BOUNDARY SPANNING ACTIVITY: DOES ENVIRONMENTAL UNCERTAINTY MAKE A DIFFERENCE?

A RESEARCH TO THE PERCEPTION OF THE DUTCH MANAGER OF THE DUTCH SME ON THE SPANISH MARKET

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BOUNDARY SPANNING ACTIVITY: DOES ENVIRONMENTAL UNCERTAINTY MAKE A DIFFERENCE?

A RESEARCH TO THE PERCEPTION OF THE DUTCH MANAGER OF THE DUTCH SME ON THE SPANISH MARKET

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Abstract:
Boundary spanning plays an important role in networking. Small and medium sized enterprises that are concentrated on the foreign market need effective boundary spanning activity. The manager in these enterprises can be seen as the central boundary spanner who maintains all the internal and external networks of the organization. In this explorative research the boundary spanning activity of the Dutch manager of the Dutch SME has been described and analysed. The orientation (internally or externally) and the link between boundary spanning activity and environmental uncertainty are explored by studying the behaviour of Dutch managers of Dutch SMEs that operate on the Spanish market. Results from the self report questionnaire show that these managers are strongly linked internally and externally as a boundary spanner, but no relationship can be found between the boundary spanning activity and the perceived environmental uncertainty.

Keywords:
Boundary spanning; networking; Dutch SME; Spanish SME; environmental uncertainty

Resumen:
El "boundary spanning" juega un importante rol en las redes de trabajo. Las pequeñas y medianas empresas que se concentran en el mercado extranjero necesitan una actividad "boundary spanning" efectiva. El director de estas compañías puede aparecer como el "boundary spanner" central el cual mantiene todas las redes de trabajo de la organización, tanto internas como externas. En esta investigación exploratorio la actividad "boundary spanning" y el ambiente de incertidumbre son explorados al estudiar el comportamiento de los directores holandeses de las Pymes holandesas que operan en el mercado español. Los resultados del cuestionario del propio trabajo muestran que estos directores están fuertemente relacionados interna y externamente como un "boundary spanner", pero ninguna relación puede ser encontrada entre la actividad "boundary spanning" y la incertidumbre ambiental percibida.

Palabras clave:
Boundary spanning; red de trabajo; pyme hlandesa; pyme española; incertidumbre ambiental

Introduction

A lot of the small and medium sized enterprises (SMEs) do not have the same opportunities as bigger multinationals to establish themselves on the international market. In order to set up a business in a foreign market, SMEs have to form networks and set up alliances to overcome barriers such as high initial costs of marketing, human resource and production. (Dana, 2000). Extending the organization´s network and building up stable relationships with important partners will eventually lead to bigger advantages for SME´s that want to establish their presence on the foreign market. The creation of business networks with different partners incorporated will lead to synergetic effects that will help SMEs to overcome the barriers confronted with when entering a foreign market (Coviello & Munroe, 1995). These networks could eventually even lead to better organizational performance (Dollinger, 1984; Harris & Wheeler, 2004; Babakus et al., 2006).

The process of establishing new relations and constructing new information networks requires external communication to gather new external qualified information that leads to new innovations within the organization (Johnson & Chang, 2000). The process in which members of an organization participate in networks outside the organization is called ´boundary spanning´ (Newell & Swan, 2000). Leifer and Delbecq (1978) define a boundary spanner as the person who is responsible for the exchange of information between the organization and its environment. Williams (2002) adds that networking is the predominant modus operandi of choice of a boundary spanner. A boundary spanner could be described as the key person who filters the information coming from the external environment and leaving the organization from the internal environment. This person is operating at the boundaries of an organization. As the enterprise needs more information the boundaries of the organization become more permeable and information needs to be filtered adequately in order to correspond to the internal needs (Leifer & Huber, 1977).

In this research the focus lies on the boundary spanning activity of the Dutch manager of the Dutch SME on the Spanish market. No other research has reported yet about this specific group of interest. Economically, there are strong relationships between The Netherlands and Spain. In 2006 Spain's export to The Netherlands was 5,4 billion euros meanwhile The Netherlands exported for 11,4 billion euros to Spain. In 2007, 675 enterprises with Dutch capital were registered as investors in the Spanish market (OCDHE, 2007).

New Dutch activities take place in service delivery, modern technology (water, environment and energy), ICT, financial sector and real estate. Welfare and care for the elderly are interesting rising sectors. Next to this, the Spanish market offers opportunities to export Dutch activities to Latin America (Nederlands ministerie van buitenlandse zaken, 2005; EVD, 2007).

Theoretical background

Boundary spanning, can be viewed at two levels. At the micro level (personal level) the boundary spanner can be seen as one of the key persons within the organization integrated in external and internal networks (boundary spanning through the eyes of the person dedicated to boundary spanning activity). At macro-level (organizational level) boundary spanning can be seen as the interrelationship between the organization and the environment (boundary spanning from the organization's perspective).

Micro level: The boundary spanner´s role

Aldrich & Herker (1977) explain the role of a boundary spanner as a role with two meanings. On the one hand, a boundary spanner processes information and facilitates information coming from the external environment. On the other hand, its role can be explained as a representative of the organization. A third function of organization boundary spanners is uncertainty reduction. Gathering relevant information through inter-organizational communication reduces the level of uncertainty perceived by the organization (Booz & Lewis, 1997). Williams (2003) adds that a boundary spanner exchanges knowledge by networks of relations. To establish and maintaining these important relations, the principal competences of a boundary spanner depend on the ability of communicating, listening, empathizing and resolving conflicts.

Personality and trust as a basis for establishing stable relations complete the competences of an effective boundary spanner. Ansett (2005) adds that the key skills associated with successful boundary spanners include: empathy, openmindedness, active listening, strong communication skills, strong abilities to synthesise information, emotional maturity and integrity. Furthermore, the author states that the key activities of the role of the boundary spanner are as follows:

- ♦ Creating internal and external networks
- ♦ Issue identification
- ♦ Translating knowledge back into the organizational culture
- ♦ Influencing and educating internal and external stakeholders
- ♦ Creating buy-in and support
- ♦ Identifying internal senior-level champions

Adams (1976) explains the concept of boundary spanning as the connections between members of one organization with members of external organizations. These connections relate the workers inside the organization with the external environment. Manev & Stevenson (2001) expose these relations in a virtual model

Figure 1: internal and external relations of the boundary spanner
(Manev y Stevenson, 2001, p.189)

Actor A

○ organizational member
● member of the extended network outside the organization
____ intra-organizational tie
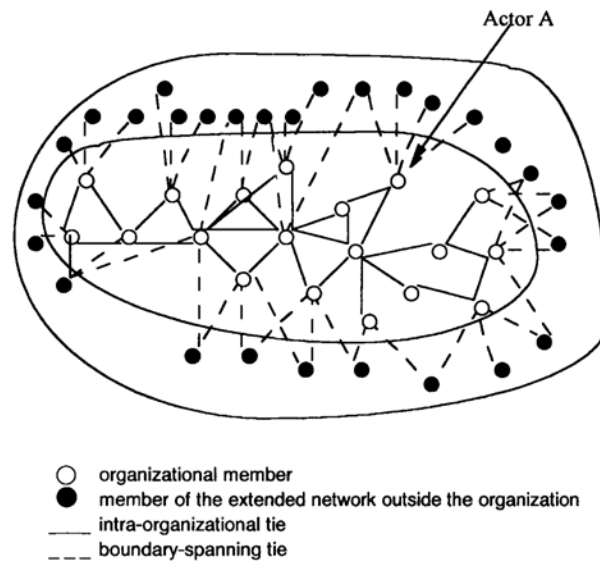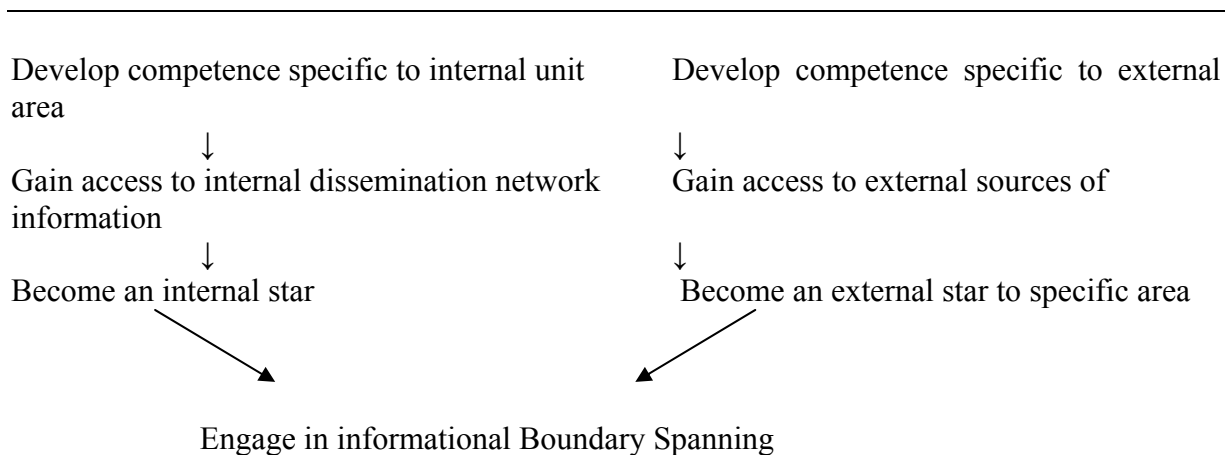_ _ _ boundary-spanning tie

Figure 1 shows the relations of actor A, as a boundary spanner, with members from outside the organization and members belonging to the same organization as the boundary spanner belongs to. The model shows how the internal networks are linked through the boundary-spanning ties to the external networks.

The interrelationships between internal and external communication on personal level is explained by Johnson & Chang (2000) who constructed three different models which include boundary spanning behaviour. The functional specialization model argues that individuals will concentrate either on internal or external communication, depending on their formal position. The communication star model argues that a person's communication spans both internal and external networks. Internal and external networks are mutually related and reinforce the boundary spanners´ information processing. The third model, the cyclical model, suggests that the focus on external or internal communication can shift due to the consequences of boundary spanning activity and organizational requirements. During their longitudinal research employees of the Cancer Information Sevice (CIS) were asked to record or estimate the number of times they initiated or received contact with a member belonging to the CIS-network (internal communication) and with a member from outside the CIS-network (external communication) about innovation related communication. Their results show that the communication star model was slightly more supported as a possible explanation for the interrelationship between internal and external communication than the other two models. This result is in line with earlier investigation of Tushman y Scanlan (1981) who also argue that external and internal communication roles can be played by the same person. The authors investigated the role of boundary spanning individuals in information transfer. They hypothetically stated that the transfer of information must occur in a multi-step process. Informational boundary spanners should have the ability to translate across communication boundaries being aware of contextual information on both sides of the boundary. Informational boundary spanning was expected to be accomplished only by those individuals who were strongly linked internally *and* externally. According to the model, a person should become an internal and external star which would lead to synergetic engagement in boundary spanning activity.

The study was conducted in an American high-technology medical instrument corporation and employed 210 professionals. Based on the respondents' results concerning their report on

their actual, work-related, oral communication for a number of days, three communication roles were identified: internal stars, external stars and boundary spanning individuals (those individuals who were both internal and external stars). Individuals were also asked to nominate those who they considered to be a valuable contact for information, new ideas and critical information. Their results showed strong support for the hypothesis that informational boundary spanning would be accomplished by those who were strongly linked internally and externally as they were seen as valuable sources of information of new information and ideas.

Figure 2: Informational boundary spanning model (Tushman & Scanlan, 1981, p.301)

Develop competence specific to internal unit area

Develop competence specific to external

↓

↓

Gain access to internal dissemination network information

Gain access to external sources of

↓

↓

Become an internal star

Become an external star to specific area

Engage in informational Boundary Spanning

Lysonski and woodsite (1989) investigated the boundary spanning behaviour of industrial product managers. The authors questioned 69 industrial product managers who were seen as communicators both inside and outside the firm and linked the organization with a network of such as suppliers and buyers. They hypothesized that when the industrial product managers perceived greater environmental uncertainty, their boundary spanning activity was greater. Boundary spanning was defined as the frequency of verbal written, formal and informal communication beyond the manager's department. Uncertainty was described as the perceived predictability of the environment. Results from their sample of managers working at New Zealand Telecom provided no evidence for their hypothesis. In their case the authors reported a slightly negative relationship between the boundary spanning activity of the product manager and their perception of the uncertainty of the environment. Boundary spanning seemed to decrease when uncertainty increased.

Macro level: Boundary spanning activity: organizational-environmental interchange

Boundary spanning activity at the organizational level can be seen as the activity of the people working for an organization, who are charged with spanning the boundaries of this organization. A 'boundary' is defined as the demarcation line or region between one system and another, that protects the members of the system from extrasystematic influences and that regulates the flow of information, material, and people into or out of the system.

In the literature, boundary spanning activity has been linked to environmental uncertainy perceived by the members of an organization. Sawyerr et al. (2003) define 'environmental uncertainty' as the absence of sufficient information about environmental events and activities and/or the inability to predict external changes and their impact on organizational decision alternatives.

Leifer & Delbecq (1978) relate the boundary spanning activity with the information need of the organization and the perceived organizational uncertainty. Based on their theoretical framework the authors hypothesize that the boundaries of an organization will be permeable to the extent that there is need for information from outside the organization, and in this way will be more permeable under conditions of uncertainty. Their theoretical model (Tabel 1: typology of boundary spanning) implicates that in an unstable environment, where uncertainty leads to a higher need of information, the boundaries of the organization will be more permeable. In contrary, in a stable environment where the need for information is more regular, the organization will be less permeable and more critical towards new information deriving from the external environment.

Table 1: typology of boundary spanning (Leifer & Delbecq 1978, p.45)

| Information Need	Perceived Environmental Uncertainty	
	Low	High
Anticipated, regular	I Initiation: Regulated Process: Routine	II Initiation: Regulated Process: Non-routine
Unanticipated, irregular	III Initiation: Non-regulated Process: Routine	IV Initiation: Non-regulated Process: Non-routine

The intensity of the boundary spanning activity depends on the perceived environmental uncertainty sensed by the boundary spanners working for the organization. The organizational structure depends on this level of perceived uncertainty in combination with the information need which leads to four possible outcomes in which the initiation and the process of boundary spanning differ. Hypothesized is that where the organization's need for information is irregular and unanticipated and the environment is perceived as highly uncertain, boundary spanning will not be regulated and non-routine (IV). Low perceived environmental uncertainty leads to processes of boundary spanning that are routine. Non-routine processes of boundary spanning occur in unstable environments where perceived uncertainty is high. As for the need of information, the more regular this need for information is the more regulated the initiation for boundary spanning. When the information need is found irregular the initiation of boundary spanning will be non-regulated. The authors hypothesized that there would be a positive relationship between boundary spanning activity and perceived environmental uncertainty. This hypothesis was empirically tested by Leifer & Huber (1977). They inter-related organizational structure, perceived environmental uncertainty and boundary spanning activity. In uncertain environments, organizations would have a high need to gather information which would lead to a high frequency of boundary spanning activity. In more certain environments, organizations will have a lower need to obtain information which leads to a decrease in boundary spanning activity. PEU was defined as 'the expectation when dealing with other people' and measured by asking how often employees know what to expect in their dealings with other people in the organization. Boundary spanning activity was defined by the total verbal and written interactions with internal and external work units. Their cross-sectional field study in a health and welfare organization provided results that showed a positive and highly significant relationship between boundary spanning activity and perceived environmental uncertainty. This relationship was strongly influenced by the structure of the organization (open or closed systems). The authors concluded that boundary spanning activity could be seen as a mediating factor between structure and perceived environmental uncertainty.

Russ, Galang & Ferris (1998) reported that the instability in the environment increases the need for boundary spanning roles. Stable environments require less monitoring and less information processing as it eventually leads to a reduced need for boundary spanning activities. In their theoretical research they related they boundary spanning activity to the external environment. As a reaction to unstable and complex environment organizations respond by creating more boundary spanning roles to manage interactions with the external environment. As the environment becomes more stable and homogeneous, organizations reduce the boundary spanning roles. Institutionalisation of boundary spanning activity (boundary spanning activity becomes more routine) is in between these two organizational responses to the external environment. Boundary spanning roles can be created (because of uncertainty), institutionalisized, and over time become less functional and finally be reduced. When the perceived uncertainty increases, not only the initiation and the process of boundary spanning can change, but also the ambiguity of the boundary spanner's function. When two organizations that are spanned are in conflict (high uncertainty) boundary spanners can experience strong role pressure due to the conflicting expectations for performance from both perspectives (Keller & Holland, 1975).

Especially in smaller enterprises the manager of the firm is integrated in external and internal networks and should function as the principal boundary spanner in the organization. As SME's use networking as a key activity to reduce costs and share knowledge, these organizations need to be open and more permeable.

In turbulent environments, boundary spanning increases and can be less regulated. When the environment becomes more stable and predictable the boundary spanning activity becomes more routine. As boundary spanning activity is a key activity in networking, the boundary spanning activity will fluctuate in time when partnerships are wanted. Based on this theoretical review, a framework (figure 4) is constructed that could be used as a model in further experimental research to study the relationship between boundary spanning activity and perceived environmental uncertainty.

Figure 4: Boundary Spanning Activity related to perceived environmental uncertainty (source: own elaboration)
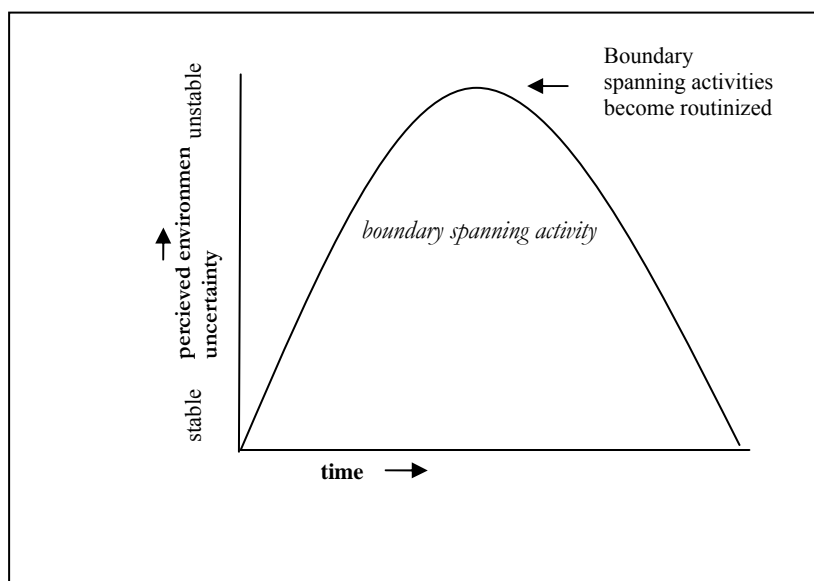
This research has focused on the micro level of the boundary spanning activity (personal level). Therefore, the boundary spanning activity of the manager in Dutch small and medium sized enterprise (SME), as the principal boundary spanner in the organization, has been described and analysed. Dutch SMEs on the Spanish market are used as objects of the investigation. The orientation of the boundary spanner (internal-external) and the perceived boundary spanning activity of the manager of the SME are investigated.

As the effective boundary spanner manager balances communication within the own organization with communication with other representatives of other organizations, this research will provide results of the boundary spanning manager of an SME. This research aims to give a first insight of how the Dutch manager of an SME operates as a boundary spanner on the Spanish market.

No other research is known that writes about boundary spanning activity on the Spanish market. This research could be useful for Dutch SMEs that want to enter the Spanish market. Boundary spanning activity of the manager, who plays a crucial role in the exchange of information, could be analysed and in future studies be related to success or failure. However, this research will mainly focus on the relation between the boundary spanning activity and the perceived environmental uncertainty at the personal level.

Research questions

Boundary spanning activity of the Dutch manager of the Dutch SME on the Spanish market had not been researched before. The Netherlands and Spain are important partners in business for each other. Therefore, it is interesting to investigate the behaviour of the Dutch manager on the Spanish market. In this research the focus lies on the boundary spanning activity of the Dutch manager of the Dutch SME on the Spanish market. This topic has not been researched before. As networking is essential to SMEs when operating in a foreign market, boundary spanning can be seen as a key activity in this process. In this research the Dutch manager is seen as an informational boundary spanner who exchanges information with internal and external units by creating and participating in internal and external networks.
Analysing the boundary spanning activity of the Dutch manager of the Dutch SME on the Spanish market gives an insight of how the Dutch manager manages to be an effective boundary spanner. Since 1996 the amount of Dutch small enterprises has been growing while the amount of Dutch big enterprises has been decreased the last 3 years (CBS, 2007). Studying the management of the smaller enterprises, which are virtually and literally expanding their boundaries, makes it an current topic of interest.

Three research questions are formulated in this investigation. This investigation mainly focuses on the personal level of boundary spanning. The central topic of interest is the behaviour of the Dutch manager of the Dutch SME on the Spanish market. This research describes the activities of the Dutch manager as a boundary spanner and his/her perception of the uncertainty of the environment. This leads to the following research questions:

RQ1: How is the Dutch manager of the Dutch SME on the Spanish market, as a boundary spanner, oriented (externally or internally)?

RQ2: What is the Boundary spanning activity of the Dutch manager of the Dutch SME on the Spanish market?

Based on the theories of Leifer and Delbecq (1978), Russ, Galang & Ferris (1998) and Leifer & Huber (1977) boundary spanning will be related to the environmental uncertainty. This leads to the following question:

RQ3: To what extent can boundary spanning activity be linked with the perceived environmental uncertainty of the Dutch manager of the Dutch SME on the Spanish market?

External and internal communication are important aspects of business communication. In this research both aspects were combined in the concept of boundary spanning activity as communication within the own organization and communication with external entities. Although boundary spanning activity has not been studied extensively from a business communication perspective, it is an interesting topic that deserves further (intercultural) research.

This research focused on the Dutch manager of the Dutch SME as a boundary spanning on the Spanish market. Their exists no earlier research in this specific area of research. Therefore, this research serves as a first start in analysing the behaviour of the Dutch manager on the Spanish market regarding the boundary spanning activity. As boundary spanning activity can be seen as a key activity in networking, boundary spanning activity should form an important part of the communication strategy of managers of SMEs that are networking on foreign markets.

Method
The sample

This explorative research formed part of a large investigation project set up by the Complutense University in Madrid. This multidisciplinar research, which was called 'Dutch firms in Spain', was the basis for several different smaller studies. The general database (a merge between three main databases provided by Fortis, The Dutch Embassy and Sabi), which included all enterprises on the Spanish market in which Dutch capital had been invested, was of important use for the selection of respondents in this study. For this study the existing database was filtered and only those Dutch enterprises were selected which had offices in Spain.

This research has made use of quantitative data provided by a web survey. The web-survey had been set up in order to measure the boundary spanning activity, orientation (internally or externally) and perceived environmental uncertainty of the Dutch manager of the Dutch SMEs on the Spanish market. During the months April and May 2007, 100 Dutch managers of the Dutch SME on the Spanish market received a personal letter by email in which they found a link to an online web-survey. A follow-up email was send in June to those who had not responded yet. Respondents were found by exploring the existing filtered database and online resources which mainly hold Dutch trade associations. In this research a Dutch SME was defined as an organization with a maximum of 150 employees.

Respondents were selected by their function (director/ higher management function) and work environment: Spain. 65 Dutch managers responded the online questions (respons rate of 65%). The average respondent was a 42 year old director of a Dutch SME in Spain with (on average) 16 employees. 70 percent of the respondents was male and 30 percent female. 90 percent of the Dutch SMEs partipating in this research were active in the service industry.

Respondents were asked which topics (external issues, internal issues) were frequently discussed during formal meetings and what kind of people attended these meetings (people belonging to the own organization or people from outside the organization). In this way the orientation, internal or external, was calculated in percentage of time dedicated to internal or external issues and the percentage of people from outside or from the own organization attending the meetings.

The variables

Boundary spanning activity

In this research boundary spanning activity was defined by 'the total of hours spend on formal and informal verbal and written work related activities concerning the internal and external environment of the organization' based on the work of Leifer and Huber (1977). Through a self report questionnaire, respondents filled in the total of hours spend on formal and informal verbal and written work related activities on a regular basis.

Describing these work related activities led to the creation of a composite boundary spanning variable by formulating nine questions which were based on the following dimensions:

- Formal meetings (committees, planning, etc.)

- Informal conversations (face-to-face conversation or telephone conversation)

- Formal received or sent written work related information

- Informal received or sent written work related information

Above mentioned four aspects were each divided into two parts which referred to the internal and external contacts. The aspect 'formal meeting' was divided into three parts: meetings with people from the own organization, meetings with people from outside the organization and meetings with people from outside and belonging to the own organization.

Respondents had to fill in the number of hours and times spend on attending formal meetings, informal conversations, formal and informal written information in an average week.

Of the four above mentioned aspects only 'formal written information' (consisting of both the internal and external side) was the only possible composed variable with a Cronbachs alfa of .77. The 8 items (one composed variable and seven singles), forming the boundary spanning variable were related separately to the four different aspects of perceived environmental uncertainty. A boundary spanning score was calculated by adding the scores of all 8 items. Their sum was used as the boundary spanning activity score for each individual.

Perceived environmental uncertainty

The instrument for measuring PEU was adapted from the instrument of Sawyer (2003) because of its simple and short structure and covering most items managers are concerned about in terms of its environment. The environment consisted of a four multi-item construct (technology, competition, customer/market and resources) with Cronbach's alphas

respectively of .87, .90, .83 and .71. Each aspect was measured by three variables: the degree of variability in the environment, the degree of environmental complexity and the importance of the aspect to the accomplishment of the organizational goals. A seven-point horizontal numerical rating scale enclosed by extremely low and extremely high was used. Respondents indicated their perception of each of the three variables for each of the four environmental aspects.

The scores on these variables were used to compute a perceived uncertainty score for each of the four sectors of interest. The following formula was used to calculate the scores for each environmental sector (based on the work of Daft et al. 1988):

$PSU = SI_i (V_i + X_i)$, Where:
i = sector being scored
PSU = Perceived strategic uncertainty of sector
SI_i = strategic importance ascribed to sector
V_i = variability ascribed to sector
X_I = degree of complexity ascribed to sector

The relation between boundary spanning activity and perceived environmental uncertainty was calculated with Pearson's correlation. All eight components of the boundary spanning activity were compared to the four aspects of environmental uncertainty.

Results

During formal meetings, the Dutch manager indicated more time dedicated to external issues than internal issues (table 1). On average almost 60 percent of the time spend in formal meetings was dedicated to external issues.

Table 1: Percentage of time dedicated to internal or external issues during formal meetings (standard deviation in parenthesis)

	Mean
Internal Issues	40,68 (24,53)
External Issues	59,32 (24,53)

As for the formal meetings, the people attending these meetings consisted of people from outside the organization and people belonging to the own organization (table 2). These two groups, concerning the percentage of participation, were almost in balance.

Table 2: percentage of people from outside and people belonging to the own organization attending formal meetings (standard deviation in parenthesis)

	Mean
People from outside the organization	49,03 (29,71)
People belonging to the own organization	50,97 (29,71)

Boundary spanning activity scores (table 3) of each individual ranged from 0 to 289 with an average score of 60,53. The item that weighted the most was the number of times spend on sending and receiving informal written information from people belonging to the external environment of the organization (average of 13,28 times) as part of the boundary spanning activity. The item that had the least impact on the total sum of the boundary spanning activity score was formal meetings with only people from the own organization.

Table 3: Scores of the composed boundary spanning activity variable and the 8 items separately calculated (standard deviation in parenthesis)

	Mean
Boundary Spanning Activity	*60,53 (53,20)*
Formal Meetings (Int.)	2,70 (3,32)
Formal Meetings (Ext.)	4,72 (5,13)
Formal Meetings (Int. + Ext.)	3,79 (4,80)
Informal conversations (Int.)	7,00 (5,97)
Informal conversations (Ext.)	7,92 (8,91)
Formal written (Int. + Ext.)	11,63 (20,61)
Informal written (Int.)	13,04 (25,26)
Informal written (Ext.)	13,28 (20,73)

This item had an average score of 2,70 hours in an average week. The time spend on written information in formal or informal contexts dominated the time spend on verbal information in formal and informal meetings.

The perceived uncertainty was calculated for every four aspects of the industrial environment. The customer/market environment was perceived as the most uncertain environment with an average score of 54,66. Resources was perceived as the most certain environment considering the average score of 43,03. As a maximum score of 98 for perceived uncertainty could be reached, the results show a perceived uncertainty on all four aspects that is in between the extreme values of perceived uncertainty (0 – 98).

Table 2: Perceived uncertainty scores for every environmental aspect (standard deviations in parenthesis)

	Mean
1. Technology	47,00 (22,04)
2. Competition	45,23 (23,47)
3. Customer / Market	54,66 (22,23)
4. Resources	43,03 (20,03)

The environment in which the SMEs were operating could be seen as quite stable and not perceived as very certain nor very uncertain.

No significant correlation was found to find proof for a relation between boundary spanning activity and perceived environmental uncertainty of the Dutch manager.

A slight significant correlation was found, after comparing the 8 different items of boundary spanning to the four different aspects of perceived environmental uncertainty, between written formal communication (encompassing the external and internal contacts) and perceived uncertainty of the resources ($r = .41$, $p < .05$). This would imply that when the perceived uncertainty of the resource environment increases, the written formal communication with people from outside the organization and people from the own organization increases.

Conclusion and Discussion

Describing the boundary spanning activity and the perceived environmental uncertainty of the Dutch manager of a Dutch SME gives us more insight of how this person is operating on the Spanish market

In this explorative study, results show that the Dutch manager dedicates almost 60 percent of the time to external issues during formal meetings. Therefore, the orientation of the Dutch manager of the Dutch SME on the Spanish market could be considered as an orientation with an external focus. ----- People attending the formal meetings belong to either the own organization or are from outside the organization. Between these two groups is hardly any difference in presence considering the attendance to a formal meeting. On average both groups have a 50 percent share in these meetings and are in balance. One could speculate that the Dutch manager is more focused on external issues than internal issues but these issues are being discussed with a group that consists of 50 percent of people from the own organization and 50 percent of people from outside the organization.

Theory learned that the effective boundary spanner should be strongly linked to the external and internal environment (Tushman & Scanlan, 1981). The results of this research do stroke with these assumptions: informational boundary spanning is effectively managed by a manager who is integrated in both networks (internal and external) and focused on issues that play a role inside the organization as well as issues that are outside the organization itself. In this case the Dutch manager of the Dutch SME on the Spanish market could be regarded as an effective boundary spanning individual who monitors the external and internal environment with a group of people around himself/herself in which the internal and external network are represented in equal numbers. Results of this research support the communication star model, set up by Johnson and Chang (2000), in which the boundary spanners' communication spans both internal and external networks. In the model of Manev and Stevenson (2001) the Dutch manager could be as the key person in the web of connections in which he/she coordinates a team consisting of an equal number of people from the own organization and people from outside slightly more focussed on external issues than internal issues. The Dutch manager of the Dutch SME participates in internal and external networks (Newell & Swann, 2000) and could be seen as a boundary spanner that filters the information coming from the external environment and leaving the organization from the internal environment. However, in this research only the orientation and the boundary spanning activity of the Dutch manager was measured and further research is needed to compare these measurement in different contexts (stable and instable environments).

In this research the Dutch manager has been regarded and could be seen as a true boundary spanner in the organization and fits in the definition of Adams (1976) in which this person spans the external and internal environment.

What was the boundary spanning score of the Dutch manager? As an average score of 60,53 was calculated by summing op the scores of the 8 aspects of boundary spanning, this score indicates the boundary spanning activity of the Dutch manager. This score was related to the four different scores that holded the perceived environmental uncertainty. No significant correlation was found between these two variables.

As one of the boundary spanners' functions is to reduce uncertainty (Aldrich & Herker, 1977) no relationship can be found in this research between the boundary spanning activity and the perceived environmental uncertainty. Neither do the results of this research stroke with earlier work of Leifer & Huber (1977) in which a relationship was found between boundary spanning activity and perceived environmental uncertainty. However, the structure of the organization did not come into play in this research while it was of great influence in relating boundary spanning activity with the perceived environmental uncertainty.

The outcome of this investigation cannot be generalized for the whole population of Dutch managers of the Dutch SME in Spain. Even though the results of this research, concerning the relationship between boundary spanning activity and perceived environmental uncertainty, do not completely match theory it could lead to more questions for future research. As more research is needed to get more insight in this specific group of interest and in the relation between boundary spanning activity and perceived environmental uncertainty. The designed theoretical model should empirically be tested by a longitudinal experiment. As a limitation of this research is the measurement of the boundary spanning activity at one single moment. More research is needed to examine the relationship between boundary spanning activity and perceived environmental uncertainty at different times. In an experiment, the perceived environmental uncertainty variable could be manipulated and two different situations could be created in which the stability of the environment varies. One could look at the boundary spanning activity as a variable that could be affected by the possible different values on perceived environmental uncertainty.

This research had another limitation concerning the chosen scale for measuring boundary spanning activity. As the reliability of the scale was not sufficient to compose one boundary spanning activity variable that could be compared with the four reliable aspects of perceived environmental uncertainty. Future research should focus on a well composed boundary spanning variable.

In this research results mainly came from managers who work in the service sector. More research is needed that investigate other sectors (production, distribution etc.). In this research only boundary spanning activity and perceived environmental uncertainty were compared. As the structure of the organization (as a possible third variable of interest) was not included in this research, further research is needed to investigate the mediating role that boundary spanning activity can have with regard to the Dutch manager of the Dutch SME on the Spanish market. Further research should also verify the relationship between the stability of the environment and the need for boundary spanning roles as hypothesized in research of Russ, Galang & Ferris (1998).

Not only the Spanish market but also new markets that are developing rapidly are of great interest for analyzing the behaviour of the Dutch manager of the Dutch SME operating on

these new markets. As boundary spanning activity plays a crucial role in the information processing role inside the organization but also in between different organizations, more research in needed to get a clear view of which sector, types of enterprises, different countries (cultural aspects) do influence the boundary spanning activity and can be related to this important aspect of internal and external communication.

Appendix: websurvey

	Datos de la empresa
1.	Sector:
	☐ Industria – producción ☐ Industria – distribución ☐ Servicio ☐ Otros:
2.	
	Número de empleados:

	Datos personales
3.	
	Cargo:
4.	Sexo:
	◖ hombre ◖ mujer
5.	Edad:

6.	Cuantas horas semanales participa en reuniones *__formales__*	
	con personas solo de su empresa	
	con personas ajenas de su empresa	
	con ambos tipos	

7.	Teniendo en cuenta su respuesta a la pregunta 6 , indique la distribución de tiempo dedicada a temas internos y externos en porcentajes (total = 100%):	
	Temas internos	
	Temas externos _____ 100%	

8.	Teniendo en cuenta su respuesta a la pregunta 6, indique el porcentaje de personas que acuden a las reuniones (total = 100%)	
	Personas que trabajan **dentro** de la empresa	
	Personas que trabajan **fuera** de su empresa _____ 100%	

9.	Cuantas horas semanales consulta sobre su trabajo en conversaciones verbales *__informales__*(p.e. cara a cara / teléfono):	
	con personas de su propia empresa	
	con personas ajenas a su empresa	

10.	Cuantas veces semanales recibe o manda información escrita *__formal__* (p.e informes /datos) sobre su trabajo?

	Dentro de su empresa:	☐
	Fuera de su empresa:	☐
11.	Cuantas veces semanales recibe o manda información escrita **_informal_**(p.e informes / memos) sobre su trabajo?	
	Dentro de su empresa:	☐
	Fuera de su empresa:	☐

Indique como percibe el entorno de la empresa con respecto a los siguientes aspectos:

12.	**Tecnología**							
		muy bajo				muy alto		
	variabilidad en el entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
	complejidad del entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
	importancia del aspecto en cumplir la meta organizativa	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

13.	**Competidores**

	muy bajo						muy alto
variabilidad en el entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
complejidad del entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
importancia del aspecto en cumplir la meta organizativa	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

14. Cliente / Mercado

	muy bajo						muy alto
variabilidad en el entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
complejidad del entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
importancia del aspecto en cumplir la meta organizativa	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

15. Recursos

	muy bajo						muy alto
variabilidad en el entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
complejidad del entorno	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
importancia del aspecto en cumplir la meta organizativa	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7

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