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**COMMUNICATIONS BETWEEN
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COMMUNICATIONS BETWEEN MANUFACTURING UNITS OF MULTINATIONAL CORPORATIONS

Purpose – We aim to better understand the factors that shape the intensity and perceived effectiveness of communication between heads of the manufacturing units of multinational corporations (MNCs).

Design/methodology/approach – A series of interviews and a medium-size survey among subsidiary executives were conducted.

Findings – The intensity of most inter-unit communication channels depends on the speed and magnitude of the changes in products and production technologies that manufacturing subsidiaries experience. For newly established subsidiaries, mastering inter-unit communication channels precedes inter-unit cooperation. At the same time, different types of inter-unit cooperation strengthen specific channels of inter-unit communication. The assessment of the efficiency of a communication channel with high media richness strongly correlates to the intensity of its use.

Research limitations/implications – The results are confined to one country where the manufacturing subsidiaries of MNCs were surveyed. Further research is needed for the general applicability of these findings to subsidiaries in several countries or regions.

Practical implications – As inter-unit communication precedes inter-unit cooperation for newly established subsidiaries, headquarters and more experienced subsidiaries should promote the use of communication channels with high media richness. Several suggestions on how to perform such a task are proposed.

Originality/value – This paper contributes to the ongoing discussion concerning inter-unit communication and knowledge transfer within MNCs.

Keywords: Internal communications, Subsidiaries, Multinational Corporations, Manufacturing

JEL Classification: F23, L23

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Introduction

A multinational corporation (MNC) must justify its ownership of multiple businesses by creating value greater than that of the independent entities. This is achieved by allocating resources among the businesses and “the creation of synergy through linkages amongst the businesses” [Goold and Luchs, 1996]. The latter task of creating linkages requires installing and maintaining channels of indirect and direct communication between a corporation’s units for the transfer of complex and often tacit knowledge [Ghoshal *et al.*, 1994; Gupta and Govindarajan, 2000]. For an MNC, this problem is compounded by the geographic distance and the cultural and linguistic diversity of a corporation’s units [Hedlund, 1986; Marschan-Piekkari *et al.*, 1999a, 1999b; Welch *et al.*, 2001].

Empirical investigations of inter-unit communication are scarce, indicating that examining the relationship between MNC subsidiaries is still like “opening a black box in the international business field” [Schmid and Maurer, 2011]. This is mostly due to the secluded nature of inter-subsidary communication channels. Conversely, other types of corporate communication are oriented externally, such as marketing communication, public relations, public affairs, CSR communication, investor relations, communication with the labor market, and corporate advertising [Mazzei, 2014]. Internal corporate communication between subsidiaries is almost never presented in public documents, except for the rare cases of public printed or downloadable corporate magazines. Thus, it is not surprising that most empirical research on inter-unit communication is based on a single or small number of cases [Maurer, 2011].

However, there are rare exceptions, such as Ghoshal *et al.* (1994) and Barner-Rasmussen and Bjorkman [Barner-Rasmussen and Bjorkman, 2005], who based their studies on large-scale surveys among subsidiary managers. Ghoshal *et al.* (1994) found that subsidiary employees engaged in inter-unit communication more frequently when they spent more time in inter-unit committees, teams, task forces, meetings, conferences, or at world headquarters (HQ). However, inter-unit committees, task forces, meetings, and conferences are themselves modes of communication, so this study proved that these relationships are merely a tautology. Barner-Rasmussen and Bjorkman (2005) found that inter-unit communication intensity is related to the extent subsidiary managers participate in MNC training programs as well as their fluency in the language of the inter-unit communication. These results are also less than surprising. Therefore, there is clearly a need to investigate other factors that may relate to inter-subsidary communication patterns.

Moreover, over the past two decades the structure of MNCs has become much more complicated. Ghoshal *et al.* (1994) described only two types of inter-unit communications:

subsidiary-headquarters communication and inter-subsidiary communication. Currently, MNCs include many new forms of corporate units, and inter-subsidiary communication has become an ambiguous term. First, the HQs of many MNCs have been dispersed among different countries; moreover, some functions of HQs have been transferred to large regional headquarters that also can also be labeled as subsidiaries [Baaij *et al.*, 2012a; Baaij *et al.*, 2012b; Baaij *et al.*, 2004; Barner-Rasmussen *et al.*, 2007; Birkinshaw *et al.* 2006; Desai, 2009]. Second, new R&D corporate centers of many MNCs have been established in host countries or entirely offshore [Nieto, 2011; Andersson and Pedersen, 2010; Ambos and Ambos, 2011; Eppinger and Chitkara, 2006]. Third, many large MNCs have established numerous subsidiaries, usually in tax havens, that extract revenues from overseas subsidiaries [see Voget, 2011; Smith, 2013, 2014]. Finally, many MNCs that have subsidiaries in both home and host countries have been divided into sales and manufacturing subsidiaries. These manufacturing subsidiaries have also experienced traumatic changes as many manufacturing operations have been transferred to low-cost countries or have been partially or totally subcontracted [Oshri *et al.*, 2011; Maskell *et al.*, 2007]. Today, MNCs only wholly own manufacturing facilities if manufacturing continues to be a major source of the value added (i.e., in manufacturing of unique equipment, processing industries, car assembly) [Contractor *et al.*, 2010; Linares-Navarro *et al.*, 2014].

The objective of this study is to improve our understanding of the factors that influence the communication between the manufacturing units in MNCs. More precisely, we wish to reveal how both systemic external factors (i.e., the speed of changes in the industry and markets) and contingencies (i.e., the way the subsidiary was included in the corporation and the age of the subsidiary) influence the intensity and perceived effectiveness of the communication between manufacturing units in MNCs.

The choice to focus on manufacturing subsidiaries was inspired by several factors. First, as we have mentioned, the remaining wholly owned manufacturing subsidiaries are the units that create a dominant share of the value added to a corporation. Second, unlike communication between other types of corporate units (i.e., sales organizations, R&D centers, and offshore corporate treasuries) that use channels with low media richness (i.e., exchange of documents), communication in manufacturing uses channels with high media richness (i.e., meetings, co-working). These channels are required for transferring tacit knowledge that cannot be decoded and absorbed without a deep understanding of the context of the message.

Dualistic nature of communication between manufacturing units in MNCs

At the onset of our study, we immediately recognized the dualistic nature of the communication between manufacturing units in MNCs. Such dualism can be observed from different perspectives.

First, as it was suggested by several researchers [Tsai, 2002; Luo, 2005; Schmid and Maurer, 2011] the relationship between subsidiaries embraces both cooperation and competition. The cooperation perspective presumes the communication between sister-subsidiaries to be broad, open, and frank, as it aims to *enhance* the competitiveness of both sides. The competition perspective presumes the communication between sister-subsidiaries to be narrow and discreet, as it aims to *preserve* the competitiveness of both sides. In manufacturing, both perspectives are especially apparent. On one hand, MNCs are inclined to standardize their manufacturing operations both in terms of products and especially in terms of manufacturing technologies. This makes product and process innovations widely applicable within the corporation, and provokes cooperation between the corporation's manufacturing units. On the other hand, many markets can be supplied from different corporation's manufacturing sites. As worldwide logistics improves and foreign trade barriers are removed, the local demand in a particular country can be satisfied by the output of the local subsidiaries of an MNC or by the imports from its subsidiaries in other countries. Thus, any manufacturing unit of an MNC should demonstrate worldwide efficiency to compete successfully with other manufacturing units for HQ attention and corporate resources [Bouquet and Birkinshaw, 2008; Mudambi et al., 2014].

Second, communication between MNC manufacturing units in different countries uses the common language of the corporation, since the set of concepts, actions, and events that are general or corporate-specific (jargon) terms but must be mutually understood. At the same time, the actual language of communication between MNC manufacturing units, which is in most cases simplified English, can be a foreign language for one, or, in many cases, both sister-subsidiaries. Subsidiary managers with insufficient language skills may seriously impede communication [Barner-Rasmussen and Aarnio, 2011; Barner-Rasmussen and Bjorkman, 2007; Fredriksson *et al.*, 2006; Harzing and Feely, 2008; Harzing *et al.*, 2011; Luo and Shenkar, 2006; Luring and Klitmøller, 2015; Neeley *et al.*, 2012].

The dualistic nature of inter-subsidiary communication has direct implications for research design. Without prior understanding of which side of an inter-unit relationship, either competition or cooperation, dominates the relationship between particular types of corporate units, it is impossible to develop the research instruments required for a reliable qualitative study.

Dominant logic of the study and research prepositions

The dominant logic of our study was based on the following reasoning:

- 1) Organizational communication is the process of creating and exchanging messages within a network of interdependent relationships to cope with environmental uncertainty [Goldhaber, 1993, p. 15].
- 2) The major uncertainty in manufacturing is created by changing customer needs and preferences that lead to changes in both production technologies and production mix.
- 3) Coping with such changes requires product and process innovations. To increase the speed and efficiency of innovation development and implementation, MNCs promote communication between subsidiaries.
- 4) Mastering inter-subsidiary communication channels by new members of a corporation (i.e., new subsidiaries created through greenfield investments or through acquisitions) involves the processes of “learning-by-doing” and “learning-by-experimenting.” Immediately after an acquisition or installation of a new manufacturing unit, subsidiary managers are equipped by HQ with a set of approved intercommunication channels [Welch and Jackson, 2007]. Mastering such channels requires some time.
- 5) During a “probation period,” subsidiary managers try to select the most efficient channels for their specific needs from the proposed set of channels. After their initial selection, managers try to excel in the use of the preferred channels.
- 6) We cannot postulate the causal relationship between the intensity of inter-unit communication and the intensity of inter-unit cooperation, as such cooperation can be arranged and maintained not by direct communication between subsidiaries but through moderation by regional or global corporate headquarters. However, we assume that intense inter-unit cooperation should be preceded by establishing inter-unit communication channels.

Using such logic, we developed the following set of propositions:

P1 – The higher the speed of change in production technologies and product mix, the higher the intensity of inter-subsidiary communication using channels with high media richness (i.e., personal meetings in informal settings, short-term and long-term visits to sister-subsidiaries, participation in joint task forces) that transfer tacit knowledge associated with designing and mastering product and process innovations.

P2 – There should be a visible “probation period” when a subsidiary tests various forms of inter-unit communication. Further, the length of this period significantly differs for novice subsidiaries and veteran subsidiaries due to the intensity of their communication channel use.

P3 – As inter-unit communication precedes establishing inter-unit cooperation, the period of reaching the standard level of inter-unit cooperation should be longer than the period of mastering the standard set of inter-unit communication for novice subsidiaries.

P4 – As subsidiary managers try to excel in the use of preferred channels, perceived efficiency of channels should coincide with the intensity of the channel use. This should be especially applicable to rare channels, of which the managers have discretion over the intensity of use.

Research design and methodology

As discussed, the dualistic nature of inter-subsidiary communication, coupled with the natural difficulty of observing communication that is not public, creates additional obstacles for the design of a reliable empirical study. We overcame part of these obstacles by concentrating on a specific class of manufacturing subsidiary managers in a particular country. First, we identified the major informants on inter-subsidiary communication to be heads of manufacturing plants who communicate with their peers, i.e. managers in similar positions at foreign sister-subsidiaries. By employing such an approach, we attempted to avoid the ambiguity created by dissimilarities in communication between different types of corporate units or within different types of organizational structures. In most cases, the wholly owned manufacturing plants of MNCs had highly similar basic tasks. Second, we concentrated on a single country, Russia. By this method, we attempted to avoid excessive dissimilarities from at least one side of inter-subsidiary communication.

We chose to study Russia based on several factors. First, all manufacturing subsidiaries in Russia are relatively new as the foreign ownership of production assets was permitted in 1990. In reality, as the economic recession that accompanied the transition from a centrally planned to market economy lasted for almost a decade (1990-1999), most manufacturing subsidiaries of MNCs were established through acquisitions or greenfield investments after 2000. Thus, we expected to find a larger proportion of novice subsidiaries in Russia.

Second, there were a vast variety of ways Russian manufacturing subsidiaries were included into MNCs. Such as, acquisition of manufacturing facilities created in the Soviet times (before 1991), acquisition of private firms created after 1991, greenfield investments, and a variety of brownfield investments, including the purchase of abandoned manufacturing sites.

Third, Russia has a distinctive tradition of inter-plant communication inherited from the Soviet times (before 1991) that is still valid today (see [Author](#)). This tradition emphasizes cooperation, not competition, in the relationship between similar manufacturing plants.

Instead of surveying a large number of managers in a small number of corporations, we surveyed the largest achievable set of corporations. We aimed to create a set of observations with

sufficient diversity of the hypothesized factors that influence inter-subsidary communication in MNCs, namely, the speed of changes in industry and markets, the rate of product and process innovations, and the way the subsidiary was created.

This study has a mixed design. At the first stage, a qualitative study of the communication of manufacturing subsidiaries was implemented. At the second stage, a survey of subsidiaries managers was administered.

The qualitative study included interviews of 17 plant managers from 14 MNCs (see [Author](#)), The aim of the interviews was to increase the degree of certainty about the abovementioned dualistic elements of inter-subsidary communication. In addition, we also collected corporate magazines, both public and for employees only, from companies where we conducted interviews on site. These magazines served as additional sources of information about corporate affairs.

Interviews and studying corporate magazines enabled us to clarify several important issues of inter-subsidary communication, and led us to exclude several topics from the questionnaire. First, all of the interviewed plant managers possessed sufficient language skills to maintain everyday direct written and oral communication with their foreign peers. Thus, language was not considered as a communication problem. Second, competition between subsidiaries happens at the level of regional headquarters that compete for HQ's attention and investment resources, one level above plant managers [Enright, 2005b; Mahnke *et al.*, 2012; Piekkari *et al.*, 2010]. At the same time, most communication between plant managers is devoted to issues of mutual cooperation, such as designing new production facilities, mastering new production processes and equipment, or developing and launching new products. These findings enabled us to exclude questions about language proficiency and the degree of competition.

The series of interviews also enabled us to create an inclusive list of inter-unit communication channels, starting from the most passive channels (i.e., studying corporate magazines and corporate circular e-mails) to the most active, or co-doing, channels (i.e., participation in joint task forces) as well as a list of possible areas of inter-unit cooperation (designing and launching new production facilities, developing and launching new products etc.).

The questionnaire included three core instruments:

- First, respondents assessed the intensity of the use of particular communication channels in relation to their foreign sister-subsidiaries peers on a three point scale (Cronbach's alpha of the instrument was 0.846), and their opinion about the effectiveness of the same communication channels (Cronbach's alpha of the instrument was 0.898). In both

instruments, respondents reported on 10 possible channels and were allowed to add to the list of channels.

- Second, respondents assessed the speed of changes (i.e., frequency of new products and new product categories launch) in their particular markets and the speed of changes in production technologies on a four-point scale.
- Third, respondents assessed the intensity of cooperation in 10 possible areas on a three point scale (Cronbach's alpha of the instrument was 0.948) and were allowed to add to the list of areas of cooperation.

Additional questions revealed the year of establishment or acquisition of the subsidiary, the relative size of the subsidiary regarding its sister-subsidiaries, and the age and length of service of the respondent.

We administered the survey in 2014. First, we identified 400 Russian enterprises as manufacturing subsidiaries of foreign MNCs. From that set we contacted 261 companies and received responses from the top executives of 52 companies from 48 MNCs (a response rate of 20%). We surveyed additional plant managers in corporations that own numerous manufacturing sites in Russia, such as U.S. PepsiCo, Anglo-Dutch Unilever, French Danone, and German Knauf. Regarding the age of subsidiaries, there was a good combination of veterans (24% of enterprises were created before 1998), sophomores (50% were created between 1999 and 2008), and novices (26% were created after 2008). We used 1998 and 2008 as cutoff points, as these were the years of the deep economic crisis that divides the recent economic history of Russia into three distinctive periods: high inflation and accelerated fall in industrial output (1992–1998), steady economic development (1999–2007), and slow economic recovery and unstable growth (2009–the first half of 2014).

The size of the surveyed enterprises ranged from 12 to 4,000 employees, with a mean of 730 and median of 370. We were able to identify both the intermediate (nominal) and final parents. Intermediate owners were primarily companies located in the Netherlands, Luxemburg, and Cyprus, while the final parents represented most of the OECD countries. We should highlight that Russian subsidiaries had a highly stable level of ownership as the transfer of subsidiary ownership from one foreign company to another was reported in just two of 52 cases.

Results

Intensity of the use of various communication channels for inter-subsidiary communications

The first step in our analysis was to determine the intensity of the use of various channels for inter-subsidiary communications (see Table 1).

Table 1.

Reported frequency of the of particular communication channels (percentages)

Channel	Frequency of use		
	Low	Moderate	High
Corporation-wide conferences, symposiums, meetings	12	46	42
Special (regional, problem-oriented) conferences, symposiums, meetings	13	52	35
Reading corporate magazines, corporate e-mails	8	44	48
Talking over the phone	6	36	58
E-mail exchange	2	19	79
Teleconferences and two-side communication via Skype	6	31	63
Personal meetings in informal settings	21	46	33
Short-term (orientation) tours to sister-subidiaries	8	52	40
Long-term visits (probation work, job rotation) to sister-subidiaries	27	42	31
Participation in joint task forces	19	48	33

The overall intensity of inter-subidiary communication was very high. Of the 10 inter-subidiary communication instruments surveyed, only eight percent of the surveyed plant directors used none intensely, and only eight percent used one intensely. The remaining 84

percent used two and more instruments intensely, while 44 percent used four and more instruments intensely. The maximum number of instruments used intensely was seven.

Our Proposition 1, the dependency of preferred communication channels on the speed of changes in product mix and production technologies, was successfully confirmed. Indeed, as the speed of changes in products and production technologies increased, the proportion of subsidiaries that intensely used communication channels with high media richness also increased. Plant managers who assessed the speed of changes in production technologies as high differed from their colleagues in more inert industries by a more intensive use of such channels as:

- long-term visits of sister subsidiaries (sign. 0.05),
- participation in joint task forces (sign. 0.05).

Regarding the speed of change in products, the differences between subsidiaries that worked in a dynamic market environment and other subsidiaries was also statistically significant. None of plant managers who assessed the product mix in their industry as stable intensely used communication channels such as:

- personal meetings in informal settings,
- short-term orientation tours to foreign sister-subsidaries,
- participation in task forces and project groups,

while subsidiaries that operated under an occasionally or constantly changing product mix used these communication channels quite intensely, 35-55% for particular groups and particular channels. It is interesting to note that the subsidiaries operating under a stable production mix were not isolated from other subsidiaries. They simply preferred to use other communication channels with lower media richness. In fact, 80% of such subsidiaries intensely used e-mail exchange, 60% intensely used talking over the phone, teleconferences and Skype, and there were no statistically significant differences in the intensity of the use of such channels with the other groups.

At the same time, we found no significant impact of contingency factors on the intensity of the use of inter-subsidiary communication channels. The personal characteristics of respondents (i.e., age, gender, length of service of a manager in her/his current position, overall experience of respondents working in subsidiaries of foreign MNCs) did not have a statistically significant influence on the intensity of the use of different channels.

The impact of the age of the subsidiary on the intensity of communication and intensity of cooperation was further studied. We performed a series of *t*-tests changing the point of comparison between two sub-samples of novice and veteran subsidiaries. By this method, we proved our Proposition 2, finding that extreme novices (subsidiaries established in the last two

years) differ in two ways. They do not use short-term orientation tours of sister-subidiaries intensely and do not participate in joint task forces or project groups intensely. This means that mastering communication channels occurs within a short period of time after a subsidiary is established. Namely, three years appears to be a sufficient period to test all communication channels and select the most appropriate channels for intense use for extreme novices.

A similar statistical technique enabled us to prove our Proposition 3, that communication precedes cooperation. The three-year period that was sufficient to reach uniform use of inter-unit communication channels for extreme novices was not enough time to reach the standard level of inter-unit cooperation. For example, subsidiaries established in 2009, a 5-year period, showed statistically significant differences (at two-tailed sign. 0.05 or less) in intensity of cooperation in all 10 identified areas of cooperation. Further, enterprises established after 2007, a seven-year period, still had lower intensity of cooperation (at two-tailed sign. 0.05 or less) than their more experienced sister-subidiaries in the three areas -- joint financing of development projects, installation and putting in motion new production facilities, and mastering new technologies. The point when the intensity of cooperation between older and younger subsidiaries became the same in all areas was when the younger subsidiaries were established in 2001, a 13-year span period. The very last area of inter-unit cooperation to achieve equality between younger and older subsidiaries was the joint financing of development projects. It seems that the entry into this field of cooperation requires sufficient financial resources, which, for a manufacturing subsidiary, may take more than a decade.

The next step in determining the factors affecting the intensity of use of particular communication channels was to find the agreement between the intensity of use of particular communication channels and the intensity of cooperation of sister-subidiaries in particular areas. Of course, communication intensifies as inter-subidiary cooperation increases, but we were interested in which channels were preferably used in particular areas of inter-subidiary cooperation. The results of our correlation analysis are presented in Table 2.

Table 2.

Pearson correlations between the intensity of intersubsidiary cooperation in particular areas and intensity of the use of particular communication channels

Intensity of the use of the channel	Intensity of the intersubsidiary cooperation in the following areas						
	Joint financing of development projects	Design of new production facilities	Installation and putting in motion new production facilities	Mastering new technologies	Design of new products	Launch of new products	Design of new elements of HRM systems
Corporation-wide conferences, symposiums, meetings	0.415**	0.304*	0.276*	0.306*	0.374**	0.311*	0.199
Special (regional, problem-oriented) conferences, symposiums, meetings	0.387**	0.340*	0.389**	0.433**	0.340*	0.420**	0.282*
Reading corporate magazines, corporate e-mails	0.230	0.211	0.138	0.234	0.312*	0.219	0.210
Talking over the phone	0.168	0.016	0.058	0.138	0.312*	0.014	0.087
E-mail exchange	0.085	0.110	0.060	0.056	0.086	-0.055	0.000
Teleconferences and two-side communication via Skype	0.283*	0.277*	0.327*	0.232	0.331*	0.229	0.132
Personal meetings in informal settings	0.408**	0.441**	0.420**	0.336*	0.383**	0.406**	0.294*
Short-term (orientation) tours to sister-subsidiaries	0.380**	0.325*	0.335*	0.364**	0.314*	0.283*	0.304*
Long-term visits (probation work, job rotation) to sister-subsidiaries	0.379**	0.327*	0.338*	0.341*	0.185	0.461**	0.415**
Participation in joint task forces	0.482**	0.548**	0.566**	0.476**	0.421**	0.514**	0.376**

Notes: ** -- two-tailed sign. 0.01, * - two-tailed sign. 0.05

We can clearly see the divergence of the use of particular communication channels. Extreme cases included participation in special task forces, personal meetings in informal settings, and, with some lesser extent, participation in special (regional, thematic) conferences and meetings and short-term orientation visits to sister-subidiaries. These are perceived as universal instruments of inter-subidiary communication in any area of cooperation and correlate with the intensity of cooperation in all possible areas, from the joint financing of development projects to the transfer of efficient Human Resource Management (HRM) systems and methods. The other extreme is e-mail exchange. Although almost 80% of plant directors used this communication channel intensely, its use did not coincide with the intensity of cooperation in any area. The same is true for talking over the phone and for studying corporate magazines and corporate-wide e-mails. The intensity of participation in such forms of cooperation increased only when the subsidiary was engaged in cooperation with sister-subidiaries by designing new products.

Though we cannot postulate the causal relationship between the intensity of use of particular communication channels and the intensity of inter-subidiary cooperation, we can evaluate how inter-subidiary cooperation in particular areas coincides with the intensity of the use of particular channels. The most demanding area of inter-subidiary cooperation is designing new products. This is statistically significant and coincides with the intense use of eight of the 10 communication channels. The exceptions were e-mail exchange that is neutral to any area of cooperation and long-term visits to sister-subidiaries. Other equally demanding areas of cooperation are four closely interrelated types of innovation activities in manufacturing:

- Joint financing of development projects
- Designing new production facilities
- Installation and implementing new production facilities
- Mastering new technologies.

Cooperation in all of these areas was statistically significant and coincided with the intense use of *seven* of the 10 channels. The list of common exceptions applicable here were e-mail exchange, talking over the phone, and reading corporate magazines. The areas of cooperation that coincided with the intense use of *six* channels were launching new products and mastering new technologies. The common exceptions were supplemented here by videoconferences and the use of Skype. Finally, cooperation on HRM issues coincided with the intensive use of just *five* channels. The list of common exceptions was supplemented here by participation in corporate-video conferences. Additionally, cooperation on HRM issues requires long-term corporate visits (corr. 0.415, two-tailed sign. is 0.002) that are not required for designing new products (the

correlation between cooperation in designing new products and intensity of the use of long-term visits is 0.185, two-tailed sign. is 0.189).

Perceived effectiveness of various communication channels of inter-subsidiary communication

The next step of our analysis was to determine the perceived effectiveness of various communication channels of inter-subsidiary communication. The results of the analysis are presented in Table 3.

Table 3.

Perceived effectiveness of the use of particular communication channels

The channel	Effectiveness (percentages)			Mean of assessment	Mean for “active users” and significance of difference with other groups	Correlations between intensity of use and the assessment of effectiveness
	Low	Moderate	High			
Corporation-wide conferences, symposiums, meetings	13	54	33	2.19 ^{a,b,c}	2.55***	0.528***
Special (regional, problem-oriented) conferences, symposiums, meetings	13	56	31	2.17 ^{a,b,c}	2.44*	0.322*
Reading corporate magazines, corporate circular e-mails	12	36	52	2.40	2.60*	0.291*
Talking over the phone	6	54	40	2.35	2.43	0.253
E-mail exchange	4	42	54	2.50	2.56	0.145
Teleconferences and two-side communication via Skype	12	36	52	2.40	2.55	0.322*
Personal meetings in informal settings	14	38	48	2.35	2.82***	0.713***
Short-term (orientation) tours to sister-subidiaries	6	46	48	2.42	2.57	0.305*
Long-term visits (probation work, job rotation) to sister-subidiaries	23	29	48	2.35 ^a	2.71**	0.488***
Participation in joint task forces	19	35	46	2.27 ^a	2.65**	0.574***

Notes: *a* - Two-tailed significance of difference with “e-mail exchange” is less than 0.05; *b* - Two-tailed significance of difference with “short-term orientation tours” is less than 0.05; *c* - Two-tailed significance of difference with “teleconferences and two-side communication via Skype” or with “reading corporate magazines, corporate e-mails” is less than 0.05.

* Two-tailed significance is less than 0.05

** Two-tailed significance is less than 0.01

The data presented in Table 3 should be considered with the data in Table 1. At first glance, the channels of communication with higher perceived effectiveness were the most ordinary (i.e., e-mail exchange, talking over the phone, teleconferences, short-term orientation tours to sister-subidiaries, personal meetings in informal settings, and, unexpectedly, reading corporate magazines and corporate circular e-mails.) The effectiveness of these channels differed significantly (a two-tailed significance of 0.05 or less) from the perceived effectiveness of corporate-wide and specific conferences, long-term visits to sister-subidiaries, and participation in joint special task forces. It seems that subsidiary managers value the channels of communication that they have greater discretion over. Presumably, corporate and special conferences, long-term company visits, and special task forces are the communication channels controlled by the HQ of regional headquarters.

Further analysis amended our first impression. We successfully proved our Proposition 4 in two ways. First, with the use of *t*-tests we found that active users assess the effectiveness of some communication channels higher than occasional users, and this is applicable to all infrequently used communication channels (i.e., channels that are used intensely by less than 42% of subsidiary managers). Second, we performed correlation analysis of the intensity of use and the perceived effectiveness of the communication channels. Statistically significant positive correlations were found for all communication channels, except for the two most widely used (e-mail exchange and talking over the phone). The highest correlation between intensity and effectiveness was discovered for personal meetings in informal settings (corr. 0.713, sign. 0.000). This indicates that subsidiary managers in manufacturing generally avoid such a form of communication, but start to value it and intensify their use after occasional, and perhaps not completely voluntary, use. This initial avoidance of personal meetings in informal settings and its gradual appreciation by managers corresponds well to the usual behavior patterns of introverts [Cain, 2012]. We should note that very high correlations were found for two other forms of communications with overall low assessments of effectiveness, namely, participation on joint task forces and participation in corporate-wide meetings (0.574 and 0.528 respectively).

Discussion

We presented the results of the simplest statistical techniques in the analysis section. However, even with these simple techniques, we obtained substantial results. The intensity of inter-unit communication depends on the speed of changes in products and production technologies, as the dynamics of the business environment provoke the exchange of knowledge between manufacturing sister-subidiaries. At the same time, even if mastering standard sets of communication requires a relatively short period of time, entering into a full-fledged cooperation

relationship between sister-subidiaries is a long-term process. Cooperation with sister-subidiaries in designing new products is established on average within five or six years after the inclusion of a subsidiary into a corporation. Further, cooperation with sister-subidiaries in designing new production facilities and mastering new technologies is established only after eight or nine years. It takes many years for subsidiary managers to finally excel in the use of inter-unit communication channels of which they were initially skeptical. For example, communication channels with high media richness are necessary for effective cooperation in the outlined areas. Shortening such idle periods of inter-unit communication is the ultimate task of a corporation and should be performed not only by HQ, but also by mature subsidiaries.

Practical implications

As we identified that assisting managers of novice subsidiaries to master and properly appreciate communication channels with high media richness is the ultimate task for both HQ and mature subsidiaries, our study has profound practical implications. First, HQ should be aware that promoting inter-unit communication per se is a meaningless task. Subsidiary managers are quickly mastering most easy-to-use channels (i.e., e-mail exchange, talking over the phone, reading corporate magazines) by themselves, but are minimizing their participation in time-consuming activities (i.e., corporate-wide and special conferences, arranging informal meetings with foreign peers) unless they are able to cope with rapid changes in products and production technologies. Thus, to intensify the voluntary use of inter-unit channels with high media richness, HQ should instill the value of competition between manufacturing units in subsidiary managers.

Second, the usefulness of inter-unit channels with high media richness, which are the channels that introverts are not entirely comfortable using, should be properly demonstrated to subsidiary managers to overcome their initial reluctance. One way to do so is to publicize success stories about the use of such communication channels in corporate magazines, especially since corporate magazines are studied intensely by subsidiary managers and are assessed to have very high effectiveness. Another way to overcome the reluctance of manufacturing subsidiary managers during face-to-face contact with foreign peers is through the active role of mature subsidiaries. This can be accomplished through a variety of methods. One method to make something attractive is to make it illicit. The HQ and some trusted mature subsidiaries could create pseudo-illicit inter-unit communication channels of different forms. For example, they could arrange corporate-wide conferences with longer internal breaks or not on HQ conference premises to promote subsidiary managers' personal meetings in informal settings, special conferences of subsidiary managers without the presence of executives from HQ, short-term and

especially long-term visits to sister-subidiaries without prior approval of HQs, or special task forces on the discretion of subsidiary managers. While such forms of inter-unit communication could endanger the control of HQ over subsidiary activities, promoting the use of communication channels with high media richness is necessary to enhance full-fledged cooperation between the manufacturing subsidiaries of MNCs.

Conclusions, research limitations, and suggestions for further studies

Through this study, we described the rich field of inter-unit communication between the manufacturing subsidiaries of MNCs. Our major conclusion is as follows: the necessity to cope with the rapid changes in products and production technology will force manufacturing subsidiaries to find and maintain effective communication channels, with or without the assistance of HQ. However, the discreet assistance of HQ and mature subsidiaries can help managers of newly established subsidiaries master communication channels with high media richness, overcome their initial skepticism and, thus, enhance the overall receptivity of corporations to product and manufacturing process innovations.

Our study has certain limitations. First, we only surveyed subsidiary managers from Russia. We presume that manufacturing subsidiaries in other post-communist countries experience the same patterns when entering the internal communication space of MNCs. However, national cultures may create differences pertaining to the use of particular channels, and such possible differences are worth studying. Second, the three-point scale of our major research instrument used to assess the intensity of inter-unit communication was too broad. We now recognize that subsidiary managers quantify “low,” “moderate,” or “high” intensity much differently. Similarly, managers from a single subsidiary can simultaneously participate in several special task forces of different composition, goals, resources, and expected periods of accomplishment. Thus, further studies are needed to derive a more reliable and detailed picture of the intensity of use of different inter-unit communication channels.

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