Bank's Organizational Characteristics and SME Lending: New Reading Through Organizational Architecture Theory

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The nature of the bank-SME relationship varies depending on the organizational characteristics of the bank. Unlike previous work, this paper proposes an intra-organizational analysis, studying the mechanisms which govern decisions to grant loans: the delegation of decision-making rights, incentive systems and control mechanisms. The first aim of this paper is to explain the links between the bank's organizational characteristics and the nature of SME funding. Secondly it proposes a new theoretical framework based on the contribution of the theory of organizational architecture.

INTRODUCTION

The dependence of SMEs on bank funding raises several questions about the rules and the specific nature of their relationships with banks. Indeed, unlike large enterprises, SMEs are often subject to a high level of informational opacity. Unlike the financial markets, which use public information about large firms, financial intermediaries have a pre-eminent position in SME funding, because of the information capital that they generate (Diamond, 1984). The solution to the problem of the informational opacity of SMEs is found in the acquisition of two types of information: hard information available and shared publicly (e.g. credit history, balance sheet data, amount borrowed, credit scoring) and specific, soft information (e.g. entrepreneur's competence, honesty and diligent approach to management, employee morale) acquired through a long-term client relationship (Petersen, 2004). Here the long-term client relationship plays a vital role in reducing costs as it is the medium for a large part of the information exchange.

However, although the advantages of this type of relationship lending have often been confirmed by previous research (Boot, 2000), particularly in terms of access to loans and the reduction of lending costs, there remain nonetheless a certain number of drawbacks. These are notably the consequences of a divergence of interests between the bank and the SME, which takes shape as the funding relationship evolves over time. A long-term relationship appears essential not only for opaque SMEs to obtain funding, but also for the bank, due to the agency costs it engenders within its own hierarchy. All of these considerations influence the expected benefits of long-term client relations and affect the availability of SME lending and its costs.

Recent research into relationship lending to SMEs has led to the emergence of a new analytical framework (Berger, 2005b; Berger and Udell 2002; Setein, 2002). The specific nature of soft information collected about SMEs raises the problem of informational opacity and results in agency costs between different actors in the lending process. These costs increase along with the size, organizational complexity, ownership structure, and geographical distance between the hierarchical levels of the bank.

The results of this previous work show that small banks with a less complex organizational structure process soft information better and have better long-term relationships with opaque SMEs. According to this research local banks and those located close to SME clients grant more loans to SMEs than foreign banks.

Unlike previous work, we present in this research an intra-organizational analysis of the bank-SME relationship that goes further than the link between the organizational structure of the bank and the type of SME lending (relationship *versus* standard). Indeed, SME lending is a decisional choice which results from interaction between several staff members at different hierarchical levels (Berger and Udell, 2002). The decision is influenced by each level and directly affected by the bank's external environment. In order to analyze the link between the characteristics of the bank and the nature of SME bank funding we have to analyze the organizational determinants that structure the decision to lend. In this context it appears legitimate to apply organizational architecture theory to our research question (Jensen and Meckling, 1992; Brickley et al., 1997). This is one of the principal components of positive agency theory and enables us to understand real organizational behavior concerning decisional choice, and in particular SME lending.

An analysis of the procedures for SME lending in banks necessitates the study of the components of organizational architecture that regulate lower hierarchical levels. In other words, it is the loan officers who have the soft information which is valuable for SME lending decisions. The main contribution of this paper is thus to explain the link between the different organizational features of the bank and its SME lending policy, and at the same time to propose a new intra-organizational analytical framework based on organizational architecture theory.

The article is divided into two parts. In the first part we deal with the link between the organizational structure of the bank (size, complexity, distance and ownership structure) and the nature of bank-SME relations. The second part proposes a new theoretical framework based on an intra-organizational analysis of the mechanisms that regulate SME lending decisions: the decentralization of decision-making rights, mechanisms of control and incentive systems applied by banks to lower hierarchical level, and in particular loan officers who are in direct contact with SME clients.

BANK ORGANIZATIONAL CHARACTERISTICS AND SME LENDING

Several recent studies confirm the existence of a close link between a bank's organizational characteristics and the nature of bank-SME lending. Indeed, the cost of processing, collecting, transferring and controlling all the information necessary for SME evaluation (hard versus soft) vary according to the organizational characteristics of the bank (Stein, 2002). This therefore conditions the type of SME lending undertaken and determines the volume and the cost of the loans these banks grant.

Bank Size

Research carried out into the American banking sector finds that small banks use a larger part of their assets for SME lending than large banks (Berger et al., 2008; DeYoung et al., 1999; Strahan and Weston, 1998; Peek and Rosengren, 1998; Levonian, 1996). Similarly, other studies of a sample of Chinese banks (Shen et al., 2009) and of a sample of Japanese SMEs (Uchida et al., 2008) confirm these results. The study carried out by Delgado et al. (2007) of SME lending in Spain, Bonfin and Dai's research (2012) into the Portuguese market and the work carried out by De Haas et al. (2010) into a number of banks located in Central Europe and the Baltic countries found similar results.

Cole et al. (2004) found that small American banks invest more in relationship lending whereas large lending institutions turn more and more to standard lending. These results are confirmed by the work done by Carter et al. (2004) which shows that small American banks obtain a better yield from SME lending than bigger banks; this in turn explains the greater volume of their SME loans. The results of previous research demonstrate that large banks mainly grant loans to transparent companies with a long history that are solvent and present less risk (Cole et al., 2004; Berger et al., 2005b). These banks also prefer to lend to companies that are able to diversify their funding sources (Berger et al., 2001). Their lending therefore targets companies that are suitable for standard lending, which is not the case for opaque SMEs (Haynes et al., 1999).

A different feature of SME lending by large banks is that they often charge low interest rates. Such large banks also record relatively low yields for this kind of loan (Berger et al. 2007; Carter et al., 2004). These results reflect the kind of SME client financed by large banks. A low interest rate is often a reflection of a low level of risk. Transparent SMEs that offer hard information present less risk than opaque SMEs, where the decision to lend is based on soft information. Low interest rates are also a reflection of reduced operational costs. Indeed the costs of transferring and processing hard information are lower. Given that large banks are more diversified and have varied funding sources available to them, a low rate of interest can be the reflection of low marginal funding costs. This rate might also indicate less market power, since unlike soft information, hard information is not the exclusive property of the bank. To summarize, these results confirm that large banks lend more to solvent, less risky borrowers. They also adopt less costly credit assessment techniques, which is a feature of standard lending.

According to these previous studies, the size of banks defines the nature of their SME lending. On one hand, large banks have a competitive advantage in standard lending. This technique uses hard information which is easy for the hierarchy to transfer and decode, making economies of scale possible for such large banks. On the other hand, small banks with a relatively simple organizational structure have a similar advantage in relationship lending (Stein, 2002). Their structure limits the risk of dispersal of soft information and allows for better credit assessment. Indeed, small banks are situated in local niche markets where clients are mostly made up of SMEs (Scott, 2006). Their proximity and strong local roots give these banks better access to soft information and make them more reactive, so their response to credit requests is more personalized (Mester et al., 2005).

Organizational Complexity

The empirical literature highlights the advantages enjoyed by small banks in processing soft information. These results reflect the ability of such banks to undertake relationship lending. Indeed, this type of lending process requires a more flexible organizational structure, capable of dealing with a great number of exceptions that are difficult to standardize or automate (Berger and Udell, 2002). In such a system, each company is a unique case, requiring a specific analysis based on soft information. For a large structure, this is synonymous with process duplication which will result in increased operational and organizational costs. To reduce these costs large banks reduce their volume of relationship lending and limit the use of soft information (Berger et al., 1999). They employ standard procedures and base their decision-making on hard information. The high level of organizational complexity of these banks requires more costly operating, control and coordination procedures. Indeed, managing two lending techniques simultaneously, which necessitates two different methods of processing information, can lead to operational costs and diseconomies of scale. Organizational complexity is thus an obstacle in comparison with small banks with less complex organization structures and simpler decision-making processes (Stein, 2002).

The high level of bureaucracy in large organizations amplifies the need to formalize relationships and requires significant efforts to make sure that the soft information produced by the loan officer can be transferred to and used by the hierarchy. This can be solved by reducing the amount of time and resources allotted to the production of soft information (Stein, 2002; Berger and Udell, 2002). In this type of complex bank, the organization formalizes information and uses communication technologies widely to facilitate the coordination and control of decision-making. In such an organization, the decision-making process is more automatic. Negotiation plays a minimal role and lower ranking staff have less responsibility than their superiors. The fragmentation of decision-making in this type of complex organization thus creates two types of problem which demand a greater need for control (Berger et al., 2005b): staffs are less visible and soft information is more difficult to share and evaluate.

The loan officer is the main agent in direct contact with SME clientele. He is responsible for collecting information vital for the assessment of credit risk. The fact that it is difficult to observe the efforts of such officers in a complex organization increases the need for hierarchical control. Identifying the optimal system for monitoring the behavior of loan officers is not without difficulty. This results in the importance given to soft information being reduced with a view to standardizing assessment procedures and simplifying control tools. Indeed, long-term contact with the client might interfere with the loan officer's objective assessment and increase the risk of moral hazard. This is accentuated even more if incentive systems and the allocation of decision-making rights do not enable the interests of the agent to be aligned with those of the bank (Berger, Udell, 2002).

Geographical Distance

Organizational complexity is defined as the number of hierarchical levels and correlates strongly with the size of the organization. It also results in greater dispersion of the information required for decision-making. In the banking sector, complexity is also measured by the number of operational units such as subsidiaries or branches. According to Mian (2006), complexity is also defined by the geographical, cultural and institutional distance separating the parent bank from its operational units.

Research work into bank complexity shows that organizational distance is an obstacle to the processing of soft information (Liberti and Mian, 2009). This implies an agency problem between the superior decisional level and the SME loan officer. The geographical distance between these two hierarchical levels also affects the quality of the information collected and credit risk assessment. Indeed, Stein (2002) and Aghion and Tirole (1997) highlight the fact that the importance given to soft information varies according to the geographical distance between the principal and the agent.

Cotugno et al. (2013) examine firms' credit availability during the recent financial crisis using a dataset of 5331 bank–firm relationships provided by the borrowers' credit folders of three Italian banks. The results of this study confirm that an increase in hierarchical distance negatively influences credit availability more than an increase in organizational distance. Similarly, Benvenuti et al. (2010) find that Italian banks give fewer loans to SMEs located in provinces far from their head office. Several other studies carried out into the American market find that lending institutions affiliated to a banking group give less credit to SMEs than independent banks of the same size and with the same organizational characteristics (Berger and DeYoung, 2001; DeYoung et al., 1999; Strahan and Weston, 1998; Kolari and Zardkouhi, 1997; Keeton, 1995). According to this research, it is difficult for large organizations to control the efficiency of units located at a distance.

Thus geographical distance between the different agents involved in the decision-making process intensifies agency problems. Difficulties with the transmission of soft information and with monitoring loan officers working at a distance from head office increase the importance of distance control of decision quality (Berger and DeYoung, 2001). Large, hierarchically complex banks impose more rigid controls or choose to standardize risk assessment methods. Geographical distance therefore prevents the efficient processing of soft information and the implementation of relationship techniques. In this area, small banks with stronger local roots have a competitive advantage over large banks with a much wider network. New information and communication technologies can reduce problems of distance control, but only at the expense of the soft information that is essential for credit risk assessment when working with opaque small businesses (Petersen and Rajan, 2002).

Ownership Structure

Ownership structure is often defined as the nature of share ownership: public or private, local or foreign. This also impacts the type of information processed (soft or hard) and so the nature of the lending relationship.

Local Banks and Foreign Banks

Foreign banks are subsidiaries or representatives of multinational banks located abroad. They are part of a large organizational structure which has the same costs and economies of scale as a large local bank with the same organizational complexity. Several empirical studies have highlighted the strategic orientation of foreign banks. Such banks buy up local banks abroad that are in difficulty. So as to put these new acquisitions back on their feet, they choose to reduce certain types of credit (Peek et al., 1999).

They also specialize in funding their multinational clients established overseas (Grosse et Goldberg, 1991).

Elsewhere, empirical studies into SME funding by foreign banks compared with local banks find differing results. Some research finds a positive link between lending to local SMEs and the arrival of foreign banks (Clarke et al., 2005a; Berger et al., 2004; Dages et al., 2000). Other research, such as that carried out by Beck et al. (2011) using a questionnaire sent to large banks located in 45 countries and the work carried out by Berger et al. (2003 and 2001); Mian (2006) and De Haas et al. (2010) covering a selection of banks located in Central Asia and the Baltic states, shows that foreign banks grant less credit to opaque SMEs. Similarly, de la Torre et al. (2010) found that in Argentina and Chile private domestic banks are most involved in the SME lending segment.

Berger et al. (2008) shows that for a sample of Indian companies, foreign banks lend more to large, transparent companies belonging to large, foreign, listed groups. Degryse et al. (2012), using information on 110 Polish banks, point to a comparative disadvantage of Greenfield banks in lending to opaque borrowers. The study shows that foreign banks that entered via Greenfield investment devote 14% less of their portfolios to entrepreneurs while they lend over 84% more to private firms than domestic private banks. Indeed, foreign banks have a competitive advantage in the use of standardized assessment techniques and the processing of hard information whereas local banks are more competitive in relationship lending using soft information. In their analysis of cultural and institutional differences, Berger et al. (2001) also find that foreign banks based in other Latin American countries tend to grant more credit to SMEs in Argentina than banks based on another continent.

Unlike local banks, the size and organizational complexity of foreign banks cause them problems in terms of relationship lending (Mian, 2006). Indeed, a greater physical distance between the management of a foreign bank and their agent means agency costs are higher. Moreover, foreign banks are in a location where the linguistic, cultural, institutional and regulatory environments are different (Buch 2003). These differences make the cost of processing local information higher. Therefore subsidiaries and divisions of foreign banks use relationship lending less frequently. They have standardized funding procedures and more prudent risk assessment strategies using hard information (Cole et al., 2004).

So these results show that opaque SMEs are more likely to receive credit from local banks than from foreign banks. The rationing of credit to local companies can be partly explained by a lack of information. The relationship between the foreign bank and the SME will be a recent one, and personal contacts will still be in their infancy. In such a situation, there will not be enough soft information to assess the risk involved. This lack of information means that there will be a risk of opportunism and moral hazard, which will incite banks to ration lending and increase funding costs. Therefore such banks prefer to work with foreign companies that they already have a long-term relationship with. Indeed, the costs linked to the bank's development of a personal client relationship are high. Moreover, information technology and techniques of information processing and risk assessment can be replicated overseas with lower marginal costs. So companies receive standardized loans based on hard information.

State-Owned Banks and Private Banks

According to Berger and Udell (2002), state-owned banks have a competitive advantage in terms of standard lending whereas private banks are more efficient in the area of relationship lending. This can be explained by the effect of the size of state-owned banks. These banks generally operate with subsidies granted by the state and follow orders and recommendations that are dictated to them concerning the funding of a certain type of company or the promotion of a sector of industry or a specific region.

Berger et al. (2008) find that Indian state-owned banks are less likely to supply banking services to small, private or rural businesses. On the other hand, less profitable companies are more likely to sustain a funding relationship with this type of bank than more successful ones. De Haas et al. (2010) also show that state-owned banks in Central Asia and the Baltic states lend more to state-owned companies. This result is in line with previous work that highlights the fact that loans granted by such banks are often motivated more by political considerations than by performance.

Although the policy of public banks is to improve the funding of solvent SMEs, they often have the opposite effect. In reality these banks are not governed by market forces. In such a situation funding can be given to insolvent companies. The state does not necessarily require the funding of profitable projects or the repayment of loans at market rates. Funds are also sometimes used for political rather than purely economic ends (Sapienza, 2004). The problem here then is the governance of state-owned banks. They often use relatively flexible controls so as to satisfy objectives that are dictated by the state and to subsidize selected borrowers.

Other work highlights how difficult it is for SMEs to obtain loans in markets where there is a concentration of state-owned banks (Berger et al., 2004). Indeed, in this type of market, private banks, both local and foreign, invest less in SME funding. This is either because state-owned banks give subsidized loans or because bank loans are not greatly used in the local culture. These studies find that the percentage of bad loans is particularly high for state-owned banks. This can be explained by a lending policy that is not based on profitability, by more relaxed control of SME clients, or by a lack of strict assessment procedures (Berger et al., 2005a; Hanson, 2004).

Several studies have found significant improvement in performance after bank privatization in developed (Otchere and Chan, 2003; Verbrugge et al., 1999) and developing countries (Clarke et al., 2005b). However, in state-owned banks this progress is limited to those that are able to eliminate governmental subsidies and seem to operate more efficiently by undertaking a significant level of SME lending (Townsend and Yaron, 2001). This is particularly noticeable in state-owned banks that use decentralized management techniques; this enables them to compensate for the absence of disciplinary mechanisms in state-owned banks (such as market forces) and to reduce certain constraints related to their size.

BANK ORGANIZATIONAL ARCHITECTURE AND SME LENDING POLICY

Previous research has widely stressed the link between bank organizational characteristics and the nature of SME lending (relationship or standard). However, this research has not concentrated enough on the organizational mechanisms that structure decisions concerning SME loans. Indeed, the characteristics of banks, such as their size, complexity, hierarchical and organizational distance and ownership structure determine the organizational mechanisms that are appropriate for the credit decision. Changing any of these features will affect these mechanisms. Better analysis of the decision-making process and interaction between banking staff would lead to better understanding of the nature of SME lending.

In reference to organizational contract theories, the link between the organizational characteristics of the bank and the nature of SME lending can be explained by the specific information that is crucial to credit risk assessment (soft or hard). This assessment is subject to agency problems between different hierarchical levels, which vary according to the organizational characteristics of each bank. An analysis of the different jobs within the organization and of the motivations of the different actors involved in the SME loan decision-making process might explain the bank’s choice of the type of loan it offers. Indeed, for a bank, granting a loan is a complex decisional choice (Berger and Udell, 2002). In this sense, organizational architecture theory, which attempts to explain the decisional choice process of an organization, can be used as a theoretical framework to analyze this problem (Brickley et al., 2003).

Organizational Architecture Theory

Organizational architecture theory is an extension of positive agency theory. This theory attempts to study the basis of the ground rules that apply inside organizations. It justifies the existence of control systems on the basis of a study of decision-making rights, and particularly how they are divided within the organization and the fact that they can be revoked. Jensen and Mechling (1992) stress the crucial role of soft information, its influence on the organization of the market and the firm, and the notion of organizational complexity defined by the transfer of this soft information. They propose organizational mechanisms to solve problems of control in organizations in the absence of inalienable decision-making rights. The ground rules proposed are defined by three subsystems on which organizations are based, which must combine well together if the organization is to achieve an acceptable level of performance: the attribution of decision-making rights, systems of control and incentive mechanisms. The level of organizational efficiency depends on the coherence, complementarity and interdependence of these three subsystems. Our definition of the decision of a bank to grant a loan to an SME is thus in line with the work done by Jensen and Meckling (1992). Unlike the normative branch of agency theory, different financial decisions are approached from the point of view of organizational architecture theory resulting from the work of these principal founders of positive agency theory.

We propose to go beyond previous research and to explain how organizational mechanisms affect the decisional choice devices in a bank. This requires us to analyze the determinants of performance and the organizational process that underlies the decisional choice. In this context, organizational architecture theory is a unifying framework that enables us to analyze the effects of mechanisms for the attribution of both decision-making rights in the organization and the choice of control and incentive systems, on the organization's performance and SME lending decisions.

The decisional choice cannot be studied without an analysis of the organizational mechanisms that lie behind it. The study of the decisional process cannot be disassociated from that of the organizational architecture and processes of value creation and distribution. We propose to analyze the decisional choice from the organizational point of view. Here the decision is considered as a process within an organization where different hierarchical levels can be in conflict. This approach takes account of several aspects of the organization, in particular personal factors, formal organization, information systems and control and incentive mechanisms. Hence it highlights the role of the mechanisms that make up a bank's organizational architecture as a determinant of SME lending policy.

Indeed, Berger and Udell (2002) define the granting of credit to an SME as a decision that follows on from the interaction between several actors belonging to different hierarchical levels. In this sense, the investment decision is influenced by each hierarchical level of the bank and by its external environment. An analysis of SME lending in large banks considered as complex organizations necessarily requires us to understand investment policy, its determinants and the organizational mechanisms that structure it.

Organizational Subsystems and SME Lending

Organizational architecture is defined by three subsystems: the distribution of decision-making rights, control systems (performance measurements) and incentive mechanisms. These vary according to the individual characteristics of each organization (size, complexity, ownership structure, etc.). In this research we will analyze the link between these three components and SME lending policy (Appendix 1). We will pay particular attention to the lower ranks of the organization, and especially loan officers who are in direct contact with SME clients and who are in possession of the soft information necessary for this kind of loan.

Decentralization of Decision-Making Rights and Autonomy of Loan Officers

In order to respect the principle of organizational efficiency (Jensen and Meckling, 1992) it is necessary to reduce the cost of transferring soft information. In a complex structure, the loan officer has to work with several hierarchical levels. The difficulties these officers encounter in justifying the credibility of such information results in a reduction of their efforts to collect, process and transfer soft information. This leads to a decrease in the loan officer's performance (Stein, 2002). Therefore banks that opt to lend to opaque SMEs need an appropriate hierarchical structure to enable soft information and decision-making rights to be located in the same place. To resolve the problem of the cost of soft information transfer and to reduce the information gaps that result from it, Berger and Udell (2002); Liberti (2003) and Takats (2004) propose that decision-making rights should be decentralized towards small business loan officers. A centralized structure is less costly but results in fewer loans to opaque SMEs since it encourages the use of hard information.

According to Aghion and Tirole (1997), increasing an agent's formal authority increases both his initiative and the efforts he makes. This is observed particularly in cases where the agent is interested in results and not only in the efforts he has made. According to Liberti (2003), giving more autonomy to loan officers has several positive effects on bank-company relations. The author finds that there is an increase in the amount of time given to clients, an increase in effort perceived by borrowers and a reduction in the number of complaints. At the same time this increase in autonomy results in better perception of their own efforts by loan officers. It also implies that soft information is better utilized, since this has a direct result on individual results.

Similarly, Shen et al. (2009) find that in their sample of Chinese banks there is a positive link between the use of soft information, the amount of SME lending and the decentralization of decision-making rights in favor of loan officers. The research carried out by Benvenuti et al. (2010) on a sample of Italian banks also confirms a positive link between an increase in loan officers' authority and SME lending. Canales and Nanda (2012), using a sample of Mexican SME loans, found that branch managers in decentralized banks are more sensitive to the local environment than branch managers in centralized banks. They give more attractive terms to firms in competitive banking markets, but are more likely to cherry-pick firms and restrict credit in areas where they have market power. Thus, the extent to which decentralized banks alleviate credit constraints depends critically on the competitive environment for banks.

Overall, decentralization results in increased motivation and effort on the part of loan officers and this leads to greater use of soft information. However, an increase in autonomy is synonymous with an increase in conflict of interest. For this reason, organizational architecture theory recommends that disciplinary and rewards systems should be used so as to align the interests of the loan officer with those of the bank.

Loan Officer Control Systems

The nature of the soft information collected about SMEs gives banks a specific problem. An assessment of this type of company uses two types of information, general (hard) information and specific (soft) information. Soft, intangible information is particularly important for a precise assessment of risk, so banks must minimize the risk of manipulation. Banks implement control mechanisms for their agents with an adequate performance appraisal system (Jensen and Meckling, 1992; Brickley et al., 1997). To maximize their agents' performance, the assessment measures used must be appropriate to the activity exercised. In other words, the agents will only be motivated if the assessment measures used in their organization take their efforts into account but ignore factors from the external environment that are outside their control. The more the assessment measures are precise, the more the loan officers will be motivated to collect soft information.

According to organizational architecture theory, to reduce the cost of soft information transfer it is necessary to delegate decision-making rights towards the agents who have this information, while implementing a control system. This type of soft information thus influences the bank's organizational structure and so its optimal allocation of resources. The collection, processing and production of soft information by SME loan officers therefore depend on systems of remuneration and budget allocation.

Loan Officer Incentive Mechanisms

The aim of the incentive system is to encourage loan officers to act according to the interests of the bank. In other words, such mechanisms must make possible the transfer of soft information held by the officers and encourage them to formalize it in a way that is easily understood by higher hierarchical levels. Indeed, the incentives of officers responsible for decisions involving risk in a bank are influenced by the system of remuneration. This is part of the risk culture that encompasses policies, procedures and internal control systems in the bank with the aim of reducing excess. A good deal of work has been devoted to the links between the nature of the information, the remuneration system and officers' budget allocation. According to Ozerturk (2004) and Bernardo et al. (2001), the remuneration system affects officers' motivation (or otherwise). Performance-linked remuneration encourages officers to collect soft information. In the same way, Shen et al. (2009) find that Chinese banks that give more autonomy to their loan officers and implement performance-linked remuneration systems make more use of soft information as a criterion for SME evaluation.

So the organization must adapt itself to the nature of the information it deals with. In this way there is a double causality between the type of information and remuneration systems for SME loan officers. Banks that opt for a policy of relationship lending to SMEs have to include in their assessment systems the intangible nature of their information relating to SMEs. So as to minimize the risk of manipulation of this type of information, banks are bound to implement loan officer control systems. These are costly indeed, but also essential if the agents are to be encouraged to collect and produce the soft information necessary for adequate assessment of SME risk.

The process of collecting, processing and transferring information varies then, depending on organizational architecture. In the case of a bank, it is the intangibility of the information, the way it can lead to misunderstanding and the way it cannot be verified, which makes organizational modifications necessary. The remuneration system and particularly incentive rewards affect the degree to which small business loan officers are encouraged to manage soft information (Nagar, 2002). This motivation affects the quality of risk assessment and in turn SME lending policy.

CONCLUSION

One of the principal limitations of previous work on bank-SME relations is the lack of analysis of the decision-making process for granting loans. Our organizational approach described in this article, highlights the role of the mechanisms of organizational architecture in a bank as determinants of lending policy. This study highlights the role of the decentralization of decision rights, control systems and incentives mechanisms as determinants of SME lending policy. Thus, organizational architecture theory, the principal component of positive agency theory, constitutes a reference framework for the problem of SME funding. Several recent studies have tested the links between one of the components of organizational architecture and SME funding (Shen et al., 2009; Benvenuti et al., 2010; Beretta and Del Prêt, 2010) without considering the overall coherence of the organizational architecture.

Size, organizational complexity, ownership structure and geographical distance influence the mechanisms of organizational architecture. These links allow us to predict that any changes in organization will have consequences for lending policy. Seen from this perspective, it is clear that new prudential and accounting regulations, coupled with bank mergers and acquisitions, will affect the availability of bank funding for small businesses.

The external environment also affects the bank's organizational architecture. This point has not been addressed in this article. It would be interesting to clarify the effects of the external environment on the mechanisms of organizational architecture that are appropriate for SME lending. For example, Cotugno et al. (2013) found that a decentralized bank's choice between soft and hard information is influenced by economic conjecture. Indeed, a financial crisis can impact the loan assessment behavior of loan officers (Nielson and Öhman, 2012). Moreover, because of the widespread agreement about the importance of loan officers in the production of soft information, this study focuses on this agent. However, according to Hattori et al. (2012), focusing on the loan officer as the only player in this process is insufficient to study the relationship lending process. It would be interesting to extend the analytical framework through organizational architecture to other participants in the SME lending process.

Despite recent changes to the theoretical framework of organizational architecture, in our analysis we refer to the original framework. This is based on comparative statics which suggests that decisional choices have a number of universal features. Indeed, as it was originally formulated, agency theory and more particularly organizational architecture theory, propose a number of limits to explain organizational behavior concerning decisional choices. One of the principal limits is that decisional choices reflect static viewpoints and do not take into account the problems of knowledge creation. The more recent "enlarged" version of organizational architecture theory includes dynamic aspects of the decision-making process. The development of the REMM model (Resourceful, Evaluative, Maximizing Model) and its complementary model PAM (Pain Avoidance Model) proposed by Jensen (1994) hypothesizes that the individual is capable of creativity even when under constraint. This latest hypothesis gives the theory dynamics and enables it to go beyond its initial framework of comparative statics.

In view of this it would appear that the relationship between organizational architecture and the decision-making process is not unidirectional. This development of the theoretical framework makes it possible to explain the dynamic nature of the determinants of decisional choice by highlighting the two-way relationship between the mechanisms that make up an organization's architecture, and knowledge development and creation phenomena within decision-making process. This dynamic framework is not the subject of this article; we have restricted our analysis to the initial framework of positive agency theory, which specifies a unidirectional link between the mechanisms of organizational architecture and the decisional process. However, this dynamic approach remains a subject for further investigation; it might contribute to an explanation of bank lending policies through the use of both the tools of organizational architecture theory and those of knowledge creation theory.

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APPENDIX 1
BANK'S ORGANIZATIONAL ARCHITECTURE MODEL AND SME LENDING