Control and Performance in Franchising Networks

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Abstract The aim of the study is to examine the determinants of franchisor performance by focusing on the moderating role of control as transaction cost savings and value-creating mechanism. In line with resource-based view, we argue that intangible resources of the franchisor (brand name) and the intangible resources of the franchisees (local market knowledge, human resource management, quality control, and administrative capabilities) will positively impact franchisor performance. Based on the transaction cost view, we show that environmental uncertainty is negatively related to franchisor performance. Although the resource-based view and transaction cost economics have been extensively used in previous literature, no study examined the moderating role of control on the impact of resource-based and transaction cost variables on franchisor performance. We use cross-sectional data from the franchise sector in Germany to empirically test the hypotheses.

1 Introduction

A large number of studies in the management, marketing, and organization theory examine the role of control in intra- and interorganizational relationships (e.g., Brown et al. 2003; Chalos and O'Connor 2004; Choi and Beamish 2004; Dant and Nasr 1998; Das and Teng 1998; Dekker 2004; Doherty and Alexander 2006; Gatignon and Anderson 1988; Geringer and Hebert 1989; Grewal et al. 2013; Jaussaud and Schaaper 2006; Mjoen and Tallmann 1997). However, this literature uses very heterogeneous concepts of control and does not provide a general theoretical foundation of control as a major pillar of the governance structure of the firm (Liu et al. 2013). This study applies the concept of control developed in the property rights theory (e.g., Baker et al. 2008; Grossman and Hart 1986; Hansman 1996). It refers to the allocation of decision and ownership

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rights in intra- and interorganizational relationships. If assumed that outlet ownership (i.e., the proportion of company-owned outlets) is given in franchising networks, control refers to *authoritative control* (Weitz and Jap 1995; Mohr et al. 1996) as allocation of decision authority between the franchisor and franchisees over the different value chain activities at the local outlets, such as pricing, advertising, product and service, human resource management, procurement, and supplier selection. High control means that the franchisor has a high proportion of residual decision rights over the value chain activities at the local outlets.

Although many studies investigate different aspects of control in franchising (e.g., Azevedo 2009; Brookes and Roper 2011; Dant and Nasr 1998; Dant and Gundlach 1999; Doherty and Alexander 2006; Fladmoe-Lindquist and Jacque 1995; Mellewigt et al. 2011; Mumdziev and Windsperger 2013; Pizanti and Lerner 2003; Quinn 1999; Quinn and Doherty 2000), no previous study examines the impact of control on franchisor performance. Starting from this deficit, the aim of the study is to examine the determinants of franchisor performance by focusing on the moderating role of control as transaction cost savings (Williamson 1975, 1985) and value creation mechanism (Barney 1991; Madhok 1996). Consistent with the resource-based theory (RBT) and transaction cost theory (TCT), the study argues that franchisor control increases network performance by facilitating knowledge transfer and mitigating appropriation and coordination cost concerns (Gulati and Singh 1998; Dekker 2004; Gulati et al. 2012). Specifically, it shows that the franchisor will set up a control level which considers the trade-off between the performance-enhancing effect of control under highly intangible brand name assets and high environmental uncertainty and the performance-decreasing effect of control under highly intangible local market assets of the franchisees.

Overall this study contributes to the franchise literature by combining RBT and TCT reasoning to explain performance in franchising networks. Specifically, the impact of RBT and TCT variables (such as franchisor's brand name assets, franchisees' local market assets, and environmental uncertainty) on franchisor performance is contingent on the level of control. In addition, the study contributes to the application of the RBT in marketing channel literature (Kozlenkova et al. 2014) by focusing on the impact of market-based resources (such as brand name and local market assets) on channel performance (Morgan et al. 2009; Richey et al. 2010; Srivastava et al. 2001).

The paper is organized as follows: Section 2 explores the resource-based and transaction cost determinants of franchisor performance. Section 3 investigates the moderating role of control in the relationship between the resource-based as well as transaction cost variables and franchisor performance. Section 4 presents the empirical analysis. Finally, we discuss the results and draw conclusions for theory and practice.

2 Franchisor Performance, Intangible Resources, and Environmental Uncertainty

According to RBT, franchising is an interorganizational network that increases relational rents by combining complementary intangible resources of the franchisor and the franchisees, while based on TCT, franchising is a governance form that minimizes transaction costs due to uncertainty and transaction-specific investments (Mayer and Salamon 2006). Hence, RBT focuses on the value creation function and TCT on the transaction cost savings function of a governance mechanism. In the following, the study uses both theories to explain the determinants of franchisor performance.

2.1 Resource-Based Perspective

The main focus of the resource-based framework is to explain sustainable performance differences among firms (Barney 1991; Kozlenkova et al. 2014; Peteraf 1993). According to the RBT (e.g., Rumelt 1991), performance variation among firms is due to their idiosyncratic and unique resources as homogeneously distributed resources cannot generate competitive advantage and high returns. On the contrary, resource attributes of prosperous firms should be sticky, non-imitable, and hence difficult to transfer (Madhok 2002). Therefore, the most important resources to create and maintain competitive advantage are intangible resources (Barney 1991; Galbreath and Galvin 2008).

Intangible Resources of the Franchisor and Performance The success of the franchise network relates to the ability to effectively manage the value of intangible resources (Watson et al. 2005). The franchisor's intangible resources refer primarily to the system-specific know-how and brand name (Hall 1993) that are characterized by a high-tacitness component. According to Fladmoe-Lindquist and Jacque (1995), the brand name is the most important intangible resource. To build brands, the franchisor invests in marketing and promotion that reduce information asymmetry between the firm and the customers (Norton 1988). Similarly, Amit and Schoemaker (1993) highlight that brand name assets are less vulnerable to competition as they cannot be easily imitated by potential competitors. Accordingly, the study proposes that intangible resources in general and a strong brand name in particular lead to competitive advantage and higher performance (Blomstermo et al. 2006; Sharma and Erramilli 2004; Watson et al. 2005). It is hypothesized that:

H1 *Intangible brand name assets of the franchisor will positively impact franchisor performance.*

Intangible Resources of the Franchisee and Performance Intangible resources of the franchisee include local market know-how, human resources, quality control,

and administrative capabilities. The franchisee will continuously seek to exploit his/her capabilities to increase the relationship-specific rents. More specifically, franchisees have higher incentives to pursue more explorative learning as opposed to the managers of company-owned outlets (Sorenson and Sørensen 2001). Accordingly, managers are concerned with incremental improvements as they are more intensively monitored by franchisor's internal hierarchy that aims to minimize possible shirking risks. Based on the RBT, value chain activities will be delegated to the local partners when franchisees possess superior local market knowledge (Kogut and Zander 1992). In line with this reasoning, franchisees provide easier access for the franchisor to gain competitive advantage in heterogeneous and changing local environments where local market knowledge, such as consumer preferences, cultural values, and location-specific marketing methods, are very important for value creation. Consequently, we expect that franchisees' intangible resources will increase the performance of the network and more particularly that of the franchisor. Hence, the following hypothesis is formulated:

H2 *Intangible local market assets of the franchisees will positively impact franchisor performance.*

2.2 Transaction Cost Economic Perspective

According to the TCT, environmental uncertainty influences the choice of intra- and interorganizational governance structure (Gulati et al. 2005; Rindfleisch and Heide 1997; Williamson 1991). Environmental uncertainty refers to the unpredictability of business environment, demand volumes, technologies, etc. In such circumstances, the context of economic exchange becomes difficult to predict and cannot be easily specified in contracts (Geyskens et al. 2006; Hendrikse and Windsperger 2011). In an uncertain local environment, contractual renegotiations and adjustments are costly. In addition, environmental uncertainty may also increase franchisees' propensity for opportunistic behavior resulting in high monitoring costs. Consequently, high environmental uncertainty may negatively impact the performance of the franchisor. Hence, the next hypothesis is:

H3 *Environmental uncertainty will negatively affect franchisor performance.*

3 The Moderating Role of Control

3.1 Interaction Between Control and Intangible Resources

In areas of the value chain activities where network partners have more intangible resources, they should exercise more control (Brown et al. 2003; Choi and Beamish

2004; Windsperger 2004; Gurcaylilar-Yenidogan and Windsperger 2015). First, the franchisor has to consider the nature of his/her knowledge assets (such as brand name), which interact with the extent of control exercised in the franchise networks. As argued by Demsetz (1988), if the knowledge of one of the partners is more tacit and less codified in contracts, more residual control rights should be transferred to that partner. Therefore, if the franchisor possesses knowledge assets with highly idiosyncratic and tacit characteristics, he/she should have more control (Contractor and Ra 2002) to strengthen the positive performance effect of his/her intangible assets. Hence, it is predicted that:

H1a *In presence of franchisor's highly intangible brand name assets, more control will strengthen the positive performance effect of highly intangible franchisor's assets.*

Second, franchisees are expected to have more specific know-how of the local market. Yin and Zajac (2004) finds that franchised stores permit more flexibility to respond to the local market environment compared to company-owned stores. As a result, it is presumed that they have higher exploration capabilities and generate more innovations for the system (Bradach 1997). Under such circumstances more franchisee autonomy and less franchisor control can strengthen the positive impact of franchisees' intangible local market assets on network performance.

However, franchisees may also behave opportunistically by lowering quality or underinvesting in local advertising in order to increase their residual income stream (Gassenheimer et al. 1996). A higher level of control enables the franchisor to minimize horizontal externality problems by protecting the brand name value against degradation (Combs et al. 2004). In this case, more control is also supported by field audits, mystery costumers, and management information systems (Barthélemy 2008). Consequently, under highly intangible local market assets, the value-enhancing effect of a lower (higher) level of control (franchisee autonomy) might be weakened by the costs of free-riding. Stated formally:

H2a *In presence of franchisees' high intangible local market assets, more control will weaken the positive performance effect of highly intangible local market assets.*

3.2 Interaction Between Control and Environmental Uncertainty

Two different theoretical views explain the impact of environmental uncertainty on the choice of governance form. First, the control view of governance highlights that firms could respond more effectively to environmental uncertainty by increasing their level of control with more hierarchical integration (Williamson 1975). This view has been supported by several authors (e.g., Geyskens et al. 2006; John and Weitz 1988; Noordewier et al. 1990; Stinchcombe 1990). They have shown that firms increase their tendency to vertically integrate under increasing environmental

uncertainty. Applied to franchising networks, TCT reasoning would predict higher control by the franchisor in uncertain business environments. A qualitative study regarding six UK-based fashion retailers and their international franchise operations (Doherty and Alexander 2006) shows that franchisee managers asked for more franchisor control as this helps them to keep pace with uncertain business developments. Faced with unpredictability, franchisors use more vertically integrated governance structures that enable faster reaction and adoption. Therefore, more control decreases the negative performance effect of environmental uncertainty. Hence, it is anticipated that:

H3a *In presence of high environmental uncertainty, more control exercised by the franchisor will weaken the negative performance effect of environmental uncertainty.*

Second, according to the adaptation view of governance (e.g., Gulati et al. 2005; Simon 1947; Williamson 1991), high environmental uncertainty requires more local responsiveness that is achieved by delegating more coordination tasks to the franchisees. Accordingly, lower levels of control and hence more franchisee autonomy are required if the local market environment is very uncertain. This would allow for more flexibility in order to react to environmental changes (Erramilli and Rao 1993; Klein et al. 1990). Consistent with this reasoning, lower levels of control are expected to decrease the negative performance effect of environmental uncertainty while allowing more space for local adaptation of the franchisees. Hence, the following hypothesis is formulated:

H3b *In presence of high environmental uncertainty, more control exercised by the franchisor will strengthen the negative performance effect of environmental uncertainty.*

In conclusion, our research model is based on the view that control is an important moderator variable in the relationship between RBT and TCT variables and franchisor performance (Fig. 1). The need for an appropriate level of control is more sever under highly intangible brand name and local market assets as well as

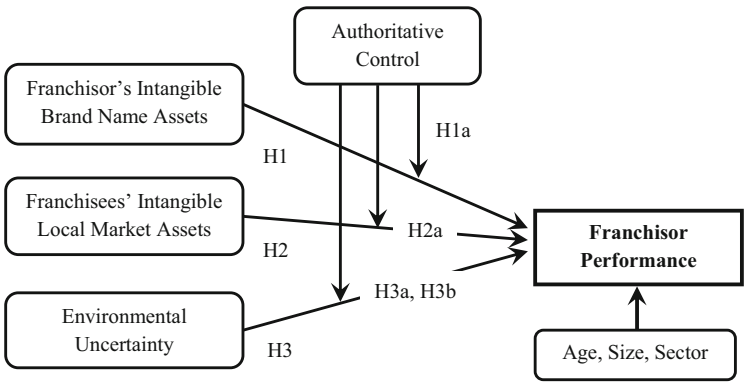

Fig. 1 Performance model

high environmental uncertainty. On the other hand, if the use of brand name and local market assets can be easily specified in contract and the environmental uncertainty at the local outlets is low, control will be exercised mainly by specifying detailed contract provisions in the franchise agreement (Demsetz 1998; Hendrikse and Windsperger 2011) and less by assigning residual decision rights to the franchisor.

Overall, the impact of control as moderator on franchisor performance can be summarized by the following proposition: the higher the value of the franchisor's brand name as well as the level of environmental uncertainty and the lower the extent of franchisees' intangible local market assets, the stronger is the value creation and transaction cost savings effect of higher control and the stronger is its performance-enhancing effect. This can be illustrated by comparing the following cases of control in franchising networks (Table 1):

1. High control: If the extent of intangible brand name assets and environmental uncertainty is high and the extent of franchisees' intangible local market assets is low, the franchisor will exercise a high level of control to facilitate knowledge transfer from the headquarters to the network partners ("top-down" knowledge transfer) and to mitigate appropriation and coordination cost concerns.
2. Medium control: If the extent of intangible brand name assets and intangible local market assets as well as the level of environmental uncertainty is high, the franchisor will exercise a medium level of control to facilitate both knowledge transfer from the headquarters to the network partners and the network partners to the headquarters ("top-down and bottom-up" knowledge transfer) as well as to mitigate appropriation and coordination cost concerns. In this case, the franchisor will increase franchisee autonomy to efficiently exploit the franchisees' intangible local market know-how.
3. Low control: If the extent of intangible brand name assets and environmental uncertainty is low and the extent of franchisees' intangible local market assets is

Table 1 Moderating role of control

Environmental uncertainty and intangible brand name assets	Intangible local market assets	
	High	Low
High	*Medium control* ("bottom-up" and "top-down" knowledge transfer and high transaction cost savings)	*High control* ("top-down" knowledge transfer and high transaction cost savings)
Low	*Low control* ("bottom-up" knowledge transfer and low transaction cost savings)	n/a[a]

[a]This case refers to market control and is not applicable to authoritative control (Ouchi 1979; Weitz and Jap 1995) which we examine in franchising networks. Under low asset intangibility and low environmental uncertainty, control can be exercised by specifying detailed contract provisions regarding the use of assets under different environmental situations

high, the franchisor will exercise a lower level of control to increase network partners' incentives for knowledge transfer from the local outlets to the headquarters. In addition, the transaction cost savings function of control is less important for franchisor performance under low environmental uncertainty.

4 Empirical Analysis

4.1 Data Collection

To empirically test the hypotheses, we collected data from the franchising sector in Germany. In-depth interviews with franchise professionals from the Austrian and German franchise associations guided to several preliminary steps in questionnaire development and refinement. Moreover, a pretest with 20 franchisors in Austria was part of the final modification process. According to the key informant approach for data collection (McKendall and Wagner III 1997), interviews were conducted with senior managers that were considered responsible for franchise expansion. The revised questionnaire, which incorporated the alterations suggested by the pretest, was mailed to 491 relevant franchise systems in Germany. We derived the data from the directory of the German Franchise Federation (DFV) and "Franchise Wirtschaft" (2009/10) which lists all franchise systems operating in the country. Although, these directories list 837 franchise systems operating in Germany, we employed a reduced judgmental sampling on the basis of two-point criteria. The system should have started franchising at least 2 years previous to our selection, and it should have at least five operating outlets to be considered as a valuable observation. As a result, we were left with 491 relevant franchise systems to mail the questionnaires. We received back 137 filled questionnaires with a response rate of 28%. However, due to missing value, only 110 responses could be used for the regression analysis.

To trace nonresponse bias, we examined whether the results obtained from analysis are driven by early versus late respondents (Armstrong and Overton 1977). The late respondents serve as proxies for the group of nonrespondents, which includes the firms that completed the questionnaire 4 weeks after the first group of respondents. Second, we compared the respondents with nonrespondents in terms of age, size, advertising fee, and royalties to determine whether nonresponse was a serious problem for the data. These variables are available in the "Franchise Wirtschaft" for the entire listed systems. No significant differences emerged between the two respondent groups (see Table 2). In addition, Harman's single-factor test has been used to examine whether a significant amount of common method variance exists in the data (Podsakoff et al. 2003). Factor analysis conducted on all items as well as extracting more than one factor with eigenvalues greater than 1 revealed that common method variance is not a problem in our study.

Table 2 Nonresponse bias

	Means, (SD), and counts[a]			
	Population	Respondents	t-value	p-value
Age of franchise system (years)	10.1 (8.1) N = 449	11.2 (8.39) N = 121	−1.29	0.19
System size (total outlets)	112.7 (431.4) N = 337	155.9 (328.37) N = 118	0.99	0.32
Advertising fee (% of sales)	1.0 (1.4) N = 326	0.9 (1.34) N = 127	−0.47	0.63
Royalties (% of sales)	4.4 (6.2) N = 446	5.4 (7.45) N = 117	1.40	0.16

The measures of advertising fee and royalties were first tested by a MANOVA to ensure independence of these variables

[a]Counts differ across different measures because of missing values

4.2 Measures

Performance of the Franchisor Derived from Sorenson and Sørensen (2001) and Ghemawat and Ricart Costa (1993), performance is measured with four items by asking the franchisor to rate the franchise performance on a seven-point Likert scale: reduction in costs, increase in revenues, increase in innovations, as well as increase in savings in coordination and control costs. There are several reasons to use subjective measures aiming to capture the multifaceted nature of the performance construct. The singularity nature of the objective indicators and the lack of financial data disclosure in franchise networks have encouraged authors to more often use subjective measures. Similarly, researchers find high correlation between subjective and objective measures (Geringer and Hebert 1991; Glaister and Buckley 1998; Wall et al. 2004). Although the average variance extracted (AVE) is just slightly below the required level (0.48), composite reliability (CR) and internal consistency (Cronbach's alpha [CA]) of measurements are according to the required threshold levels (CA, 0.77, and CR, 0.79; see Appendix).

Franchisors' Intangible Brand Name Assets The construct adopted from Barthélemy (2008) asked franchisors to rate on a seven-point Likert scale the franchise networks' brand name advantage compared to their competitors. Brand strength, brand recognition, and reputation for quality all compared to the competitors as well as the importance of brand name to achieving competitive advantage were rated (CA, 0.75; AVE, 0.47; and CR, 0.79).

Franchisees' Intangible Local Market Assets Four items are derived from Mumdžiev and Windsperger (2011). They reveal franchisor's opinion about the

advantage of franchised outlets compared to company-owned outlets. Franchisors were asked to rate on a seven-point Likert scale whether franchised outlets have more advantages on quality control, administrative skills, human resources, and local market know-how (CA, 0.84; AVE, 0.61; and CR, 0.80).

Environmental Uncertainty Adopted from Celly and Frazier (1996) and John and Weitz (1988), the construct is measured on a seven-point Likert scale. Franchisors were asked to assess three items regarding their possibility to forecast development and fluctuations of outlet sales, unpredictability of the local market, and volatility of the local economic situation (CA, 0.74; AVE, 0.54; CR, 0.74).

Control Adopted from Windsperger (2004), control represents the allocation of decision-making authority between franchisor and franchisees. The variable assessed on a seven-point scale (1, very low influence; 7, very high influence) captures the extent of franchisor's influence on operational decisions regarding the selection of suppliers, product/service offering, equipment and procurement decisions, new product decisions, and application of accounting and controlling systems. By averaging the scale values, we constructed a control index varying between 1 and 7. The higher the franchisor's influence on residual decision-making in the network, the higher is the control index (CA, 0.84; AVE, 0.50; CR, 0.85).
Size is measured by the log of the number of employees in the headquarters. From the transaction cost theoretical perspective, larger firms should have a higher control capacity (Erramilli and Rao 1993). Therefore, we expect that the larger the number of employees in franchisors' headquarters, the more savings in coordination and monitoring can be achieved.

Age of the franchising system is measured by the log of the number of years since the opening of the first franchised outlets. Age may be a proxy for interorganizational learning. As time passes, experience with established practices and routines increases, raising efficiency and the level of performance (Sorenson and Sørensen 2001).

Sector affects the efficiency of the franchising system in different ways. Intangible assets (e.g., local market know-how, knowledge transfer, monitoring capabilities) vary between different sectors. Service franchising firms need more intangible assets compared to the product franchising firms (Zeithamel et al. 1985). We include a dummy variable to control for sectoral effects (0 for service firms, 1 for product franchising firms).

All items across the scales were subject to principal component factor analysis with varimax rotation and to confirmatory factor analysis, which confirmed a five-factor solution for the items presented in the study (Anderson and Gerbing 1988) explaining 63.77% of the variance. In addition, a discriminant validity test was conducted (Fornell and Larcker 1981) (see Table 3).

Table 3 Discriminant validity

		1	2	3	4	5
1	Franchisor performance	0.48				
2	Intangible brand name assets	0.13	0.47			
3	Intangible local market assets	0.00	0.00	0.61		
4	Environmental uncertainty	0.06	0.01	0.01	0.54	
5	Control	0.14	0.00	0.00	0.00	0.50

The average variance extracted values are presented on the diagonal, while the numbers below represent squared correlations

5 Regression Analysis

We use the OLS regression method to test the research model (Fig. 1). Descriptive statistics and Pearson correlation coefficients are reported in Table 4. Additional to correlations, low inflation factors (VIF ranges from 1.06 to 1.48) indicate that multicollinearity does not affect the results of our analysis. Next, Breusch-Pagan and Ramsey tests showed no signs of heteroscedasticity or omitted variable bias. Further, to test whether there is an endogeneity between the extent of control and franchisor performance, an instrumental variable derived from franchisors formal visits to the franchisees was used. Several authors show how franchisors exercised control on their franchisees via formal visits (Quinn 1999; Quinn and Doherty 2000; Dekker 2004; Doherty and Alexander 2006; Mellewigt et al. 2011). The Durbin-Wu-Hausman test comparing instrumental variable estimates to OLS estimates indicates that endogeneity is not the issue in this matter (ch2 (10) = 0.20).

According to the resource-based view, we hypothesize positive effects of intangible brand name assets and the franchisees' local market assets on franchisor performance. Further, under the realm of TCT, environmental uncertainty is hypothesized to negatively impact franchisor performance. The results of OLS regression analysis are presented in Table 5. First, we conduct regression analysis only with control variables, with age being the only significant variable (model 1). In model 2, we add the RBT and TCT variables. The regression results in model 2 show support for the hypotheses 1 and 3 that intangible brand name assets of the franchisor positively and environmental uncertainty negatively impact franchisor performance (ß = 0.251, p = 0.006; ß = −0.284, p = 0.002, respectively). However, the results do not support the positive impact of franchisees' intangible local market assets on franchisor performance (hypothesis 2). In models 3 and 4, we add the interaction effects between control and TCT and RBT variables.

In line with H1a, the regression results reveal that control strengthens the positive performance effect of highly intangible brand name assets (ß = 0.158, p = 0.03). Hypothesis (H2a), that in presence of franchisees' high intangible local market assets, more control will weaken the positive performance effect of highly intangible franchisees' assets, is also supported (ß = −0.194, p-value = 0.01). This means that more franchisee autonomy will improve franchisor performance by supporting the use of local market knowledge. Finally, consistent with H3a more

Table 4 Correlations

	Variables	Mean	SD	1	2	3	4	5	6	7
1.	Franchisor performance	4.51	0.98							
2.	Intangible brand name assets	5.61	1.13	0.36[b]						
3.	Intangible local market assets	3.68	1.30	−0.06	−0.07					
4.	Environmental uncertainty	3.72	1.37	0.25[a]	−0.11	0.13				
5.	Control	4.67	1.47	0.38[b]	0.09	−0.09	0.01			
6.	Size	2.35	1.30	0.16	0.20[a]	−0.04	−0.01	0.19[a]		
7.	Sector	0.65	0.48	−0.15	−0.12	0.22[a]	−0.02	−0.05	−0.11	
8.	Age	2.03	0.96	0.21[a]	0.14	−0.01	0.03	0.06	0.53[b]	−0.05

[a]Correlation is significant at the 0.05 level (2-tailed)
[b]Correlation is significant at the 0.01 level (2-tailed)

Table 5 Results of OLS regression analyses of franchisor performance

Variables	Franchisor performance			
	Model 1	Model 2	Model 3	Model 4
Constant	4.115*** (0.276)	3.755*** (0.614)	2.629*** (0.599)	2.645*** (0.567)
Size	0.034 (0.084)	−0.007 (0.078)	−0.083 (0.071)	−0.051 (0.067)
Age	0.218* (0.115)	0.210** (0.106)	0.216** (0.096)	0.211** (0.090)
Sector	−0.102 (0.195)	−0.090 (0.186)	−0.069 (0.168)	−0.126 (0.160)
Intangible brand name assets		0.251*** (0.019)	0.228*** (0.018)	0.223*** (0.016)
Intangible local market assets		−0.011 (0.017)	0.020 (0.015)	−0.006 (0.014)
Environmental uncertainty		−0.284*** (0.064)	−0.278*** (0.058)	−0.230*** (0.055)
Control			0.395*** (0.009)	0.388*** (0.008)
Control × intangible brand name assets				0.158** (0.002)
Control × intangible local market assets				−0.194** (0.002)
Control × environmental uncertainty				0.219*** (0.006)
N	110	110	110	110
F	2.723**	5.318***	9.08***	9.13***
R^2	0.072	0.235	0.382	0.477
Adjusted R^2	0.045	0.191	0.340	0.425

Values in parentheses represent standard errors. ***p < 0.01. **p < 0.05. *p < 0.1

control weakens the negative performance effect of environmental uncertainty (ß = 0.219, p = 0.006). These results support the control view of governance (e.g., Williamson 1975; Stinchcombe 1990) that franchise firms could respond more effectively to environmental uncertainty by centralization of decision-making. The results of the hypotheses test are summarized in Table 5. Overall, we can conclude that adding control strongly increases the explanatory power of the research model (R2 increased from 0.235 to 0.477). This result highlights that the impact of the RBT and TCT variables on franchisor performance is contingent on the level of control (Table 6).

Table 6 Summary of the hypotheses test

H1	Intangible resources of the franchisor will positively impact franchisor performance	Supported
H2	Intangible resources of the franchisee will positively impact franchisor performance	Not supported
H3	Environmental uncertainty negatively affects franchisor performance	Supported
H1a	In presence of franchisor's highly intangible brand name assets, more control will strengthen the positive performance effect of highly intangible franchisor's assets	Supported
H2a	In presence of franchisees' high intangible local market assets, more control will weaken the positive performance effect of highly intangible local market assets	Supported
H3a	In presence of high environmental uncertainty, more control exercised by the franchisor will weaken the negative performance effect of environmental uncertainty	Supported
H3b	In presence of high environmental uncertainty, more control exercised by the franchisor will strengthen the negative performance effect of environmental uncertainty	Not supported

6 Discussion and Implications

6.1 Discussion

This paper presents a combined resource-based and transaction cost explanation of franchisor performance by focusing on the moderating role of control as transaction cost savings and value creation mechanism. The empirical results from the German franchise sector provide overall support for the hypotheses. First, consistent with the RBT logic, the relation between franchisor's intangible brand name assets and franchisor performance is positive. In addition, the results show that control strengthens the positive performance effect of franchisor's intangible brand name. Second, the results indicate that the impact of franchisees' intangible local market assets on performance is contingent on the level of control. If the franchisor evaluates franchisees' intangible local market assets of high value, more control will weaken the positive performance effect of highly intangible local market assets. Hence, the results suggest that under such circumstances more franchisee autonomy increases system performance. This is due to the fact that franchisees will be more motivated to use their local market know-how to increase the residual surplus if they have a higher level of autonomy over the operational decisions at the local markets.

Third, consistent with TCT prediction, environmental uncertainty negatively influences franchisor performance. Specifically, when franchisors perceive higher market and demand uncertainty, they are confronted with the dilemma regarding the appropriate level of control that should be imposed over the operational activities at the local markets. According to our results, in presence of high environmental uncertainty, more control exercised by the franchisor will weaken

the negative performance effect of environmental uncertainty. This supports the control view of governance and is consistent with the result of Doherty and Alexander (2006). They show that franchisees ask for more franchisor control under uncertain business developments. In addition, under high environmental uncertainty, the negative performance effect of higher opportunism risk may be mitigated by a higher level of control. Overall, the inclusion of control as a moderator variable strongly increases the explanatory power of the performance model.

The present empirical results do not support the hypothesis regarding the direct impact of intangible local market knowledge on franchisor performance. This may be due to availability biases (Tversky and Kahneman 1974) or the leadership style of the franchisors (Anderson and Brown 2010), who may consider local market knowledge as less important performance driver in the franchise system. Finally, the control variable size and sector do not significantly influence franchisor performance. On the other hand, age supports the view that experience may lead to interorganizational learning and hence to higher franchisor performance.

6.2 Implications

What are the theoretical and practical implications of this study? First, to the best of our knowledge, it is the first study that examines the moderating role of control on the impact of the resource-based and transaction cost variables on franchisor performance. We argue that a high level of franchisor performance requires a fit between control, RBT, and TCT variables. The findings show that a higher level of control strengthens the positive performance effect of franchisor's intangible brand name assets and weakens the negative performance effect of environmental uncertainty. On the other hand, a higher level of control weakens the performance effect of franchisees' intangible local market assets. Therefore, highly intangible local market assets require more autonomy for franchisees to trigger a positive performance effect. Second, this study contributes to the application of RBT in the marketing channel literature (Kozlenkova et al. 2014) by focusing on the impact of market-based resources (such as brand and local market know-how) on firm performance (Morgan et al. 2009; Orr et al. 2011; Richey et al. 2010).

In addition, the results of the study have important implications for the management of franchising networks. They show that control is an important governance mechanism to improve franchisor performance. A higher level of control increases franchisor performance, if the franchisor's resources are highly intangible and the business environment at the local markets is very uncertain. On the other hand, a higher level of control may prevent the franchisor from getting access to highly intangible local market resources resulting in a negative performance effect. Consequently, the franchisor can only set up an efficient level of control if he/she considers the trade-off between the performance-enhancing effect of higher control under a strong brand name and high environmental uncertainty and the

performance-weakening effect of higher control under highly intangible local market assets.

6.3 Limitations and Future Research Directions

Some limitations of the study have to be acknowledged. First, the main limitation results from the fact that performance measurement is based on subjective indicators. While objective measures have greater validity, most of the franchise systems in this survey do not disclose financial data. Although the literature has demonstrated that there is a strong positive correlation between objective and subjective performance indicators, future studies should test the research model by using both subjective and objective performance indicators that are closely related to the theoretical framework (Crook et al. 2008). Second, our empirical analysis uses data based on the franchisor's evaluation of franchisees' intangible local market assets. Future research should also collect data from the franchisees to increase the validity of the results. Third, although our research model explains more than 47% of the variance in our performance measure, other variables, not included in this study, may impact franchisor performance. In addition to the resource-based and transaction cost variables, trust as relational variable and bargaining power of the partners may influence franchisor performance. According to the relational view of governance (e.g., Dyer and Singh 1998), trust influences cooperation and coordination in interorganizational relationships (Das and Teng 2001; Gulati et al. 2012; Gurcaylilar-Yenidogan and Windsperger 2013; Weitz and Jap 1995). Hence, trust may improve franchisor performance by reducing relational risk and increasing communication and knowledge sharing between the partners (Gorovaia and Windsperger 2011). Bargaining power theory (e.g., Gaski 1984; Gaski and Nevin 1985; Heide and John 1992; Porter 1976; Shervani et al. 2007) may focus on the impact of bargaining power on performance in franchising networks. We expect that franchisors with high bargaining power may influence the behavior of the franchise partners and hence network performance. High bargaining power may have a positive or negative impact on performance, which depends on the network partners' relative dependence (Gilliland et al. 2010; Kumar et al. 1995; Palmatier et al. 2007). Consequently, future research has to examine the impact of relational governance and bargaining power variables on franchise performance.

7 Conclusions

The study examines the determinants of franchisor performance by focusing on the moderating role of control as transaction cost savings and value-creating mechanism. Our results suggest that the impact of franchisor's brand name assets and franchisees' local market assets as well as environmental uncertainty on franchisor performance is strongly contingent on the level of control. Overall, we can conclude

that the franchisor has to set up a level of control in the franchising network that considers the trade-off between the performance-enhancing effect of higher control under a strong brand name and high environmental uncertainty and the performance-decreasing effect of higher control under highly intangible local market know-how of the franchisees.

Appendix: Measures of the Variables

Constructs	Items	Description of measures
Franchisor performance CA = 0.77 CR = 0.79 AVE = 0.48	Four seven-point items, anchored by "much worse than planned" [1] and "much better than planned" [7], adopted from Sorenson and Sørensen (2001)	The extent the franchisor achieved the following goals last year 1. Reduction of costs 2. Increase of revenues 3. More innovation 4. Savings on coordination and control costs
Franchisor intangible brand name assets CA = 0.75 CR = 0.79 AVE = 0.47	Four seven-point items, anchored by "strongly disagree" [1] and "strongly agree" [7], adapted from Barthélemy (2008)	How franchisors evaluated their brands 1. Our brand name is very strong compared with that of our competitors 2. The quality of our franchise system has a very good reputation 3. Our franchise system is well recognized compared with that of our competitors 4. Our brand name is very important to achieve a competitive advantage
Franchisees intangible local market assets CA = 0.84 CR = 0.80 AVE = 0.61	Five seven-point items, anchored by "strongly disagree" [1] and "strongly agree" [7], adapted from Mumdžiev and Windsperger (2011)	Franchisee's know-how advantage compared to the manager of a company-owned outlet evaluated by the franchisor with regard to 1. Local market knowledge 2. Quality control 3. Administrative skills 4. Human resource capabilities
Environmental uncertainty CA = 0.74 CR = 0.74 AVE = 0.54	Three seven-point items, anchored by "strongly disagree" [1] and "strongly agreed" [7], adapted from John and Weitz (1988); Celly and Frazier (1996)	Franchisor's opinion on 1. Sales at the local markets are very unpredictable 2. It is very difficult to forecast the market development in the local markets 3. Economic environment is changing quickly in the local markets

(continued)

Constructs	Items	Description of measures
Control CA = 0.84 CR = 0.85 AVE = 0.50	Six seven-point items, anchored by "very large extent" [1] and "not at all" [7], based on Windsperger (2004)	Franchisor's opinions on the extent they influence franchisees on the following decisions 1. Supplier decision 2. Product/service decision 3. Equipment decision 4. Procurement decision 5. New product decision 6. Accounting and controlling system decision

Sector: dummy variable, 0 = service franchising and 1 = product franchising
Age: log of the number of year since opening the first franchise outlet
Size: log of the number of employees in the franchisor's headquarters
CA Cronbach's alpha, *CR* composite reliability, *AVE* average variance extracted

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