there is high behavioral uncertainty, franchisors have less need to delegate decision rights as formal incentives, and that trust seems to be functioning as a substitute for this incentive mechanism. Furthermore, the results show that both direct effects –behavioral uncertainty and trust, and their interaction term– are statistically significant. Hence, trust is not only a moderator, it also affects the delegation of decision making to franchisees directly.

Table 13: Regression results

	Model					
Dependent variable: DR index	1	2	3	4	5	6
Constant	5.190*** (0.136)	5.271*** (0.102)	5.262*** (0.090)	5.352*** (0.091)	5.270*** (0.092)	5.360*** (0.088)
Control variables						
Sector	+0.032 (0.220)	+ 0.071 (0.212)	+ 0.094 (0.189)	+ 0.115 (0.089)	+0.065 (0.093)	+ 0.115 (0.086)
Size	+ 0.154 (0.000)	+ 0.094 (0.001)	+ 0.102 (0.088)	+0.098 (0.085)	+ 0.093 (0.090)	+ 0.102 (0.082)
Main effects						
Behavioral uncertainty		+ 0.449** (0.102)	+ 0.504*** (0.096)	+ 0.542*** (0.094)	+ 0.437*** (0.096)	+ 0.550*** (0.092)
Environmental uncertainty		- 0.031 (0.112)	- 0.089 (0.115)	- 0.089 (0.108)	- 0.036 (0.113)	- 0.174** (0.110)
Franchisees' specific invest.		- 0.102 (0.113)	- 0.084 (0.101)	- 0.152* (0.100)	- 0.081 (0.108)	- 0.075 (0.100)
Trust		+ 0.386*** (0.099)	+ <b>0.418***</b> ( <b>0.099</b> )	+ 0.320*** (0.097)	+ 0.378*** (0.101)	+ 0.290*** (0.099)
<b>Moderating effects of Trust</b>						
H1 Trust × Behavioral uncertainty			- 0.200** (0.095)			- 0.163* (0.095)
H2 Trust <b>×</b> Environmental uncert.				+ 0.290*** (0.081)		+ 0.369*** (0.090)
H3 Trust × Specific investments					+ 0.052 (0.094)	+ <b>0.268***</b> ( <b>0.098</b> )
N	116	101	101	101	101	101
F-test	1.518	9.234***	8.874***	10.379***	7.907***	9.812***
R <sup>2</sup>	.026	.368	.398	.436	.371	.490
Adjusted R <sup>2</sup>	.009	.328	.353	.394	.324	.440

Standardized regression coefficients are reported. \*\*\* p < .01; \*\* p < .05; \*p < .1 Standard errors in parentheses

Model 4 presents the results for Hypothesis 2, which predicts that trust will weaken the negative effect of market uncertainty on the allocation of decision rights to franchisees. The interaction coefficient is positive and significant ( $\beta = 0.290$ , p < 0.01), indicating that the negative effect of environmental uncertainty becomes weaker under high trust. Similar to Model 3, the direct effect of trust is positive and

strongly significant, i.e. if the value of environmental uncertainty were zero, trust would still have a positive effect on the dependent variable. The moderating effect on this variable remains significant also in Model 6. Model 5 provides the results for Hypothesis 3, which predicts a positive moderating effect of trust on the relationship between franchisees' initial investments and their portion of decision rights. Although positive as expected, the coefficient of the interaction term is not significant. Finally, Model 6 shows the results with all three interaction terms included in the regression analysis. All interaction terms are significant, including the relationship between initial investments and decision rights ( $\beta = 0.268$ , p < 0.01). This provides partial support for hypothesis H3, implying that trust strengthens the bonding effect of transaction-specific investments. The coefficient of trust as the main effect is again positive and strongly significant ( $\beta = 0.329$ , p < 0.01). The adjusted R<sup>2</sup> stands at 0.440, indicating that the model explains 44% of the variance. The explanatory power of the transaction costs model is evidently much higher when trust is taken into account. Overall, these empirical results provide partial support of the hypotheses. Interestingly, the direct effect of trust is significant and positive across all tested models, indicating that trust plays the role of a quasi-moderator (Sharma et al., 1981). Even though its moderating effect is statistically unclear, transaction cost theory provides a theoretical justification for treating trust as a moderator variable, as it traditionally neglects the existence of trust and thus its direct effect on a firm's governance<sup>7</sup>.

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<sup>&</sup>lt;sup>7</sup> Sharma et al. (1981) suggest that the search for moderator variables should be guided by theory rather than by strict empiricism and the definition of moderator variable need not be limited to the psychometric definition (which suggests only pure moderators).

#### 4.5 Discussion

In general, trust represents an important relational dimension of inter-firm relationships. Whenever exchange hazards are present, trust lowers the negative consequences and costs of governance, because it facilitates adaptation and information sharing, and mitigates any disputes between the transaction partners. The presented analysis examines the effects of trust in the context of franchise relationships by integrating it into the transaction cost framework. Empirical results provide strong evidence that trust moderates the relation between transaction cost variables and decision rights of franchisees. Trust reduces the negative impact of environmental uncertainty on the allocation of decision rights to franchisees. Under high environmental uncertainty, franchisors impose lower centralization of decision making, if they perceive their franchisees as trustworthy. These findings corroborate the result presented by Ryu et al. (2008), who show that trust weakens the positive relation between manufacturers' perception of environmental uncertainty and the propensity for vertical integration. The authors argue that trust leads to better exchange of information and reduces concerns about being exploited by the partner in the situation of environmental uncertainty. The results of the present study are similar: franchisors' fear of opportunism arising from demand and market volatility is reduced if they perceive franchisees as trustworthy. This is because trust reduces information asymmetry by facilitating information exchange, which is particularly important when franchisors need to rely more on the information provided by

franchisees. Furthermore, the negative moderating effect of trust on behavioral uncertainty implies that trust weakens the need for other forms of incentives. In particular, under increased behavioral uncertainty, franchisors seem to rely more on trust as a self-enforcing mechanism or implicit bond, thus reducing the use of other incentives such as delegation of decision rights<sup>8</sup>. Positive facets of trust also seem to strengthen the bonding effect of transaction-specific investments on the delegation of decision rights.

The significant direct effect of trust on allocated decision rights indicates the role of trust as a quasi-moderator. Even though the direct effect was actually not hypothesized, this result provides support for the relational governance view, which emphasizes trust as a principal mode of informal control (Ring and Van de Ven, 1992) and a distinct governance mechanism. As seen from that perspective, a franchisor's reliance on the goodwill and integrity of its network partners (franchisees) (Ring, 1996) has a direct impact on the choice of governance mode. Contrary to the relational governance view, the role of trust in transaction cost theory focuses on its capacity to reduce the threat of opportunism arising from uncertainty, thus having trust function only as a moderator and not as a direct effect.

In sum, the presented empirical results demonstrate that incorporating trust in the transaction cost model supplements the explanation of the allocation of decision rights in franchising. Results also corroborate the findings of previous studies, which show that trust increases the explanatory power of the transaction cost model (e.g. Chiles and McMakin, 1996; Zaheer and Venkatraman, 1995). The present study also

<sup>&</sup>lt;sup>8</sup> The incentive effect of decision rights is indicated by the positive sign of the main effect of the behavioral uncertainty variable.

contributes to decision rights literature by showing that the decision structure of franchise networks can be partially explained by transaction cost variables and that trust is important both as a moderator and as a direct effect. This way of analyzing effects of trust complements previous studies on the allocation of decision rights in franchising, which indicated the importance of trust in franchise relationships even though they did not directly conceptualize trust as a variable (Arrunada et al., 2001; Azevedo, 2009).

# 4.5.1 Implications for Research and Practice

The presented results have several implications for the existing literature. First, as a contribution to the literature on governance in inter-firm alliances, the present study shows that trust plays an important role in franchising by mitigating franchisors' fear of opportunism. Specifically, franchisors tend to loosen control when they trust their franchisees, and trust seems to function as a substitute for the incentive functions of decision rights delegation. Consistent with previous findings, the negative effects of environmental uncertainty were also found to be weakened by trust. Therefore, this study shows that franchising can be an interesting context for analyzing this phenomenon and that the governance of franchise relationships seems to be a dynamic structure affected by different external and internal variables. The extension of the transaction cost framework through the inclusion of trust proves to be important for increasing the explanatory power of the framework, contributing to the literature on the relationship between formal governance and trust (e. g. Lui and Ngo 2004;Mellewigt et al. 2007; Poppo and Zenger, 2002; Yu et al. 2006).

The results of this study yield practically relevant knowledge for franchisors seeking to optimize the structure of decision rights in their franchise systems. On the one hand, based on the incentive view of delegation, the franchisor should delegate a higher fraction of decision rights to franchisees when behavior control and performance measurement at the local outlet are difficult, as too tight control might hinder franchisees in operating local outlets efficiently. On the other hand, the transaction cost view suggests that the franchisor should increase control over operational decisions when environmental uncertainty is high. Uncertain external conditions seem to prompt tighter coordination and control of franchisees' activities to be able to react to external changes in a proper way.

Franchise managers should also be aware of the importance of trust and its possible influence on the governance of relationships with franchisees. Empirical results underline the importance of developing and maintaining trustful relationships with franchisees. In their governance decisions, franchisors or franchisor-managers should always keep in mind that trust-based relationships with franchisees will increase the advantages of delegation. This aspect of a business relationship encourages the exchange of information and alleviates the threat of opportunistic behavior of both partners, which is an important precondition for a successful long-term relationship.

#### 4.5.2 Limitations

The present study has some areas of potential improvement which must be taken into account in future research. First, the influence of the variables used in the regression analysis depends on measures based on franchisors' evaluation. However, franchisors' assessments could to some extent deviate from those of franchisees. On the other hand, most of the existing studies which analyzed trust in franchising measured trust from franchisees' perspective, and therefore, this study represent a rather different approach. Combining both perspectives could contribute to the reliability of the measures.

Secondly, since franchising networks evolve, the role of trust might vary during the relationship cycle. For instance, the dynamic view of trust between franchise partners at the beginning, during, and after cooperation would provide interesting insights in how trust evolves over time. This study considered trust as an exogenous variable, based on the franchisors' previous experience gained throughout their cooperation with franchisees. However, it fails to account for internal variables which affect it. To understand the appearance and development of trust between franchise partners, future studies should also focus on analyzing the antecedents of trust.

A third possible extension of this study lies in the fact that it examined the impact of transaction cost variables and trust on decision rights, without further investigating their implications on the performance and efficiency of the decision rights allocation, which is an important aspect of transaction cost theory. Future applications of the transaction cost view should investigate the relationship between the decision structure and the efficiency of franchise systems.

Finally, further application of different theoretical perspectives in the research of the governance of franchise networks is encouraged, as the efficiency of inter-firm

networks depends on the interplay of different formal and informal components of the governance mechanism. Notwithstanding these limitations, this study provides valuable contributions to the three literature streams of decision rights in franchising governance of inter-firm alliances, and transaction cost theory literature. It empirically tests the extended transaction cost model, showing that this theory provides some explanations for the governance of franchise networks in terms of decision rights allocation. But more importantly, it also showed the importance of including other dimensions of the relationship, such as trust, in order to increase the generalizability of the framework and enhance its explanatory value in the context of hybrid governance structures.

### 5. Discussion and Conclusions

### **5.1 Key Findings of the Dissertation**

The main goal of this dissertation was to analyze how property rights variables, transaction cost variables and trust as a relational variable influence the allocation of decision rights in franchising. To recapitulate, the application of the property rights framework presented in Chapter 2 confirms that franchisors' intangible knowledge assets (system-specific business practices and intellectual assets) and franchisees' intangible assets (local market knowledge, and managerial skills and experience) have a significant influence on the allocation of decision rights to franchisees. The higher the intangibility of the relevant knowledge assets, the higher the fraction of decision rights allocated to the respective franchise partner, as decision rights enable the franchisee to make an efficient use of knowledge. On the franchisors' part, the tested model confirms the negative effect of franchisors' intangible system-specific assets on the degree of decision authority delegated to franchisees, i.e. decision rights are more centralized. This finding is consistent with the Jensen and Meckling's (1992) view on collocation of knowledge and decision authority, as they argue that decision rights should either be allocated to the best informed party, or the party which holds the decision rights should get the necessary knowledge to make the right decisions. Moreover, the presented results also reflect the findings of studies that analyze the dissemination of knowledge across franchise

networks. These studies show that the transfer and application of intangible knowledge is time-consuming and requires close observation and monitoring (Barthelemy, 2008; Polanyi, 1966; Zander and Kogut, 1995). The extent of the intangible knowledge that franchisors are able to transfer to franchisees should therefore affect the allocation of decision authority. Kalnins and Mayer (2004) explain that franchisors often "standardize" business routines by filtering out the knowledge which is idiosyncratic to a particular market and provide a generic knowledge, valuable to most locations. As a consequence, some franchisees may not be willing to implement some business routines, deeming them inapplicable, or even useless given the local circumstances. However, Knott (2001) shows that as franchisees were abandoning the routines they believed to be inapplicable given the local circumstances, their performance constantly deteriorated. The findings of the presented property rights model regarding the negative relation between the importance of franchisors' intangible knowledge and centralization of decision making support the conclusion of Knott (2011). By centralizing decision making, franchisors can ensure better implementation of important business routines, necessary for the success of the network. Conversely, decision rights are more decentralized when franchisees' intangible local market assets appear to be more important. Franchisors tend to rely more on franchisees if they perceive that franchisees' outlet-specific knowledge is important and necessary. Knowledge generated by experience and analysis of particular circumstances (such as the conditions in a particular market) represent a significant input for local decisionmaking. If franchisors want to make an effective use of franchisees' local market knowledge, they need to delegate sufficient decision authority. As the presented

property rights framework also takes into account the level of intangibility of a particular type of franchisee knowledge, the results show that franchisees' more intangible (and hence less transferable) innovation assets have a stronger positive impact on the decision rights allocated to the franchisees than the less intangible operation assets. A reason for that could be that franchisees' operation assets can be more easily transferred to the franchise headquarters and thus more easily controlled.

The test of the transaction cost framework in Chapter 3 provides only partial support for transaction cost theory predictions regarding the allocation of decision rights. As predicted by the theory, when franchisors perceive higher environmental uncertainty (conceptualized as uncertainty arising from demand and market volatility), decision rights are more centralized. Environmental uncertainty makes it more difficult to assess the outcome of an exchange, giving a transaction partner more possibilities to act opportunistically without being detected (Hill, 1990). A way to increase control and safeguard against possible opportunism in such situations is to implement a more hierarchical governance structure and a greater centralization of decision making. The empirical data from the German franchise sector supports this prediction. When franchisors face environmental uncertainty, one mechanism that can be applied to attenuate threat of opportunism is a higher level of control over operational decisions. This result corroborates the findings of Celly and Frazier (1996) in the analysis of producer-distributor relationships. They show that, as environmental uncertainty increased, outcome-based performance measures, such as sales performance, provided insufficient information about distributors' behavior. Consequently, producers increased coordination and put more emphasis on controlling distributors' behavior to guard against opportunism. On the other hand, the effect of behavioral uncertainty on the delegation of decision rights was found to be positive, which is contrary to the predictions of transaction cost theory. This result can, however, be explained by the incentive view of delegation (Aghion and Tirole, 1997). Aghion and Tirole (1997) discuss the advantages and disadvantages of delegation of authority to agents, differentiating between formal and real authority. They argue that delegation of real authority may be a reflection of the possibility to have access to relevant information. If the principal is equally informed as the agent, it enables him/her to easily overrule the agent, i.e. to retain both formal and real decision authority. However, the costs of acquiring information and monitoring agents may be too large for the principal, and thus the principal relies on agents for some specific decisions. This framework emphasizes the importance of authority delegation for increasing agents' initiative, motivation and participation, despite the risk of losing control. A similar idea was presented by Baker et al. (1999), who show that overruling a subordinate's decisions might decrease the subordinate's effort and enthusiasm in the future. They also emphasize that the decision making process depends on the information structure. The positive relation between behavioral uncertainty and delegation seems to corroborate the latter arguments. If franchisors have insufficient information regarding franchisees' behavior (due to their inability to assess franchisees' performance or capabilities) they will use incentives instead of costly monitoring and control. By holding decision rights over specific operational decisions, franchisees may increase their commitment and be more motivated to make the "right" decisions, which favors both franchisor and franchisees.

Finally, the results presented in Chapter 4 confirm that trust has a moderating effect on the relation between transaction cost determinants and the decision rights allocated to franchisees. First, its attenuating effect on the positive relation between behavioral uncertainty and the allocation of decision rights could imply that the use of delegation as an incentive mechanism is less necessary if franchisees behave in a trustworthy manner. This result suggests the role of trust as an informal governance mechanism and a substitute for an incentive mechanism, because trust reduces ambiguity and the risk of opportunism. Secondly, trust has a positive moderating effect on the relation between environmental uncertainty and decision rights delegation. When franchisors perceive high environmental uncertainty, having trustworthy franchisees reduces the fear of opportunism and franchisors will therefore more likely relinquish part of their control and rely more on franchisees. Finally, the moderating effect of trust on the relation between transaction-specific investments and allocated decision rights is also partially supported. The self-enforcing mechanism inherent to transaction-specific investments is stronger under conditions of high-level trust. This corroborates the findings of the previous literature, which suggest that trust decreases the cooperation risk, thus reducing the need for higher specification and monitoring, as well as the need for providing other incentives (e.g. Gulati and Nickerson, 2008; Hill, 1990; Mellewigt et al., 2007; Nooteboom et al., 1997; Ryu et al., 2008). It is important to note that trust functions as a quasimoderator, due to the significant direct effect. A significant and positive direct effect corroborates the latter studies which apply the relational governance perspective, showing that trust has a positive influence on the decentralization of decision making. Trust functions as an informal self-enforcing mechanism that mitigates concerns

about opportunism. Even though the present study leans on those arguments to include trust in the transaction cost framework, for theoretical reasons this direct relationship between trust and decision making was not included as a hypothesis. With the inclusion of trust, the explanatory power of the model increased substantially. Chiles and McMakin (1996) and Zaheer and Venkatraman (1995) already pointed to this effect of trust when incorporating it into the transaction cost model, arguing that this social dimension is necessarily inherent in all business transactions and should not be disregarded when analyzing them. A summary of all findings is presented in Table 14.

Table 14: Key findings

Chapter	Confirmed hypotheses	Key findings	Secondary findings		
Chapter 2 Property rights theory	H1b, H2	1) Negative relationship between franchisors' system-specific assets and decision rights allocated to franchisees (H1b).	1) Franchisees' local market knowledge assets have a positive influence on decision rights allocated to franchisees.		
		2) Franchisees' more intangible innovation assets have a stronger influence on decision rights allocated to franchisees than the less intangible operation assets	2) Franchisors in the service sector tend to allocate more decision rights as compared to the systems from the product franchise sector.		
		(H2).	3) Franchise systems with larger outlets tend to delegate less decision rights to franchisees.		
Chapter 3 H1b, H2 Transaction cost theory		1) Positive relationship between behavioral uncertainty and decision rights allocated to franchisees (H1b).	1) Franchisors use decision rights as incentives when they perceive higher behavioral uncertainty.		
		2) Negative relationship between environmental uncertainty and decision rights allocated to franchisees. (H2).			
Chapter 4 Transaction cost theory including trust	H1, H2, H3	1) Trust has a moderating effect on the relation between transaction cost variables and decision rights allocated to franchisees.	1) Trust weakens the positive relation between behavioral uncertainty and decision rights allocated to franchisees. Under high trust, decision rights as incentives are less important (effect contrary to the one formulated in H1).  2) Trust has a direct positive effect on decision rights allocated to franchisees, i.e. it is a quasi-moderator.		
		2) Trust weakens the negative effect of environmental uncertainty on decision rights			
		allocated to franchisees (H2).  3) Trust strengthens the positive relation between transaction-specific investments and decision rights allocated to franchisees (H3).			

#### 5.2 Contributions to the Literature

# 5.2.1 Literature on Decision Rights in Franchising

To explain the allocation of decision rights in franchising, the existing literature has focused mainly on variables based on property rights theory (Windsperger, 2004) and agency theory (Arrunada et al., 2001; Azevedo, 2009; Lopez-Fernandez and Lopez-Bayon, 2011), either by utilizing only one theoretical perspective or by creating frameworks that combined them. This dissertation complements this literature both by providing a further application of the property rights framework and by utilizing a new theoretical approach to explain the allocation of decision rights in franchising.

The results of the property rights model corroborate the findings of Windsperger (2004), who offer the first empirical evidence that the differences in centralization of decision making may be attributed to the differences in the distribution of the partners' intangible knowledge assets. Indeed, Windsperger confirmed that the importance of franchisors' intangible knowledge assets increases centralization of decision making. Lopez-Fernandez and Lopez-Bayon (2011) also find a robust negative effect of franchisors' intangible assets on the level of delegation. Their results indicate that franchisees' influence on decision rights is much lower as the importance of the franchisor's intangible knowledge increases. However, Windsperger's results do not statistically confirm the effect of franchisees'

intangible knowledge assets, whereas Lopez-Fernandez and Lopez-Bayon (2011) find only partial support. They, however, use a dichotomous variable representing service and retail franchising, arguing that the level of necessary intangible knowledge is higher in the service sector. They were able to confirm that franchisees in retail franchising have a lower degree of decision autonomy. The present study provides new evidence that franchisees' more intangible innovation assets do have a positive effect on the decentralization of decision making.

Besides the application of the property rights theory framework, the existing literature is extended by utilizing a transaction cost-theoretical framework to explain the decision rights allocation. The empirical results imply that franchisors' perception of environmental and behavioral uncertainty will affect the allocation of decision rights to franchisees. If franchisors perceive the external environment as uncertain, they tend to centralize decision making. However, if they have difficulties to assess franchisees' behavior, it appears that they use delegation of decision rights as an incentive, as this relation was positive in the tested model. Despite the extensive application of transaction cost theory to explain the governance of various types of inter-firm alliances, the application in the context of franchise networks remained an open research question. An exception regarding the use of transaction cost theory is the study of Dahlstrom and Nygaard (1999a, 1999b), but this study analyzes the antecedents of transaction costs and the role of organizational structures in constraining opportunism in the context of franchising.

The extended transaction cost model, which tests the effects of trust, addresses a very important issue, which has been rather untapped in the literature on decision

rights allocation. Azevedo (2009) and Lopez-Fernandez and Lopez-Bayon (2011) attempted to explain how trust affects decision rights allocation, even though they did not measure the construct of trust directly. Both studies use the number of years of franchising as an indication of trust, arguing that emerges as franchise partners interact and cooperate over years. Azevedo (2009) shows that the number of years of franchising relates positively to the delegation of decision rights, explaining that an older franchise system has a higher number of "old" franchisees, with whom a trustful relationship have been developed. Similar arguments are presented by Lopez-Fernandez and Lopez-Bayon (2011). The number of years of franchising related positively to the degree of decentralization of decision making. This is explained by unobserved trust, which emerges during the years of cooperation. By directly measuring the level of trust, the model presented in Chapter 4 provides strong evidence that trust positively affects the level of decentralization of residual decision making, thereby corroborating the arguments of Azevedo (2009) and Lopez-Fernandez and Lopez-Bayon (2011).

Finally, the post hoc analyses in Chapter 2 and 3 test the effect of theoretical variables on decision rights disaggregated according to major value chain activities. These include marketing (product, advertising, and price), suppliers, human resource management (recruiting and training), investments and accounting system. One general implication of the post hoc tests is that the analysis of aggregated decision rights (index) can reveal the general direction of effects and the general tendency, but the effects on some particular decisions may deviate from the general tendency (i.e. changing effect directions related to particular decisions). This can occur because decision rights might be of varying importance to franchisors and franchisees,

decision domains were already pointed out by Dant and Gundlach (1999). They analyzed determinants of autonomy and dependence in franchising, suggesting that they vary across different operational domains of a franchise relationship. For instance, franchisees experienced greater autonomy in customer service, or personnel management, whereas decision making in marketing, demand generation and pricing is in the hands of franchisors. The results of this dissertation corroborate the arguments of Dant and Gundlach.

### 5.2.2 Property Rights Theory

In the context of property rights theory, decision rights refer to the rights and authority regarding the use and deployment of assets (Hansman, 1996). Property rights theory assumes incompleteness of contracts, suggesting that it is impossible to foresee all contingencies and specify all decisions ex ante. Residual decision rights refer to the contingencies not specified ex ante in a contract, which should be assigned to the party with assets critical for the generation of residual surplus (Hart and Moore, 1990). Property rights theory considers asset intangibility as a determinant for the allocation of residual decision rights. Intangible assets are knowledge, skills and capabilities largely stored in the minds of individuals that cannot be codified and easily transferred since they include an important tacit component (Polanyi, 1966). As Jensen and Meckling (1992) point out, there are two ways of allocating decision rights: Either knowledge must be transferred to those with the right to make decisions, or decision rights must be transferred to those who have

the knowledge. In the context of franchising, this implies that the allocation of residual control rights (ownership and decision rights) should depend on the allocation of intangible knowledge assets important for the generation of residual income of the franchise network (Windsperger, 2004; Windsperger and Dant, 2006). Intangible assets analyzed in this dissertation refer to franchisors' system-specific assets and franchisees' local market intangible assets.

The presented results extend the property rights theory applicability by testing its explanatory power and generalizability on a sample of German franchise systems. The importance of franchisors' intangible knowledge assets, measured by the number of initial training days, increases centralization of decision making, i.e. relates negatively to the proportion of decision rights allocated to franchisees. Furthermore, the results also show that franchisees' intangible local market assets have a negative effect on the degree of centralization of decision making. Both results corroborate the findings presented by Windsperger (2004) and Lopez-Fernandez and Lopez-Bayon (2011), and confirm the property rights view. In addition, previous findings are extended by analyzing how the degree of intangibility of franchisees' local market assets affects the allocation of decision rights. In line with the property rights theory prediction, more intangible assets, namely franchisees' innovation assets, had a stronger impact on franchisees' autonomy than the less intangible assets. Being able to show that the degree of importance of intangible knowledge matters, this study confirms the argument made by Bradach (1998) that franchisors and franchisees do make use of their congenital experience (e.g. in site selection) by complementing their knowledge. Specifically, franchisors use system-specific knowledge and standardized guidelines, whereas franchisees contribute with their specific knowledge of the local market conditions. To conclude, even though this analysis makes a positive step towards the generalizability of the property rights perspective, the structure of decision rights is complex, and particular decision rights are also affected by other factors and particularities specific to the respective franchise relationship.

# 5.2.3 Transaction Cost Theory

The core of Williamson's (1975, 1985) transaction cost theory states that firms choose a governance structure which minimizes the costs of economic transactions, specifically the costs arising from uncertainty and hold-up situations due to opportunism of the transaction partners. The relevant attributes of a transaction are environmental uncertainty, behavioral uncertainty and transaction-specific investments. Firms therefore try to align transactions of different attributes with governance structures in such a way as to economize on transaction costs (Williamson, 1991). In a franchisor-franchisee relationship under a given ownership structure, the franchisor can modify the governance structure by changing the allocation of residual decision rights.

The presented transaction cost model analyzes the effects of behavioral and environmental uncertainty and transaction-specific investments on the decision making structure in franchising. Indeed, environmental uncertainty relates negatively to the decision rights allocated to franchisees, corroborating the transaction cost theory hypothesis. Centralization of residual decision making in the context of a franchise relationship can be seen as the franchisor's attempt to add elements of

hierarchy to the governance structure, as a response to the increased risk of opportunism. There is a higher chance that a franchisee's opportunism remains undetected in the situation of environmental uncertainty, because volatile conditions hinder the franchisor's reliable assessment of the franchisee's effort based only on market performance and output. By increasing control over decisions, franchisors can enhance internal information-processing and coordinate their franchisees' operations in a more effective way. However, in the context of an ongoing franchise relationship, franchisors cannot change the general governance model (e.g. to switch to wholly-owned subsidiaries) or modify contracts in the short term, but they can adapt the governance model by centralizing or decentralizing residual decision making.

The empirical results of this study could not confirm the proposed relationship between behavioral uncertainty and allocation of decision rights. Transaction cost theory predicts that under high behavioral uncertainty, firms show a tendency towards hierarchy and vertical integration, i.e. high control governance models. The unexpectedly positive relation, however, supports the incentive view of delegation (Aghion and Tirole, 1997). Specifically, franchisors are more likely to delegate decision rights to franchisees when they experience difficulties in measuring their capabilities and performance, as decision authority can provide incentives, thereby reducing the necessity for control. One further reason for using such an incentive mechanism, rather than control and monitoring, could be the high-powered incentives inherent in the very nature of franchising. Williamson (1985) suggests that high-powered incentives exist when efficiency gains from a particular transaction flow

directly to the transacting parties. Franchisees, as independent entrepreneurs, are compensated based on their market performance, which creates strong incentives to maximize efficiency by making the "right" decisions. Finally, franchisors may also prefer using incentives rather than control and monitoring, because of the high costs associated with the latter, especially in the case of large international franchise networks. In conclusion, even though this result does not provide support for the transaction cost theory prediction, the generalizability of the transaction cost proposition should not be overruled. It is necessary to conduct some further tests of this framework in the context of franchising to be able to evaluate its predictive power and generalizability.

### 5.2.4 Trust in Inter-firm Alliances and Franchising

By including trust into the transaction cost theory, this dissertation extends both the franchising literature that analyzes trust, and the literature that uses extended transaction cost models in other types of inter-firm relationships.

The franchising literature which analyzes the role of trust (Cochet et al., 2008; Davies et al., 2011; Dickey et al., 2007) focused primarily on the effects of trust on the franchisee's attitude, reduction of conflicts, and the franchisee's opportunistic behavior. Trust was confirmed to increase franchisees' positive attitudes toward their franchisors and reduce their level of non-compliance. Franchise firms also use relational governance to counterbalance their loss of control associated with allocation of decision autonomy to franchisees. The empirical results presented in Chapter 4 largely complement these findings. From franchisors' perspective, trust

decreases the negative effect of environmental uncertainty, and reduces the need for the use of decision rights as formal incentives. Trust also has a direct positive effect on the allocation of decision rights to franchisees, confirming that franchisors delegate more decision rights to franchisees when they perceive them as trustworthy.

The contribution of the present study is also related to the literature that analyzes governance of inter-firm alliances by including trust in the transaction cost model either as a main effect (Bradach and Eccles, 1989; Chiles and McMakin, 1996; Gulati, 1995; Noteboom, 1996; Zaheer and Venkatraman, 1995) or as a moderator variable (Dekker et al., 2004; Hoffmann et al., 2010; Mellewigt et al., 2007; Lui and Ngo, 2004; Ryu et al., 2008). Generally, this literature emphasizes that trust mitigates the risk of opportunism and that firms tend to loosen their control when they trust their exchange partners. The present empirical results confirm the moderating role of trust regarding all tested transaction cost determinants. First, it reduces the negative impact of environmental uncertainty, implying that franchisors expect a trustworthy franchisee not to take advantage of an uncertain business environment for short-term opportunistic gains. Similar results were presented by Ryu et al. (2008), who show that trust weakens the positive relation between environmental uncertainty and the level of vertical control. Second, the results indicate that trust weakens the impact of behavioral uncertainty on the delegation of decision rights, highlighting that in a high-trust situation, franchisors have less need for using other incentives, such as delegation, to ensure compliance. Third, trust increases the bonding effect of transaction-specific investments, as it strengthens the positive effect on the delegation of decision rights to franchisees. This finding is in line with the results presented by

Hoffman et al. (2010), who analyze the moderating effect of trust on the relationship between specific assets and the probability of vertical integration. They show that this transaction cost determinant has a positive impact on the probability of vertical integration. However, when trust was included in the model, the positive relation was weakened.

Finally, trust appears to function as a quasi-moderator in the analyzed model, as it has both a significant moderating effect and a direct effect on the dependent variable. The significant direct effect of trust can be explained from the relational governance perspective, which views trust as a distinct mode of informal control (Bradach and Eccles, 1989; Ring and Van de Ven, 1992). In contrast to the view advocated by transaction cost theory, relational governance view suggests that trust encourages collaborative exchange as a result of different social norms and obligations and not as a result of purely economic considerations. In transaction cost theory trust can be considered just as a shift parameter which moderates the impact of transaction cost variables on the allocation of decision rights. Both the significant moderating effect and the significant direct effect of trust provide arguments for including trust (as a relational dimension of a transaction) in the transaction cost framework. Moreover, including trust in the model considerably increased its explanatory power, thus corroborating the arguments made by Zaheer and Venkatraman (1995) and Chiles and McMakin (1996).

### 5.3 Practical Implications

This dissertation gives franchise practitioners some useful benchmarks for understanding and structuring decision rights in day-to-day operations. Regardless of the specifications in the contracts, franchisees may actually have substantial influence on a number of decisions formally taken by the franchisor. The issue of formal and real decision authority has been discussed by Aghion and Tirole (1997) and Baker et al. (1999), even though they use an intra-firm (boss-subordinate) context for their analyses. This discussion can certainly be extended to the context of franchise relationships, since the structure of formal decision making, specified in the contract, can deviate from the real (informal) one. Franchisors must be aware of the importance of the real decision authority within their network. Allocation of "real" decision rights to franchisees can be largely beneficial, as franchisees can make better use of their local market knowledge and entrepreneurial skills to maximize their own performance and consequently the performance of the whole network. However, a disadvantage lies in the loss of control and agency problems, which may diminish the brand name value if they go undetected. Finding the right balance is essential for achieving optimal network performance. Yet it represents one of the biggest challenges for franchise managers. They need to relinquish some of their decision authority, and may have to use appropriate monitoring and incentive mechanisms to mitigate the resulting agency problems.

The findings of the property rights model show that relevant intangible knowledge assets of both the franchisor and the franchisee affect the allocation of decision rights. Franchisors should respect the value and importance of franchisees' local market knowledge and delegate authority accordingly. A high degree of centralization of decision making could result in a suboptimal performance, as franchisees might not be able to efficiently use their intangible knowledge assets.

Similar implications regarding the importance of balance between delegation and control also result from the transaction cost model. When franchisors perceive high market and demand uncertainty, they centralize decision making to prevent opportunism and ensure compliance. However, centralization may result in lower flexibility and responsiveness of the local units, as decisions must first be accepted by franchisors, thus making it difficult for franchisees to quickly respond to changes in local circumstances and effectively use their local market information. Franchise managers should be aware of this trade-off. In situations when the speed of reaction and flexibility become pertinent to the success of the business, franchisors may be better off by using other control and monitoring mechanisms to ensure compliance, and relinquish decision making authority to franchisees to retain flexibility. The confirmation of the incentive view of delegation is also in line with this implication, as franchisors delegate more decision rights when behavior uncertainty increases. It appears that franchisees could be less likely to abuse the given authority, as delegation increases their incentives to participate in the success of the whole network.

This leads to the final point regarding managerial implications – the importance of trust in franchise relationships. Franchisors should be able to develop

and maintain a trustful relationship with franchisees. For an inter-firm alliance such as franchising, trust is essential, as franchisors can never have such an effective control over franchised outlets as they have over company-owned outlets. Trust encourages openness, facilitates the exchange of information, and reduces the threat of opportunistic behavior. Empirical data clearly confirms that trust directly and indirectly affects the delegation of decision rights to franchisees. A high level of trust could enable franchise partners to enjoy benefits typically inherent to hierarchical governance while fully exploiting all the potential benefits of cooperation.

#### 5.4 Limitations and Future Research

The present study is, however, not free of limitations. One limitation concerns the measurement of variables, namely that it is based on franchisors' evaluation. In reality, franchisors' assessment could, to some extent, deviate from franchisees' assessments and lead to different results. It would be advisable to include both perspectives in future studies in order to capture both perspectives of the analyzed relationships.

The presented models do not take into consideration many other variables which might affect the allocation of decision rights. This has also been indicated by a relatively low level of explained variance. Future research should therefore test further variables and other theoretical perspectives to explain this variation. For example, agency theory studies could focus on the impact of monitoring costs and free-riding on the delegation of decision rights. Delegation positively influences

partners' initiative and hence reduces monitoring costs. Consistent with predictions regarding ownership in franchising (Combs and Ketchen, 2003) a positive relation between the delegation of decision rights and network growth can be expected. Furthermore, when the franchisor's reputation and brand name value are high, the potential costs of franchisee free-riding increase. Hence, we can expect brand name value and the franchisor's control over operational decisions to be positively related. The further improvement of measurement could also be another important step.

Another limiting factor was the use of a cross-sectional research design, which is unable to capture the dynamic aspect of franchise relationships. Specifically, the focal variables can change over time, as the franchise relationship evolves and as market conditions change. A longitudinal research design would be able to grasp the dynamics of the franchise relationship. Furthermore, this study does not capture how franchisors manage relationships with particular franchisees within their systems, and whether there are any differences in the allocation of residual decision rights between franchisees of the same franchise system. Therefore, further studies should try to analyze relationships with individual franchisees within a single large franchise system to learn about these differences.

This dissertation also analyzes the allocation of residual decision rights without considering the formal specification of decision rights in franchise contracts. Thus, the question concerning the difference between the allocation of formal and real decision rights remains unexplored. An analysis of both (i.e. real decision authority and formal rights in contracts) would provide more knowledge regarding the decision making structure in franchising. Studies by Arrunada et al. (2001) and Hadfield (1990) conclude that franchise contracts put considerable restrictions on

franchisees' behavior and decision authority, giving franchisors considerable leeway to "complete" contracts as different contingencies occur. However, the presented results show that franchisees can have a strong influence on some of those decisions, and that the decision making authority in everyday operations might look rather different from the contractually specified one. Shedding some more light on this issue could help understand to what extent franchisors really control franchisees' operations, beyond what is written in the contract.

Finally, the allocation of decision rights has an important effect on the performance of franchise systems. Future research should focus on the effects of centralization/decentralization on their performance. Better knowledge of the consequences of centralization versus decentralization could provide valuable guidelines to franchise practitioners regarding the governance of franchise networks.

# 6. Conclusion

The present study analyzed the allocation of decision rights in franchise systems from three theoretical perspectives: property rights theory, transaction cost theory and the relational governance view. To summarize, it provides answers to the following research questions:

- 1. What is the effect of property rights determinants on the allocation of residual decision rights in franchise networks?
- 2. What is the effect of transaction cost determinants on the allocation of residual decision rights in franchise networks?
- 3. Does trust moderate the relation between transaction cost determinants and the allocation of residual decision rights in franchise networks?

First, the study investigates the role of intangible knowledge on the allocation of decision rights from the property rights view. It proposes that franchisors' system-specific knowledge and franchisees' local market knowledge have an impact on decision rights allocation. Moreover, it suggests that the impact depends on the level of intangibility. Data from the sample of German franchise systems provides evidence that intangible knowledge of both partners influences the allocation of decision rights, and that franchisees' more intangible knowledge indeed has a stronger effect on their decision rights authority. In line with Jensen and Meckling

(1992), distribution of decision rights seems to reflect the distribution of specific knowledge assets, as the relevant decision authority is essential for the optimal use of knowledge.

Secondly, this dissertation presents a new application of transaction cost theory by providing an explanation as to how its determinants affect the allocation of decision rights of franchise networks. The model tests the effect of behavioral uncertainty, environmental uncertainty and transaction-specific investments on the allocation of decision rights. Empirical data partially supports the hypotheses, confirming that environmental uncertainty decreases decentralization of decision making. An unexpected result regarding the effect of behavioral uncertainty implies that franchisors use decision rights as incentives when they perceive high behavioral uncertainty. Despite the wide use of transaction cost theory in investigating governance of inter-firm alliances, this application in the context of franchise networks represented a new application.

Finally, the transaction cost model is extended by including the variable of trust to capture the relational dimension of franchisor-franchisee relationships. The pattern of evidence of the extended transaction cost model shows that the inclusion of trust as a relational dimension better captures changes in the allocation of decision rights than the pure transaction cost model. For instance, the negative effect of uncertainty is mitigated, and trust seems to have both the incentive mechanism and a governance mechanism function. The results underline the importance of trust, not only as a moderator variable, but also as a direct effect. When franchisors perceive franchisees as trustworthy, they relinquish control and rely on franchisees' decision

making. Moreover, the explanatory power of the transaction cost model increased substantially when trust was included, corroborating the evidence of previous studies.

In conclusion, this dissertation shows that the allocation of decision rights is an important component of the governance structure of franchise networks, emphasizing the complexity and multi-dimensionality of franchisor-franchisee relationships. Future research in this context is therefore necessary, since there is still a multiplicity of variables and relationships which have not been analyzed yet.

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# **Appendix: Measures**

Table 15: Summary of measures

Variable	Items
DR Index	To what extent do franchisees have an impact on the following decisions? Scale 1-7 (1 = no influence at all; 7 = to a very high extent)
(1-1)	Investment decision
(1-2)	Financing decision
(1-3)	Supplier decision
(1-4)	Recruiting decision
(1-5)	Employees' training decision
(1-6)	Product/service decision
(1-7)	Price decision
(1-8)	Advertising decision
(1-9)	Controlling system decision
Disaggregated DR	Decision rights were grouped according to value chain activities
(2-1)	Advertising decision
(2-2)	Price decision
(2-3)	Product decision
(2-4)	Procurement decision
(2-5)	Human resources decision
	- recruiting decision
(0.6)	- employees' training decision
(2-6)	Investment decision
	- investment decision
(2.5)	- financing decision
(2-7)	Accounting system decision
Franchisors' intang	sible system-specific assets
Annual training days	Number of franchisees' training days a year
Annual number of visits	Number of outlet visits a year
Franchisees' intang	ible local market assets
Innovation assets:	Franchisees' know-how advantage compared to the manager of a company-owned

w-how advantage compared to the manager of a company-owned
by the franchisor concerning
5 very large advantage)
)

- (3-1) Innovation
- (3-2) Local market knowledge

Table 15: Summary of measures (continued)

Variable	Items
Operation assets	Franchisees' know-how advantage compared to the manager of a franchisor-owned outlet evaluated by the franchisor concerning (no advantage 1 – 5 very large advantage)
(4-1)	- Quality control
(4-2)	- Administrative capabilities
(4-3)	- Human resource management
Behavioral uncertainty	Please assess the following statements on a scale of $1-7$ : (1 = I do not agree at all; 7 = I fully agree)
(5-1)	It is difficult to measure performance of the franchisees.
(5-2)	It is very difficult to control the behavior of the franchisees.
(5-3)	It is very difficult to assess the competencies and capabilities of franchisees.
Environmental	Please assess the following statements on a scale of $1-7$ :
uncertainty	(1 = I  do not agree at all;  7 = I  fully agree)
(6-1)	It is very difficult to predict the market development at the outlet level
(6-2)	The sales at the outlet level are very fluctuating.
Franchisees' specific investment	Natural log of initial investments (in EUR)
Trust	Please assess the following statements on a scale of $1-7$ :
	1 = not true at all;  7 = true to a high extent
(7-1)	Cooperation is based on partnership
(7-2)	Exchange of information between us and the partners goes beyond the agreed scope
(7-3)	There is great trust between ourselves and the partners
(7-4)	There is an atmosphere of openness and honesty between us and the partners
Size of system	Number of franchised and company-owned outlets
Sector	0 = service franchising; 1 = product franchising
Outlet Size	Natural log of the sum of initial investments (€ value)

**Abstract of the Thesis (German)** 

Zusammenfassung:

"Allocation of Decision Rights in Franchising"

Autor: Nada Mumdziev

Betreuer: Professor Josef Windsperger

Die vorliegende Dissertation analysiert die Verteilung von

Entscheidungsrechten mittels Anwendung von zwei theoretischen Perspektiven: der

Theorie der Verfügungsrechte und der Transaktionskostentheorie. Die Theorie der

Verfügungsrechte erklärt die Verteilung von Entscheidungsrechten basierend auf der

Wichtigkeit von immateriellem Vermögen (Wissen, intelektuelles Vermögen)

relevant für die Erzielung von Residualeinkommen. Aus dieser Perspektive ist zu

immaterielle Wissensvermögen erwarten. dass das des Franchisegebers

(systemspezifische Geschäftspraktiken und intellektuelles Kapital) und das

immaterielle Franchisenehmers Vermögen (lokale Marktkenntnisse, des

Führungsfähigkeiten, und Erfahrung) einen bedeutenden Einfluss auf die Verteilung

von Entscheidungsrechten zwischen den beiden Parteien haben werden. Das Modell

Transaktionskostentheorie der analysiert die Auswirkungen von

Verhaltensunsicherheit, Umweltunsicherheit, und von transaktionsspezifischen

Investitionen der Franchisenehmer. Diese Variablen können ebenfalls einen Einfluss

darauf haben, wie Franchiseverhältnisse geregelt werden, d.h. wie Franchisegeber die

Entscheidungsrechte aufteilen. Im erweiterten Transaktionskostenmodell wird

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schließlich noch die Variable des Vertrauens einbezogen – als Moderatorvariable mäßigt das Vertrauen die Beziehung zwischen den Transaktionskostenvariablen und der abhängigen Variable.

Empirische Ergebnisse aus dem deutschen Franchisesektor bestätigen teilweise beide der oben erwähnten theoretischen Perspektiven und auch das erweiterte Transaktionskostenmodell. Es gibt einen negativen Zusammenhang zwischen dem Anteil an Entscheidungsrechten des Franchisenehmers und dem immateriellen systemspezifischen Vermögen des Franchisegebers, wie die Theorie der Verfügungsrechte voraussagt. Darüber hinaus haben die weniger kontrahierbare Innovationsfähigkeiten einen stärkeren Einfluss als das mehr kontrahierbare operationale Fähigkeiten der Franchisenehmer auf die Delegation Entscheidungsrechte. Die Ergebnisse zeigen auch, dass es einen negativen Zusammenhang gibt zwischen Umweltunsicherheit und den Entscheidungsrechten der Franchisenehmer, was die Aussagen der Transaktionskostentheorie bestätigt: Franchisegeber übertragen weniger Entscheidungsrechte an ihre Franchisenehmer wenn sie in einem unsicheren Marktumfeld agieren. Allerdings hat sich der Zusammenhang zwischen Verhaltensunsicherheit und Zuteilung von Entscheidungsrechten an den Franchisenehmer als positiv erwiesen, gegen den Voraussagen der Transaktionskostentheorie, aber in Übereinstimmung mit der Perspektive der Entscheidungsrechte als Anreiz. Dies könnte implizieren, dass Franchisegeber die Delegation von Entscheidungsrechten als Anreiz verwenden. Schließlich untermauern Ergebnisse das erweiterte die auch Transaktionskostenmodell und bestätigen den Einfluss von Vertrauen sowohl als Moderatorvariable als auch Variable mit dem direkten Effekt. Vertrauen fungiert als eine Moderatorvariable in allen untersuchten Beziehungen. Darüber hinaus bestätigt der signifikante direkte Effekt von Vertrauen die Theorie der relationalen Vertragsbeziehungen. Nach dieser Ansicht fungiert Vertrauen als eine soziale Dimension mit einem direkten Einfluss auf die Regelung von Geschäftsbeziehungen. Ebenfalls bemerkenswert ist, dass die Einbeziehung von Vertrauen in das Transaktionskostenmodell die statistische Aussagekraft dieses Modells wesentlich erhöhte.

Die vorliegende empirische Ergebnisse leisten einen wertvollen Beitrag zur folgender Fachliteratur: (1) Verteilung von Entscheidungsrechten im Franchising; (2) Einfluss von Vertrauen im Franchising; und (3) Studien zum Governance der zwischenbetrieblichen Allianzen.

# **Curriculum Vitae**

#### **Nada Mumdziev**

Born on 22<sup>nd</sup> February 1979 in Split, Croatia

## **EDUCATION**

Currently UNIVERSITY OF VIENNA, Institute of Business Economics Vienna, Austria

**PhD** in Management

10/2005 UNIVERSITY OF SPLIT, Faculty of Business Economics Split, Croatia

M.Sc. Degree in Business Economics

#### **PUBLICATIONS**

#### **Journal Articles**

Mumdziev, N.; Windsperger, J (2013), "An Extended Transaction Cost Model of Allocation of Decision Rights", Managerial and Decision Economics (forthcoming)

Mumdziev, N.; Windsperger, J. (2011), "Structure of Decision Rights in Franchising Networks: A Property Rights Perspective", Entrepreneurship in Theory and Practice, Vol.35, Issue 3, 449-465.

# Chapters in edited volumes

Mumdziev, N. (2011), "Allocation of Decision Rights in international Franchise Firms: The Case of Master and Direct Franchising", In Tuunanen et al. (eds.). New Developments in the Theory of Networks: Franchising, Alliances and Cooperatives, Heidelberg: Springer Verlag

## Chapters in unedited volumes

Windsperger, J; Mumdziev, N.; (2012). Entscheidungsstrukturen in Deutschen Franchisesystemen, DFV Jahrbuch Franchising 2012

## Working papers

Dant, R.; Jeon, H.J.; Mumdziev, N.: Regional Differences in Reputation and Performance of McDonald's and Burger King Franchise Chains (to be presented at the ISOF 2013 Conference in Zhuhai, China)

## **CONFERENCE PRESENTATIONS**

08/2012

#### **AMA Summer Conference 2012**

Chicago, IL, USA

#### **American Marketing Association**

"Etic and Emic Linkages between External Reputation and Performance of McDonald's"

05/2012

# 26<sup>th</sup> International Society of Franchising (ISOF) Conference

Fort Lauderdale, FL, USA

#### **Nova Southeastern University**

"A Transaction Costs View on the Allocation of Decision Rights in Franchising: The Moderating Role of Trust"

12/2011

# 5<sup>th</sup> International EMNet Conference

Limassol, Cyprus

# Frederick University, Cyprus

"Allocation of Decision Rights according to the Transaction Costs Theory: The Case of Franchising"

06/2011

## 25th International Society of Franchising (ISOF) Conference

Boston MA, USA

## University of Boston, School of Management

"A Transaction Costs View on the Allocation of Decision Rights in Franchising: The Moderating Role of Trust".

05/2011

# 9<sup>th</sup> International Conference "Challenges of Europe"

Bol, Croatia

## **University of Split**

"Effects of Trust in Franchise Relationships"

06/2010

## 24<sup>th</sup> International Society of Franchising (ISOF) Conference

Sydney, Australia

# **University of New South Wales**

"Structure of Decision Rights in International Franchising: The Property Rights, Agency Cost and Transaction Costs Perspective".

09/2009

#### 4<sup>th</sup> International EMNet Conference

Sarajevo, BIH

## University of Sarajevo

"Allocation of Decision Rights in International Franchising: The Case of Master and Direct Franchising".

# TEACHING EXPERIENCE

## University of Vienna, Department for Organization and Planning

International Market Entry Decision

International Strategy & Organization: Advanced Topics (WS 2012/2013)

# PROFESSIONAL EXPERIENC

2007 - present RegioPlan Consulting GmbH

Vienna, Austria

**Current position:** 

01/2011 – present Senior Account Manager and Business Developer Europe

Past positions:

10/2009 - 01/2011Account Manager and Business Developer CEE/SEE Region07/2008 - 09/2009International Sales Manager former Yugoslavia Region

2000 - 2007 Crash Ltd.

Split, Croatia

Founder and CEO of a start-up company