Managing innovation based on socialization: The case of franchise network

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Abstract:

The objective of this study is to explain how informal control mechanism stimulates innovation. A survey data of 106 outlets of franchise networks located in France, using Partial least squares (PLS) method, indicates that informal control mechanism is positively related to innovation (in term of administrative innovation, process innovation and product innovation) and a part of this positive relationship can be explained by the mediating effect of knowledge diffusion. This result has a major contribution in understanding the complex relationship between control system and innovation.

Key words:

Franchising, innovation, informal control, knowledge diffusion.

Introduction

Nowadays, the success of a company depends greatly on its ability to innovate: *Ask any corporate executive the question, 'what is needed for your company to be successful in today's dynamic economy?'' and the most probable answer will be ''Innovation.''*» (Kuratko *et al.,* 2014, p.647). Probably this is one of the main reasons to the increasing attention accorded to innovation in the leading journals (Davila *et al.,* 2009).

In franchise system, innovation is critical for the network competitiveness and for the development of new markets (Wu et al., 2009). It pertains also to attract new franchisees for the chain (Watson and Stanworth, 2006). However, managing innovation in franchise network is a complex task: Watson et al. (2005) argue that innovation can be a source of conflicts between franchisor and franchisees when it is not accepted by one of them. In the same logic, Cliquet and Nguyen (2004) state that in certain situations, it is difficult to persuade franchisees to adopt the new concept: due to their status of independent entrepreneurs, franchisees can reject the innovation proposed by franchisor. According to Kuratko et al. (2014), innovation has negative effects when it is not consistent with the strategy of organization. The characteristic of geographical dispersed business units is another factor which makes innovation more complex in the franchise network (Cliquet and Nguyen, 2004). To deal with these constraints, organizational control seems to be a suitable system to manage innovation: Freije and Enkel (2007) recognize that control system is determinant in the success of innovation process. The authors argue that control mechanisms are necessary to monitor innovation process and to ensure the compatibility of innovation with organization objectives. In this context, scholars stressed the determinant role of informal control which is based on socialization in stimulating innovation (Ylinen and Gullkvist, 2014; Busco et al., 2012; Abernethy and Brownell, 1997).

In spite of the importance of these results in the identification the determinants of innovation, little is known of the manner with which informal control mechanism is positively related to innovation. Thus, our research question is as follows: *How informal control is related to innovation in franchise networks?*

Davila *et al.* (2009) suggest mobilizing knowledge management perspective to examine the interaction between control and innovation. So we propose in this study to analyze the mediating effect of knowledge diffusion in the relationship between informal control and

innovation. This stream of research appears to be interesting: informal control favors knowledge diffusion (Flaherty and Pappas, 2012; Ditillo, 2012; Koza and Dant, 2007; Turner and Makhija, 2006) which is positively related to innovation (Vaccaro *et al.* 2010; Liao, 2006; Paraponaris and Simoni, 2006; Oslo Manual, 2005; Verona, 1999).

The article is organized as follows: First, we develop literature review which supports our hypotheses. Second, we describe the methodology used in this survey. Third, we present the analysis and the results of hypotheses' test. Fourth, we discuss theoretical implications of results. Finally, we conclude by presenting theoretical and managerial contributions of this study.

1. Literature Review

1.1. Innovation in franchise system

The French Federation of Franchise¹ (FFF) lists the presence of 1719 franchise networks and 65 133 franchised outlets in France in 2013. Furthermore, the same source esteem the turnover generated by franchise is about EUR 47.4 billion. These statistics reflect a major contribution of franchise system in the French economy.

Franchising is a form of partnership in which franchisor who is the owner of business concept licenses franchisee (independent entrepreneur) to use his product, service or process in exchange for retribution (Watson *et al.*, 2005). This form of cooperation is based on knowledge sharing between franchisor and franchisees (Paswan and Wittmann, 2009): franchisor provides necessary know-how to franchisees to run the business. In turn, franchisees transmitted their local knowledge to franchisor (Watson *et al.*, 2005). This organizational form is an interesting context to examine the phenomenon of innovation (Dant *et al.*, 2011).

Academic literature revealed a variety of ways to conceptualize innovation. According to Oslo Manual (2005, p.46), innovation is "...the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organisation or external relations... The minimum requirement for an innovation is that the product, process, marketing method or organisational method must be new (or significantly improved) to the firm. This includes

¹ http://www.franchise-fff.com

products, processes and methods that firms are the first to develop and those that have been adopted from other firms or organisations".

Abernathy and Clark (1985) define innovation as a process of information acquisition, transfer and use. Dasgupta and Gupta (2009) describe innovation as the successful implementation of new product, method or practices. The authors argue that innovation can be assimilated to a learning process which transforms new ideas into a value creation for the firm. On his part, Damanpour (1991) defined innovation as the development of new product, process or administrative system.

Based on these definitions, we propose to define innovation as the succeful implementation of new (or significantly improved) product, process or administrative system.

Franchise system is qualified to be an important source of innovation: in this context innovation may take the form of the conquest of new market niche or by implementing a new operating system (Kaufmann and Dant, 1999). Multiple authors stress on the role of franchisees on innovation (Bürkle and Posselt, 2008; Cox and Masson, 2007; Cliquet and Nguyen, 2004; Sorenson and Sørensen, 2001, Bradach, 1997). Franchisees are frequently involved in the new offerings developpment or in adjustment of the existing ones. Futhermore, they contribute in problems resolving (Kaufmann and Eroglu, 1999). Other scholars emphasize the determinant role of franchisor in the innovation process mainly by validating new ideas and by diffusing the new concept in the network (Davies *et al.* 2009; Cox and Masson, 2007).

Innovation is critical for the network competitiveness and for the development of new markets (Wu *et al.*, 2009). It pertains also to attract new franchisees for the chain (Watson and Stanworth, 2006; Falbe *et al.*, 1999). The network structure is in itself an advantage to enhance innovation because it allows the access of multiple resources (Cliquet and Nguyen, 2004; Powell *et al.*, 1996). The multiple form of most franchise networks is another advantage for the development and the management of innovations: while, franchisees are the main source of innovation (Cumberland and Githens, 2012), franchisor owned units can be used as a laboratory to develop and test new ideas (Gillis and Combs, 2009; Bürkle and Posselt, 2008). Otherwise, R&D and marketing services are determinant in the development of innovations in franchise context (Lewin, 1999).

1.2. The determinant role of knowledge diffusion in innovation

Literature review shows that the success of innovation is frequently associated with the implementation of an efficient knowledge management system (Gunsel *et al.*, 2011; Cantner *et al.*, 2011; Dasgupta et Gupta, 2009; Popadiuk et Choo, 2006; Darroch et McNaughton, 2002).

More particularly, multiple authors consider that knowledge diffusion, which is assimilated as a process of knowledge sharing and transfer (Slavković and Babić, 2013), is critical to foster innovation process (Weidenfeld *et al.* 2010; Liao 2006; Paraponaris and Simoni,2006; Calantone *et al.* 2002, Abernathy and Clark (1985). In Oslo Manual (2005), knowledge diffusion is described to be in the hurt of innovation. Verona (1999) establishes that knowledge transfer enhances marketing capability of the firm and consequently it favors the development of new products. According to Shu *et al.* (2012), knowledge diffusion plays an indirect and positive role in the development of product and process innovation. On their part, Slavković and Babić, (2013) affirm a positive impact of knowledge diffusion in administrative and process innovations. In the context of software firm in Taiwan, Liao (2006) shows a positive relationship between learning organization, knowledge diffusion, particularly the information and communication technologies, have a positive effect on innovation. Focusing on financial and insurance industry, Yu *et al.* (2013) demonstrate a positive relationship between knowledge diffusion and individual capability to innovate.

These arguments lead to the following hypothesis:

Hypothesis 1: knowledge diffusion is positively related to innovation

1.3. Control of franchise networks

Despite their legal autonomy, franchisees are supervised by the franchisor who uses different control mechanisms to protect his brand name and assure the convergence of franchisee's objectives with network strategy. The interdependence between franchisor and franchisees make the management of franchise network a difficult task (Lawrence and Kaufmann, 2011). In implementing control system, franchisor should take into account the franchisees needs of autonomy which is crucial to motivate franchisees to join the chain (Dant and Nasr, 1998) and to make them more innovative (Cochet *et al.*, 2008). However, much autonomy for

franchisees can be a source of agency cost problems (Cochet *et al.*, 2008) which can harm the brand name of the network.

The principal function of control is to make congruence between the objectives of the members of an organization and its strategy (Anthony, 1988; Merchant, 1982). In the same way, Macintosh and Quattrone (2010) define control as a system used to monitor organizational members and assure the conformity of their roles with organizational objectives. Academic literature reveals a variety of control tools which are used in franchise networks: franchise consultant (Bradach, 1997), mystery shopper (Cox and Mason, 2007), franchise contract (Cochet and Garg, 2008), information system (Boulay, 2010), audit (Paik and Choi, 2007), training (Paik and Choi, 2007), communication (Titus, 2012; Doherty and Alexander, 2006; Chiou *et al.*, 2004), trust and relational norms (Doherty and Alexander, 2006), etc. According to Davila *et al.* (2009), traditional approach of control which focuses on the role of control system in achieving the objectives, is confronted to a new stream of research which focuses on the important role of control in innovation. This new paradigm of control supports the hypothesis of determinant and positive role of management control system in innovation.

1.4. The role of informal control in knowledge diffusion

Among the different control mechanisms, informal control is frequently used in franchise context to compensate the loss of control due to the autonomy accorded to franchisees (Cochet *et al.*, 2008). This form of control known also as social control is based on relational norms and social practices which permit the sharing of the values of the organization (Turner and Makhija, 2006). Several authors stress on the central role of informal control mechanisms in franchise system: relational form of governance based on social interactions and trust make congruence between the objectives of franchisor and franchisees. Consequently, it is a solution to confront agency problem in franchise networks (Cochet *et al.*, 2008). El Akremi *et al.*(2010) confirm the important role of social control in establishing cohesion among franchisees and consequently reducing their opportunistics behaviors in the chain. Socialization is the main control mechanism in international franchise networks (Verbieren *et al.*, 2008). According to Vazquez (2008), social control mechanism contributes in establishing loyalty of franchisees to franchisor.

According to Bouquin (1986), the diffusion of relevant information is a main function of control system. In academic literature, a special attention is accorded to the role of informal control mechanism in knowledge diffusion: social control favors the knowledge transfer between the different members of the organization (Turner and Makhija, 2006). Focusing on the sales management, Flaherty and Pappas (2012) found a positive relationship between self control and knowledge transfer. According to Koza and Dant (2007), relational form of control, in particularly communication, affects positively information sharing. Ditillo (2012) shows that personnel control based on selection procedures and training is determinant in knowledge transfer. El Akremi *et al.* (2010) note that social control mechanisms are positively related to knowledge sharing between franchisees and franchisor.

Accordingly, we formulate this hypothesis:

Hypothesis 2: Informal control mechanism favors knowledge diffusion.

In summary, if academic literature supports a positive role of informal control in knowledge diffusion which is positively related to innovation, then informal control mechanisms is expected to stimulate indirectly innovation throw knowledge diffusion. So, the following hypothesis is proposed:

Hypothesis 3: knowledge diffusion mediates the relationship between informal control mechanism and innovation.

2. Methodology and design

Data were collected by a survey research method that involved the administration of a written questionnaire to a sample of franchisees and franchisor's employee-managers in France. Once questionnaire was validated, it was administrated by e-mail and face-to-face.

The number of questionnaires returned is 115 in which 106 were valid. To test potential sources of bias, we analysed by comparing the means of all measured variables of the questionnaires received by email and those collected by face to face. A two-sample t-test (at a level of 1%) revealed no significant differences except 1 item (CS4) over 18 with low differences. Morever, we used the same t-test to compare the mean reponses between early and last respondents. Again a two-sample t-test revealed no significant differences, indicating that non-response bias is unlikely to affect the results. The same result was found in testing

the potential bias related to the presence of two kind of respondents (franchisees and managers) due to nature of plural form of network .

Sample is constituted by 59.4% of franchisees and 40.6 % of employee-managers units. The gender split of the respondents was 54% male and the mean age was 41 years. The most represented industries are property and housing (24.5%), personal services (22.6%), clothing retail (19.8%), business services (10.4%), fitness, health and beauty (9.4%).

The developed measurement tool was based on prior empirical works (Table 1) and was adapted, if necessary, to franchise context. The 18 items constituting this instrument measure were pre-tested in face to face with franchisees, managers and researchers.

Variable	Number of items	Scale	Reference
Informal control	5	We asked respondents to indicate the extent to which they agree with the following propositions: (7-pt Likert scale ranging from «strongly disagree» to «strongly agree».) IC1: My franchisor (manager) encourages cooperation between members of chain IC2: Most of the members in my network are familiar with each other's work. IC3: The franchisor (manager) fosters an environment where members of network respect each other's work IC4: The franchisor (manager) encourages job related discussions between members. IC5: I m able to self-evaluate myself in my work	Ramaswami (1996)
Administrative innovation	3	Compared to competitors, what is the intensity level your franchisor gives to the following areas? (7-pt Likert scale ranging from « below competitors in past 3 years » to « above competitors; in past 3 years ») AIN1: Novelty of administrative systems AIN2: Efforts for development of new administrative methods AIN3: Frequency of change in administrative methods	Jiménez and Valle (2011)
Process innovation	3	Compared to your competitors, what is the intensity level your franchisor gives to the following areas? (7-pt Likert scale ranging from « below competitors in past 3 years » to « above competitors; in past 3 years ») PSIN1: Novelty of work practices PSIN2: Efforts for development of new work practices PSIN3: Frequency of change in work practices	Jiménez and Valle (2011)
Product innovation	3	Compared to your competitors, what is the intensity level your franchisor gives to the following areas? (7- pt Likert scale ranging from « below competitors in past 3 years » to « above competitors; in past 3 years ») PIN1: Novelty of products/services PIN2: Efforts of development of new products/services PIN3: Frequency of change in products/services	Jiménez and Valle (2011)
Knowledge diffusion	4	Respondents were asked to indicate the extent to which they agree with the following propositions: (7-pt Likert scale ranging from "strongly disagree" to "strongly agree".) KNdif1: In our network, we use formal tools to share best practices KNdif2: In our network, there are responsible whose main mission is to facilitate the knowledge sharing between the different parts of the network Kndif3: In our network, there are responsible whose main mission is to receive proposals formulated by franchisees or managers. KNdif4: In our network, there are responsible whose main mission is to diffuse information.	Jiménez and Valle (2011)

Tableau 1. Instrument of measuring and sources of items

Concerning hypotheses test, Partial least square method (PLS) was applied using Smart PLS Software (version 2). In this regard, we note that innovation concept is developed based on hierarchical construct models approach $(2^{nd} \text{ order construct})$ which is useful to reduce the model complexity (Wetzels *et al.*, 2009)². Finally, mediating effect is examined based on the procedure proposed by Baron and Kenny (1986). (1) independent variable should be correlated to mediator variable, (2) independent variable should be correlated to mediator variable, (3) mediator variable should be correlated to dependent variable, (4) when the mediator variable is taken into account, if the effect of independent variable on dependent variable still significative, we are in the case of partial mediation. If this relationship becomes insgnificant, we are in the case of complete mediaton.

3. Analysis and Results

PLS model is analyzed and interpreted sequentially in two stages: (1) the assessment of the measurement model (reliability and validity of measures), followed by (2) the assessment of the structural model and the analysis of path coefficients.

3.1. Measurement model analysis

In this part, reliability (Cronbach alpha and Composite Reliability), convergent validity (AVE) and discriminant validity (Cross loading) of constructs are analyzed.

In the first step, reliability of constructs is examined. As shown in tables 2, 3 and 4, both Cronbach's alpha and Composite Reliability (CR) values are superior than 0.70 which reflects a good internal consistency of constructs (Henseler *et al.*, 2009).

In the second step, we focused our attention on the convergent validity assessment. Henseler *et al.*, (2009) recommend the use of Average Variance Extracted (AVE) to assess convergent validity. Based on tables 2, 3 and 4, we observe that AVE of constructs are at least equal to 0.50. Consequently, we conclude that convergent validity is overall acceptable, meaning that the most variables are able to explain more than half of the variance of its indicators (Henseler *et al.*, 2009).

 $^{^{2}}$ As innovation is a concept with multiple faces (Davila *et al.*, 2009), it was measured based on the conceptualization proposed by Jiménez and Valle (2011) which distinguish between three forms of innovation: administrative, process and product.

Constructs	Items description	Loading	T-value	Cronbach alpha	Composite Reliability	AVE
Informal control				0.71	0.81	0.50
mechanism	IC1	0.80	14.37			
	IC2	0.62	8.58			
	IC3	0.62	6.31			
	IC4	0.85	33.82			
	IC5	0.50	5.02			

Tableau 2. Quality adjustments of informal control mechanism construct

Constructs(2 nd	Constructs	Items	loading	Т-	Cronbach	Composite	AVE
order)	(1 st order)	description		value	alpha	Reliability	
INNOVATION					0.94	0.95	0.68
	Administrative		0.871	29.01	0.98	0.98	0.96
	innovation	AIN1	0.983	239.34			
		AIN2	0.983	170.43			
		AIN3	0.976	131.77			
	Process		0.907	42.19	0.94	0.96	0.89
	innovation	PSIN1	0.957	88.19			
		PSIN2	0.948	59.40			
		PSIN3	0.936	48.61			
	Product		0.876	24.86	0.84	0.90	0.76
	innovation	PIN1	0.892	28.89			
		PIN2	0.869	20.83			
		PIN3	0.854	32.16			

Tableau 3. Quality adjustments of informal control mechanism construct

Constructs	Items	Loading	T-value	Alpha de	Composite	AVE
	description			Cronbach	Reliability	
Knowledge				0.81	0.87	0.65
diffusion	KNdif1	0.586	6.42			
	KNdif2	0.873	29.80			
	KNdif3	0.868	19.32			
	KNdif4	0.865	31.30			

Tableau 4. Quality adjustments of Knowledge diffusion construct

Finally, discriminant validity is assessed by examining the cross loading. In this context, indicators should be more correlated whith their latent variable than whith the other constructs (Henseler et al., 2009). Based on the examination of table 5, discriminant validity of constructs is acceptable.

	IC	AIN	PSIN	PIN	Knowledge diffusion	
IC_1	0.805	0.490	0.364	0.320	0.562	
IC_2	0.622	0.243	0.244	0.246	0.398	
IC_3	0.622	0.246	0.201	0.326	0.341	
IC_4	0.850	0.572	0.497	0.404	0.661	
IC_5	0.503	0.307	0.307	0.328	0.451	
AIN_1	0.576	0.983	0.654	0.615	0.626	
AIN_2	0.549	0.983	0.639	0.601	0.604	
AIN_3	0.563	0.976	0.640	0.609	0.604	
PSIN_1	0.419	0.598	0.957	0.702	0.439	
PSIN_2	0.496	0.595	0.948	0.696	0.453	
PSIN_3	0.487	0.670	0.936	0.737	0.494	
PIN_1	0.458	0.539	0.642	0.892	0.457	
PIN_2	0.362	0.495	0.554	0.869	0.385	
PIN_3	0.413	0.583	0.756	0.854	0.460	
KNdif_1	0.530	0.386	0.349	0.406	0.586	
KNdif_2	0.643	0.592	0.374	0.402	0.873	
KNdif_3	0.565	0.512	0.402	0.403	0.868	
KNdif_4	0.585	0.497	0.443	0.400	0.865	
Tableau 5 Cross Loading of first order constructs						

Tableau 5. Cross Loading of first order constructs

Overall, results show that measurement model presents an acceptable fit.

3.2.Structural model analysis

To test hypotheses, two models are developed: the first describes the direct effect of informal control mechanism on innovation (before introducing the mediating variable). The second model describe the effect of informal control mechanism in innovation when the mediating variable is introduced. We note, that Bootstrapping using 2000 samples was undertaken in the cases of Model 1 and 2.

Quality Adjustment of structural		INNOVATION	
model	R ²	0.34	
	Q ²	0.23	
INFORMAL CONTROL MECHANISMM - >INNOVATION	ß1=0.58** (t=9.88)		
	(m=0.59 ; sd=0.05)		

** Results are significant at a threshold of 1% (p<0.01)

 Table 6. Model 1 (before introducing the knowledge diffusion variable)

The analysis of the coefficient of determination (R^2) and the coefficient of prediction relevance (Q^2) as shown in table 5 indicates that inner models (M1) presents an acceptable fit $R^2=0.34$ (>=0.1) and $Q^2=0.23$ (>0).

Structural coefficients analysis indicates a significant and positive effect of informal control mechanism on innovation (β 1=0.58; t=9.88). This result allows us to continue our analysis and to introduce Knowledge diffusion variable as a mediator in the second model.

Quality Adjustment structural model		INNOVATION	KNOWLEDGE DIFFUSION		
	R ²	0.41	0.52		
Hypotheses	Q²	0.28	0.30		
H1. KNOWLEDGE DIFFUSION> INNOVATION		ß2=0.39** (t=3.89)			
	(m=0.39 ; sd=0.10)				
H2.INFORMAL CONTROL MECHANISM >KNOWLEDGE		ß3=0.72** (t=14.84)			
DIFFUSION		(m=0.72 ; sd=0.04)			
H3.INFORMAL CONTROL MECHANISM>INNOVATION		ß4=0.58** (t=9.54)			
		(m=0.58 ;	sd=0.06)		

 Table 7. Model 2 (after introducing the knowledge diffusion variable)

As shown in table 7, Model 2 seems to be well adjusted: in one hand, R^2 of innovation and knowledge diffusion variables are successively 0.41 and 0.52. In the other hand, Q^2 of innovation and knowledge diffusion are successively 0.28 and 0.30.

Path coefficient analysis shows, in one side, a positive and significant relationship between informal control and knowledge diffusion ($\beta_3=0.72$; t=14.84) meaning that Hypothesis 2 receives strong support. In the other side, knowledge diffusion is positively correlated with innovation ($\beta_2=0.39$; t=3.89) which supports Hypothesis 1. In the same time we observe that the relationship between informal control mechanism and innovation remains significant ($\beta_4=0.58$; t=9.54). These results together reflect a partial mediating role of knowledge diffusion in the relationship between informal control mechanism and innovation. Therefore, hypothesis 3 is supported.



Figure 1.Mediating effect of knowledge diffusion in the relationship between informal control mechanism and innovation (M2)

4. Discussion

The results of our research show the presence of direct and indirect positive effect of informal control mechanism in innovation.

The positive and direct effect of informal control mechanism in innovation is coherent with the results of previous traditional studies which are focused on direct effects (Ylinen et Gullkvist, 2014; Busco *et al.*, 2012; Cardinal , 2001; Abernethy et Brownell, 1997).

In the other side, the mediating effect of knowledge diffusion in the relationship between informal control and innovation which implies that, in one hand, informal control mechanism favors knowledge diffusion which confirms the statements of several scholars (Flaherty and Pappas, 2012; Ditillo, 2012; Koza and Dant, 2007; Turner and Makhija, 2006). In the other hand, our results confirm the positive association between knowledge diffusion and innovation, which is not surprising according to literature (Weidenfeld *et al.* 2010; Vaccaro *et al.*, 2010; Liao, 2006; Paraponaris and Simoni, 2006; Verona, 1999).

According to Revellino and Mouritsen (2009) few studies have investigated the question of how management control system influences the development of innovation. Our result shows that a part of the positive effect of informal control mechanism on innovation can be explained by the direct role of this control mechanism in knowledge diffusion.

5. Conclusion

The aim of this study is to explain the relationship between informal control mechanism and innovation by the introduction of knowledge diffusion mediating effect. Empirical results confirm that informal control stimulates innovation both directly and indirectly throw knowledge diffusion in the context of franchise system.

This study contributes to literature in three ways. Firstly, it provides an explanation of the positive effect of informal control mechanism on innovation: informal control stimulates innovation by the diffusion of knowledge. To the best of our knowledge, it is the first study, which has attempted to examine simultaneously direct and indirect effects. Secondly, the presence of a of partial mediation effect of knowledge diffusion in the relationship between informal control and innovation opens new perspectives for research in management control field. Further papers can analyze other mediators like knowledge creation, knowledge interpretation and knowledge use. Finally, by studying franchise network in the French context, we contribute to expand franchise research beyond US context as suggested by Dant *et al.* (2011).

This study has also methodological and managerial implications. In terms of methodological implication, we demonstrate that the second order model approach is useful to simplify model development in the case of complex relationship between multiple latent variables. In terms of managerial implication, empirical results show that informal control encourages innovation, which is a strong argument for franchisor to persuade franchisees on the necessity and utility of the implementation of control system. Moreover, our results sensitize managers on the importance of socialization practices in the managing of innovation in franchise system.

Even if the level of bias detected in this study is weak, results should be interpreted with caution, principally due to the moderate sample size. Otherwise, measures' operationalization can be performed in future research. Furthermore, the same survey can be replicated focusing on face-to-face questionnaires administration in order to increase the response rate.

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