Knowledge Sharing Through Online Communities of Practice: The Impact of Cultural Variations

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This study explores cultural variations in knowledge sharing strategies in virtual communities of practice at three overseas offices (located in Brazil, China, and Russia) of Caterpillar, a US-based Fortune 100 corporation. The study results show that such factors as degree of collectivism, competitiveness, the importance of saving face, cultural requirements of modesty, attention paid to power and hierarchy, and preferences for communication modes, had different levels of importance among employees in the three participating countries.

Keywords: Knowledge management; communities of practice, cultural differences

Problem Statement and Research Questions

Knowledge management (KM) is a complex socio-technical system that encompasses various forms of knowledge generation, storage, representation, and sharing. Specific dimensions of KM systems are always based on assumptions inherent in cultural backgrounds of their designers and managers. However, if these systems are used by people with professional or national culture backgrounds, which differ from those of the designers, features intended to support knowledge generation and sharing may actually inhibit these processes (Branch, 1997). Recent research on organizational learning and knowledge creation indicates that knowledge sharing, communication, and learning in organizations are profoundly influenced by cultural values of individual employees (Hambrick et al., 1998; Hofstede, 1998; Hutchings & Michailova, 2004; Pfeffer & Sutton, 2000). Furthermore, studies of cognitive strategies and methods of learning and knowledge generation suggest that cognitive styles differ by national and ethnic cultures (Korac-Kakabadze & Kouzmin, 1999). Different ethnic groups have been found to have different preferences for symbolic versus semantic learning and cognition, and for different forms of verbal and visual presentation of information and learning content (Ginsburg, Posner, & Russell, 1981).

Therefore, determining differences or similarities in knowledge sharing strategies of representatives of various national and ethnic groups is one of the most important pre-requisites for successful design of flexible KM systems, adoptable to styles and preferences of employees in multinational, globally dispersed corporations. Such research will help to make sure that knowledge management system design and development decisions are consistent with the employees' values, perceptions, preferred styles of communication, and cognitive and learning styles, which are shaped by particular cultural contexts. Despite growing recognition of the importance of cultural influences on knowledge management, there is a dearth of related empirical research. To address this gap, this qualitative study, conducted over a period of twelve months at overseas offices of Caterpillar, attempted to answer the following research questions: 1) How do different cultural values, assumptions and preferences affect the way employees in overseas offices access, share, and use professional knowledge? 2) What are the employees' perceptions of preferred approaches to information seeking, knowledge representation and sharing? 3) What are culture-specific barriers to knowledge sharing?

Theoretical Framework

Knowledge Management and Communities of Practice

In recent years communities of practice (CoPs) have gained increasing popularity as a way to manage the human and social aspects of knowledge creation and dissemination within organizations, and have also received significant attention in the knowledge management literature (Ardichvili, 2003; Davenport & Prusak, 1998; Gourlay 2001;

Walsham, 2001; Wasko & Faraj, 2000; Wenger, McDermott & Snyder, 2002). The term community of practice was coined by Lave and Wenger (1991) who define it as "an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their community" (p 98). Central to communities of practice theory is the idea that less experienced members of the community learns from socially interacting with more experienced members (Lave & Wenger, 1991). Newcomers initially perform "peripheral" or simple activities in the completion of a specific task, and over time take on more central tasks and roles to eventually become experts. This process of learning has been termed "legitimate peripheral participation" by Lave and Wenger (1991), and results in a continuum of expertise within a community of practice where some members participate more and others less actively and frequently.

Perhaps the most widely recognized benefit of CoPs is their ability to allow for the generation and dissemination of tacit knowledge, that is, knowledge which is hard to communicate because it is mostly intuitive and embedded in a specific context (Nonaka 1998; Polany, 1957). Because it is difficult for others to imitate or copy tacit knowledge, there is growing agreement that this type of knowledge is a key element to sustain organizational competitiveness (Davenport & Prusak, 1998; Liedtka, 1999). It has been argued that CoP can serve as a platform for sharing and internalizing tacit knowledge (Brown & Duguid, 1991; Wenger et al., 2002). For multinational organizations, faced with the challenge of disseminating organizational knowledge that resides in individuals and teams spread around the world, one of the best options for such exchanges is through online collaborative communication technologies. Thus, distributed virtual CoPs, which make use of such technologies, are becoming an increasingly popular way for knowledge sharing activities between geographically dispersed employees. (Hildreth, Kimble & Wright, 2000; Wenger, McDermott & Snyder, 2002). It should not be surprising that the creation and transfer of knowledge across cultural boundaries creates additional challenges that need to be addressed in order to facilitate this process. For instance, Wenger et al. (2002) state that: "People's willingness to ask questions that reveal their 'ignorance', disagree with others in public, contradict known experts, discuss their problems, follow others in the thread of conversation - all these behaviors vary greatly across cultures" (p. 118). Based on our review of literature we have identified several national culture characteristics expected to influence individuals' knowledge sharing patterns.

Cultural variations in knowledge sharing patterns

Literature on knowledge transfer between units of multinational corporations as well as within joint ventures discusses various factors in international knowledge sharing (Gupta & Govindarajan, 2000; Inkpen & Dinur, 1998; Kogut & Zander, 1993; Simonin, 1999). However, only very few recent studies have explicitly concentrated on the discussion of cultural factors, influencing knowledge management and transfer (Bhagat, Kedia, Harveston & Triandis, 2002; Chow, Deng & Ho, 2000; Ford & Chan, 2003; Holden, 2001; Hutchins & Michailova, 2004). In order to examine the effect of national culture differences on knowledge sharing behaviors of Russian, Chinese and Brazilian employees, we specifically focused on several most commonly discussed factors in international comparisons of cultures (Hofstede, 2001; Triandis, 1995; Trompenaars, 1994).

Individualism – Collectivism

The distinction between individualism and collectivism is undoubtedly the most frequently discussed cultural variation. Individualism describes the tendency of people to place personal goals ahead of the goals of a larger social group, such as the organization. On the other hand, individuals in collectivistic cultures tend to give priority to the goals of the larger collective or group they belong to (Hofstede, 2001). A further distinction between individualism and collectivism was made on the basis of the definition of self (Triandis, 1995). Members of individualistic cultures see themselves as independent of others, whereas collectivists see themselves as interdependent with other members, in many cases with members of a specific in-group. Bhagat et al. (2002) posit that members of collectivistic and individualistic cultures are characterized by distinctively different ways of processing information and constructing knowledge. For instance, in individualistic cultures (e.g. United States), individuals tend to see each piece of information independent of its context, emphasize information in written and codified form and are more likely to accept such information. On the other hand, members of collectivist cultures look for contextual cues in information and tend to disregard information in writing (Bhagat et al., 2002). Hall's (1976) distinction between high- and low-context styles of communication further supports this claim. In high-context cultures, such as China, Brazil and Russia, people tend to rely more on the context of non-verbal actions and the environmental setting to convey meaning, and therefore tend to prefer communication media with high media-richness, such as face-to-face communication or phone calls. For members of low context cultures, such as the United States, more emphasis is put on the written word, which leads to the conclusion that communication media low in media-richness, such as emails or online discussion boards will be more accepted.

In-group and Out-group Orientation

Collectivists tend to make a sharper differentiation between in-group and out-group members. Chow, Deng and Ho (2000), comparing factors influencing knowledge sharing behaviors between U.S. and Chinese managers, have found that Chinese nationals were much more reluctant to share with an out-group member than Americans were. Hutchings and Michailova (2004), discussing the impact of group membership on knowledge sharing, indicate: "in China one's membership of in-groups affects all daily activities…" and "is the source of identity, protection, and loyalty…" (p. 87). They also point out that the same phenomenon is observed in Russia, where communal traditions go back hundreds of years. Hutchins and Michailova site Ashwin's (1996) work, which suggests that Russian workers strongly identify themselves with at least three levels of in-groups: the whole enterprise; the collective of common workers; and their specific work group. The implication of the in-group versus out-group distinction is that collectivists are more likely to share what they know with their in-group members, thus attempting to serve the interest of the group instead of pursuing mere self-interest. Individualists, who do not have such strong affiliations with in-groups, may not be willing to share even within their immediate work collectives. At the same time, since strong in-group orientation is often accompanied by negative feelings towards out-groups, knowledge sharing could be significantly inhibited by this group orientation (Hutchings & Michailova, 2004).

Fear of Losing Face

With regard to factors influencing information seeking behavior, the literature points towards a cultural attribute grounded in the individualism-collectivism distinction, namely the extent to which individuals try to gain face (Mianzigain) or avoid loosing face (Mianziloss) (Hwang, Francesco & Kessler, 2003). Hwang et al. (2003) conducting a study with undergraduate business students, found that individualism is positively related to Mianzigain, and that consequently individualists, in this case American students, were most likely to ask questions in class. This is because asking questions could be a way to gain prestige and recognition (Mianzigain), and not just to gain knowledge. Hwang et al. (2003) were able to confirm that individuals concerned with loosing Mianzi will be less likely to ask questions in class in order to avoid Mianziloss. Hwang et al. also found evidence that individuals who want to gain face will be more likely to use formal communication channels to show their knowledge and ability, while those who worry about losing face will prefer informal communication channels, such as students asking questions of the professor outside the classroom or informal discussions among students. Bansler and Havn (2003) found that one reason why many managers of a large European pharmaceutical company did not want to contribute to the company's Intranet-based knowledge database was because they wanted to avoid giving the impression of bragging. The authors do not disclose whether this organization is located in a collectivist or individualist society, but other research suggests that modesty tends to be considered an important virtue in collectivistic cultures (Kurman, 2003). We therefore assume that modesty may account to some extent for collectivists' reluctance to participate in online discussions, in order to avoid creating the impression of bragging.

Power Distance; Horizontal and Vertical Cultures; and Achievement and Ascription-oriented Cultures

Triandis identifies four distinct cultural patterns, namely, vertical and horizontal collectivism, and vertical and horizontal individualism. The horizontal - vertical distinction is very similar to Hofstede's (2001). People in vertical cultures tend not to value equality, and to see themselves as different from others in social status. In fact, differences in status are expected and accepted (Hofstede, 2001), which is an important attribute of high power distance (PD) cultures. On the other hand, in horizontal cultures power distance is low, which implies that differences in status are less pronounced. Bhagat et al. (2002) suggest that these variations cause differences in preferences for processing and transmitting certain types of knowledge, and it is because of these differences that knowledge transfers between cultures on the opposite end of the continuum, for example from a vertical collectivistic country, such as Brazil and China, to a horizontal individualistic one, such as the U.S., are most likely to be ineffective. Bhagat et al. (2002) also put forth that the distinction between horizontal and vertical cultures is useful in explaining cross-border knowledge transfer, because information in vertical cultures usually flows from the top to the bottom, whereas information in horizontal cultures flows in both directions. Similarly, Hofstede (2001) suggests that in high PD cultures information is usually constrained by hierarchy, which might lead to an exclusion of lower-level employees from certain types of information, and thus create an obstacle for knowledge sharing among CoP members with different status. Trompenaars' (1994) findings regarding ascription- versus achievement-oriented cultures might also shed some light on the direction of knowledge flows within online CoPs as well as the assignment of specific roles within the communities, such as experts and managers. In ascription-oriented cultures, status is ascribed by virtue of age, gender, family background, or wealth. To the contrary, in achievement-oriented cultures, such as the U.S., status is derived from individual's own past (and, more importantly, recent) achievements. Whereas a person with ascribed status will maintain his or her position in society independent of his or her achievements, in achievement oriented cultures one has to prove his or her talents time and again. Since legitimation (Lave & Wenger, 1991), that is, the way in which one becomes a full member of the community, is

usually the result of members earning their status in the community, i.e. through a history of achievements (Hildreth, Kimble & Wright, 2000), people in ascription oriented cultures might have different expectations. For instance, members of ascription oriented cultures might expect that those higher up in the organizational hierarchy, usually older employees, should also assume the role of officially appointed experts and managers of online CoPs.

Assumptions about Cultural Influences on Knowledge Sharing

Since this was an exploratory study, no specific hypotheses for testing were formulated. However, the above literature review helped us formulate a list of potential cultural differences in knowledge sharing patterns. Specifically, we assumed that:

1. In Asian cultures such values as modesty and the desire to save face would constitute a significant barrier to active participation in online knowledge sharing communities. Posting questions online could be threatening to people concerned with saving their own face: in an open forum like this, there is always a threat of ridicule. At the same time, responding to questions and making suggestions online could also pose threat to other people's "face": what if posted question was rather trivial, and the ease with which an answer was found hints at the inquirer's incompetence? Finally, in cultures that put a significant weight on modesty, community members are likely to avoid being too active in online discussions, out of fear of appearing too immodest and boastful.
2. In more hierarchical and "vertical" cultures top managers' need for control over the information flow, and the desire to restrict access to critical information by lower-level employees could lead to significant organizational barriers to knowledge sharing. Since active participation in online knowledge sharing presumes that individual employees will feel free to post questions and respond to postings without checking with their supervisors first, such behavior could be seriously limited in hierarchical societies.
3. In hierarchical and "vertical" societies higher-level managers may not be participating in online communities, since they would consider these activities to be not in line with their status image. Therefore, they would tend to delegate this responsibility to their secretaries and lower-level employees.
4. Another barrier to participation in online communities could be cultural preference for face-to-face communication, which depends on cultural assumptions about what is polite, and which mode of communication is more conducive to establishing trust.
5. In-group oriented members of collectivist cultures would tend to focus on the needs of various collectivities they belong to, which is why they might be more willing to share what they know with others. At the same time, a potential barrier to knowledge sharing in such cultures could be the sharper distinction made between in-group and out-group members. Put differently, an employee might stay away from sharing knowledge with someone not considered a member of a narrowly defined in-group (even though these employees could be members of the same larger organization they both belong to).
6. The level of information hoarding could vary from country to country. Thus, Michailova and Husted (2003) have found Russian organizations to be characterized by a significant level of information hoarding and the lack of information sharing among employees. They believe that this behavior results from the need to cope with significant uncertainty (brought about by rapid economic changes); and the traditionally high respect for hierarchy and power. Therefore, we assume that in countries characterized by unstable or rapidly changing economic conditions, and by strong hierarchies and power distance, knowledge sharing may be inhibited, and information hoarding will be present within organizations.

Research Method

The study utilized a qualitative methodology, and was based on in-depth interviews and the analysis of online participation records, provided by the company. The researchers were also granted access to an online community of practice devoted to cross-cultural issues allowing them to exchange ideas with Caterpillar employees including the Russian, Chinese and Brazilian country managers. Phone or face-to-face interviews, followed up by emails and/or additional phone calls, were conducted in Russia, China, and Brazil, and at the US headquarters of the corporation. A total of 36 managers and employees have participated. In interviews, the participants were asked a number of open-ended questions, which were intended to generate rich descriptions of knowledge sharing and problem-solving situations and strategies.

The data collected in each of the three countries were coded and analyzed by different researchers independently using the qualitative data presentation and analysis methods proposed by Miles and Huberman (1994), including development of summary sheets for each interview, coding of individual interview data, and coding of the overall data set. The researchers content-analyzed the narratives of the research participants in order

to classify and categorize the data. The codes, which emerged not only from the interview data but also from the reviewed literature, were then assigned to relevant portions of the interview transcripts. The coding system was continually refined and the data were analyzed for key topics and themes. For each of the three countries, the lead researcher utilized help from one additional researcher who provided rating reliability checks by independently coding and analyzing samples of interview transcripts. At the final stage, data from the three countries were analyzed together, to detect commonalities and differences between the country sets.

Findings

Despite the fact that all three countries in this study can be classified as significantly more "collectivistic" than the US, the study results suggest that the extent to which national culture impacts knowledge sharing, differs significantly among these three countries. Thus, employees in China are more likely to shy away from contributing to online community discussions because of worries about face, modesty, and the lack of language proficiency, than are their Russian counterparts. On the other hand, competition among employees is not such a major barrier to knowledge sharing in Russia and Brazil, as it is in China. What follows is a presentation and discussion of the main study findings, in light of our earlier assumptions about potential cultural differences.

"Saving Face"

The study suggests that there is a significant difference among the three countries with respect to the "saving face" issue. In Russia, "face" was not perceived as an important factor at all, and both the US expatriates and Russian employees confirmed this. One comment made by a US expatriate manager is illustrating this point: "Russians, in general, are a bunch of tough people; they don't worry that much about "face." If asking questions will help them to do their job better, they will ask no matter what." Interestingly, contrary to our initial expectations, the issue of face was not as important in China, either: most employees feel rather comfortable asking questions and contributing to discussions in public, as long as these interactions contribute to improved job performance. Even those who have some concerns about losing face indicate: "I'd better ask [colleagues], and do a good job. It is worse to loose face in front of clients." Another employee stated that: "I once heard that Chinese were very sensitive to "face." But regardless of culture, nobody likes to be embarrassed in public. Maybe this is a little bigger deal in China, but not a very big deal. Anybody wants to be treated with courtesy and respect." However, compared to Russia, the issue of face was more prominent in China, and came up more often in various parts of the interviews. Furthermore, in line with our expectations, "face" was more of a concern for older people.

Modesty

Cultural expectations related to modesty were an important influence on online participation and knowledge sharing in China. It was pointed out repeatedly in interviews that in Chinese culture it is not acceptable to speak a lot in public and to stand out. A Chinese proverb states: "Making many people aware of a trivial matter is exaggerating." Influenced by the value expressed in this proverb, Chinese employees prefer to solve minor problems by themselves, without seeking help from others. One interviewee illustrated this by saying: "I think most of us worry too much about our questions, wondering if we are doing a good job. Maybe the question is not so silly, but as a Chinese proverb goes: "we must think three times before we do it," we will think three times (meaning "think very carefully") before posting questions." In Russia or in Brazil the issue of modesty was not as important as in China. Russian or Brazilian employees seemed to be willing to ask questions and post responses more often, without much concern for being perceived boastful or immodest. A related to modesty issue is the lack of confidence in language skills. In China, even when Chinese employees had quite strong language skills, they were worried that what they posted online was not perfectly worded. As a consequence, they were spending too much time trying to improve their writing, or were abandoning these attempts altogether. Once again, Russian employees seemed to be less concerned about the language issue: even those with less than perfect knowledge of English were comfortable posting rather lengthy messages or questions. Brazilians, on the other hand, were more like Chinese in this respect: concern for being able to clearly and accurately communicate one's words was great, and had influenced many employees' decision not to participate in online discussions, or to strongly prefer an option to contribute in Portuguese.

Competitiveness

The research results indicate the presence of a powerful barrier to knowledge sharing in China: competitiveness and job-security related fears. Concern about job security was especially prevalent among younger and lower-level professionals. Today's economic conditions in China are extremely competitive, and a widely accepted proverb is "knowledge is power". When people acquire new knowledge, they believe that it is the key to their success and are likely to guard it instead of sharing it. The following quotes illustrate this finding: "As the Chinese economy is opening up and growing fast, the competition in Mainland China is getting fiercer. Competition among colleagues is already very high;" "If we are in the same line of work, we are enemies. People are selfish in this sense;" "In China

there are too many people for 'one cake' and so the competition is high. At all levels, people have their struggles. The pressure is high. There is no much tranquility in heart. "

How do Chinese employees' worries about job security constitute a barrier to information sharing? One participant explained that asking a question would mean admitting that he does not know something, and admitting this would affect his job security. Quite a few employees (about 40% of employees of this particular organization, by an estimate, provided by one respondent) may have this concern: "They do not want their supervisors to know that they do not know something." Therefore, employees prefer to ask someone they are familiar with, for example, their peers, people with whom they have started to work at the company together. Despite the fact that Russian economy is also undergoing rapid economic transition and, according to Husted and Michailova (2003), information hoarding, fueled by job insecurity fears is prevalent among Russian employees of Western firms, we have not found such concerns among employees of this particular organization. Rather, it seemed that the employees believed that their job situation would be strengthened by knowledge sharing, since sharing and active participation in community discussions would improve their visibility and perceived uniqueness, usefulness for the organization. Similarly, the majority of the Brazilian sample perceived knowledge sharing as enhancing their prospects of job promotions.

Authority, Seniority and Hierarchy

Although our assumption was that employees from all three countries in this study would pay significant attention to power and hierarchy, we could not find the evidence to support this assumption. When selecting and appointing online community managers and experts in Russia, China, and Brazil, seniority, rank, or age were not the major factors. Especially in younger peoples' eyes, qualification rests on professional knowledge and does not have much to do with status and positions. However, such attitude to hierarchy and rank could be an artifact of organizational culture: the US headquarters of Caterpillar is characterized by a rather flat, egalitarian, and open culture, and the overseas subsidiaries seem to have significantly assimilated this cultural attribute. The study provided, however, some evidence that the situation must be very different in local organizations- partners of Caterpillar. Thus, comments related to organizational culture of CAT® dealerships in Russia and China hint at local managers' attempts to control information flows, to channel all the outside communication through top management. As one Chinese dealership employee stated: "As for the feedback on my communication work, I received negative comments from top level managers. They ask: 'Why are you telling people this? We should determine what they should know.' Everywhere it is true that managers want to control the information flow." In addition to the influence of the American corporate culture, significant recent changes in social and political conditions in Brazil, China, and Russia also might explain the relative insignificance of differences in power and status. The successful transition from a dictatorship to a democracy with a free-market economy in 1988 in Brazil, the demise of the communist regime in Russia, and introduction of significant capitalist economy elements into officially still socialist system in China might be the beginning of fundamental change of cultural values in societies of these countries. It could also be argued that differences in status and power are less visible and therefore less relevant in online environments than they would be in face-to-face interactions.

Preferred Modes of Communication and Information Sharing

Once again, the three countries differed on this dimension. In Russia, employees were very comfortable with email communication, and did not display any particular preference for either face-to-face, or phone communications. One participant said: "We use email a lot, perhaps, even too much: even within the same building, we send emails to one another, instead of going to chat in person." In China, on the other hand, the order of preference is different: Face-to-face communication is the first, followed by phone calls, and by emails. A study participant from China pointed out that "China is more of a people society and we value face-to-face communication." Still another participant explained that China is a people-oriented society, where "warm" personal communication is highly valued. Despite the above preferences, in practice employees in China use emails the most because of the time zone difference and the high cost of telephone calls.

There is evidence that Caterpillar employees in Brazil are comfortable with email communication, although face-to-face, warm and personal interaction is strongly valued in Brazilian culture. Email is often preferred because it creates a documented chain of evidence. There is also an indication that Brazilian dealers may have a stronger preference for face-to-face communication and could be reluctant to post questions online. When asked why Brazilian dealership employees may be reluctant to post online questions, the participants indicated that they might stay away from posting questions because they prefer face-to-face communication.

In-group and Out-Group Orientation and Openness to Knowledge Sharing

Cross-cultural literature suggest that members of collectivist cultures tend to be open and willing to share their knowledge with members of their in-group (Chow, Deng & Ho, 2000), but could be strongly distrustful of out-group members. In Russia, the "us" versus "them" distinction was evident from the way Russian Caterpillar employees were discussing their knowledge sharing with local dealers and other partners. However, it seemed that, instead of

being loyal to the immediate in-group only (their local office), Russians felt equally proud and fond of their membership in the organization as a whole. Likewise, in China various comments made by study participants suggest that there is a strong in-group orientation, and distrust of outsiders.

The in-group and out-group distinction could be a barrier to knowledge sharing transfer between Brazilian employees of caterpillar and dealership employees. For instance, when asked who should be managing local communities, nobody wanted U.S. expatriates or local dealers to do the job. Several participants were referring to both of these groups as "outsiders," even though, in the case of local dealers, the nationality is identical, or in the case of a US expatriate, he or she is working for the same organization.

Research Implications and Recommendations

Since this study investigated knowledge sharing patterns in an online environment, one plausible explanation for lower than expected importance of several national culture variations could be that these differences are less pronounced online than they are in face-to-face interactions. Given the scarcity of empirical studies specifically addressing the impact of national culture characteristics on online knowledge sharing, there is a definite need to further examine this relationship. In addition to the influence of culture on online knowledge sharing behaviors, future research could also address the impact of individual psychological traits, gender, or occupational groups, which were not considered in this study. At the same time, more research is needed to identify the influence of organization culture factors in this context as well as the link between organizational and national cultures. As the findings in all three countries have shown, the expected impact of national cultural characteristics was in some cases less pronounced than initially expected, which could be attributed to the fact that the organizational culture was in some instances stronger in shaping individuals' knowledge sharing patterns.

Implications for KM/HRD Practitioners

The study results suggest that any rollout of a knowledge management system in a new country or region should be tailored to values and cultural preferences of employees in each of the countries, where corporate KM systems will be used. To provide just one example of such tailoring, in Brazil, in order to address the in- and out-group differentiation as well as Brazilians' concern with misleading others due to a lack of English proficiency, it will be necessary to create local communities with Brazilian community coordinators, and to allow Brazilian employees to communicate in Portuguese. Local coordinators linking the global community as well as the dealership community with the local ones would serve as knowledge intermediaries. Consequently, it will be less apparent for individuals that knowledge is shared with non in-group members. In some countries there is a need for the development of online interfaces, which reflect local preferences for colors, layout, and other design elements; at the same time, employees in other countries may be less sensitive to these issues, or will have preferences, similar to those of the employees of the corporate headquarters. The bottom line is that any introduction of country-specific knowledge sharing systems, websites or online community web pages should be based on a cultural needs assessment, and identification of culture-specific barriers to knowledge exchange. Furthermore, when developing guidelines for online community usage, and conducting training on acceptable online etiquette, the rules for the development, posting, updating, and editing of questions and knowledge entries, and the rules for responding to inquiries, KM managers and HRD practitioners should not assume that it is enough to translate into various languages the existing corporate manuals and training materials. Instead, they should be aware of a possibility that assumptions about acceptable rules of online community behavior could vary significantly from country to country, and even those procedures, which appear self-evident to the headquarters employees, may need to be carefully explained, or adjusted to local preferences.

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