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Analysis of knowledge tacitness in the transfer of food and beverage practices: Evidence from new chain hotels

Abstract

Knowledge is a valuable resource that can provide a firm competitive advantages. Food and beverage practices require the existence of knowledge to effectively perform the activities in this key department for many hotels. When hotel firms grow by integrating new hotels in the organizational structure, managers usually want to transfer the knowledge underlying the key practices. However, the transfer is affected by the level of knowledge tacitness, since this characteristic is considered to render the transfer more difficult. With data from 93 new chain hotels where F&B knowledge has been transferred, the results shed some light about the tacitness of F&B knowledge and its transfer. Thus, customer service knowledge is the knowledge with the lowest degree of tacitness, and food planning, production and preparation is the most tacit. The most frequent mechanism to transfer the knowledge on food planning, production and preparation and the knowledge on management and control of purchases and consumption is the use of staff from the headquarters or other chain hotels in long-term assignments; the preferred method for F&B customer service is training courses, lectures and seminars. Moreover, the tacitness of knowledge about F&B customer service negatively affects the knowledge transfer process in several success dimensions.

Keywords: Knowledge Tacitness; Knowledge Transfer

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Introduction

In the last decades knowledge has been considered a key resource to enhance and sustain competitiveness. There is increasing recognition that an effective management of knowledge is essential for firm success (Holste and Fields 2010). The relationship between knowledge and sustainable competitive advantages is highlighted in the literature (e.g., Lubit 2001). In tourism, Cooper (2006) states that the sector has been slow in adopting the knowledge management approach, partly due to the lack of connection between research and the industry.

Tacitness is one of the most studied knowledge dimensions in management research. According to Lubit (2001), tacit knowledge often allows a group to perform at a higher level than that which their explicit knowledge does. The existing literature provides sufficient evidence to support the relevance of tacit knowledge (Venkitachalam and Busch 2012). The role of both explicit and tacit knowledge has been addressed in management studies regarding decision-making, knowledge creation and innovation, information systems, and knowledge transfer among other processes.

The literature on hospitality management has not reflected the relevance that knowledge tacitness has had in the general management field. Though Abdullah, Ingram and Welsh (2009, 119) stated that tacit knowledge has “a place in the theory and practice of hospitality management”, the studies which address the tacit dimension of knowledge as a central aspect regarding hospitality management have been scarce. Nevertheless, some areas in hospitality activities are prone to be considered rich in tacit knowledge, and hence be subject to the effects this characteristic can cause. The food and beverage department is one of those areas, since many practices in this domain are usually associated with information that is difficult to express, formalize, or share.

Chuang, Jackson and Jiang (2016) defend that knowledge must flow and be embedded in the firm in order to create value. Since hospitality chains are oriented to growth and operational standardization is a common strategy for these firms, knowledge transfer to new hotels is a frequent process. Haldin-Herrgard (2000) indicate that one of the main concerns for organizations managing their knowledge resources is the diffusion of knowledge within the organization. In that sense, and due to the economic and strategic relevance that food and beverage activities have, the knowledge in that area is usually mobilized to new settings. Abdullah, Ingram and Welsh (2009) empirically document several concerns in ethnic restaurants regarding the transfer of tacit knowledge. Based on the problems that knowledge transfer entails (e.g., Szulanski 1996), the study of the mobilization of food and beverage knowledge practices becomes an interesting topic. In the tourism field, Zhang et al. (2015) address the relevance of understanding the mechanism to capture and transfer tacit knowledge as a major challenge in the tourism field. Moreover, as Rhou and Koh (2014) highlight the key relevance of acquiring sustainable competitive advantage in the restaurant context through the firm's collective, tacit knowledge during international expansion, additional research on the characteristics and effect of tacit knowledge in the growth process of restaurants and hotels with food and beverage departments can contribute to the academic development of the field.

This study aims to shed light on the tacitness of food and beverage knowledge to be transferred to new hotels when chains grow. Thus, the specific goals of this work are: to describe the level of tacitness of the food and beverage knowledge, to describe the mechanisms employed to transfer it, and to analyze the influence of the level of tacitness on the transfer success. This last goal will be presented in terms of a research hypothesis in the theoretical section of this work along with the discussion of tacit knowledge in transfer processes and the presentation of the

transfer mechanisms. After that section the method for the empirical approach is addressed. Next, the results are presented. The last section of the work deals with the main conclusions.

Theoretical framework

Based on their literature review, Eisenhardt and Santos (2001) highlight a strong divergence in the meaning of knowledge addressed in theoretical and empirical works. Thus, the literature has developed theoretical approaches towards interesting elements to understand the concept of knowledge. Nevertheless, empirical studies, particularly those included in the strategy field, take an approach in which knowledge is seen as a resource. The resource-based view defends that valuable and rare resources are the basis to create competitive advantages (e.g., Barney 1991). Grant (2002) observes that despite the deep philosophical questions raised about the nature of knowledge, some of the most important perspectives on the knowledge-based vision of the firm have emerged considering very basic features of this resource.

In the task of addressing the concept of knowledge a traditional way to define it is by contraposition to data and information. Although the boundaries between these concepts vary depending on the author (e.g., Fahey and Prusak 1998; Alavi and Leidner 2001; Kettinger and Li 2010), the approach to the concept of knowledge in this paper begins trying to clarify these differences. Given the difficulty of providing definitions in these areas, in order to distinguish between data, information and knowledge using external approaches or a user perspective is interesting (Bhatt 2001), since differences are a question of degree. According to Bhatt (2001), data differ from information in their organization, while information is distinguished from knowledge based on their interpretation. Thus, the data are a discrete set of objective realities and facts while information is an organized data set (Davenport and Prusak 1998; Bhatt 2001).

In general, the approach to knowledge from this perspective implies embedding important meaning to make decisions and actions (Fahey and Prusak 1998). In the business context, therefore, knowledge goes beyond data and information. Many different contributions have aimed to conceptualize this organizational reality: from 'recipe' that specifies how to perform activities (Kogut and Zander 1993) or justified true belief (Nonaka and Takeuchi 1995), to the understanding, awareness or familiarity gained through study, research, observation or experience over time (Bollinger and Smith 2001). A relevant discussion line in these contributions is the epistemological treatment of the nature of knowledge. Nonaka and Takeuchi (1995) decisively contributed to analyze the concept of knowledge from that perspective, and other authors have further developed it in the organizational field (e.g., Spender 1996; Tsoukas 1996; Oguz and Sengün 2011).

In order to provide clarity to the concept, different orientations that underlie the approach of definitions can be presented. So, Alavi and Leidner (2001) identify five perspectives in the literature to address knowledge: as state or fact of knowing, as object, as process, as a condition of access to information, and as a capability. Knowledge assets may reside in the “individual, group, organization, book or machine” (Wilkins, Van Wegen and De Hoog 1997, 62). Law (2014) complements that view by indicating that in organizations knowledge resides in individuals, team memories, organizational routines, documentation and databases. In this line, Carlucci (2012, 73) underlines that several kinds of knowledge assets can exist in an organization such as, for example, “employee’s motivation, brand, image, database, routine and practices, relationships among colleagues, and so on”. Knowledge is characterized in that its value is determined by the utilities that it can provide to solve problems, help in completing tasks, etc. According to Leonard and Sensiper (1998, 113) and in order to propose a working

definition, knowledge can be regarded as “information that is relevant, applicable, and at least partially based on experience”. This view of knowledge integrates elements of contextual information, articulated experience, values and expert points of view (Davenport and Prusak 1998).

Therefore, knowledge allows for facing reality by reducing uncertainty (Uit Beijerse 1999) while providing it with meaning. Venkitachalam and Busch (2012, 358) indicate that the major element of organizational knowledge is the contribution of its staff, since “individuals are not silos of knowledge, rather their connectivity to other staff constitutes a considerable component of organizational know-how”.

A branch within the knowledge-based view of the firm has conducted taxonomic approaches to knowledge, trying to extract implications of the types presented (e.g., Spender 1996; Tsoukas 1996). The typology of greatest impact and recognition in the field is the one that distinguishes between explicit and tacit knowledge (Polanyi 1966; Nonaka and Takeuchi 1995; Tsoukas 1996; Ranucci and Souder 2015), though Oguz and Sengün (2011) defend that the term *tacit knowing* should be preferred to *tacit knowledge*.

Explicit knowledge includes knowledge that can be transmitted through a systematic language (Nonaka and Takeuchi 1995). Matsuo (2015) states that most declarative knowledge is explicit. This kind of knowledge is characterized by the fact of not being subject to a too specific context in order to be meaningful. This feature enables the transfer of knowledge without major problems when removed from the original context of their creation or use (Zack 1999). The ease of transfer of such knowledge between sender and recipient is a crucial element in its definition, since it outlines that both entities (source and recipient) may possess this knowledge

through transmission by codes or symbols (Kogut and Zander 1992). Nevertheless, such ease of replication often cannot be contained within firms (Ranucci and Souder 2015).

Tacit knowledge, in turn, is related to the kind of knowledge that can hardly be formalized or expressed. Thus, tacit knowledge is the implicit accumulation of skills and knowledge through experience (Reed and DeFillippi 1990), internalized by understanding and practice (Oliva 2014). The key elements in this idea are embedded in the expression 'we know more than we can tell' (Polanyi 1966; Teece 1998). Matsuo (2015) indicates that some parts of procedural knowledge are tacit. For Okumus (2013), tacit knowledge is generally informal, intuitive, and based on personal experiences. Derived from those statements, that knowledge cannot be expressed with words easily, and hence it is difficult to code. The reason for this is that tacit knowledge arises and accumulates through the interaction between the person and the situation. That makes tacit knowledge specific to the context in which it was created. Holste and Fields (2010) support those ideas when they indicate that tacit knowledge is highly personal and difficult to reduce to writing.

For Nonaka and Takeuchi (1995) the concept of tacit knowledge includes mental schemes, beliefs and perspectives, which the human being uses to perceive and define the environment, and abilities, skills or know-how to perform specific tasks. Tacit knowledge is obtained by internal individual processes like experience, reflection, internalization or individual talents (Haldin-Herrgard 2000). The degree to which knowledge is considered explicit or tacit is directly related to the extent that it can be taught and codified (Kogut and Zander 1995; Ranft 1997). Okumus (2013) affirms that at the expertise and capability levels, there is much more tacit knowledge than explicit knowledge.

Holste and Fields (2010) review the descriptions and characteristics of explicit and tacit knowledge in the literature. At this point it is interesting to mention that Tsoukas (1996) underlines that tacit knowledge can be really expressed linguistically if we focus on it, and vice versa: explicit knowledge is always based on a tacit component. It is therefore not appropriate to separate both concepts dichotomously, establishing two oversimplified discrete types. Instead, knowledge in an organization can be seen in a continuum where the extremes are purely tacit and explicit elements, respectively (Leonard and Sensiper 1998; Oliva 2014).

As it has been shown above, the concepts of explicit and tacit knowledge are linked to knowledge transferability. The transfer of tacit/explicit knowledge has been often addressed in the literature on management, although empirical studies on this issue have a much lower quantitative relevance. Grant (1996a) notes that transferability is a key characteristic for the development and sustainability of competitive advantages. Regarding knowledge, the author notes that the ability to transfer it is a critical issue in business management. Grant (1996b) points out that precisely the barriers to the transfer and replication of knowledge bestow it strategic importance. These competitive dynamics in the restaurant industry are reflected in Rhou and Koh's discussion (2014) when these authors indicate that higher level of tacit knowledge and greater opportunities to establish a sustainable competitive advantage entail less emphasis on pricing competition and accrues higher profit margins.

For a tourism organization, it is vital to consider knowledge as a resource (Cooper 2006) that can be of paramount importance for its performance and long-term survival. More specifically, Crook, Ketchen and Snow (2003) highlight the relevance of the knowledge possessed by a firm in the hospitality industry, because it can yield a competitive advantage and become a

paramount aspect of human resource management due to the importance of direct contact between employees and customers in the industry.

The transfer of knowledge and technology has been considered a desired strategy in the organizational growth, whether in size or profits (Kogut and Zander 1992), since the transfer of capabilities can be seen as a primary mode of expansion (Hedlund 1994). Understanding and using knowledge developed and tested inside the organization allow for facing an expansion process with the aim of appropriating new rents in new markets by exploiting the possessed knowledge and becoming a possible source of competitive advantage. Oliva (2014) explains that the ability to take advantage of teams that have already experienced the same situations and implemented solutions makes it possible to reduce the level of resources to be adopted, reduce the time for completing the project, enhance the levels of quality and allow the company to satisfy customers. So, technology transfer lies at the heart of the issue of the firm growth, domestically and internationally (Kogut and Zander 1993), because, as Nelson and Winter (1982) suggest, the replication of assets and capabilities is related to the growth and profitability of a firm. According to Chuang, Jackson and Jiang (2016) knowledge must flow through and be embedded in the organization in order to create value.

In the tourism industry many firms grow globally by using strategies based on the transfer of knowledge resources. Knowledge transfer processes in this sector have not received much attention in the scientific literature (Hallin and Marnburg 2008; Shaw and Williams 2009; Advimiotis, 2016). Hallin and Marnburg (2008) present the first review of empirical studies on knowledge management in the hospitality field; Shaw and Williams (2009) review research on knowledge transfer in the context of innovations; and Avdimiotis (2016) analyses the

relationship between tacit knowledge acquisition/transfer and behaviors originating in a working environment where task assignments fit employees' personal characteristics.

According to Zhao and Olsen (1997), multinational firms seek to provide a consistent bundle of goods and services to their customers and generally attempt to transplant a domestic definition of that bundle to other countries in order to serve the client in overseas destinations. This can be one of the reasons why Ramón (2002) empirically observes that Spanish hotel chains are mostly characterized by a certain ethnocentrism in their international growth. In addition, Evans, Campbell and Stonehouse (2003) describe this situation when they address one of the key challenges for an international hotel chain which must provide the same quality standards throughout the world but with staff coming from different cultural and language backgrounds, when the service is provided in very different locations, and in buildings that are not owned by the company.

It is generally recognized the difficulty associated with the transfer of tacit knowledge. Zander (1991) notes that the tacit dimension of knowledge has a strong influence on the transfer smoothness. Knowledge tacitness along with its complexity and specificity originate causal ambiguity (Reed and DeFillippi 1990), generating an ambiguous relationship between actions and outcomes. Thus, when trying to replicate the use of knowledge, an irreducible uncertainty can be present which hinders the possibility to clearly observe how features of the new context influence the results of the attempted replication (Lippman and Rumelt 1982). Therefore, the content of a tacit skill implies that the content of the original cannot be passed to a useful and adequate symbolical format, and there exists ambiguity about what that content really is (Winter and Szulanski 2002). This idea is reflected in the concept of "sticky knowledge" introduced by Von Hippel (1994) and attempts to show the difficulty linked to the transfer of certain

knowledge-based resources. In the restaurant context, Rhou and Koh (2014) refer to this idea when they indicate that offering more complicated products and customized services entails higher costs to transfer knowledge than those required of quick-service restaurants.

In order to obtain tacit knowledge the main mechanisms are individual and shared experience (Nelson and Winter 1982) and learning by doing (Ranft 1997). In the context of transfer to other individuals, Polanyi (1962) points out that the person who has got the knowledge cannot be fully capable of encoding and teach others the knowledge s/he possesses. In the same vein, Winter (1987) argues that tacit knowledge cannot be specified and communicate regardless of their possessor, because this type of knowledge can only be disclosed in its use (Grant 1996a). For Crane and Bontis (2014) tacit knowledge is acquired unconsciously and automatically, but capable of influencing action (action-oriented). Those ideas can give rise to the view that the implementation of tacit knowledge assets is key to learn from other individuals and show how the transfer of such knowledge is slow, costly and uncertain (Teece 1981; Grant 1996a). As Winter and Szulanski (2002) indicate, the degree of transferability of tacit skills to new contexts is probably affected by the way it is taught, but not easily. Apart from the theoretical support, several empirical analyses show the highest level of difficulty associated with internal transfers of this type of knowledge from different conceptualizations and perspectives (e.g., Szulanski 1996; Zander and Kogut 1995; Bresman, Birkinshaw and Nobel 1999; Szulanski, Ringov and Jensen 2016).

With some of the ideas discussed in the preceding paragraph another aspect gains relevance in the analysis of successful internal knowledge transfer: the mechanisms used to effectively transfer that knowledge in organizations. Some authors address different ways to transfer knowledge internally in their work. For Subramaniam and Venkatraman (2001) and Pedersen,

Petersen and Sharma (2003), an interesting approach to such transfer mechanisms lies in the theoretical framework provided by the concept of information richness (Daft and Lengel 1984, 1986).

Arrow (1969) notes that several communication mechanisms differ in their capacity to transfer information along with their costs. Daft and Lengel (1986) analyze the existing forces in organizations that influence information processing, and they address uncertainty, defined as the absence of information, and equivocality as complementary forces in information processing. The concept of equivocality is related to ambiguity and to the existence of varied and conflicting interpretations about an organizational situation. To reduce equivocality, Daft and Lengel (1986) discuss the possibility of using structural mechanisms that enable debate, clarification and more than the mere presentation of data, which they identified with the need for processing rich information. According to Daft and Lengel (1984), information richness is defined as the ability of information to change understanding within a time interval. Thus information richness is related to the learning ability that provides an act of communication (Daft and Lengel 1986). The communication which overcomes different perspectives or clarifies ambiguous issues to change understanding is considered rich in that sense. Conversely, the communication with a low degree of richness cannot overcome different reference frameworks or it requires a long period of time to enable understanding. However, this view contrasts with Brookes' suggestion (2014) that partner-specific variables may be considered more relevant than knowledge-specific aspects to determine knowledge conduits, although the empirical findings for that suggestion were obtained in an inter-organizational setting.

In the tourism field, Zhang et al. (2015) state that understanding the mechanism to capture and transfer tacit knowledge still remains a major challenge. The conceptual framework provided

by information richness allows for systematizing the various mechanisms of knowledge transfer. Daft and Lengel (1986) provide a list of five mechanisms based on their capacity to process rich information, and they are the following ones from low to high: digital documents; impersonal written documents; personalized documents such as letters or memoranda; telephone calls; and face-to-face contact. Lord (1997) applies these mechanisms in the context of knowledge transfer, extending the logic of the concept of information richness on this topic. The author extends the previous classification and lists the following mechanisms to transfer knowledge: written memoranda; detailed reports or studies; emails; telephone conversations between two people; “teleconference” sessions; face-to-face meetings or conferences; temporary assignments of staff from knowledge source units; temporary assignments of staff from knowledge recipient units; and permanent staff transfers from knowledge source units. In the same vein, Pedersen, Petersen and Sharma (2003) propose a continuum of mechanisms that is the basis for addressing the various ways in which knowledge can be transferred in an international context. At one end of this continuum manuals, development of databases, written instructions and drawings/diagrams would be found; these mechanisms require little individual interaction. At the other end, Pedersen, Petersen and Sharma (2003) list the mechanisms based on face-to-face relationships, informal interaction and teamwork. For inter-organizational knowledge transfers in a franchise network, Gorovaia and Windsperger (2010) distinguish mechanisms with a relatively high degree of information richness (training, conferences, meetings, telephone conversations, visits of the outlets) and mechanisms with a relatively low degree of information richness (fax, intranet and internet, and other electronic transfer mechanisms). Meanwhile, Gupta and Govindarajan (2000) show how the existence and richness of transmission channels are positively and significantly related to the transfer of

knowledge from the headquarters of an organization towards its subsidiaries. This relationship is supported with formal mechanisms such as liaison personnel and temporary and permanent teams or with vertical socialization mechanisms such as having staff in the unit who has previously worked in the headquarters or having a mentor there.

Due to all this discussion, the transfer of tacit food and beverage knowledge to new settings can encounter several barriers and hinder a successful, smooth transfer. That is the basis for setting the research hypothesis of this work:

H1: The tacitness of knowledge in the F&B area is negatively related to knowledge transfer success when hotel firms grow.

Method

The data for this study were collected by using a survey. The population was set to include all the new hotels integrated by Spanish hotel chains in a two-year period where a significant internal transfer of knowledge from the headquarters or other organizational units had taken place. A senior manager in the chain was contacted in order to verify the existence of this transfer. The concept of hotel chain was defined as an organization which operates three or more hotels or motels (Ingram 1996). Since franchising can be treated as a quasi-market transaction (Erramilli, Agarwal and Dev 2002) franchises were not included in the population since it would be problematic to analyze the knowledge transfer in this context as an internal one. Three hundred fifty-nine new hotels matched the above criteria.

Abdullah, Ingram and Welsh (2009) confirm that tacit knowledge is difficult to put down in restaurant settings and to quantify with rigorous statistical analysis. To gather valuable data a sound research approach for this analysis was carefully designed. The questionnaire was developed after a literature review and questions for the variables of interest were formulated

with a seven-point Likert scale, ranging from one to seven (total disagreement – total agreement, or lowest value – highest value). For Szulanski (1996), the concept of practice refers to the routine use of knowledge which often has got a tacit component whether in individual skills or in group collaborative agreements. Kostova (1999) defines an organizational practice as certain ways to implement organizational functions that have evolved along time under the influence of history, interests, and actions within an organization and that have been institutionalized in it. According to this author, the practices that organizations develop and institutionalize vary widely. Thus, practices can have a limited or wide scope, referring to specific tasks in a functional area or more complex tasks respectively. In order to identify the main practices in food and beverage (F&B), two rounds of contacts with ten hospitality experts were organized. In the first round, practices were identified, and in the second one agreement with the wording proposal of three practices identified in the first round was submitted to assessment. Experts agreed on these three practices: (1) Food planning, production and preparation; (2) Customer service (in restaurant, cafeteria, bar...); and (3) Purchase and cost management and control. The level of tacitness of these three knowledge domains was measured with three items which integrated the scales used by Bresman et al. (1999) and Subramanian and Venkatraman (2001). Those contacts with experts were also used to identify the main transfer mechanisms used in the industry, and they were presented in the questionnaire based on their degree of information richness (Daft and Lengel 1986; Lord 1997).

Following the aim of this work, knowledge transfer success was measured with four dependent variables: time to transfer the knowledge, cost of the transfer, recipients' satisfaction with the transfer (Pinto and Mantel 1990; Szulanski 1996), and similarity of the knowledge characteristics between the F&B department in the new hotel and the corporate template,

following the theoretical approach taken by Winter and Szulanski (2002). The questionnaire was prepared in Spanish and English and reviewed by three university professors and by a professional translator.

For each of the hotels included in the population the first general manager was identified and contacted for his/her participation in the survey as the key informant. The final version of the questionnaire was sent by email or fax. Ninety-three valid questionnaires were able to be used for this study.

The average number of rooms in the 93 hotels included in this final sample is 209. The average total number of employees for those hotels is 84, and the average number of F&B employees descends to 36. The main segment for most hotels is leisure/vacation (57%), while the remaining 43% primarily target the business traveller. Though most hotels are in Spain (71%), in the sample there are hotels in Europe, America and Asia. Half of the hotels analyzed in this study are owned by the hotel chain, though some others are leased or linked with management contracts.

Regarding the key informants, almost 80% were general managers of the hotel. The rest of the individuals who provided the data for this study were deputy general managers (5%), corporate managers (4%) or other managers in the hotel. Most of them were male (81%) and their tenure in the hotel firm was lower than 5 years (54%). With regard to their age, around 58% were between 30 and 45 years old.

Results

Table 1 shows the tacitness degree of the three knowledge assets considered in this work. The hardest practice to learn by reading a manual is the one related to kitchen activities and food preparation. The knowledge underlying this practice is also the most difficult one in the F&B

department to embed in a manual. Nevertheless, the corporate knowledge assets associated with a higher level of complexity to be taught are the ones related to purchases management and consumption control. From a global perspective, and based on the mean of the three tacitness items, customer service knowledge is the knowledge asset with the lowest degree of tacitness. On the other hand, food planning, production and preparation are deemed to be the least explicit knowledge asset out of the three domains considered.

Table 1. Descriptive values of tacitness for the each F&B practice

VARIABLES Item	F&B PRACTICE		
	Food planning, production and preparation	Customer service (in restaurant, cafeteria, bar...)	Management and control of purchases and consumption
Educating the new employees to operate in this practice using the chain standards is very slow and complicated	3.55	3.35	3.71
Formulating and understanding this practice in written documents is very difficult	3.43	3.18	3.23
New employees can learn how to perform this practice by studying a manual with difficulty	3.73	3.63	3.53
Mean	3.57	3.40	3.49

Another interesting aspect is to observe the knowledge transfer mechanisms that hotel firms have used to transmit the F&B knowledge. Table 2 displays the main mechanism employed for each knowledge practice in all the hotels of the sample. Starting with the food planning, production and preparation, the most frequent way to transfer it is with the employment of personnel from the headquarters or other chain hotels in long-term assignments, followed by the use of training activities and corporate personnel or staff from other hotels/units of the chain moved temporarily to the hotel in short stays. In the same line, and considering the main mechanism used in the knowledge transfer, long-term staff from other organizational units seems to be the most frequent way used in the industry to transfer the knowledge on

management and control of purchases and consumption. For the knowledge assets in this category, the employment of training activities and procedures manuals are also quantitatively remarkable as the main method used. As for F&B customer service, the preferred method is training courses, lectures and seminars.

Table 2. Main knowledge transfer mechanisms for each F&B practice

VARIABLES Item	F&B PRACTICE		
	Food planning, production and preparation	Customer service (in restaurant, cafeteria, bar...)	Management and control of purchases and consumption
Procedures manual	12	16	17
Personalized written documents (letters, reports, memos, e-mails) or audiovisual material	10	5	9
Phone conversations or other similar mechanism (videoconference) allowing contact with corporate experts or from other chain hotels/units	0	0	4
Training courses, conferences or seminars	18	25	17
Corporate personnel or from other hotels/units of the chain moved temporarily to the hotel (for less than one month)	15	14	13
Personnel from this hotel moved temporarily to other hotels/units of the chain	12	13	7
Corporate personnel or from other hotels/units of the chain moved to the hotel for more than a month or permanently	20	15	21

In order to test the research hypothesis of the study, regression analyses were conducted. But firstly, exploratory factor analyses were conducted to reduce the dimensionality of the scales of knowledge tacitness for the three food and beverage practices. Tables 3, 4 and 5 show the results of those exploratory factor analyses. For each practice, only one factor was extracted, and they explained between 74% and 79% of the variance in their corresponding scale. Kaiser-Meyer-Olkin measures of sampling adequacy and Bartlett's tests of sphericity were computed and results were satisfactory.

Table 3. Exploratory factor analysis for tacitness of food planning, production and preparation

VARIABLES	FACTOR
Item	Factor load
Educating the new employees to operate in this practice using the chain standards is very slow and complicated	0.780
Formulating and understanding this practice in written documents is very difficult	0.778
New employees can learn how to perform this practice by studying a manual with difficulty	0.704
Cronbach's alpha	0.819
Percentage of variance explained (%)	75.42
Eigenvalue	2.263
Kaiser-Meyer-Olkin measure of sampling adequacy	0.717
Bartlett's test of sphericity	107.564 (0.000)

Table 4. Exploratory factor analysis for tacitness of customer service (in restaurant, cafeteria, bar...)

VARIABLES	FACTOR
Item	Factor load
Educating the new employees to operate in this practice using the chain standards is very slow and complicated	0.780
Formulating and understanding this practice in written documents is very difficult	0.804
New employees can learn how to perform this practice by studying a manual with difficulty	0.644
Cronbach's alpha	0.784
Percentage of variance explained (%)	74.27
Eigenvalue	2.228
Kaiser-Meyer-Olkin measure of sampling adequacy	0.690
Bartlett's test of sphericity	106.933 (0.000)

Table 5. Exploratory factor analysis for tacitness of management and control of purchases and consumption

VARIABLES	FACTOR
Item	Factor load
Educating the new employees to operate in this practice using the chain standards is very slow and complicated	0.794
Formulating and understanding this practice in written documents is very difficult	0.790
New employees can learn how to perform this practice by studying a manual with difficulty	0.768
Cronbach's alpha	0.855
Percentage of variance explained (%)	78.38
Eigenvalue for factor 1	2.351
Kaiser-Meyer-Olkin measure of sampling adequacy	0.736
Bartlett's test of sphericity	124.951 (0.000)

Bivariate correlations of the variables to be included in the regression analyses were also computed (see Table 6). The first four variables refer to the four variables linked to dimensions of knowledge transfer success. Each of these variables was used in a regression model as a dependent variable (see below). Variables 5, 6 and 7 are the factors extracted in the exploratory factor analyses conducted on the scales of knowledge tacitness. The remaining four variables are control variables: (1) the fact that the new hotel was in Spain or abroad (dichotomous variable); (2) the number of employees in the F& B department; (3) the fact that the hotel chain was the owner of the new hotel or not (dichotomous variable); and (4) the fact that the main segment of the hotel was leisure customers or not (dichotomous variable).

Table 6. Correlation matrix for variables in the four models

<i>VARIABLES</i>	1	2	3	4	5	6	7	8	9	10	11
1. Similar characteristics to the source F&B	1										
2. Reduced time to transfer knowledge	0.50***	1									
3. [Inverted] Cost to transfer knowledge	0.01	0.33***	1								
4. Recipients' satisfaction with the knowledge transfer	0.39***	.060***	0.09	1							
5. Tacitness of food production knowledge	-0.13	-0.35***	-0.16	-0.17	1						
6. Tacitness of food and beverage service knowledge	-0.20*	-0.40***	-0.12	-0.28***	0.9***	1					
7. Tacitness of purchase and consumption knowledge	-0.17	-0.22**	-0.02	-0.09	0.77***	0.73***	1				
8. Hotel abroad	-0.16	-0.19*	-0.12	-0.18*	0.12	0.15	0.15	1			
9. Number of employees in F&B	0.02	-0.18*	-0.15	-0.23**	0.13	0.21	0.00	0.35***	1		
10. Own property	0.06	0.10	0.13	-0.16	-0.08	-0.09	-0.07	0.08	0.20*	1	
11. Leisure hotel	0.06	0.04	0.00	0.09	-0.13	-0.05	-0.19*	-0.11	0.39***	0.08	1

* $p < 0.10$. ** $p < 0.05$, *** $p < 0.01$

The dependent variable of the first regression model (see Table 7) is the similarity of the knowledge characteristics between the F&B department in the new hotel and the corporate template. Consequently it refers to the adjustment of the performance in the new unit with the operational and quality standards of similar units in the chain. It seems the only significant

variable in this regression model is the tacitness of customer service knowledge, but with a low level of significance.

Table 7. Multiple regression results with standardized estimates for Model 1

VARIABLES	SIMILAR CHARACTERISTICS TO THE	
	SOURCE F&B	
	Beta coefficient	(t signif.)
Tacitness of food production knowledge	0.333	(0.198)
Tacitness of food and beverage service knowl.	-0.436	(0.082)*
Tacitness of purchase and consumption knowl.	-0.036	(0.833)
Hotel abroad	-0.185	(0.130)
Number of employees in F&B	0.099	(0.467)
Own property	0.047	(0.671)
Leisure hotel	0.059	(0.633)
	R^2	0.094
	Adjusted R^2	0.015
	F	1.190 (0.318)

* p<0.10. ** p<0.05, *** p<0.01

The second regression model (see Table 8) addresses the required time to work with the source knowledge in the new setting. The dependent variable is expressed in terms of how short the time to work with the corporate standard is. The tacitness of customer service knowledge is significant again, and it also affects the success dimension in a negative way.

Table 8. Multiple regression results with standardized estimates for Model 2

VARIABLES	REDUCED TIME TO TRANSFER	
	KNOWLEDGE	
	Beta coefficient	(t signif.)
Tacitness of food production knowledge	-0.053	(0.827)
Tacitness of food and beverage service knowl.	-0.400	(0.089)*
Tacitness of purchase and consumption knowl.	0.142	(0.380)
Hotel abroad	-0.084	(0.459)
Number of employees in F&B	-0.114	(0.371)
Own property	0.131	(0.207)
Leisure hotel	0.064	(0.584)
	R^2	0.204
	Adjusted R^2	0.135
	F	2.936 (0.009)***

* p<0.10. ** p<0.05, *** p<0.01

The third regression model deals with the economic dimension of knowledge transfer success (see table 9). Due to interpretation easiness, the dependent variable was inversely computed, so that a higher value of this variable means a lower cost for the firm. Even adopting a flexible significance limit of the p value lower than 10%, no variable in the regression model exerts a significant influence on the dependent variable.

Table 9. Multiple regression results with standardized estimates for Model 3

VARIABLES	[Inverted] COST TO TRANSFER	
	KNOWLEDGE	
	Beta coefficient	(t signif.)
Tacitness of food production knowledge	-0.400	(0.122)
Tacitness of food and beverage service knowl.	0.108	(0.664)
Tacitness of purchase and consumption knowl.	0.217	(0.209)
Hotel abroad	-0.069	(0.568)
Number of employees in F&B	-0.128	(0.346)
Own property	0.160	(0.147)
Leisure hotel	0.002	(0.986)
	R^2	0.099
	Adjusted R^2	0.020
	F	1.257 (0.282)

* $p < 0.10$. ** $p < 0.05$, *** $p < 0.01$

Table 10 displays the main results of the regression analysis on the recipients' satisfaction with the transferred knowledge. Though the F value has a low level of significance, this last dimension of knowledge transfer success seems to be significantly influenced by two variables: the tacitness of food and beverage service knowledge, and the fact that the main hotel segment is the vacation tourist. The first variable negatively affects the independent variable and the second one has a positive relationship with it.

The global results of these four regression models confirm the research hypothesis of this work (H1) but only partially. Knowledge tacitness in the food and beverage area negatively affects knowledge transfer success. But this relationship is not evident for all the categories of knowledge assets and neither for all success dimensions.

Table 10. Multiple regression results with standardized estimates for Model 4

VARIABLES	RECIPIENTS' SATISFACTION WITH THE	
	KNOWLEDGE TRANSFER	
	<i>Beta</i> coefficient	(<i>t</i> signif.)
Tacitness of food production knowledge	0.322	(0.184)
Tacitness of food and beverage service knowl.	-0.663	(0.005)***
Tacitness of purchase and consumption knowl.	0.187	(0.250)
Hotel abroad	-0.025	(0.823)
Number of employees in F&B	-0.194	(0.129)
Own property	-0.127	(0.220)
Leisure hotel	0.237	(0.044)**
<i>R</i> ²	0.204	
Adjusted <i>R</i> ²	0.135	
<i>F</i>	2.932 (0.090)*	

* $p < 0.10$. ** $p < 0.05$, *** $p < 0.01$

Conclusion

This work has attempted to analyze the tacitness of food and beverage knowledge in the context of organizational growth. Many hotel firms regard the food and beverage area as key to generate rents, and they commit many resources to create competitive advantages from that domain. When these firms grow they want to replicate their formula in new settings, and consequently transfer the F&B practices to the new units. The underlying knowledge of the practices in full service restaurants is often tacit. The academic literature emphasizes the relevance of tacit knowledge, especially to transfer it internally, since it is more difficult to be imitated by competitors. However, that advantage becomes a problem due to the difficulties associated to the intra-organizational mobilization.

The empirical approach of this work allows for stating some ideas about that tacitness and its role in knowledge transfer. Food and beverage knowledge can be grouped in three categories or practices: food planning, production and preparation; customer service (in restaurant, cafeteria, bar...); and purchase and cost management and control. The practice associated with a higher level of tacitness is the one about the food planning, production and preparation. On the other hand, the knowledge about customer service in F&B areas is the most explicit one.

Regarding the main mechanisms to transfer the F&B knowledge when hotel chains grow, the more tacit the knowledge, the richest the mechanism used to mobilize the knowledge. Thus, the most frequent transfer mechanism for the kitchen and the purchase and consumption knowledge is the employment of staff from the headquarters or other chain hotels in long-term assignments, which is considered a very rich transfer mechanism. On the other hand, the most frequent transfer mechanism for the customer service knowledge is training courses, lectures and seminars. This mechanism is associated with a medium level of information richness, and lower than the one linked to staff mobilization from the headquarters and other hotels.

With regard to the influence of knowledge tacitness on knowledge transfer in context of growth, customer service tacitness seems to exert a negative, significant impact on several dimensions of transfer success. This negative influence results in dissimilarities with the knowledge source, a longer time to achieve a satisfactory transfer, and lower recipient satisfaction with the new knowledge. Unexpectedly, the level of tacitness of food production knowledge and purchase and consumption knowledge do not exert a significant influence on knowledge success, even though these practices are characterized by higher levels of tacitness on average. A potential explanation for this is the use of richer transfer mechanisms that reduce and cancel the negative impact of these highly tacit practices (e.g., Gorovaia and Windsperger 2010). This is in line with the standard assumption in the industry that food production and purchase and consumption management are difficult to transfer, since this would propel the use of those rich mechanisms. However, customer service is not seen as a highly tacit practice and hence cheaper transfer mechanisms with lower information richness are used. This argument is strongly reinforced in Subramaniam and Venkatraman's work (2001), where these authors empirically corroborate that the existence of adjustment between the acquired tacit knowledge and the use

of rich communication media strengthens the capability of new product development in a transnational context.

Based on these findings, some recommendations can be extracted for managers in charge of the expansion process. The first one is that the expansion process should be planned, as emergent decisions can result in the wrong choice of transfer mechanisms in the expansion process. Another implication of this work is that managers should evaluate the characteristics of the knowledge to be transferred to new units. Thus, for F&B practices associated with a high level of tacitness, expansion managers should organize the transfer process by using rich transfer mechanisms such as expatriates and transferred staff. The use of manuals and written documents, so widespread in the sector, tends to increase the failure likelihood in these growth processes, at least in the F&B field. Employing transfer mechanisms with a low possibility of discussion and resolution of problems that appear in daily operations can result in lower levels of recipients' satisfaction, and that in turn can affect the quality of the service in the long run. Some limitations must be stated regarding the validity of the findings. The use of a questionnaire for the study can limit the quality of the collected data, since respondents cannot comment on a wide array of aspects which can characterize the practices object of study in this work. Moreover, the generalization of the findings can only be done based on the geographical approach of this study, that is, the growth of Spanish hotel chains. Finally, the relatively low number of hotels in the sample must be also stated.

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