Determinants of the Knowledge Transfer Strategy in Franchising

The Case of Personalization Strategy

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Abstract

The paper provides an integrative view on the choice of knowledge transfer strategy in franchising networks by applying the knowledge-based view of the firm and the relational view of governance. *First*, starting from the knowledge-based view we argue that tacitness of system knowledge determines the information richness of the knowledge transfer mechanisms of franchising firms. The higher the degree of tacitness of knowledge, the more knowledge transfer mechanisms with a high degree of information richness are used, such as training, seminars, visits and meetings, and the more likely a personalization strategy is used. Conversely, the lower the degree of tacitness of system knowledge, the more knowledge transfer mechanisms with a low degree of information richness are used, such as reports, emails, intranet, databases, and the more likely a codification strategy is used. *Second*, based on the relational view of governance, trust influences the knowledge transfer strategy. If trust is a substitute for more formal knowledge transfer mechanisms, a higher level of trust reduces the tendency toward personalization strategy and increases the tendency toward codification strategy. If trust is a complement to formal knowledge transfer mechanisms, it increases the tendency toward more high and low-IR knowledge transfer mechanisms. We test these hypotheses by using data on the use of personalization strategy of Austrian franchise firms. The data provide partial support for the hypotheses.

Keywords

Knowledge transfer strategies, knowledge-based view of the firm, relational view of governance, trust, franchising

1 Introduction

The franchisor can use a variety of knowledge transfer mechanisms to transfer the system-specific know-how to franchisees: Training, conference meetings, councils, committees, outlet visits, telephone, fax, intra- and internet and other electronic transfer mechanisms. This paper investigates the determinants of knowledge transfer strategy in franchising networks by applying the knowledge-based view of the firm and the relational view of governance. According to the knowledge-based view, tacitness of knowledge influences the choice of knowledge transfer mechanisms. Information richness theory offers information richness as a criterion to differentiate knowledge transfer mechanisms according to their knowledge transfer capacity. In franchising, knowledge transfer mechanisms with relatively high degree of information richness (HIR) are: training, conference meetings, councils and committees, visits of the outlets; and knowledge transfer mechanisms with relatively low degree of information richness (LIR) are: fax, intra- and internet and other electronic transfer mechanisms. If the franchisor focuses on HIR-knowledge transfer mechanisms he uses a personalization strategy of knowledge transfer and if he focuses on LIR-knowledge transfer mechanisms he uses a codification strategy of knowledge transfer.

According to the relational view of governance "trust" is an informal governance mechanism that influences the use of formal knowledge transfer mechanisms. Trust may have significant effects on the choice of knowledge transfer mechanisms: On the one hand, trust is a trigger for more communication and hence increases the use of knowledge transfer mechanisms. On the other hand, trust is a substitute for more formal knowledge transfer mechanisms because it increases the knowledge transfer capacity of a given knowledge transfer mechanism (Lo and Lie 2008). The higher is the degree of trust between the franchisor and the franchisees, the lower is the requirement for HIR-knowledge transfer

mechanisms to transfer tacit system-specific knowledge. Furthermore, trust is likely to moderate the effect of tacitness of system knowledge on the use of knowledge transfer mechanisms. If trust is a substitute for formal knowledge transfer mechanisms, it will decrease the effect of tacit knowledge on the use of high IR knowledge transfer mechanisms, and if trust is a complement to formal knowledge transfer mechanisms, it will increase the effect of tacit knowledge on the use of formal knowledge transfer mechanisms. The thesis of our paper can be stated as follows: First, the higher the tacitness of the franchisor's system knowledge, the more knowledge transfer mechanisms with a higher degree of IR should be used to facilitate an efficient knowledge transfer from franchisor to franchisees, and the more likely is the use of personalization strategy by the franchisor. Second, depending on the role of trust as a complement or substitute for more formal knowledge transfer mechanisms, it increases or decreases the use of formal knowledge transfer mechanisms. Third, trust moderates the effect of tacitness of system knowledge on the use of formal knowledge transfer mechanisms. A high level of trust decreases the use of more personal knowledge transfer mechanisms and a low level of trust increases the use of more personal knowledge transfer mechanisms, given a high degree of tacitness of system knowledge.

The article is organized as follows: Section two reviews the relevant literature related to knowledge transfer in networks. In section three we develop the knowledge-based and relational view of knowledge transfer strategy and derive testable hypotheses. Finally, we test the hypotheses that the choice of knowledge transfer strategy in franchising depends on tacitness of knowledge and the level of trust. Empirical testing is carried out using data from the Austrian franchise sector.

2   Relevant Literature

Research on knowledge transfer started with the information richness theory in the 1980s (Daft and Macintosh 1981; Daft and Lengel 1984, 1986; Trevino et al. 1987; Daft et al. 1987; Russ et al. 1990; Sheer and Chen 2004). According to this view, an effective knowledge transfer requires a fit between 'information richness' of the communication mechanism and the information processing requirements of the task (Sheer and Chen 2004). 'Richness' consists of four attributes of the communication mechanism: feedback capability, availability of multiple cues (voice, body, gestures, words), language variety, and personal focus (emotions, feelings). The more of these attributes a mechanism possesses, the higher is the degree of IR of the mechanism and hence the greater is the knowledge transfer capacity. Knowledge transfer mechanisms with a high degree of IR refer to face-to-face interactions and team-based mechanisms (meetings, trainings, seminars, workshops, visits). Knowledge transfer mechanisms with a low degree of IR refer to written media, manuals, reports, data bases and written instructions. Recent studies extend this view to new electronic communication media (Lim and Benbasat 2000; Büchel and Raub 2001; Sexton et al. 2003; Vickery et al. 2004; Lo and Lie 2008).

Research on knowledge strategies based on the knowledge-based view of the firm evolved through the 1990s (Teece 1985, Winter 1987, Nonaka 1994, Nonaka and Takeuchi 1995, Nonaka et al 1996, Szulanski 1995, 2000; Szulanski and Jensen 2006; Kogut and Zander 1992). According to the knowledge-based view of the firm, tacitness positively varies with the difficulty of knowledge transfer. On the other hand, as knowledge consists of increasing tacit components, its strategic importance increases and the choice of appropriate knowledge governance strategy becomes a strategic decision (Zack 1999). Research on knowledge management strategies started with the knowledge conversion model of Nonaka (1994), Nonaka and Takeuchi 1995, Nonaka et al 1996. Based on the relationship between

explicit and tacit knowledge, Nonaka et al differentiate between socialization, explication, combination and internalization of knowledge. Related to the knowledge conversion model, Hansen et al (1999) developed two alternative knowledge strategies: codification and personalization strategy. In the first case knowledge is carefully codified and stored in databases, where it can be accessed and used easily by anyone in the company. Companies following this strategy heavily depend on IT investments to support the knowledge management process. In the second case, the knowledge is closely tied to a person who developed it and is shared mainly through direct person-to-person contacts. Hanson's approach is compatible with the knowledge strategy concepts in the field of information management (Zack 1999, Swan et al. 1999, 2000 and Earl 2001, Choi and Lee 2003). Personalization and codification strategy are not mutually exclusive strategies but firms tend to favor one over the other.

Companies that follow a codification strategy rely on the "economics of reuse" (Hanson 1999). In franchising, system specific knowledge that has been codified can be transferred by LIR-transfer mechanisms, e.g. email, fax, reports and intranet. The personalization strategy relies on the logic of "expert economics" (Hanson 1999). It focuses on face-to-face communication between individuals. In franchising, system specific knowledge that cannot be codified is transferred by using HIR-knowledge transfer mechanisms, like training, seminars, visits and meetings between the franchisor and the franchisees.

Although the knowledge transfer from franchisor to franchisees is a key to the success of the franchising network, the problem of choice of knowledge transfer strategy remains largely unexplored (Darr et al. 1995; Paswan and Wittmann 2003; Paswan et al. 2004). Darr et al. (1995) examine the transfer of knowledge between franchisee-owned outlets. They argue that knowledge is primarily transferred across stores owned by the same

franchisee but not across stores owned by different franchisees because the frequencies of phone calls, personal acquaintances and meetings are significantly higher in the case of stores owned by the same franchisee compared to stores owned by different franchisees. In addition, Paswan and Wittmann (2003) argue that franchising firms as network organizations characterized by dense social contacts have a potential to benefit greatly from knowledge created by its distributed network members. However, Paswan et al do not investigate the problem of the choice of knowledge transfer strategy in the networks.

In sum, the existing literature on knowledge transfer does not investigate the determinants of the knowledge transfer strategy in franchising networks. Starting from this deficit, the objective of our paper is to explain the choice of knowledge transfer strategy in franchising networks by integrating results from the knowledge-based and relational view of governance. Our study utilizes primary data on the use of personalization strategy of Austrian franchise systems that enables us to estimate the factors that influence this knowledge transfer strategy.

3   Knowledge Transfer Strategy: A Knowledge-based View and Relational View

3. 1 Knowledge Attributes and Knowledge Transfer Strategy

According to the knowledge-based view, the characteristic relevant for the determination of the efficient knowledge transfer strategy in networks is the degree of tacitness of knowledge. If the system specific knowledge of the franchisor is explicit, all relevant knowledge can be written down in the franchise contracts. In this case, knowledge can be efficiently transferred using codification strategy. If the system specific knowledge is tacit, franchising contracts

are incomplete because not all the relevant knowledge can be written down. In this case, more face-to-face knowledge transfer mechanisms are needed to process and transfer the more tacit system specific knowledge from the franchisor to the franchisees. Therefore, as tacitness of knowledge increases by degree, a larger knowledge transfer capacity and hence more HIR-knowledge transfer mechanisms (as personalization strategy) are required, and as codifiability of knowledge increases by degree, a smaller knowledge transfer capacity and hence more LIR-transfer mechanisms are required for an efficient knowledge transfer in the network. As a result, the knowledge-based view on the choice of knowledge transfer strategy in franchising network can be stated by the following propositions: The more tacit the system knowledge is, the more HIR- knowledge transfer mechanisms are needed to facilitate an efficient knowledge transfer, and the higher is the tendency toward using a personalization strategy. Conversely, the more codifiable the system knowledge is, the more LIR-knowledge transfer mechanisms are needed for an efficient knowledge transfer, and the higher is the tendency toward using a codification strategy.

Therefore, the following testable hypothesis can be derived from the arguments above:

H1: The use of personalization strategy is positively related with the tacitness of system specific knowledge.

3. 2. Trust and Knowledge Transfer Strategy

The knowledge transfer strategy consists of a combination of formal and informal governance mechanisms. The latter refer to the use of trust and reputation mechanisms to facilitate the transfer of knowledge. Under relational view of governance (Macneil 1981; Zaheer and Venkatraman 1995; Zaheer et al 1998; Dyer and Singh 1998; Uzzi 1997;

Lazzarini et al. 2006; Gulati and Nickerson 2007), there are two views on the impact of trust on the use of knowledge transfer mechanisms:

(a) Substitutability view: Knowledge-based trust (related to the history of inter-organizational experience) is a substitute for the use of formal knowledge transfer mechanisms (Gulati 1995). This is due to its cognitive and incentive effect: Trust increases the knowledge transfer capacity of the network by enabling the processing of more tacit system knowledge under a given knowledge transfer mechanism. In addition, trust reduces the knowledge transfer hazards, due to lower opportunism risk, and reduces the extent of use of formal knowledge transfer mechanisms (Lo and Lie 2008). Consequently, the franchisors are likely to use less HIR- and more LIR-knowledge transfer mechanisms when trust exists between the partners in the network. Furthermore, the franchisors are likely to use more HIR- and less LIR-mechanisms when mistrust exists. We derive the following hypothesis:

H2A: Trust varies negatively with the use of personalization strategy.

(b) Complementarity view: Motivation-based trust overcomes communication barriers and facilitates information sharing and increases the use of all forms of knowledge transfer mechanisms (Seppänen et al. 2007; Bohnet and Baytelman 2007; Blomqvist et al. 2005; Lazzarini et al. 2006); conversely, more communication resulting from the use of more personal knowledge sharing mechanisms leads to more trust between the network partners (Anderson and Narus 1990; Dyer and Chu 2000; Blomqvist et al. 2005; Ben-Ner and Puttermann 2009). Consequently, under a high level of trust the franchisor uses both more HIR- and LIR knowledge transfer mechanisms because trust creates an incentive for intense and more open communication, and under a low level of trust the franchisor uses both less LIR and HIR because mistrust creates a disincentive for communication. As a result, we can derive the following hypothesis:

H2B: Trust varies positively with the use personalization strategy.

3. 3. Interaction between Tacitness of System Knowledge and Trust

Trust only influences the formal governance mode if contracts are incomplete due to uncertainty and tacitness of knowledge (Dhanaraj et al. 2004; Blomqvist et al. 2005; Gulati and Nickerson 2007). Therefore, the interaction effect between knowledge and trust depends on the degree of tacitness of system knowledge.

(a) If the system-specific knowledge is codifiable, the franchisor uses a codification strategy. In this case, trust has no or a weak influence on the impact of codifiable knowledge on the use of knowledge transfer mechanisms because exchange hazards are very low and the franchisor can explicitly formulate the relevant knowledge in the contract (Gulati and Nickerson 2007). (b) If the system knowledge is tacit, the franchise contacts are incomplete and the franchisees have difficulties to understand and successfully apply the system-knowledge without personal communication. In this case, trust facilitates the transfer of tacit system knowledge (Becerra et al. 2008). What is the impact of trust on the relationship between tacit knowledge and the use of knowledge transfer mechanisms? *First*, if trust is a substitute to formal knowledge transfer mechanisms, more trust requires less knowledge transfer capacity and hence less personal communication mechanisms to transfer tacit system knowledge. Hence more trust results in a less increase in the use of HIR-knowledge transfer mechanisms when tacitness of system knowledge increases, and less trust results in a higher increase in the use of personalization strategy when tacitness increases. *Second*, if trust is a trigger to facilitate communication and hence a complement to the use of formal knowledge transfer mechanisms, more trust may increases the impact of tacit knowledge on the use of personalization strategy. Therefore, we can derive the following hypotheses:

H3A: Under the substitutability view, the positive impact of tacit system knowledge on the use of personalization strategy decreases with trust.

H3B: Under the complementarity view, the positive impact of tacit system knowledge on the use of personalization strategy increases with trust.

4 Empirical Analysis

4.1 Sample and Data Collection

The empirical setting for testing the hypotheses formulated above 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 234 systems in Austria in 2007. 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 October 2007 and February 2008. The questionnaire took approximately 10 minutes to complete on the average. We received 52 completed responses (response rate is 22.2%). 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 and Reve 1982). Since the general managers as top decision makers in the franchise systems are involved in all organizational decisions (including the design of the knowledge transfer mechanisms), 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 and Overton 1977), where late respondents serve as proxies for non-respondents. No significant differences emerged between the two groups of respondents.

4. 2 Measurement

To test the hypotheses the following variables are important: personalization strategy, tacitness of system knowledge, trust and control variables (see Appendix). We explain how these variables are measured.

Personalization strategy (PS)

Adapted from Hansen et al (1999), we define the personalization strategy as a person-to person approach for transferring and sharing knowledge. In personalization strategy the knowledge can be transferred face-to-face (through trainings, meetings, visits, conferences, seminars). Face-to-face knowledge transfer mechanisms have the highest information richness (Daft and Lengel, 1984) and are more suitable for the transfer of tacit knowledge. Our research focuses on following face-to-face mechanisms commonly used in franchising (initial and annual trainings, seminars and workshops, council and committee meetings, formal meetings between franchisors and franchisees).

Personalization strategy is measured by the extent to which the franchisors use initial and annual trainings, meetings between franchisors and franchisees, conferences and workshops, committees and councils. The franchisors were asked to rate the use of these mechanisms on a seven-point scale. The higher the score, the higher is the franchisor's use of a certain mechanism. We measure PS by including initial and annual trainings, seminars and workshops, meetings between franchisors and franchisees, council and committee meetings.

We construct PS as a formative indicator representing the domain of the content (Diamantopoulos and Winkelhofer 2001). Since formative indicators influence the construct, "internal consistency reliability is not an appropriate standard for evaluating the adequacy of the measures" (Jarvis et al 2003: 202). This implies that dropping a causal indicator, due to low item-to-total correlations, may change the meaning by restricting the domain of the composite construct.

Knowledge Attributes

According to the knowledge-based view, tacitness of system knowledge determines the use of knowledge transfer mechanisms. Following Winter's (1987) taxonomy of knowledge and Kogut and Zander's argument (Kogut and Zander 1993; Zander and Kogut 1995) we use the following knowledge attributes to measure the latent construct of tacitness of knowledge: codifiablity, teachability and complexity. Codifiability (COD) is the degree to which knowledge can be encoded and written down in manuals. When codifiability is high, the system knowledge is considered more explicit. Teachability (TEACH) is the extent to which knowledge can be transferred through training, demonstration, participation. As Winter (1987) and Teece (1985) point out, transfer of tacit knowledge, if possible at all, requires teaching, demonstration and participation. Teachability is high when the system knowledge can be taught to the franchisees. However, if the system knowledge of the franchisor cannot be taught due to its high degree of tacitness, the franchisees cannot acquire and apply the requisite knowledge to efficiently manage the local outlets. Hence, highly-tacit, non-transferable system knowledge cannot be used in franchising networks. Kogut and Zander (1993: 633) define complexity (COMPLEX) "as the number of critical and interacting elements embraced by an entity or activity". Similarly, Sorenson et al. (2006) define complexity in terms of the level of interdependence inherent in the subcomponents of a piece

of knowledge (see also Simonin 1999 a, b). When the system knowledge is more complex, it is considered more tacit. Applied to franchising, complexity is high when the application of the system knowledge by the franchisees requires a large number of heterogeneous, complicated and interdependent tasks, and when the franchisees have to master diverse techniques in order to successfully apply the system knowledge.

Adapted from Zander and Kogut (1995), we use a battery of ten items to measure codifiability, teachability and complexity of system specific knowledge. Reliabilities of the final scales for COMPLEX and TEACH pass the threshold of 0.7; Cronbach alpha for COD is only 0.57. However, according to (Pedhazur and Schmelkin, 1991:109), the use of the constructs with lower reliability can be justified in the earlier stages of research. Higher reliabilities are usually required when the measure is used to determine differences among groups, and very high reliabilities are essential when scores are used for making decisions about individuals. Therefore, reliabilities above 0.5 can be viewed as acceptable (see also John and Benet- Martinez 2000).

To check convergent and discriminant validity of the constructs we estimated the average intraconstruct correlation as a "within measure" and the average correlation of each construct's items with each other construct's items as a "between measure". The results are presented in the Table 1. The "within" average correlations presented on a diagonal line are higher than the "between" average correlations, proving the discriminant validity of these constructs.

Insert Table 1

Trust

Under the relational view of governance (Zaheer and Venkatraman 1995; Dyer and Singh 1998; Levin and Cross 2004; Gulati and Nickerson 2007; Mellewigt et al. 2007), there are two perspectives on the impact of trust (TRUST) on the use of knowledge transfer mechanisms: (a) Trust is a substitute for the use of formal knowledge transfer mechanisms because it mitigates the knowledge transfer hazards, due to lower relational risk (Roberts 2000), and hence reduces the extent of use of formal knowledge transfer mechanisms (Gulati 1995; Poppo and Zenger 2002; Yu et al. 2006; Lo and Lie 2008). (b) Trust is a complement to the use of formal knowledge transfer mechanisms because it overcomes communication barriers and facilitates knowledge sharing and increases the use of all forms of knowledge transfer mechanisms (Seppänen et al. 2007; Blomqvist et al. 2005; Bohnet and Baytelman 2007). Motivation-based trust (TRUST) was measured with a four-items scale (see Appendix) (Cronbach alpha = 0.89); knowledge-based trust was measured with the interaction effect AGE*TRUST. AGE (number of years since the opening of the first franchise outlet in Austria) is a proxy for trust building through inter-organizational experience (Gulati 1995; Dyer and Chu 2000). The more experience the franchisor has, the higher is the knowledge-based trust.

Control Variables

Sector (SEC): We include a sectoral variable (SEC) to control for sectoral effects because the know-how intensity of franchise firms varies between product/distribution and service firms (Zeithaml et al. 1985). 0 refers to product and distribution franchising and 1 to the service sector.

Age of the Franchise Company (AGE): AGE (measured by the number of years since the opening of the first franchise outlet in Austria) is a proxy for inter-organizational learning (Gulati and Sytch, 2008). The older the franchise company, the more the franchisor can learn

about the application of system know how at the local markets, the higher is the tendency toward standardization of the system-know how, due to the knowledge conversion effect from more tacit to more explicit knowledge (Nonaka 1994; Inkpen 2000), and the lower is the requirement for using personalization strategy.

4.3 Results

Tables 2 and 3 present the descriptive data for the sample in Austria.

Insert Tables 2 and 3

To test the hypotheses we carry out a regression analysis. We conduct an OLS regression analysis with personalization strategy (PS) as a dependent variable. Personalization strategy refers to the use of initial and annual training, seminars and workshops, council and committee meetings and formal meetings between franchisor and franchisees. The franchisors were asked to rate the use of PS on a seven-point scale. By averaging the scale values we constructed PS indicator. The explanatory variables refer to complexity (COMPLEX), codifiability (COD), teachabililty of knowledge (TEACH), trust (TRUST) and the interaction effects TRUST*AGE and TRUST*COMPLEX. Control variables refer to sector (SEC) and age (AGE) of the franchise system. Table 4 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 (Netter et. al. 1985). In sum, we do not find any collinearity indication.

Insert table 4

We estimate the following regression equation:

$$PS = \alpha + \beta_1 TEACH + \beta_2 COMPLEX + \beta_3 COD + \beta_4 TRUST + \beta_5 TRUST*AGE + \beta_6 AGE + \beta_7 TRUST*COMPLEX + \beta_8 SEC$$

According to the knowledge-based view, PS varies positively with increasing tacitness (COMPLEX) and negatively with decreasing tacitness of system specific knowledge (TEACH, COD). Further, based on the relational governance view, trust may be a substitute for the use of formal knowledge transfer mechanisms (Gulati 1995; Poppo and Zenger 2002). The franchisors are likely to use less personalization when trust exists between the partners in the network. On the other hand, under the complementarity view trust is a complement to the use of formal knowledge transfer mechanisms because it facilitates information-sharing and results in more personal communication between franchisors and franchisees.

We proceed in three steps: First we estimate the model without interaction effects (Model 1), second with the interaction effect TRUST*AGE (Model 2), and third with the interaction effects TRUST*AGE and TRUST*COMPLEX (Model 3). Table 5 reports the results of regression analysis for PS.

Insert Table 5

In Model 1 the coefficient of complexity (COMPLEX) is positive and highly significant. This is consistent with our hypothesis that increase in complexity of knowledge implies the use of personalization strategy. The coefficients of teachability (TEACH), codifiability (COD), trust (TRUST) and age (AGE) are not significant. The coefficient of the

sectoral variable (SEC) is negative and significant. Contrary to expectations product and distribution franchises are more likely to use personalization strategy than service franchises.

In Model 2 we test the effect of the knowledge-based trust on the use of personalization strategy. According to H2A, knowledge-based trust is a substitute for the use of formal knowledge transfer mechanisms (Gulati 1995; Poppo and Zenger 2002); hence the coefficient of the interaction term β_5 should be negative. Under H2B there is a complementarity effect between the knowledge-based trust and the use of formal knowledge transfer mechanisms; hence the coefficient of the interaction term β_5 should have a positive sign. As indicated in Table 5, the coefficient of the interaction effect TRUST*AGE is positive and significant. This supports the view that knowledge-based trust facilitates information-sharing and results in more personal communication between franchisors and franchisees.

In Model 3 we test the interaction effect between trust and tacitness of system specific knowledge. According to H3A, the positive impact of tacit system-knowledge on the use of personalization strategy decreases with trust; hence the sign of the coefficient of the interaction term β_7 should be negative. Under H3B, the positive impact of tacit system-knowledge on the use of personalization strategy increases with trust; hence the sign of the coefficient of the interaction term β_7 should be positive. As shown in Table 5, the coefficient of TRUST*COMPLEX is positive but not significant, thus providing insufficient evidence to support hypothesis H3B.

5 Conclusions

The goal of the paper is to explain the choice of knowledge transfer strategy in franchising networks by applying the knowledge-based view and the relational view of governance. According to the knowledge-based view, tacitness of knowledge determines the choice of

the knowledge transfer strategy. If the system knowledge is more tacit, the franchisor will choose personalization strategy by using more HIR knowledge transfer mechanisms. Our data provide support for this hypothesis. According to the relational governance view, trust influences the knowledge transfer strategy. Our data provide support for the complementarity view: Trust between franchisor and franchisees increases the tendency toward face-to-face communication and increases the use of personalization strategy. We also tested the influence of trust on the relationship between tacit knowledge and the use of personalization strategy. Our data does not provide support for a significant impact of the interaction effect between trust and tacitness of system knowledge on the choice of knowledge transfer strategy.

How does our approach extend the results in the literature? The major contribution of our study is to apply the knowledge-based view and the relational view for the explanation of knowledge transfer strategy of the franchise firms. Our study utilizes primary data from the Austrian franchise sector that enables the estimation of the factors specified by the theory as important for the choice of knowledge transfer strategy. We use knowledge attributes (such as complexity, teachability and codifiability) and trust (motivation-based trust and knowledge-based trust) to empirically evaluate their impact on the choice of knowledge transfer strategy.

This study is not without limitations that beg for additional work: First, due to the small sample size the generalizability of the results is limited; further research analyzing data from other countries with a larger number of franchise systems would help ascertain generalizability of our research results. Second, the measurement of knowledge is not without limitations; it is a first step to measure tacitness of knowledge by different knowledge attributes.

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	COD	TEACH	COMPLEX
COD	0,429		
TEACH	0,210	0,367	
COMPLEX	0,212	-0,079	0,450

Table 1: Average within/between correlations

	N	Minimum	Maximum	Mean	Std. Deviation
Sector: "0" Product and Distribution; "1" Services	51	0	1	.73	.45
Number of company-owned outlets	49	0	106	7.06	18.92
Number of franchised outlets	51	0	540	32.90	78.67
Number of franchisees	51	0	98	17.41	20.96
Age	52	1	104	20.96	22.94

Table 2: Characteristics of the franchise systems (based on the survey of the Austrian Franchise Association 2007)

	Min.	Max.	Mean	Std.deviation
Intranet	1	7	4.15	2.40
E-mail	1	7	5.77	1.64
Internet	1	7	3.88	2.39
Initial training	1	7	6.35	1.33
Annual training	1	7	5.38	1.52
Seminars and workshops	1	7	5.04	1.77
Formal meetings between franchisor and franchisees	1	7	5.79	1.47
Council and committees	1	7	3.65	2.15
COD1: Large parts of the business processes between the headquarters and the outlets can be carried out by using information technology.	1	7	5.77	1.49
COD2: Critical parts of the business processes in the franchise system can be comprehensively documented in written form.	1	7	4.76	1.87
TEACH1: Franchisees can easily learn the most important activities of the franchise system by talking to the skilled employees of the headquarters.	1	6	2.35	1.53
TEACH2: Franchisees can easily learn the most important processes/activities of the franchise system through the personal support of the skilled employees of the headquarters.	1	7	2.50	1.58
TEACH3: The employees of the franchisee can master the new knowledge through training.	1	7	2.31	1.58
TEACH4: Training of franchisees to apply new knowledge is a quick and easy job.	1	7	3.96	1.71
COMPLEX1: Franchisees must master many diverse activities, in order to be able to apply the system knowledge successfully.	1	7	4.78	1.69
COMPLEX2: Tasks and activities of franchisees for the application of system know-how are very complex.	1	6	3.38	1.41
COMPLEX3: Tasks and activities of franchisees for the application of system know-how are very heterogeneous.	1	7	4.31	1.70
COMPLEX4: Tasks and activities of franchisees for the application of system know-how are very interdependent.	1	7	4.02	1.52
TRUST1: There is a great trust between us and franchisees.	3	7	6.22	.95
TRUST2: There is an atmosphere of openness and sincerity.	1	7	6.27	1.13
TRUST3: The mutual cooperation is on the partnership basis.	4	7	6.41	.88
TRUST4: Information exchange is more than agreed.	1	7	5.56	1.45
TRUST	2.50	7.00	6.11	.98
COD	1.50	7.00	5.29	1.37
TEACH	2.75	7.00	5.20	1.14
COMPLEX	1.50	6.00	4.09	1.20
AGE	1	104	20.96	22.93
SEC	0	1	0.73	0.45
PS	2.20	7.00	5.12	1.08

Table 3: Descriptive statistics

	COMPLEX	COD	TEACH	TRUST	AGE	SEC
COMPLEX	1,000	,391**	-,167	,186	,178	,131
COD	,391**	1,000	,297*	,228	-,100	,180
TEACH	-,167	,297*	1,000	,350*	-,027	,070
TRUST	,186	,228	,350*	1,000	,151	-,045
AGE	,178	-,100	-,027	,151	1,000	-,185
SEC	,131	,180	,070	-,045	-,185	1,000

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

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

Table 4: Correlations

PS	Model 1	Model 2	Model 3
Intercept	5.139***	5.638***	5.122***
	(0.142)	(0.251)	(0.142)
COD	0.194	0.265	0.194
	(0.177)	(0.171)	(0.177)
TEACH	0.266	0.295	0.266
	(0.177)	(0.169)	(0.177)
COMPLEX	0.531***	0.537***	0.531***
	(0.164)	(0.155)	(0.164)
TRUST	0.028	-0.016	0.028
	(0.174)	(0.169)	(0.177)
AGE	-0.023	0.003	0.003
	(0.153)	(0.146)	(0.148)
SEC	-0.284*	-0.704**	-0.322**
	(0.146)	(0.309)	(0.143)
TRUST*AGE		0.318**	0.314**
		(0.144)	(0.147)
TRUST*COMPLEX			0.035
			(0.196)
	F=3.913	F = 4.416	F=3.761
	Adj.R^2 = 0.294	Adj. R^2 = 0.363	Adj.R^2 = 0.469
	N=42	N = 42	N=42

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

Table 5: Regression Results

Personalization strategy (PS)	To what extent does the franchisor use face-to-face knowledge transfer mechanisms: (Initial training, annual training, seminars and workshops, committee and council meetings, meetings between franchisor and franchisees) (1, no extent;…7, to a very large extent)
Complexity (COMPLEX) **Coefficient alpha: 0.76**	The franchisor has to evaluate complexity on a 7 point scale (1,strongly disagree; …7, strongly agree): Complex 1: Franchisees must master many diverse activities and tasks, in order to be able to apply the system knowledge successfully.
	Complex 2: The tasks and activities of the franchisees for the application of system know-how are very complex.
	Complex 3: The tasks and activities of the franchisees for the application of system know-how are very heterogeneous.
	Complex 4: Tasks and activities of franchisees for the application of system know-how are very interdependent.
Teachability (TEACH) **Coefficient alpha: 0.68**	The franchisor has to evaluate teachability on a 7 point scale (1,strongly disagree; …7, strongly agree): Teach 1: Franchisees can easily learn the most important activities of the franchise system by talking to the skilled employees of the headquarters.
	Teach 2: Franchisees can easily learn the most important processes/activities of the franchise system through the personal support of the skilled employees of the headquarters.
	Teach 3: The employees of the franchisee can master the new knowledge through training.
	Teach 4: Training of franchisees to apply new knowledge is a quick and easy task.
Codifiability (COD) **Coefficient alpha: 0.57**	The franchisor has to evaluate codifiability on a 7 point scale (1,strongly disagree; …7, strongly agree): Cod 1: Large parts of the business processes between the headquarters and the outlets can be carried out by using information technology.
	Cod 2: Critical parts of the business processes in the franchise system can be extensively documented in written form
Trust (TRUST) **Coefficient alpha: 0.89**	The franchisor has to evaluate trust on a 7 point scale (1,strongly disagree; …7, strongly agree): Trust 1: There is great trust between us and franchisees. Trust 2: There is an atmosphere of openness and sincerity. Trust 3: The mutual cooperation is on a partnership basis. Trust 4: Information exchange is more than agreed.
Age of the Franchise System (AGE)	Number of years since opening the first franchise outlet in Austria.
Sector (SEC)	0: product and distribution franchising, 1: service franchising