

Measuring the start up costs in Brazilian small firms

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RESUMO

Mensuração de custos de abertura de pequenas empresas no Brasil

No estudo aqui relatado foram medidos o tempo e o custo para a obtenção de permissão para uma pequena firma operar legalmente na cidade de São Paulo. Para possibilitar o contraste com estudos similares conduzidos em outros países, escolheu-se uma amostra de firmas da área de confecção de roupas, a qual tem sido o padrão nesses estudos. Uma amostra de cem firmas foi entrevistada com base em ferramenta de coleta de dados desenvolvida pelo *Ronald Coase Institute*. Os resultados da pesquisa mostraram que o custo para obter a permissão de operar correspondeu, em média, a 10,9% do Produto Interno Bruto *per capita* e que a demora para conseguir o registro foi de, em média, 74 dias. Cerca de 30% das firmas obtiveram o registro em menos de 30 dias e 60% em até 60 dias. Esses dados diferem dos publicados pelo Banco Mundial, baseados em metodologia menos acurada. Os resultados da análise de regressão indicaram que a experiência anterior e o nível de renda da firma são negativamente correlacionados com o tempo para a obtenção do registro por ela. Não houve efeito de gênero ou de etnia na variável dependente.

Palavras-chave: abertura de empresas, ambiente de negócios, pequenos empresários.

1. INTRODUCTION AND OBJECTIVES

Studies aiming to measure the costs of starting new businesses are found in the literature as reported in Baanante, Seminario and Blondet (2003), Djankov *et al.* (2001), and Klapper, Laeven and Rajan (2004), contrasting international data. The World Bank project named “Doing Business Around the World” (2006) ranked countries in terms of the observed business environment. Figures show that the length to start up a new business in the city of

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São Paulo is 152 days, following 17 bureaucratic procedures, only shorter than Haiti, Lao PDR, Congo and Mozambique. Aware that Brazil has improvements to make, we consider that the figures reported by the World Bank do not reflect the reality.

The objective of this paper is to challenge the World Bank⁽¹⁾ findings by adopting a more accurate methodology to measure the start up costs, developed by the Ronald Coase Institute. Real, instead of hypothetical costs incurred by small firms are calculated considering direct fees and taxes, added to the opportunity cost of time of the entrepreneur. Our hypothesis is that the methodology adopted by the World Bank represents an oversimplification, overshoots the real magnitude of the start up costs and does not deal with the variability of the measured variables, particularly relevant in countries like Brazil. Secondary objectives are to evaluate the effect of variables as gender, ethnical origin, income level, previous experience, on the length of time to formalize the business activity.

The present study is part of a larger effort organized by the Ronald Coase Institute, which aim is to enlarge the economic potential for developing nations. Small businesses have been chosen due to the relevance for developing countries, and also because they provide a comparable measurement to the degree in which the society has developed tools to improve the business environment. Large companies, on the other hand, usually have specialized mechanisms to negotiate rights with the government.

This paper is organized in five parts. Following the introduction and objectives, the second part presents a theoretical digression on transaction cost measurement. Part three presents the methodology. Part four presents the results and part five concludes.

2. THEORETICAL REFERENCES

Transaction costs are defined as the costs associated to the definition and protection of rights (BARZEL, 1997, p.161). Entry costs are related to the negotiation of rights to formally operate a firm and it implies that entrance costs can be considered as ex-ante transaction costs since one can argue that high entrance costs might save in ex-post transaction costs. Therefore the costs related to obtain the right to formally open a firm can be treated as ex-ante transaction costs and they are considered as a measure of the business environment conditions⁽²⁾.

The literature shows the relevance of transaction costs but does not answer the question about how we should proceed in order to measure this variable. Measuring transaction costs has proven to be more difficult than testing hypothesis by applying the concept.

As stated by Coase (1988, p.13), transaction costs play a crucial role in the definition of how rights are allocated in the economy. Therefore in dealing with costs of transaction one

has to consider that what is really transacted is not a good or an object, but instead, a complex bundle of rights. Transaction costs, therefore, are the costs associated to the exchange and protection of rights.

Transactions have multiple margins and are bound by a set of formal and informal norms. They are also subject to measurement of costs and every change in property rights consumes resources. One of the difficulties in dealing with transaction costs measurement is to reduce a complex transaction into its measurable margins, controlling for the institutional environment. As stated by Eggertsson (1990, p.56):

- “New Institutional Economics main contribution to the economic literature is the addition of the structure of property rights and transaction costs. ‘However this is followed by an increase in the complexity of the analysis’”.

2.1. Measuring transaction costs

The literature of transaction costs measurement has at least two main branches. The measurement of aggregated transaction costs as developed by North (1984) is an example. The second branch is the direct measurement of entrance costs seen as ex-ante transaction costs as developed by Benham and Benham (1998), Gancheva (2000), Djankov *et al.* (2001), Zylbersztajn and Graça (2003), and De Soto (2000). The idea is to choose one or more relevant dimensions and develop a simple and replicable methodology to measure part of the costs of transaction.

Both branches are distinct from the transaction costs literature related to governance forms under which agents choose governance architectures that economize in transaction costs, which is predominantly discussed under the microeconomic scope. To test this hypothesis it is not actually necessary to measure transaction costs, but to contrast the efficiency of alternative governance modes and relate the characteristics of the transactions. Similarly, at the macroeconomic level the use of the concept is directed to the hypothesis of the logic of institutional change and the reduction of transaction costs.

The fundamental reason to actually measuring transaction costs relies on the effect that the institutional environment has on transaction costs, the definition and enforcement of property rights being the most important. This purpose fits into the literature of development and the purposes of public agents, development banks and international agencies.

There is at least one more incentive to measure transaction costs and it has to do with strategic design. Private and public agents might be interested in designing strategies in order to increase the efficiency of the market. If the players have an idea of the effects of specific institutional arrangements in enhancing their collective competitive power, they will have incentives to build transaction cost reducing mechanisms.

An obstacle found by the trials to measure actual transaction costs based on the definition of simple transactions is that

transactions are never simple, but are embedded in the social tissue of the society where they take place. Therefore to remove one single dimension from a phenomenon that is multi-dimensional in nature is an intervention that should at least be followed by *ceteris paribus* assumptions.

The removal of one or a couple of dimensions of a complex mechanism must consider the effects of the variables not being measured, either because they are too difficult to measure or due to the fact that we ignore their existence.

If the purpose is to provide comparable and simple measures, then the problem is magnified. When we choose one measurable aspect, say, entry costs, which is part of a complex phenomena, and compare, between different countries or even regions in the same country, then we are only apparently contrasting similar things. The isolated dimension of a complex transaction removed from the entire governance mechanism of support might not provide the same and comparable measure. This is one dimension not considered by the World Bank methodology.

Another relevant characteristic of the literature of direct measurement of transaction costs is the focus on ex-ante costs of transaction, ignoring the ex-post aspects of transaction costs. In doing that one might ignore relevant aspects and introduce a bias, since some governance mechanisms are built ex-ante in order to protect agents from ex-post transaction costs. A contribution of the literature to measuring transaction costs is to deepen the studies on simple and standard measurements. Choosing one simple case to depart from facilitates the development of research, but by no means represents a boundary for the methodology. In order to advance to more complex transactions the control of institutions seems to be a crucial step, especially if we want to contrast different countries. Above all the incentives for the direct trials of measuring transaction costs, the relation to institutional change must play the dominant role.

Goods and services provided by government include, among others, dispute solving mechanisms, contract enforcement mechanisms and entry regulations, being the last the focus of the present study. Doing business is a socially bounded enterprise and it is necessary to catch the deep nature of the society where the business is located, or planned to be conducted, in order to understand its institutional nature and performance.

3. METHODOLOGY

The methodology adopted in the study is based in four steps. First an analysis of the industrial organization of the garment industry, second a detailed case study carried to obtain an in depth analysis of the reality faced by small firms in the city of São Paulo, third, the analysis of the procedures to follow to open the firm and finally the use of the survey instrument developed by the Ronald Coase Institute to measure

ex ante start up costs. The comparative measurement of start up costs offers important clues for institutional improvement, being the fundamental objective of this study. Replicas of studies of this nature can offer insights on how costs change over time and among countries.

The methodology is basically designed to measure entry costs seen as *ex ante* transaction costs between the government and the private sector, namely the transaction to obtain the legal right to operate a new business. In that sense the study can be seen as an attempt to evaluate the environment for doing business. Distinctive features of the methodology developed by the Ronald Coase Institute are: measurement of real instead of hypothetical costs, measurement of the opportunity cost of time of different respondents of the survey. Previous studies considered one flat opportunity cost, which is less than a realistic measure. Also the study controls the size of firms, since large firms have specialized sectors to deal with the bureaucracy⁽³⁾.

A background study has been conducted, basically following four steps, namely: garment sector analysis, case study analysis, the procedural study of formal steps to start up a new business and a detailed descriptive statistical analysis based on the use of a survey applied to a sample of one hundred firms⁽⁴⁾. Contrasts among social groups and tests for differences in chosen variables have been reported, specifically the calculated versus the expected costs reported by the respondent, gender and ethnic origin.

3.1. Sector analysis

This step presents the characteristics of the garment sector in the country, including the number of firms, size, distribution, organizational design and how the production is typically organized. It is based on secondary data, particularly from official statistics and sector organizations of firms and unions. The choice of the garment industry is due to its relative homogeneity in terms of technology and due to it being an unregulated activity. This latter characteristic facilitates the international contrasts, which is the objective of the Ronald Coase Institute, and avoids the necessity to deal with governmental controls.

3.2. Case study

It follows the traditional case method (YIN, 1989) adopted in order to gather on — the — ground information on the business environment. In this study two firms were visited in the city of São Paulo, in the district of Bom Retiro. By establishing the case it was seen that it was a valuable step to shape the survey questionnaire, particularly to make the necessary adaptations from the standard questionnaire model to the local reality. Methodologically limited in terms of its capacity to provide generalized results, the case method is very impor-

tant to improve the knowledge of the real ground where the transactions are placed. The inclusion of a case in the methodology is justified by the importance placed by Ronald Coase in the details of the **real world**. It is not desirable to replicate a methodology without knowing particular elements of the society where the study is being carried⁽⁵⁾.

3.3. Procedural analysis

The formal rules are described in terms of the necessary steps to follow in order to formalize a new business activity. Since the Brazilian Civil law has been reformed in 2003, some changes were introduced in contrast with the study of Zylbersztajn and Graça (2003)⁽⁶⁾.

3.4. Survey

The city of São Paulo is a very large urban agglomeration of 17 million people (in 2002). The garment firms are widespread but some areas concentrate both the activity and specific ethnic groups. A sample of one hundred firms in the city of São Paulo was interviewed, restricted to the activity of garment production and marketing. The sample considered only firms with less than 19 employees operating for the last three years prior to the interviews.

Accessing the file of registered firms at the Commercial Board (*Junta Comercial*) data on the total number of registered firms was collected and a random sample of one hundred firms was selected. Interviews were conducted from September 8 to 25, 2003. Controls were made on the location, size, activity, gender of the owner and length of operation.

The survey instrument⁽⁷⁾ contains 46 questions basically capturing information about the firms' profile, when they started to operate (formally and informally), time to register, number of employees, entrepreneurs' personal effort in the registration process, ownership of the place of work, incentives to become formalized, exposure to bribes, sources of procedural information, opportunity cost of time of entrepreneurs, quality of public services, among others.

The costs have been reported in *Reais* and the results have been reported in terms of the percentage of *per capita* Gross Domestic Product (GDP), which is the standard measure found in the literature, being adopted by Stone, Levy and Paredes (1996), Djankov *et al.* (2001), Gancheva (2000), and Zylbersztajn and Graça (2003).

The start up cost (CAB) is defined as:

$$CAB = CESP + TAX + COP_1 + COP_2 + COP_3 \quad [1]$$

where:

CESP is the cost of the professional specialist eventually hired to help with the bureaucracy;

TAX represents the several mandatory fees;

COP_i is the opportunity cost of time of the three most important agents that have allocated time in the procedures.

The objective was to capture the direct costs added to the entrepreneurs' opportunity cost of time to negotiate with governmental agencies. Several methodological improvements have been made in contrast with the previous study, the most important being the measurement of the individual opportunity cost of time.

4. RESULTS AND DISCUSSION

4.1. Formal procedures to start up the business

Recent studies differ in the way to describe the procedures to start up a new business in Brazil. This is due to the variety of options available to the entrepreneur and to different local conditions. The formats available to incorporate a firm in Brazil are: limited liability companies (*sociedades por quotas de responsabilidade limitada*), cooperatives, and corporations (*sociedade anônima*). There are differences in procedures depending on the choice, which is related to the profile of activity performed by the firm. In the present case we considered the limited liability company with less than 19 employees. So our focus is on small family businesses.

Our approach considered the transactions to be carried out between the local entrepreneur and governmental agencies. As a first step the entrepreneur drafts and presents the social contract to the board of trade with authenticity recognized by a notary public. There are standard contracts available, which are waived in the case of small business. After that initial step, we found seven steps that are strictly necessary to legally start up a business in the garment industry. Before applying the survey, we contacted each of the relevant agencies, asking the expected cost and length of time to go through the formal procedures. Results are relevant since they can be contrasted with actual data raised in the interviews and contrasted with the World Bank results. Subsidiary steps have not been considered in our analysis. The procedures to incorporate a limited liability firm are described down.

• Procedure 1 — register at the Commercial Board (*Junta Comercial*)

The registered social contract is presented to the Commercial Board receiving the identification number of registration (*Número de Identificação no Registro de Empresas* — NIRE) upon the payment of a fee. The documents required to accomplish this step are very simple and available at the Commercial Board Office. If the electronic forms are correctly filled, it is expected to take five days to get registered.

• Procedure 2 — register at the Federal Tax Office

After step 1 is completed, then step 2 is the contact with the Federal Tax Office to obtain the registration number for firms (*Certificado Nacional de Pessoa Jurídica* — CNPJ). Since

2001 it can be done via Internet or using the express mail service. A temporary identification (*Documento Básico de Entrada* — DBE) is issued and the file must be sent to the Federal Office either by e-mail, by mail or through bureaus of representation. The process takes five to seven days to be processed. The Social Security number can be requested, being this procedure automatically made with step 2. Steps 1 to 3 can be made through the union of small business from the State of São Paulo.

• **Procedure 3 — register with State (local) Tax Office**

Having completed the previous steps, the proposal is checked in two to three days and the procedure is concluded in 15 to 20 days. Once concluded the id number (IE) is placed on the Internet. Therefore it is possible to have it concluded in just one visit to the office and the total expected time ranges from 17 to 23 days⁽⁸⁾.

• **Procedure 4 — permit to print invoices**

In order to formally start the commercial activities the invoice book must be printed. The activity is regulated by local tax authorities and takes up to five days to issue the permit at no cost. Once in hands the document can be printed at any licensed printing company.

• **Procedures 5 to 7 — permit of the City Office**

The permit to function is issued by the municipality and can be divided into three steps. Step 5 is the register in the file of the municipal building taxes (*contribuintes mobiliários*) and step 6 is the solicitation form to function (*termo de consulta de funcionamento*) and finally step 7 is the permission to operate. The procedures are related to the evaluation of the conditions of the building and the obedience to the norms related to conformity with urban regulations, environment and fire controls. The procedures are demanding in terms of inspections and usually they raise the necessity

of adjustments in the facilities. It is expected to take from 45 to 60 days to follow through the process.

The summary of procedures is presented at table 1. The total theoretical start up time is 77 days to follow through all the procedures. Most of the steps can be done electronically, so that with some experience and internet access it can be facilitated. However since the access to the web is still limited the facilitator plays a relevant role in all steps, from drafting the social contract to following all the outcomes from the agencies. Steps 1 to 5 are just formalities not followed by analysis. The real barriers are steps 6 and 7 which deal with the property rights restrictions imposed by law, including zoning and working conditions.

4.2. Survey results

Total sale of the garment industry in Brazil was of US\$ 16,4 billion in 2001, reduced from US\$ 20 billion in the previous year. The total number of registered firms in Brazil in 2001 was of 36,797 being 11,038 in the State of São Paulo and 6,136 in the city of São Paulo.

Small firms operating in the garment industry are part of a production chain characterized by several levels, with interconnecting formal contracts and informal agreements. The industry typically sells the production to small retail shops. The *sacoleiros* are a large number of informal trade-people who come to São Paulo to buy the products to be supplied to other cities. They represent an important channel, come from other states and are mostly of informal nature. In some cases the firms also operate small shops.

4.2.1. Descriptive statistics

Firms reported to have one or two partners and are incorporated as limited liability firms. The majority (62%) reported

Table 1
Reported Time to Formalize a Firm (Days)

| Time | Procedure | | | | | | |
|------------------------------|-------------------|-----------|-----------|-----------|----------|----------|----------|
| | 1 Registration | 2 CNPJ | 3 ICMS | 4 AIDF | 5 CCM | 6 TCF | 7 ACF |
| Spent time — Business Days | 0.5 | 0.5 | 0.5 | 0.5 | 1.0 | 1.0 | 1.0 |
| Accumulated Time Spent | 0.5 | 1.0 | 1.5 | 2.0 | 3.0 | 4.0 | 5.0 |
| Waiting Time — Calendar Days | 5.0 | 7.0 | 20.0 | 5.0 | 15.0 | 15.0 | 30.0 |
| Accumulated Waiting Time | 5.0 | 12.0 | 32.0 | 37.0 | 47.0 | 47.0 | 77.0 |

Observation: Each step demands a certificate known by the following identification:

- CNPJ = *Certificado Nacional de Pessoa Jurídica*
- ICMS = *Imposto sobre Circulação de Mercadorias e Serviços*
- AIDF = *Autorização para Impressão de Documentos Fiscais*
- CCM = *Cadastro de Contribuintes Mobiliários*
- TCF = *Termo de Consulta de Funcionamento*
- ACF = *Autorização de Funcionamento*

to have chosen the status of micro-business based on the easiness to deal with start up procedures and also for tax reasons. No firm reported to have other companies in the society.

The survey has shown that 62% of interviewees are in the first year of operation, 24% have up to 3 employees and we found no gender entrepreneurial predominance. Among the respondents 68% have reported to be 31 to 50 years old and 8% are between 18 and 24 years old, meaning that the activity is important for entrants in the labor market. It also indicated that 48% have higher education being 80% of Brazilians and 14% Koreans. A proportion of 23% of the respondents came from the Brazilian Northeastern states. The question on the number of employees revealed that in 68% of cases firms employ up to three family members and 46% reported hiring temporary workers. Most firms (80%) rent the building for the activity.

4.2.2. Start up process

The reason to be formal pointed first to the need to make formal contracts with retailers and suppliers, second to avoid fees and to conform to the law. Only a small proportion spontaneously agreed that the access to credit represents an incentive to become formal but above 50% of the respondents considered credit as a reason in induced questions.

Most of the respondents have operated informally for more than six months prior to completing all the required procedures. Answers about the length of time to start up the firm indicated that 32% of the respondents have taken up to 30 days to receive a legal status and 68% up to 60 days. In average it took 74 days to follow all the procedures to operate legally, close to the theoretical results reported at table 1. All respondents reported that the facilitator is necessary to follow the process indicating that the opportunity cost of time is relevant and also it matches with the information that part of the respondents started the operations before having completed all the procedures. Also the services of *Serviço Brasileiro de Apoio às Micro e Pequenas Empresas* (Sebrae)⁽⁹⁾ are reported for most of the respondents as a reliable source of information.

4.2.3. Quality of services, bribes, closing costs

No cases of lost documents have been reported, but in 20% of the cases the public agent did not met the dead-line. With respect to bribes, 40% of respondents affirmed to be possible to speed up the process by paying bribes but 90% affirmed that bribes are not essential to complete the procedures. No report has been made about any influence of gender, religious or ethnic affiliation. The responses indicate that the process to close the firm is more costly and complex than the start up procedures.

Complementary information indicates that firms are focused in the local markets and no export activities have been

reported. Previous experience in starting-up new firms has been reported by 58% of the interviewees.

4.2.4. Start up costs

Equation [1] defined how start up costs have been measured based on the facilitators' cost, fees, and opportunity cost of time of the entrepreneur. In 54% of the cases the entrepreneur allocated up to ten days in the procedures and also reported to have had previous experience. This information is relevant to calculate the opportunity cost of time allocated in the process.

Table 2 presents information on the start up costs. The specialists' compensation including fees is 8,44% of GDP *per capita*. The average time allocated by the entrepreneur in the process is 8,95 hours, which leads to 2,72% of the GDP *per capita*. The assessment of the measure was made through the question of how much time was allocated and several questions to approach the opportunity cost of time. The methodology considered not only the first entrepreneur but also a second and third, when applicable. In 18% of the cases a second person allocated time in addition to the entrepreneur and the specialist.

Table 2
Information on the Start up Costs — Textile Industry

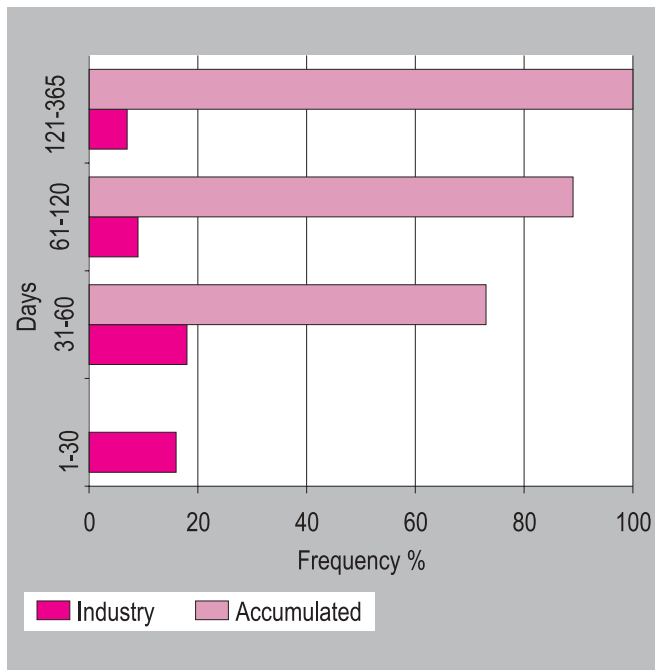
| Information | Start up Costs |
|-----------------------------------------|---------------------------------|
| Specialist cost plus fees | 8.44% of GDP <i>per capita</i> |
| Entrepreneur's time allocation | 8.95 hours |
| Entrepreneur's opportunity cost of time | 2.72% of GDP <i>per capita</i> |
| Perceived cost | 8.91% of GDP <i>per capita</i> |
| Value entrepreneur would charge | 8.92% of GDP <i>per capita</i> |
| Estimated total cost | 10.96% of GDP <i>per capita</i> |
| Average total time | 74.21 days |

We also wanted to know the interviewee's perception (estimate) about the start up costs. Two questions have been included to approach this value — one asked how much he/she would charge to offer the service. The second was a direct question on the perception of the total cost to carry the process. Table 2 shows the average answer as being 8,91% and 8,92% of the GDP *per capita*, which is very close to the total cost paid to the specialist, but ignoring the opportunity cost of time.

The total cost calculated based on equation [1] is of 10,96% of the GDP *per capita* and an average of 74 days. No significant difference has been found between sub-groups related to ethnic origin or gender.

The graph shows the distribution of frequency of the length to start up the firm. The data allows us to consider that in

above 30% of cases the firm can operate legally in less than 30 days and in above 60% up to 60 days.



Time Limit for the Conclusion of the Legalization Process of a Firm in the Textile Industry in the City of São Paulo in 2003

4.2.5. Regression analysis

In order to reach the secondary objectives of the study, we ran a regression to identify the effect of selected variables on the length of time to start up the business. Explanatory variables are the activity (industry or commerce), level of income, previous experience, specialist cost, nationality, whether the firm operated informally before completing all formal procedures, and level of education.

Results are presented in table 3 showing significant results for income, informal functioning and previous experience in closing a firm. It can be considered that functioning before all procedures have been completed imposes incentives to the entrepreneur to place effort to speed up the process and indicates a real commitment with the firm. Experience previous the formal start up indicates a learning process associated with the activity and also suggests that being informal exposes the business to the risk of bribes. Income shows that high opportunity cost of time leads to more effort to accomplish all procedural steps. The dummy variable related to previous experience captures the effect of the experience in closing a firm formally. The positive signal is different from what we expected, suggesting that we should deepen the analysis of the effect of experience.

Table 3

Ordinary Least Squares (OLS) Regression Results

| Independent Variable | Parameters | t |
|-------------------------------|------------|------------|
| β_0 | 101.60 | (3.26) *** |
| β_1 Activity | 15.73 | (1.54) |
| β_2 Income | -17.06 | (-2.54) ** |
| β_3 Informal Activity | -27.61 | (-2.03) ** |
| β_4 Facilitator Cost | 0.02 | (1.19) |
| β_5 Nationality | -4.50 | (-1.75) |
| β_6 Previous Experience | 33.92 | (1.99) ** |
| β_7 Education | 4.98 | (1.19) |
| Adjusted R ² | 0.162 | |

Notes: *** Significant for $\alpha < 0.10$
 ** Significant for $\alpha < 0.05$
 * Significant for $\alpha < 0.01$
 Absolute Value of t

5. CONCLUSIONS

Based on the Ronald Coase Methodology, a measure of the start up cost of small garment firms in the city of São Paulo was made. We found that seven procedural steps are sufficient to operate legally, five being related to the tax offices. Based on interviews with each public agency involved in the procedures we measured the theoretical time to start up a new business as being of 77 days. The average time reported by the respondents indicated 74 days, reasonably close to the theoretical value. Both measures differ substantially from the results published by the World Bank.

The total cost to start-up was calculated for the industry as 10,9% as percentage of GDP *per capita* which exceeds the perception of the respondents that was closer to the direct costs they paid to facilitators and fees, but seems not to include the opportunity cost of time.

Some relevant conclusions of the present study can be reported as:

- The business environment faced by small enterprises in Brazilian large urban areas is characterized by a high degree of informality, yet respondents reported that there are both advantages and costs of being informal. High bureaucratic costs and tax evasion are associated with the private benefits, while the exposure to fines, bribes, lack of definition of property rights, the impossibility to draw formal contracts, and difficult access to credit, are costs reported by the respondents related to being informal. More accurate government control and the insertion of small businesses in complex commercial networks points to the relevance of lowering the costs to formally register a new business.

- A facilitator is necessary in order to follow the procedures. It implies that the use of specialized resource leads to a better allocation of time. Large firms have their own lawyers or law departments that care for the procedures. Likewise small and family managed firms might contract specialized services to do the same activity.
- Previous experience and specialized bureaus like Sebrae are relevant to give support to small entrepreneurs. The number of procedures has been reduced and the authorities are increasingly motivated to cross information to avoid double efforts and to simplify the process.
- The results shown in this study recognizes that the business environment in Brazil can be improved in order to unlock the development process. Results also rises questions on the accuracy of the methodology adopted by the World Bank, designed to cover a wide range of countries but lacking close contact with local reality. Countries like Brazil and even

cities like São Paulo should not be approached as homogeneous areas. Variability is the rule instead.

This study has several limitations, mostly related to the access to information. The first is related to the high survey costs, limiting the coverage of a larger sample. Second the access to files of firms, since most data are on private domain. A third limitation is the access to informal firms, provided that there are not organized files to sample from.

As a result of the several studies carried by international organizations as World Bank and Ronald Coase Institute, local authorities have shown motivation to simplify the procedures to start up new businesses. A task force working since 2004 including federal and state agencies successfully collapsed some of the procedures by crossing information at different stages and also to allow for a temporary permit while the formal process of analysis is on the way. Both suggestions are aligned with our results. ♦

NOTES

- (1) For details see <www.doingbusiness.org>.
- (2) Zylbersztajn (2004) suggests that *ex ante* transaction costs might be a substitute for *ex post* transaction costs. In that case high ex-ante costs might not be a measure of inefficiency.
- (3) The report extends the analysis to include the commercial activity instead of focusing only on the industry, since both activities are strictly connected and both activities are regularly conducted in vertically integrated arrangements. This paper focuses only on the industrial activity.
- (4) For details see Zylbersztajn, Silveira and Faccioli *et al.* (2003). The survey instrument has been defined by the Ronald Coase Institute as a way to allow for international contrasts among countries. The questionnaire is available at the website of the Ronald Coase Institute (www.coase.org).
- (5) For details see Coase (1988).
- (6) Brazilian law follows the Civil Law tradition. The Civil Code that rules the commercial activity as is the case of starting up new companies, was dated from 1913 and the new version was approved in 2002.
- (7) Available upon request.
- (8) A task force is working in 2004 to simplify even further the procedures. One measure is to collapse steps 2 and 3 by linking the files of federal and state tax offices.
- (9) Sebrae is the service that supports small and medium size firms in Brazil. It is maintained with a share of taxes paid by firms.

REFERENCES

- BAANANTE, M.J.; SEMINARIO, C.C.; BLONDET, N.R. *The costs of exchange in Peru: the case of Peru*. Presented at the seminar organized by the Ronald Coase Institute, 2003, Chicago. Peru: Instituto Apoyo, 2003.
- BARZEL, Y. *Economic analysis of property rights*. 2 ed. Cambridge: Cambridge University Press, 1997.
- BENHAM, A.; BENHAM, L. Measuring the costs of exchange. In: ANNUAL CONFERENCE OF THE INTERNATIONAL SOCIETY FOR THE NEW INSTITUTIONAL ECONOMICS, 2., 1998, Paris. *Anais...* Paris: NIE, 1998.
- COASE, R.H. *The firm, the market and the law*. Chicago: The University of Chicago Press, 1988.
- DE SOTO, H. *The mystery of capital*. New York: Basic Books, 2000.
- DJANKOV, S.; LA PORTA, R.; SILANES, L. de; SHLEIFER, F. *The regulation of entry*. Discussion Paper Series, 2953. [S.l.]: Center for Economic Policy Research, 2001.
- EGGERTSSON, T. *Economic behavior and institutions*. Cambridge Surveys of Economic Literature. Cambridge: Cambridge University Press, 1990.

REFERENCES

- GANCHEVA, Y. *Rules and transaction costs in transition Bulgaria*. [S.l.]: Institute for Market Economics, 2000.
- KLAPPER, L.; LAEVEN, L.; RAJAN, R. *Business environment and firm entry: evidence from international data*. NBER Working Paper Series, WP 10380. [S.l.]: NBER, 2004. Disponível em: <www.nber.org/papers/w10380>. Acesso em: jun. 2004.
- NORTH, D.C. Government and the cost of exchange. *Journal of Economic History*, v.44, p.225-264, 1984.
- STONE, A.; LEVY, B.; PAREDES, R. Public institutions and private transactions: a comparative analysis of the legal and regulatory environment for business transaction in Brazil and Chile. In: ALSTON, L.J.; EGGERTSSON, T.; NORTH, D.C. (Ed.). *Empirical studies in institutional change*. Cambridge, New York, Melbourne: Cambridge University Press, 1996. p.95-128.
- WORLD BANK. *Doing business around the World*. Washington: World Bank, 2006. Disponível em: <www.doingbusiness.org>. Acesso em: jul. 2006.
- YIN, R.K. *Case study research: design and methods*. New York: Sage, 1989. 161p.
- ZYLBERSZTAJN, D. *Entry costs and quality of business environment: a critical analysis*. Paper presented at the conference on Transaction Costs organized by the Ronald Coase Institute, at the University of Chicago, 2004. Unpublished.
- ZYLBERSZTAJN, D.; GRAÇA, C. Los costos de la formalización empresarial: medición de los costos de transacción en Brasil. *Revista de Economía Institucional*, Colombia, v.5, issue 9, p.146-165, 2003.
- ZYLBERSZTAJN, D.; SILVEIRA, R.F.; FACCIOLI, F. *Ambiente de negócios no Brasil: medindo o custo de abertura de firmas na indústria de confecções*. Relatório Técnico. Estudo apoiado por Ronald Coase Institute, Associação Comercial de São Paulo, Serviço de Apoio às Micro e Pequenas Empresas (Sebrae) e Fundação Instituto de Administração. São Paulo: Pensa, 2003.

ABSTRACT

Measuring the start up costs in Brazilian small firms

This study measures the costs to obtain legal permission to operate small firms in Brazil. Small garment businesses have been chosen due to their relevance for developing countries, and also because the same sector has been studied elsewhere. One hundred firms have been surveyed using the costs of exchange survey instrument, as developed by the Ronald Coase Institute. The results show that the average cost to obtain the legal permission was 10,9% of the GDP *per capita*, that 30% of firms took less than 30 days and 60% took up to 60 days to complete the procedures and that on the average it took 74 days to follow the process. The results differ substantially from the results published by the World Bank which was based in methodology less accurate. Previous experience in the activity and income level are negatively correlated to the length. No gender or ethnic group effect was found.

Uniterms: start up costs, business environment, small business.

RESUMEN

Determinando el costo para abrir pequeñas empresas en Brasil

En este estudio, se han determinado el tiempo y el costo para que una pequeña empresa obtenga el permiso para operar legalmente en la ciudad de São Paulo. Con vistas a realizar un análisis comparativo con estudios similares conducidos en otros países, se escogió una muestra de empresas del sector de confección de ropas, que suele ser el modelo en dichos estudios. Las entrevistas, con una muestra de cien empresas, se basó en herramienta de recolección de datos desarrollada por el *Ronald Coase Institute*. Los resultados de la investigación señalan que el costo para obtener el permiso para operar correspondió, en promedio, al 10,9% del Producto Interno Bruto per capita y que se tardaron 74 días en promedio para la obtención del registro. Alrededor del 30% de las empresas obtuvieron el registro en menos de 30 días y el 60% en hasta 60 días. Dichos datos difieren de los publicados por el Banco Mundial, basados en metodología menos acurada. Los resultados del análisis de regresión señalaron que la experiencia anterior y el nivel de renta de la empresa están negativamente correlacionados con el tiempo para la obtención del registro. No hubo efecto de género o de etnia en la variable dependiente.

Palabras clave: apertura de empresas, ambiente de negocios, pequeñas empresas.