Completeness of Franchise Contracts

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Abstract

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Designing efficient franchise contracts is the most important organizational task in franchising networks. The franchise contract consists of two types of clauses: specific rights as contract provisions which specify in detail what the franchisor and franchisee has to do under certain circumstances during the contract period, and residual rights as contract provisions which specify the franchisor's and franchisees' rights to make certain decisions during the contract period. For example, the franchisor has to regulate the advertising tasks in the contract. He has two possibilities: He can specify in detail the payment of certain advertising fees based on sales and the different promotion and advertising measures, or he can specify who has the right to make certain advertising decisions. A franchise contract is more complete when the ratio between specific and residual rights is high.

The aim of the study is to explain the degree of contractual completeness in franchising by developing hypotheses from different theoretical perspectives. We develop and test the following hypotheses: First, contractual completeness is negatively related with behavioural uncertainty. The empirical results provide support of the view that measurement difficulties and high monitoring costs lead to a lower degree of contractual completeness by assigning more residual rights to the partners. Second, completeness is negatively related with intangibility of system-specific know-how (or assets). Under high intangible system-specific assets it is difficult for the franchisor to specify the use of system-specific know-how in the contract; in this case contractibility of assets is low. The empirical results suggest that intangible (non-contractible) system-specific assets lead to difficulties to explicitly specify the use of system-specific know how in the franchise contract and hence result in a lower degree of contractual completeness. Third, we test the hypotheses that completeness decreases with relationship-specific investments and environmental uncertainty. Specific investments of the franchisor and franchisees increase the motivation of both partners to behave cooperatively that requires less detailed contract provisions. The data from the Austrian franchise sector confirm both the negative relationship between contractual completeness and environmental uncertainty and between completeness and franchisor's specific investments. Finally, we investigate the relationship between trust and contractual completeness. Our data support the view that trust has a positive effect on contractual completeness because more trust between the partners increases information sharing and hence the knowledge base for specifying more detailed contracts.

From this study, we can derive the following managerial conclusions: the choice of the contract design is closely related to the question of finding the right trade-off between specific rights and residual rights specified in the franchise contract. The franchise contract should consist of relatively more specific rights, compared to residual rights, under the following conditions: the performance of the partners can be easily measured, the environmental uncertainty is relatively low, the system-specific know how can be easily codified, the relationship-specific investments are relatively high and the relationship is based on trust.

1 Introduction

The theory and practice of contracts exhibits a huge gap (Lyons 1996; Lafontaine, Slade 1997; Masten 2000; MacLeod 2000; Scott 2003; Macaulay 2003; Kaplan, Strömberg 2003; Furlotti 2007; Spencer 2006). On the one hand, contract theory has developed by analyzing either contracts covering all possible contingencies in the complete contracting models in the form of agency relationships, or contracts assigning only residual decision rights in the property rights theory (Bolton, Dewatripont, 2005). On the other hand, actual contracts contain both, they specify various clauses covering certain contingencies and assign decision rights regarding the issues left open (Spencer 2008b; Grandori, Furlotti 2009). This paper aims to contribute to closing this gap by conceptualizing the incompleteness of contracts in franchising, formulating various hypotheses regarding the incompleteness of contracts, and providing evidence regarding contractual incompleteness in franchise contracts in Austria.

One way to characterize a contract in general is that it is a document delineating specific and residual decision rights (Barzel 1989; Demsetz 1998). Specific rights allocate the benefits and the costs to the involved parties in specific circumstances. For example, a franchise contract specifies the level of the royalty rate and the franchise fee. Residual decision rights specify the identity of the party who has the power to decide on the course of action in circumstances not covered by the specific rights (Leblebici, Shally 1996). In other words, they address the question 'Who has authority or control?' (Hansmann 1996; Elfenbein, Lerner 2003; Higgins 2007). For example, franchise contracts in the car industry restrict dealers' decision rights and grant manufacturers extensive completion, monitoring and enforcement powers (Arrunada et al. 2005). Residual decision rights are relevant next to specific rights because contracts

are in general incomplete (Hadfield 1990; Scott 2006; Hermalin 2008). Incomplete contracts are completed by the allocation of residual decision rights in order to decide in circumstances which are not covered by the contract (Lerner, Malmendier 2010). It provides a mechanism to adapt the decisions of both parties to day-to-day changes in the circumstances. Therefore, under environmental uncertainty, complexity and intangibility of knowledge assets, the contract design is an adaptation mechanism that assigns specific and residual rights to regulate the transactions between the partners (Simon 1951; Williamson 1975; Tadelis 2002; Meyer, Teece 2008).

The objective of our paper is to develop a theoretical foundation of the concept of contractual completeness and to examine the degree of contractual completeness in franchising by testing hypotheses derived from transaction costs, agency theory, property rights and relational view of governance. First, by applying the agency theoretical view, contractual completeness varies negatively with monitoring difficulties due to behavioural uncertainty. Second, we examine the property rights hypothesis that the degree of contractual completeness decreases with intangibility of the franchisor's system-specific assets. Third, based on the transaction cost theory, we argue that completeness varies negatively with transaction-specific investments and environmental uncertainty. Specific investments increase their quasi-rents and the self-enforcing range of contracts resulting in lower requirements for verifiable contract terms, and environmental uncertainty increases transaction costs thereby preventing the franchisor from specifying detailed contract terms. Finally, based on the relational view of governance, we investigate the relationship between trust and the degree of contractual completeness. According to the complementarity hypothesis, trust increases knowledge sharing and enables the franchise to design more complete contracts; on the other hand, according to the substitutability hypothesis, trust decreases the relational

risks and results in less complete contracts. These hypotheses are tested by using data from the Austrian franchise sector.

This paper makes three contributions: first, the paper presents a property rights foundation of contractual completeness which is defined by the ratio between specific and residual rights assigned to the contract partners. Second, we explain the degree of contractual completeness in franchising by applying agency theory, property rights theory, transaction cost theory and relational view of governance. Finally, the paper adds to the existing work on contract design in networks relations, such as strategic alliances, franchising, venture capital relations and joint ventures.

The article is organized as follows: Section two investigates the concept of contractual completeness. In section three we develop hypotheses to explain contractual completeness in franchising. Finally, we present the results of the empirical study.

2 Contractual Completeness

Recent empirical studies show that contractual completeness is a very heterogeneous concept with insufficient theoretical foundation (Poppo, Zenger 2002; Luo 2002; Ryall, Sampson 2009; Hagedoorn, Hesen 2008; Mesquita, Brush 2008; Solis-Rodriguez, Gonzalez-Diaz 2009). In this section, we develop the concept of completeness based on the property rights theory (2.1.), explain contractual completeness under different contract forms (2.2.) and clarify the relation between completeness and complexity of contracts (2.3).

2.1 Completeness and specific versus residual rights

Three types of contracts can be distinguished in the theory of contracts. First, complete contingent contracts were introduced by Arrow and Debreu in their models of market equilibrium (see Hendrikse 2003). These contracts can be made contingent on all the relevant contingencies because all relevant information is known to all parties and costlessly available. Second, complete contracts started to be analyzed in the late 1960s and 1970s. The introduction of private information and hidden actions (for instance moral hazard problems) prevents contracts being based on all relevant contingencies. However, contracts are still complete because they specify an action for each information set, i.e. complete contracts are made contingent on all the observable information. Finally, Grossman and Hart (1986) started the analysis of incomplete contracts. Incomplete contracts are to be positioned at the other extreme in terms of the costs of writing contracts because it is assumed, due to cognitive boundaries, that writing contracts is prohibitively expensive or not possible. A contract which only specifies who has the right to decide when a certain contingency arises is incomplete. It consists only of residual rights specifying the person with decision authority. Actual contracts consist usually of specific as well as residual rights, i.e. some contractual clauses regarding decision actions are specified, while the remaining contingencies are covered by assigning residual right(s) to the contract parties. There are various reasons for residual rights due to non-contractibility of decision actions. Examples of this are: a lack of insight of the people involved, the costs of writing contractual clauses and determining the optimal course of action, measurement costs (Barzel 1982), the imprecision of language, and environmental uncertainty.

The above differentiation allow us to define the completeness of contracts: contractual completeness is defined as the number of information sets having a specific

right assigned to it divided by the total number of information sets. This can be operationalized by the number of specific decision rights (sDR) divided by the sum of specific decision rights and the residual decision rights (rDR). It follows immediately from sDR/(sDR+rDR) = 1/(1+rDR/sDR) that a change in the completeness of contracts is the same as a change in the ratio between specific and residual rights (sDR/rDR). The higher the fraction of specific rights compared to residual rights specified in the contract, the higher the degree of contractual completeness; and the higher the fraction of residual rights is compared to specific rights, the lower the contractual completeness. sDR/rDR depends on the contractibility of knowledge. When contractibility is low, the use of assets is primarily regulated by assigning residual decision rights, and when contractibility of knowledge is high, the use of assets is primarily regulated by assigning specific decision rights to the contract partners. This view is compatible with the adaptation view of governance (Simon 1951; Williamson 1975; Gibbons 2005; Tirole 2009) that formulates a trade-off between preplanning of decision actions (assigning specific rights) and the planning of decision procedures (assigning residual rights) (Bolton, Faure-Grimaud 2005).[2]

2.2 Completeness and contract form

This concept of contractual completeness will be explained by comparing three contract forms: franchise contracts, license contracts and market contracts. The question to answer is how to formulate and assign specific and residual decision rights to the contract partners (franchisor/franchisee, licensor/licensee, market partners). We show that the ratio between specific and residual rights increases from franchise

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[2] A similar trade-off is well-known in the regulation literature on the choice between rules and standards (e.g. Kaplow 1992).

contract to licensing and from licensing to market contract; therefore market contracts are more complete than license contract, and license contract are more complete than franchise contracts. We assume that the only relevant assets are a_0, the system-specific assets (owned by A) and a_1, the local market assets (owned by B).

Franchise Contract

Under franchising, both system-specific assets, a_0, and local market assets, a_1, show a low degree of contractibility due to high intangibility of assets. In this case, the use of a_0 as well as a_1 is difficult to specify in the contract. Under non-contractible assets, the use of A's (franchisor) system-specific assets and B's (franchisee) local market assets is primarily regulated by assigning residual decision rights. Therefore, the degree of contractual completeness (sDR^F/rDR^F) is relatively low (see figure 1).

License Contract

Under licensing, the use of system-specific assets, a_0, is more contractible due to its lower degree of intangibility, and the local market assets, a_1, show a higher degree of intangibility. Hence the use of a_0 can be more completely defined in the contract between A and B, while the use of a_1 cannot be easily specified. Due to the high contractibility of a_0, more specific decision rights concerning the use of system-specific know how can be included in the contract. On the other hand, a_1 is non-contractible. Hence the use of B's (licensee) local market assets is more regulated by formulating residual decision rights. Since the use of system-specific assets can be more specified in the contract compared to franchising, the degree of contractual completeness is relatively higher than under franchising ($sDR^L/rDR^L > sDR^F/rDR^F$) (see figure 1).

Market Contract

Under market contract both system-specific know how, a_0, and local market assets, a_1, show a high degree of contractibility. Therefore, their use can be almost completely regulated by specifying detailed contract terms regarding the decision actions of the partners in the contract execution period. In this situation, the ratio between specific decision rights and residual rights is high resulting in a high degree of contractual completeness ($sDR^M/rDR^M > sDR^L/rDR^L > sDR^F/rDR^F$) (see figure 1).

INSERT figure 1

To summarize, contractual completeness is defined by the ratio between specific and residual decision rights. The lower the contractibility of knowledge (e. g. due to high intangibility of knowledge assets and uncertainty), the lower is the probability to formulate specific rights and the more residual decision rights are assigned to the contract partners, and the lower is the degree of contractual completeness.

2.3 Completeness versus complexity

After defining contractual completeness, we address the question what is the relationship between contractual complexity and contractual completeness. Recent studies on contractual complexity show that complexity is a very heterogeneous concept (e.g. Kole 1997; Barthelemy, Quelin 2006; Reuer et al. 2006; Reuer, Arino 2007; Hansen, Higgins 2007; Hagedoorn, Hesen 2008). Although the studies differs

widely in their approach and definition of complexity, the main characteristics of the complexity concept can be defined as follows: complex contracts have detailed specification of promises and obligations, responsibilities to be performed, procedures for monitoring and dispute resolution and determine in detail outcomes or outputs to be delivered. The more clauses are specified in a contract, the higher is its degree of complexity. Compared to our completeness concept, complexity refers both to specific decision rights (as outcome planning) and residual decision rights (as procedural planning) (rDR + sDR). Hence completeness and complexity are related as follows: a more complex contract can be both more or less complete. If the contract has a higher number of detailed provisions regarding the partners' actions in different environmental situations and a low number of provisions regarding residual decision rights, the contract has a high degree of completeness and complexity. On the other hand, if the contract has a high number of provisions regarding the assignment of residual decision rights and a low number of provisions regarding specific rights, the contract has a high degree of complexity, but a low degree of completeness. Therefore, complexity and completeness only go hand-in-hand when the use of assets can be specified in detail in the contract due to high contractibility of knowledge. On the other hand, complexity and completeness are negatively related when the use of assets is costly and difficult to specify in a contract due to low contractibility of knowledge but the contract specifies in detail the assignment of residual decision rights. Therefore, we do not agree with Arino and Reuer (2005) that a contract with more specific and detailed terms is more complete than one with less specific and detailed terms. It does not take into account the complexity of the object of the contract.

3 Determinants of Contractual Completeness

In recent years, few researchers in organizational economics and regulatory theory have examined the question of contract design in franchising. In organizational economics, most of the authors have studied interaction effects between different contract provisions. Wimmer and Garen (1997) have shown that specific assets act as an implicit bond and substitutes for a reduced royalty rate in inducing franchisee efforts. Brickley (1999) presented an agency cost explanation of the complementarities between mandatory advertising and area development plans, restrictions on franchisee's outside activities and area development plans, and between mandatory advertising and restrictions of outside activities. Berkovitz (1999) applied transaction cost reasoning to analyse interactions between contract provisions. She found that the initial fees and the duration of franchise contracts are positively related with the relationship-specific investments. In addition, she argued that the hostage function of specific investments could be increased by including termination conditions. By applying Klein's self-enforcement view of contract provisions (Klein 1995), Lafontaine and Raynaud (2000) examined complementarities between residual claimancy rights and self-enforcement mechanisms, such as exclusive territory clauses, multi-unit ownership guarantees, contract renewal and termination rights. They argued that the dilution of the franchisee's residual income rights requires the use of self-enforcement mechanisms to increase the franchisee's incentive to maximize the residual surplus of the network. Furthermore, Arrunada et al. (2001, 2005) and Windsperger (2003) advanced the literature by analyzing the entire system of rights in franchise contracts. Arrunada et al. (2001) found some complementarities between completion and termination rights, and between monitoring rights and incentives in the automobile distribution, and Windsperger (2003) found complementarities between residual

decision rights and ownership rights. More recently, in regulatory theory, Steinberg and Lescatre (2004) and Spencer (2006, 2007, 2008a, 2008b) extensively investigated regulatory and contract design issues in franchising.

Although these studies offer explanations of certain contract clauses in franchise relationships, they do not investigate the relation between the use of certain contract clauses and contractual completeness. In the following, we examine the determinants of contractual completeness in franchise relationships. We develop hypotheses from the following theoretical perspectives: transaction costs theory, agency theory, property rights theory and the relational view of governance.

3.1 Transaction Cost Theory

Environmental Uncertainty

According to the transaction cost theory (Williamson 1975; Anderson 1985; Heide, John 1990; Rindfleisch, Heide 1997), environmental uncertainty influences the contract design. Transaction costs arise due to bounded rationality under a complex and changing environment. Environmental uncertainty refers to market, cultural and institutional uncertainty. It prevents the franchisor from setting up detailed contract terms and increases the need of ex-post adaptations by allocating residual decision rights. The greater the environmental uncertainty, the more residual and the less specific decision rights are assigned to the partners, and the less complete is the contract. This is summarized in hypothesis H1a.

H1a: Contractual completeness is negatively related with environmental uncertainty.

Transaction-specific investments

According to the transaction cost theory, specific investments increase the partners'

quasi-rents which can be expropriated by the less dependent partner (Williamson 1985;

Klein 2000). In franchising, both the franchisor and the franchisee have to undertake

transaction-specific investments that lead to bilateral dependency (Heide, John 1988;

Windsperger 1994). When the transaction specific investments are high, both partners'

quasi-rents are likely to exceed the potential hold-up gains from opportunistic

behaviour, thereby increasing the self-enforcing range of contracts (Klein 1995, 1996;

Klein, Murphy 1997; Hwang 2006). In this situation, the hostage effect of transaction

specific investments motivates both partners to behave cooperatively in order to realize

the relationship-specific quasi-rents (Williamson 1983; Katz 2008). Additionally,

inside the self-enforcing range of contracts, the parties frequently disregard verifiable

contract terms (e.g. measures of performance) in favour of nonverifiable contract terms

in order to enhance the relationship-specific surplus (Scott 2003, 1676; Baker, Krawiec

2006). Consequently, the value-creating effect of bilateral specific investments

increases the self-enforcing range of contract and reduces the requirements for

specifying detailed contract terms. We can derive the following hypothesis:

> H1b: Contractual completeness is negatively related with the franchisor's and
>
> franchisee's transaction specific investments.

3.2 Agency Theory

According to the agency theory (e.g. Lafontaine 1992; Lafontaine, Slade 1998),

asymmetric information and opportunism result in high agency costs. The franchisor

has two possibilities to reduce agency costs: on the one hand, to reduce the residual loss

by increasing monitoring activities and performance measurement and, on the other

hand, by allocating a higher fraction of residual decision rights to the franchisees (Brickley et al. 2003). The higher the behavioural uncertainty (due to moral hazard and adverse selection), the more residual rights should be transferred to the franchisees as local entrepreneurs, and the fewer specific rights are formulated in contracts. Consequently, behavioural uncertainty results in measurement difficulties under a multi-tasking environment and hence in a lower degree of contractual completeness (Holmstrom, Milgrom 1991; Egglestone et al. 2000, 110). We derive the following hypothesis:

H2: Contractual completeness varies negatively with behavioural uncertainty.

3.3 Property Rights View

According to the property rights theory, the assignment of decision rights between the contract partners depends on the intangibility (non-contractibility) of knowledge assets (Hart, Moore 1990; Baker et al. 2006; Windsperger et al. 2009). In franchising, intangible knowledge assets are the brand name and system-specific know-how of the franchisor and the local market know-how of the franchisee. The brand name assets result from investments in system marketing and promotion, and the system-specific assets refer to knowledge and skills in site selection, store layout, product development, buying and merchandising. The franchisee's intangible knowledge assets refer to the local market know-how as franchisee's local marketing, human resource, quality control as well as innovation capabilities (Hall 1993). The relationship between non-contractibility of knowledge assets and contractual completeness can be stated by the following proposition: the lower the contractibility of system-specific and local market assets, the greater the difficulty for the franchisor to explicitly specify their use in the

contract, and the lower the degree of contractual completeness. We formulate the following hypothesis:

H3: Contractual completeness is negatively related with intangible system-specific assets.

3.4 Relational View of Governance

Under the relational view of governance (Dyer, Singh 1998; Gulati, Nickerson 2008; Mellewigt et al. 2007), there are two perspectives on the impact of trust on the use of contractual provisions[3]: (a) Substitutability view: trust is a substitute for formal contractual planning (Gulati 1995). Trust mitigates the contractual hazards due to lower relational risk (Nooteboom et al. 1997), and reduces the extent of formal contract planning. Consequently, the franchisors are likely to use less complete contracts when trust exists between the network partners. (b) Complementarity view: trust facilitates interorganizational knowledge sharing and enables the formulation of more refined contract terms as "reference points" (Hart, Moore 2008) that determine the boundaries of the self-enforcing range of contracts (Seppänen et al. 2007; Blomqvist et al. 2005; Klein 1996). Consequently, under a high level of trust the franchisor uses more complete contracts because trust creates an incentive for intense and open communication. We formulate the following hypothesis:

H4: Contractual completeness is negatively (positively) related with trust if the relational risk reducing effect of trust is higher (lower) than the knowledge sharing effect.

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[3] Dynamically, there is also a positive signalling effect of contractual incompleteness on trust (see Herold 2008)

4 Empirical Analysis

4.1 Sample and Data Collection

The empirical setting for testing these hypotheses is the franchising sector in Austria. We started our empirical work by obtaining the list of all franchise systems in Austria from the Austrian Franchise Association (AFA). AFA identified a total of 260 franchised systems in Austria in 2004. After several preliminary steps in questionnaire development, including interviews with franchisors and franchise consultants and the representatives of the AFA, the final version of the questionnaire was sent out by mail to the general managers of the franchise systems in June 2005 and September 2005. The questionnaire took approximately 15 minutes to complete on average. We received 52 completed responses; hence the response rate is 20%. The general managers as respondents to the survey were the key informants of the franchise systems. Key informants should occupy roles that make them knowledgeable about the issues being researched (John, Reve 1982). Since the general managers as top decision makers in the franchise systems are involved in all contractual decisions (including the design of franchise contracts), they were judged to be the most suitable respondents.

In implementing the survey we took several steps to ensure a good response rate, ranging from including a support letter from the president of the Austrian Franchise Association to conducting multiple follow ups with non-respondents (Fowler 1993). We examined the non-response bias by investigating whether the results obtained from analysis were driven by differences between the group of respondents and the group of non-respondents. Non-response bias was estimated by comparing early versus late respondents (Armstrong, Overton 1977), where late respondents serve

as proxies for non-respondents. No significant differences emerged between the two groups of respondents. In addition, we checked for common method bias. Based on Podsakoff et al. (2003), we used Harman's single-factor test to examine whether a significant amount of common method variance exists in the data. After we conducted factor analysis on all items and extracted more than one factor with eigenvalues greater than one, we felt confident that common method variance is not a serious problem in our study.

4. 2 Measurement

To test the hypotheses the following variables are important: contractual completeness, transaction-specific investments, behavioral uncertainty, intangible system-specific assets, environmental uncertainty and trust (see appendix).

Degree of contractual completeness

The indicator of COMPLETENESS is a proxy for the degree of contractual completeness defined by the ratio between specific and residual decision rights. Hence it addresses the extent to which specific rights of the franchisor and the franchisee are included in the contract. The general managers were asked to rate the degree of contractual completeness on a five-point scale: "The cooperation between the franchisor and the franchisee is regulated in a detailed manner in the contract". The higher the indicator, the higher the degree of contractual completeness.

Transaction specific investments

Transaction specific investments of the franchisor and the franchisee reduce the requirements for formulating specific contract terms regarding the partners' actions

under different contingencies because they increase the self-enforcing range of franchise contracts (Klein 1996, 2000; Klein, Murphy 1997). The franchisor's transaction-specific investments (SPECIFIC_ INVESTMENTS1) are operationalized by the following scale: the general managers were asked to rate the transaction-specific investments on a five-point scale: "To what extent does the franchisor bear the initial training costs of the franchisee?" The franchisee's transaction-specific investments (SPECIFIC_INVESTMENTS2) are measured by the sum of initial fees and initial investments.

Behavioral uncertainty

Behavioral uncertainty (BEHAV_UNCERTAINTY) results in measurement difficulties and monitoring costs under asymmetric information. Higher monitoring costs are negatively related to contractual completeness (Egglestone et al. 2000, 110). Consistent with previous studies we operationalize behavioral uncertainty with a four-item scale (e.g. Anderson 1985; John, Weitz 1989; Heide, John 1990) (see appendix). The reliability of this scale was assessed by Cronbach's alpha (0.83).

Environmental uncertainty

We use contract duration as an indicator of environmental uncertainty (ENV_UNCERTAINTY). According to Crocker and Reynolds (1993) and Ryall and Sampson (2009), contract duration is positively related with environmental uncertainty. This indicator represents the difficulty regarding preplanning of the franchisor's and franchisees' actions under a complex and changing environment. The longer the contract duration, the more difficult and costly is the planning of decision actions in the ex ante period, and the lower the degree of contractual completeness (Saussier 2000).

Intangible system-specific assets

Based on indicators used in earlier studies (e.g. Lafontaine 1992; Fladmoe-Lindquist, Jaque 1995; Windsperger, Yurdakul 2007), we use training days (franchisees and franchisee's employees - INTANGIBLE_SYSTEM ASSETS) as proxy for the franchisor's intangible system-specific assets. The number of training days is an indicator for intangibility of the franchisor's system-specific know-how. The assumption behind this measure is that as intangibility of knowledge assets increases, so does the number of days of face-to-face interaction. As argued by Simonin (1999), the higher the degree of intangibility, the less contractible the system-specific assets are, and the more personal knowledge transfer methods such as meetings, coaching and training are used.

Trust

Under the relational view of governance, trust may be a substitute for or complement of formal contract planning. Trust is a very heterogeneous concept (e. g. Dyer, Chu 2000; Seppänen et al. 2007; Lazzarini et al. 2008). We operationalize trust (TRUST) with a four-item scale (see Appendix) (Cronbach alpha = 0.86).

Control Variables

Age (AGE): Age is a proxy for inter-organizational experience and learning. Prior relationships may allow for the design of more complete contracts because the franchisor develops contract design capabilities (Argyres et al. 2007).

Size (SIZE): This variable refers to the total number of outlets representing economies of scale through standardization. The larger the total number of outlets, the larger are economies of scale through standardization, due to lower average contractual set-up costs, and hence the higher the tendency towards using more specified contractual provisions. Therefore, we use the number of total outlets as indicator for economies of contract standardization.

4.3 Results

Table 1 present the descriptive data for the sample in Austria.

Insert Table 1

To test the hypotheses, we carry out a regression analysis. We conduct an OLS regression analysis with COMPLETNESS as a dependent variable. The explanatory variables refer to intangible system-specific assets (INTANGIBLE_SYSTEM ASSETS), behavioral uncertainty (BEH_UNCERTAINTY), environmental uncertainty (ENV_UNCERTAINTY), transaction-specific investments (SPECIFIC_INVESTMENTS1, SPECIFIC_INVESTMENTS2), trust (TRUST), SIZE and AGE. Table 2 presents the correlations of the variables used in the regression analysis. In addition, the variance inflation factors are well below the rule-of-thumb cut-off of 10 (Neter et. al. 1985). In sum, we do not find any collinearity indication.

Insert table 2

We estimate the following regression equation:

COMPLETENESS $= \alpha + \beta_1$**INTANGIBLE_SYSTEM ASSETS** $+ \beta_2$**BEHAV_UNCERTAINTY**$+$

β_3**ENV_UNCERTAINTY** $+ \beta_4$**SPECIFIC_INVESTMENTS1**$+ \beta_5$**SPECIFIC_INVESTMENTS1**

$+ \beta_6$**TRUST** $+ \beta_7$**SIZE** $+ \beta_8$**AGE**

According to the property rights view, completeness varies negatively with intangibility of system-specific assets. Based on the agency theory, completeness varies negatively with behavioral uncertainty. According to the transaction cost theory, environmental uncertainty measured by contract duration is negatively related with completeness, because it is impossible or very costly for the franchisor to preplan all relevant decision actions under a high environmental uncertainty. Furthermore, completeness varies negatively with the franchisor's and franchisees' specific investments due to the bonding effect of relationship-specific investments. Finally, based on the relational view of governance, completeness may vary positively or negatively with trust. Under the substitutability view, trust reduces the relational risk and decreases contractual completeness; under the complementarity view, trust enables knowledge sharing and increases contractual completeness.

Table 3 reports the results of the regression analysis (model 1 and model 2). The coefficient of intangible system-specific assets (INTANGIBLE_SYSTEM ASSETS) is negative and significant indicating that higher intangibility of system-specific assets results in less complete contracts. The coefficient of behavioral uncertainty (BEHAV_UNCERTAINTY) is negative and highly significant. This implies that high behavioral uncertainty results in high monitoring costs preventing the franchisor from

designing more complete contracts. In addition, the coefficients of environmental uncertainty (ENV_UNCERTAINTY) and franchisor's transaction specific investments (SPECIFIC_INVESTMENT2) are negative and significant as expected. However, the coefficient of franchisee's specific investments (SPECIFIC_INVESTMENTS1) is not significant. The coefficient of trust (TRUST) is positive and significant. This is consistent with the view that the knowledge-sharing effect of trust dominates the risk reducing effect of trust. Finally, the coefficients of the control variables (SIZE and AGE) have the expected positive sign indicating that inter-organizational learning and economies of contract standardization may result in a higher degree of contractual completeness.

Insert Table 3

4.4 Discussion and Conclusion

The aim of the paper is to explain the degree of contractual completeness in franchising by developing and testing hypotheses derived from the agency theory, property rights theory, transaction cost theory and the relational view of governance. *First*, starting from the recent literature which shows that contractual completeness is a very heterogeneous concept without sufficient theoretical foundation, we develop a theoretical foundation based on the property rights view of allocation of decision rights. Contractual completeness is defined by the ratio between specific and residual decision rights stipulated in contracts. The higher (lower) the fraction of specific rights compared to residual rights, the more (in-) complete the contract is. *Second*, we develop and test the following hypotheses: according to the agency theory, completeness varies negatively with behavioural uncertainty. The results provide

support that measurement difficulties, due to behavioural uncertainty, lead to a lower degree of contractual completeness by assigning more residual rights to the partners. Further, we examine the property rights hypothesis that completeness varies negatively with intangibility of system-specific assets. The results indicate that non-contractible system-specific assets leads to difficulties to explicitly specify the use of system-know how in the franchise contract and hence results in a lower degree of contractual completeness. In addition, we test two transaction cost hypotheses that completeness varies negatively with transaction-specific investments and environmental uncertainty. The data from the Austrian franchise sector confirm both the negative relationship between contractual completeness and environmental uncertainty and between completeness and franchisor's specific investments. Finally, based on the relational view of governance, we investigate the relationship between trust and contractual completeness. Our data support the view that more trust result in more detailed contract planning indicating that the information-sharing effect of trust dominates the relational risk reduction of trust.

How does our study extend the results in the literature? The major contribution of our study is first the development of a new theoretical concept of contractual incompleteness and second the explanation of the degree of contractual completeness in franchising by applying transaction cost theory, agency theory, property rights theory and the relational view of governance. Our empirical study utilizes primary data from the Austrian franchise sector that enables the estimation of the factors specified by the theoretical views as important for the determination of the contractual completeness. Finally, the paper adds to the existing work on contract design in networks relations, such as strategic alliances, franchising, venture capital relations and joint ventures.

However, this study has important limitations: We measure all of the constructs from the franchisor's point of view. Particularly, we use the franchisor's perception to measure local market assets. This issue should be addressed in future studies by collecting data from the franchisees. In addition, the measurement of contractual completeness is only a first step to operationalize contractual completeness. The development of a more valid indicator for completeness requires the use of more objective measures based on contracts. Furthermore, we made the distinction between specific and residual decision rights. However, franchise contracts are characterized by two forms of incompleteness: one form of incompleteness is covered by the residual decision rights. They do not specify a course of action regarding many contingencies, but only the identity of the party who has authority to decide when one of these contingencies arises. The other type of incompleteness refers to the standardization of system-specific know how by using the business format. It implies a certain "rule-governed behaviour" (Heiner 1983, 568; Heiner 1986) and entails a certain rigidity because it standardizes behavior across outlets regardless of the local circumstances. This raises the question regarding the appropriate limits of uniformity (Kaufmann, Eroglu, 1998). Battigalli and Maggi (2002) label these two forms of incompleteness as discretion and rigidity. Future work has to address the circumstances when these forms of incompleteness arise.

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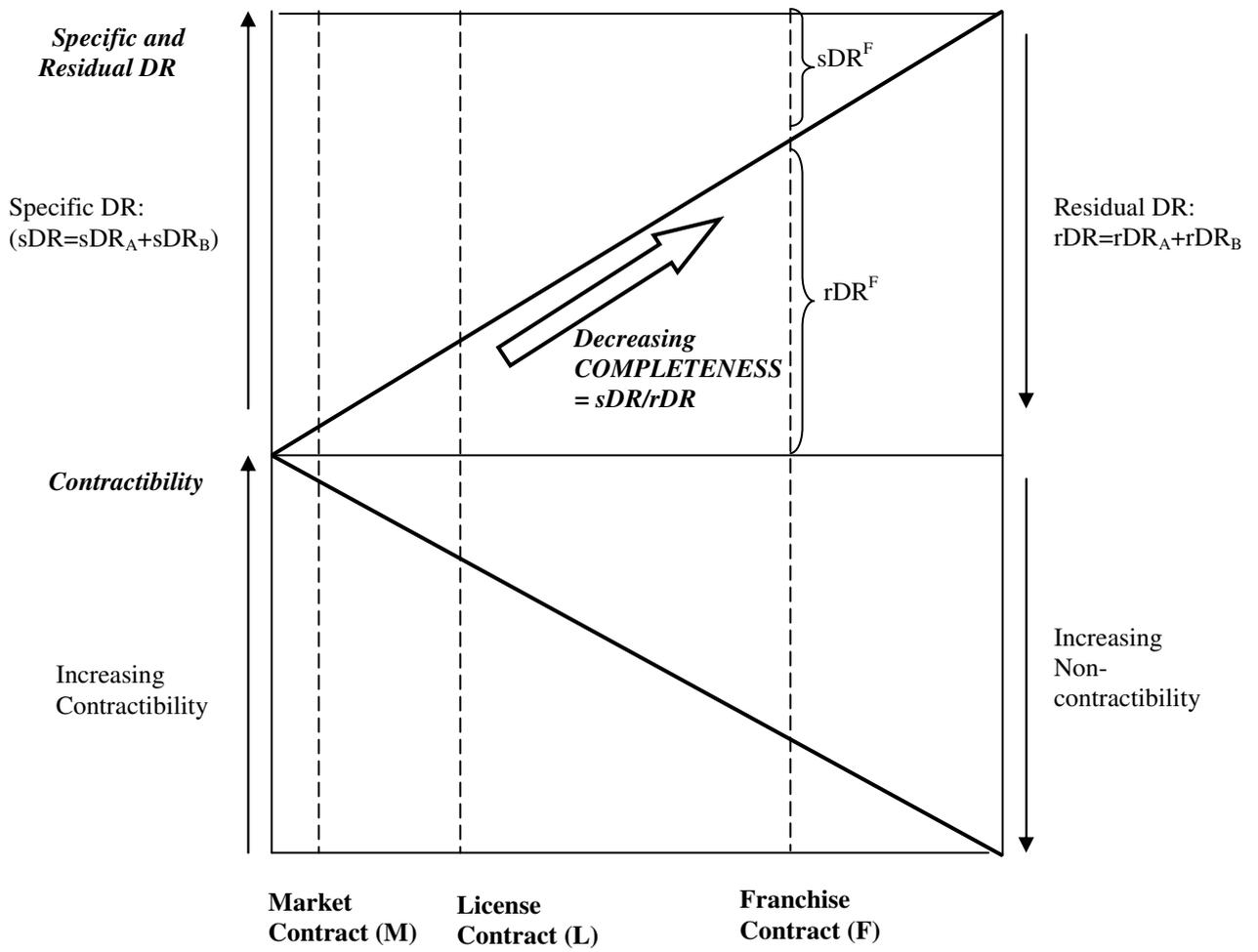
Figure 1: Contractual Completeness and Contract Form

	N	Minimum	Maximum	Mean	Standard Dev.
Franchisees' INITIAL INVESTMENTS (incl. initial FEES)	50	.00	590000.00	84100.56	1.22395E5
TRAINING DAYS (Franchisees and employees)	45	2.00	68.50	15.0000	14.76097
There is lot of trust between the partners	49	3	5	4.27	.700
There is an atmosphere of openness and sincerity	49	2	5	4.35	.751
Information exchange is more than agreed	49	3	5	4.20	.763
Co-operation is on the basis of partnership	49	3	5	4.59	.574
TRUST	50	3.20	5.00	4.404	.54733
It is difficult to predict the behaviour of the outlet manager (or franchisee)	51	1	5	2.59	1.004
It is difficult to control the behaviour of the outlet manager (or franchisee)	51	1	5	2.10	1.044
It is difficult to evaluate performance of the outlet manager (or franchisee)	51	1	4	2.25	.744
It is difficult to measure the local services	51	1	5	2.08	.977
BEHAVIORAL UNCERTAINTY	51	1.00	4.25	2.2549	.77054
Franchisor's SPECIFIC INVESTMENTS *(To what extent does the franchisor bear the initial training costs?)*	51	1	5	3.76	1.258
Contract duration (in years)	47	1	20	7.83	4.493
SIZE (total number of outlets)	52	1	162	28.25	38.93377
AGE	50	1	30	10.84	7.58183

Table 1: Descriptive Statistics

	INTANGIBLE SYSTEM_ASSETS	TRUST	BEHAV_ UNCERTAINTY	SPECIFIC_ INVESTMENTS1	SPECIFIC_ INVESTMENTS2	ENVIR_ UNCERTAINTY	SIZE	AGE
INTANGIBLE SYSTEM_ASSETS	1,000							
TRUST	,217	1,000						
BEHAV_UNCERTAINTY	-,365[*]	-,304[*]	1,000					
SPECIFIC_INVESTMENTS1	,087	,127	-,284[*]	1,000				
SPECIFIC_INVESTMENTS2	,259	,269	-,466[**]	,094	1,000			
ENVIR_UNCERTAINTY	,176	,320[*]	-,249	-,025	,478[**]	1,000		
SIZE	0,005	-,151	-0,18	-,078	0,19	-0,164	1,000	
AGE	0,001	0,122	-0,011	-0,034	0.291	0,022	0,422**	1,000

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

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2: Correlations

COMPLETENESS	Model 1	Model 2
Intercept	5.15***	3.373**
	(1.51)	(1.536)
INTANGIBLE_SYSTEM ASSETS	-0.037**	-0,036**
	(0.015)	(0.014)
BEHAV_UNCERTAINTY	-0.762***	-0.668***
	(0.218)	(0.211)
ENVIR_UNCERTAINTY	-0.111**	-0.086*
	(0.052)	(0.049)
SPECIFIC_INVESTMENTS1 (Franchisor)	-0.317**	-0.283**
	(0.136)	(0.123)
SPECIFIC_INVESTMENTS2 (Franchisee)	2.60E-006	7.19E-006
	(0.000)	(0.000)
TRUST	0.646**	0.896***
	(0.283)	(0.307)
SIZE		0.005
		(0.004)
AGE		0.01
		(0.019)
F	4.400***	4.046***
Adj. R Square	0.382	0.44

*** $p < 0.01$; ** $p < 0.05$; *$p < 0.1$; values in parentheses are standard errors.

Table 3: Regression results

APPENDIX: MEASURES OF VARIABLES

COMPLETENESS (contractual completeness)	The franchisor has to evaluate contractual completeness on a 5 point scale (1,strongly disagree; …5, strongly agree): *The tasks between the franchisor and the franchisee are regulated in a detailed manner in the contract.*
TRUST (trust) **Coefficient alpha: 0.86**	The franchisor has to evaluate trust on a 5 point scale (1,strongly disagree; …5, strongly agree): *There is lot of trust between the partners.* *There is an atmosphere of openness and sincerity.* *Information exchange is more than agreed.* *Co-operation is on the basis of partnership.*
BEHAV_UNCERTAINTY (behavioral uncertainty) **Coefficient alpha: 0.827**	The franchisor has to evaluate behavioral uncertainty on a 5 point scale (1,strongly disagree; …5, strongly agree): *It is difficult to predict the behaviour of the outlet manager (or franchisee).* *It is difficult to control the behaviour of the outlet manager (or franchisee).* *It is difficult to evaluate performance of the outlet manager (or franchisee).* *It is difficult to measure the local services.*
ENVIR_UNCERTAINTY (environmental uncertainty)	Environmental uncertainty is measured by contract duration (in years).
SPECIFIC_INVESTMENTS1 (franchisor) **SPECIFIC_INVESTMENTS2 (franchisee)**	The franchisor has to evaluate its transaction specific investments (1, not at all;… 5, very large extent): *To which extent does the franchisor bear the initial training costs?* Franchisee's specific investments are measured by the sum of initial fees and initial investments.
INTANGIBLE_SYSTEM ASSETS (intangible system-specific assets of the franchisor)	Total training days of the franchisee and its employees (per year).
AGE	Years since opening of the first franchise outlet in Austria
SIZE	Total number of company-owned and franchised outlets