

## THE COMPETITIVE ADVANTAGES OF NUMERICAL FLEXIBILITY IN MICRO, SMALL, AND MEDIUM-SIZED COMPANIES IN MEXICO CITY

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### Abstract

Organizational flexibility is one of the competitive advantages that companies use to prepare for or adapt to environments in constant flux (Volberda, 1998). An important aspect of this phenomenon is numerical flexibility, also known as outsourcing, which refers to the capacity of a company to adjust its human resources to variations in demand. The central objective of this research is to quantify the economic benefits or returns for MSMEs that implement numerical flexibility in Mexico City, determine in which sectors, company sizes, activities, and boroughs it is applied most frequently, and identify the tax and labor regulations that govern outsourcing in Mexico, as well as to develop a theoretical-conceptual framework.

**Keywords:** Organizational flexibility, outsourcing, MSMEs, competitiveness, human resources.

### INTRODUCTION

Micro, small, and medium-sized enterprises have been the object of study from multiple angles and perspectives, thanks to their major capacity to create jobs and participate in the generation of wealth and development.

In the realm of academic research, various international (Guaipatin, 2003; Aragón, 2005; Comisión Europea, 2003; OCDE, 2002; Camisón, 1996) and national papers (Dussel, 2004; Suárez, 2001) have discussed, descriptively and explanatorily, the principal features of MSMEs and the general challenges they face, finding wide-ranging convergence among them. The reasons for these difficulties are both multi-faceted and structural, and can even be external—derived from market effects, the lack of financing, or international competition—or internal—such as the absence of a business culture that propels the productivity and competitiveness of companies, among other factors.

Currently, being competitive is vital for MSMEs to survive, as it is a sign of a company's capacity to anticipate and respond to contextual challenges (Camisón, 1997). To improve competitiveness, MSMEs need to adjust their strategies, organizational structures, and management techniques to

the dynamics of the current economic environment. However, many companies persist with a conservative attitude, waiting to observe how certain strategies will operate before making changes to their structures.

The competition between companies of different sizes constitutes empirical evidence. To survive in this environment, MSMEs have a series of advantages and disadvantages as compared to larger companies (Lafuente and Yagüe, 1998; Camisón, 1996). To compensate for their disadvantages, they must alter their competitive strategies or organizational structures to attain higher performance and success for the company (Fernández, 1993, 1995; Ansón and Piña, 1995; Álvarez and García, 1996; Luck, 1996; De Saa, 1998; Fernández *et al.*, 1996).

This study is theoretically and conceptually grounded in data from the Mexico City MSME Observatory (Ballina, García, Martínez, 2010), where a survey was administered to learn about the competitive advantages that impact company performance.

## THEORETICAL AND CONCEPTUAL FRAMEWORK

Human resources constitute one of the major factors that help explain business competitiveness. The knowledge, skills, and attitudes of employees are increasingly important for companies, because traditional sources of profit—technologies and products, markets, financial resources, and economies of scale—are less powerful than they once were (Pfeffer, 1994).

Organizational flexibility is defined as the capacity of a company to react by adapting to or anticipating the continuous changes that affect companies and organizations (Volverda, 1998). This flexibility is maintained by the organization having normally rigid, defined boundaries, which must infiltrate functions and jobs on hierarchical levels. Organizational flexibility is closely related to innovation and competitive success (Díez de Castro *et al.*, 2002).

In general, MSMEs have less hierarchical structures that allow them to respond more rapidly and efficiently to changes. Consequently, organizational flexibility is very closely tied to innovation and competitive success (Díez de Castro *et al.*, 2002). This means that the boundaries between hierarchical levels (vertical limits), and between functions and job postings (horizontal limits), must become more permeable.

One aspect to bear in mind with regard to organizational flexibility is *numerical flexibility* (Albizu, 1997), which refers to the capacity of a company to adjust its human resources to variations in demand. There are various components to this concept, including the flexibility of distance (workers with no employment relationship, such as people who are subcontracted, freelancers that work for

companies, etc.) and contractual flexibility (employees with temporary contracts, part-time contracts, interns, etc.).

The concept of organizational flexibility encompasses the capacity to adapt to change, which is extremely important in the increasingly globalized world in which we find ourselves. By the term organization (company), this paper refers to a system in which through the combination of capital and labor, that is, the employer and the employees, a certain purpose is sought. However, within this system, both the employer and the employees must be able to respond to change, which is not necessarily instigated by the employees, because on many occasions, they do not partake in the decision-making of an organization. The European legislation provides for the figure of employee representatives who must be consulted and can even negotiate the outcome of a restructuring process (Triomphe Claude, 2005), carried out to deal with economic challenges or safeguard competitiveness (Masquefa-Neau-Leduc, 200). "Restructuring consists of endowing an organized system with a new structure" (Sánchez Castañeda and Reynoso Castillo, 2011).

As already mentioned, organizational flexibility is tied to the capacity of an organization to adapt to a globalized environment, the need to diversify production, reduce costs, and ride out economic turbulence. Thus, the outsourcing strategy chosen by many companies consists of reducing the size of the enterprise and coordinating with other firms, so long as this choice is profitable. This permits a new type of company to emerge: smaller, better able to react, and only requiring a small core team to carry out its principal activities (Avilés, 2009).

According to Sánchez Castañeda and Reynoso Castillo (2011), outsourcing is not a legal term, but rather, above all, a strategic management decision made by a company, which at times touches both the core activities of a company as well as the environment in which they act. They also note that outsourcing is considered strategic when the following four elements are present: 1) The transfer of all or part of an activity previously handled internally, now conducted (usually) by external workers; 2) A much more detailed package than a subcontracting agreement; 3) A long-term commitment between the company and the supplier; and 4) A definition of the contractual benefits and obligations of each side (Bertan Quelín and Arrégle, 2000).

The concept of labor flexibility refers to the restructuring of the labor market and the increasing versatility of the labor process in the design of new job profiles and better adaptation to new technology in production. The International Labour Organization (ILO) defines labor flexibility as: "...the elimination, reduction, flexibilization, or adaptation of classic labor protections, with the purpose—real or presumed—of increasing the investment, employment, or competitiveness of the company."

Labor flexibility can be studied through various methodological dimensions, such as productive organization and human resources. The former generally draws on numerical flexibility indicators,

while the latter references personnel training and wage flexibility with respect to worker welfare. Carlos Reynoso (2009) asserted that the concept of labor flexibility constitutes a new term used by laborists to characterize the weakening or elimination of the standards that protect worker rights. Wage flexibility is based on automatic wage raises, in particular, through indexing or a sliding scale, which is also the overall trend. However, there is no base wage and as such no minimum wage in this system. This permits employers to pay workers only for the quantity they produce: this can be done through fees, commissions, piece rates, etc. Wage flexibility affects labor relationships because it directly impacts the economic factor—the wage—that a worker receives, which puts the worker at a disadvantage to the employer and contributes to the conflict that Marx described between capital and labor; in other words, the relationship between the employer and the workers deteriorates.

Outsourcing occurs when a company hires external organizations to carry out its own work; this entails receiving services from personnel who do not belong to the company, even if they work at the company's facilities or are subject to the same subordination. In English, this is a compound word, consisting of *out* and *source*, because companies resort to external or outside sources of services (Martínez Gutiérrez, 2008). The term outsourcing has been defined in many ways, and in the Spanish language, has various synonyms, such as words that would literally translate into *subcontracting* (*subcontratación*) and *third-partyization* (*tercerización*). However, all of these definitions agree that outsourcing is the process of transferring all or a portion of an activity or activities of an organization to an entity external to the organization.

Outsourcing has also been defined as an innovative management technique that consists of the transfer to third parties of certain complementary processes that are not involved in the core business of the company, so as to focus on the essential activities and achieve competitiveness and tangible results. One of the major concepts included in the above definitions of outsourcing, which is worthwhile to mention, is the aspect of externalizing the processes or activities of a company to other companies. But the principal reason that processes are externalized is to enhance productivity, reduce costs, and of course, extract higher profits, and the only definition of the ones described above that recognizes outsourcing as a strategy is given in the *Cambridge Business Dictionary* (2010).

Outsourcing entails benefits for the people who are subcontracted, such as: job creation (internal and external) through local subcontracting networks, maintenance of job posts (some jobs are maintained rather than created), salary raises, technology improvements and upgrades, additional clients (in some cases international), new projects, and the reduction of surplus capital.

The benefits reaped by the contractors are as follows: job creation (new lines of service focused on basic and specialized activities), maintenance of existing jobs, cost reductions, better competitiveness and business efficiency, increase and retention of market share (maintaining

market leadership, penetrating new market niches, launching new products in the market), access to raw materials, procurement of high-quality components or access to better technology, and higher value of the final project (Organización de las Naciones Unidas para el Desarrollo, 2004).

Outsourcing is a reality and it is inevitable. That is why policymakers must work to perfect the regulatory framework and implementation of outsourcing to guarantee worker rights. Even if it is a strategy employed by major companies to reduce costs, it is also a practice that MSMEs can use to support each other, and in this way develop in their respective sectors.

### **THE REGULATORY FRAMEWORK OF LABOR FLEXIBILITY**

At the end of the six-year presidential term of Felipe Calderón Hinojosa (2006-2012), the Mexican Congress approved a reform to the Federal Labor Law (LFT). This reform, known as the labor reform, aimed to stimulate job creation in Mexico. The principal points of the reform were as follows: Decent work. Integrate the concept promoted by the ILO to highlight the elements that must prevail in any type of employment relationship, such as respect for the human dignity of the worker, non-discrimination on the basis of gender, sexual preference, disability, race, or religion; access to social security; a remunerating wage; continuous training to increase productivity; workplace safety and hygiene; freedom of association; autonomy and union democracy; the right to strike and collective hiring.

The legislation provided for new hiring methods, such as trial periods, initial training contracts, and seasonal work, aiming to address the current needs of the labor market. These new hiring methods sought to bring more people under the umbrella of the formal economy and prevent job seekers from being rejected due to lack of training. The idea is that these hiring methods would be protected by written contracts; that the trial periods and initial training contracts could not be extended or renewed; and that all of the aforementioned methods could not be applied to the same worker, neither simultaneously nor in succession, nor on more than one occasion, within the same company or organization, to prevent the abuse of these new hiring methods. The concept of outsourcing was also defined for this purpose (art. 15-A LFT); service provision agreements must be made in writing (Art. 15-B); it also stipulates that the beneficiary of the services shall be held responsible for the economic solvency of the contractor and ensuring that the contractor complies with all social security obligations. The reform explicitly stipulates that employers and intermediaries shall be jointly and severally liable for the obligations entered into with the workers.

Article 15-D stipulates the following, verbatim: "Outsourcing shall not be permitted when it is done to deliberately transfer employees from the contracting party to the subcontractor to curtail labor rights; in this case, refer to the provisions of Article 1004-C and subsequent of this Act." Pursuant to the

foregoing, outsourcing is prohibited when it is done to reduce wages, pay fewer benefits, or enter into simultaneous contracts of a different nature, such as labor and civil or mercantile. Article 1004-C provides for a fine for companies who engage in the actions described in the aforementioned Article 15-D. The law states, verbatim: "Whosoever resorts to the malicious outsourcing of personnel, pursuant to the terms of Article 15-D of this law, shall be subject to a fine equivalent to 250 to 5,000 times the general minimum wage." With regard to the foregoing, we should bear in mind that the LFT is penalizing outsourcing when it is used as part of a tax strategy to reduce the amount paid in for social security contributions and other labor benefits. However, the fine stipulated in Article 1004-C is frequently insufficient, if we consider that in 2013, with a minimum wage for geographic region A of 64.76 pesos, the maximum fine would amount to only 323,800 pesos. Authorities should look into tying the fine amount to the quantity of contributions the company avoided paying by using outsourcing as a tax strategy to reduce company obligations.

Contractual flexibility permits the employer to hire individuals for a definite (rather than indefinite) time period; this practice gives employers the chance to quickly add labor when the demand so requires, and discard the labor when demand has fallen, without any additional cost of compensation or extra charge. The LFT makes no distinction between a contract and employment relationship, but it does distinguish between hiring methods. Article 15-A defines personal outsourcing as follows:

*Article 15-A.* Subcontracting is the system by which an employer referred to as the contractor carries out functions or provides services using its employees for the contracting party, whether a natural or legal person, who sets the tasks of the contractor and supervises the contractor as it carries out the services and executes the work that has been contracted.

In Article 10, the LFT describes the concept of the employer as follows:

*Article 10.-* The employer is the natural or legal person that uses the services of one or more employees. If the employee, pursuant to an agreement or by custom, uses the services of other employees, the employer of the former shall also be considered the employer of the latter.

But the LFT speaks of the concept of the representative of the employer, the replacement employer, and the intermediary, in Articles 11 and 12, which state, verbatim:

*Article 11.-* The directors, administrators, managers, and all other people carrying out management or administrative functions at the company or organization shall be considered the representatives of the employer, and in this regard, they shall be held responsible for its relations with the employees.

*Article 12.-* The intermediary is the person who hires or intervenes in the hiring of other people to provide the services to an employer.

*Article 13.*- Companies that contract work to be executed with their own and sufficient means to comply with the obligations derived from the employment relationship shall not be considered intermediaries, but rather employers. Otherwise, they will be jointly and severally responsible to the direct beneficiaries of the works or services, due to the obligations into which they have entered with the employees.

It is important to note that this very law already recognizes the existence of intermediaries in the labor relationship, which is directly related to outsourcing companies, and treats them in the same way as it does employers, by stating in Article 13 that they will be considered employers.

The concept of employee is defined in the LFT, which states the following in Article 8:

*Article 8.*- The employee is the natural person who provides to another natural or legal person personal work in a subordinated fashion. For the purposes of this provision, work shall be understood to mean any human activity, intellectual or material, regardless of the degree of technical preparation required for each profession or vocation.

With regard to employees in “a position of trust,” as they are designated in Mexico, Article 9 stipulates the following:

*Article 9.*- The category of employee in a position of trust depends on the nature of the duties carried out and not the designation given to the job title. Positions of trust include management, supervision, inspection, and oversight, when these are the general tasks of the job, as well as those related to the personal work of the employer within the company or organization.

It is exceedingly clear that what the LFT understands for employee relies on the concept of subordination. Subordination is understood as the situation when a person is subject to the orders, commands, or rule of someone else. It should be noted that the law refers to natural, and not legal, persons, surely because legal persons that provide services to other legal persons are service providers, and not employees.

The LFT defines work and the employment relationship in Articles 20 and 21, which state, verbatim:

*Article 20.*- The employment relationship shall be understood, regardless of the origin of the relationship, as the provision of personal work in a subordinated fashion, through the payment of a wage. The provision of work referred to in the first paragraph and the contract into which the parties enter produce the same effects. An individual employment contract, whatever form or name it may take, is that by which a person is obliged to provide to another person personal work in a subordinated fashion, for the payment of a wage. The provision of work described in the first paragraph and the contract entered into produce the same effects.

Article 21.- The existence of a contract and the employment relationship between the party providing the personal work and the party receiving it shall be assumed.

## STATE OF THE RESEARCH

Outsourcing in Mexico dates back to the 1950s, when the business sector foresaw the need and convenience of resorting to external and specialized services to reduce labor risks, as well as to save time and money on payroll management, financial burdens, and legal aspects.

In the 1990s, various business groups and consortiums began to use outsourcing, and thus emerged corporate services companies, which served the purpose of offering services to the various companies held by a single owner or to a business group. These corporate services companies were distinguished by the fact that they did not generate profit, and were generally set up as non-trading or non-commercial partnerships, a concept known in Mexican law as *Sociedades Civiles (S.C.)* (Cagigas, 2013).

Historically, outsourcing has been the result of the gradual trend towards specialization and globalization in modern society. There are examples of the practice as long ago as the Roman era, with the outsourcing of tax collection. Later, during the Industrial Revolution in England (eighteenth and nineteenth centuries), more concrete examples of what we nowadays call outsourcing began to appear.

However, it was not until the 1970s when outsourcing began to take off. The poor market confidence of those years as the result of negative business results, energy crises, etc. escalated with the 1980s crisis, which marked a change in business strategies, manifest in the desire of major corporations to focus in on a smaller set of activities. In contrast with the prevailing idea of the time that in order to be successful, companies should be vertically integrated and self-sufficient enough not to depend on suppliers, a new trend arose, pushing for companies to concentrate their efforts on the activities that constituted the core of their business and *move away from peripheral or supplementary activities to rapidly boost revenue*.

By this theory, there are value-enabling factors, value-originating factors, and value differentiation factors. Although all three are necessary to create value, the truly important phase is the latter. Pursuant to this theory, the authors justify, essentially, the outsourcing of the first type of factor (enablers) and, partially, the value-originating factors. Companies, however, should retain their core competencies as internal functions, that is, the value differentiation factors.

Since the 1990s, the outsourcing boom has only gained steam. The theory that was initially studied in university classrooms has definitively transcended academic circles, and companies have made



this method part of their business strategy. This trend also coincides with the information revolution, the advent of new communication and information technologies, and increasing globalization and rapidly changing consumer appetites. What was initially outsourced to companies located in the nearby environment (onshore outsourcing) can now be outsourced to companies located in such remote places as Asia, India, China (JI-FAN Ren, Steven, E.W.T. Ngai and Vincent Cho, 2010), Thailand, Europe, or Eastern Russia (offshore outsourcing), thanks to the rise of ever more powerful and accessible communication systems.

In recent years, the topic of numerical flexibility, also known as personnel outsourcing, has become very popular among business leaders and tax and labor experts and officials. The UNAM and other institutions have published various theses and research papers addressing the issue of labor flexibility, outsourcing, and the benefits companies reap from these practices (González Sánchez, 2003; Grijalva, 1995; Jiménez Vargas, 2000; Martínez Sánchez, 2011; Núñez Gutiérrez, 2003; Pérez Bernabé, 2005; Rosas Rodríguez, 2006; Lara Flores, 1997; Valencia, Arriaga, 2009; Viteri García, 2010; García, Gallardo and Ayón, 2012).

However, to date, few studies have included quantitative data about significant correlations between numerical or labor flexibility and profitability and productivity for MSMEs in Mexico City.

This research arises from the need to analyze real data regarding numerical flexibility in MSMEs in Mexico City, so that subsequent studies will be able to address the fiscal, financial, and economic impact of these practices on the employees of these companies.

## **RESEARCH METHODOLOGY**

As already mentioned, this research is part of a broader study, entitled the "Observatory for Micro, Small, and Medium-Sized Enterprises in Mexico City" (García, Ballina, and Martínez, 2011).

The data was collected by administering 983 surveys to MSMEs in the 16 boroughs of Mexico City. The surveys were given to the manager or director of the company, at firms with between 6 and 250 employees. The fieldwork took place between December 2009 and April 2010 and was the result of collaborative research work with the participation of Spanish universities in Cantabria, Murcia, the Polytechnic University of Cartagena, and the UNAM, sponsored by the Mexico City government. The survey was conducted by UNAM students from the Faculty of Economics.

The size of the company was defined by the number of employees, divided into three groups: micro-enterprises, small enterprises, and medium-sized enterprises.

Categories of Companies. Classification by Number of Employees  
*Mexico Official Federal Gazette*, February 18, 2005

<i>Size</i>	<i>Industry</i>	<i>Commerce</i>	<i>Services</i>
Micro	de 0 a 10	de 0 a 10	de 0 a 10
Small	de 11 a 50	de 11 a 30	de 11 a 50
Medium	de 51 a 250	de 31 a 100	de 51 a 100

The subjects chosen were drawn from companies with at least six employees. Thus, the company sizes for purposes of the study were as follows:

<i>Size</i>	<i>Industry</i>	<i>Commerce</i>	<i>Services</i>
Micro	de 6 a 10	de 6 a 10	de 6 a 10
Small	de 11 a 50	de 11 a 30	de 11 a 50
Medium	de 51 a 250	de 31 a 100	de 51 a 100

The objective of the study was to analyze the status of MSMEs, taking into account their strategies and principal competitive factors, including: organizational structure and human resources, technology indicators, quality and innovation, degree of ICT use, and various accounting and financial aspects, to determine the competitive strengths and weaknesses underpinning their performance.

The survey was structured into four sections. The first asked companies for information regarding how many years they had been operating, activity sector, whether or not it is a family enterprise, age and education level of the manager, number of employees and volume of sales, as well as destination markets for sales and origin markets for purchases.

The second section focused on management aspects. It included questions related to partnerships or cooperation agreements with other companies, and the existence or lack thereof of a strategic plan and strategy.

The third section introduced questions regarding human resource management, training activities, and the organizational structure. The fourth section asked companies about the technology, innovation, quality, communication equipment and information media, as well as accounting and financial aspects. Finally, the survey asked managers to share their opinion about the position of the company with respect to the competition, the importance of specific actions for future development, and the repercussions of certain problems for company development.

This paper focuses on the third section of the survey, which included questions about labor flexibility. Question 15 asks whether the company has engaged in either of the two following actions in the past two years: 1) Outsourcing of work to other companies or freelancers, 2) Hiring temporary or part-time workers or interns.

To measure performance, certain indicators built around the manager's perception of the company with respect to its competitive positioning were used, drawing on 12 performance variables from Quinn and Rohrbaugh (1983). 1) Quality of products or services, 2) Efficiency of internal operating processes, 3) Organization of personnel tasks, 4) Customer satisfaction, 5) Speed of adaptation to market needs, 6) Positioning of company image, 7) Growth in market share, 8) Profit growth, 9) Productivity growth, 10) Employee motivation/satisfaction, 11) Reduction in staff turnover, and 12) Reduction in absenteeism.

To evaluate the performance variables, a scale from 1 to 5 was used, where 1 = Completely disagree and 5 = Completely agree.

The variable under study is numerical flexibility, which is therefore the independent variable. Our dependent variables are the performance indicators with the name and label assigned to them in the Statistical Package for the Social Sciences (SPSS) for purposes of statistical calculations.

Through a statistical analysis of the behavioral differences between the variables being studied, and taking into account size, number of years of existence, and sector, contingency tables were used, applying the Pearson X<sup>2</sup> test to evaluate whether or not two variables were related. When the data so permitted, 2 x 2 matrices were used, making the results more powerful. Yate's correction for continuity was used for the Pearson X<sup>2</sup> test.

This research delves into the correlation between these indicators to determine whether or not companies of various sizes and sectors derive benefits depending on the degree to which they implement numerical flexibility, as well as whether these benefits vary by city borough. To do so, a representative sample of the business structure of Mexico City was generated for the various company sectors and sizes.

The company sectors included the following (SCIAN-2002): agroindustry: subsectors 311 and 312. Automotive industry: subsector 336. Transformation industry: sectors 31 to 33, except 311, 312,

and 336. Construction industry: sector 23. Commerce: sectors 43 and 46. Hotels: sector 72. Travel and booking agencies: subsector 5615. Transportation and communication: sectors 48 and 49. Information media: sector 51. Computational services: subsector 5415. Health services: sector 62. Leisure services: sector 71. Company, personal, technical, and professional services: sectors 53, 54, 55, 56, 61, and 81, except 5415 and 5615.

The overall design of the sample was grounded in the principles of stratified sampling in finite populations, drawing on companies with at least six employees in Mexico City, which amounted to 44,061 companies. The sample obtained after the survey process consisted of 983 companies, assuming a sampling error of 2.6 points with a confidence level of 95%.

## STATISTICAL RESULTS OF THE DATA

Table 1. Numerical Flexibility

% of companies that subcontract/outsources work to other companies or freelancers	26.8
% of companies that hire temporary or part-time employees or interns	40.8

Source: Created by the author.

Table 2. Subcontracting/Outsourcing of Jobs to Other Companies or Freelancers by Sector

<i>Variables</i>	<i>No (%)</i>	<i>Yes (%)</i>
Agroindustry	85.7	14.3
Automotive industry	81.3	18.8
Transformation industry	71.4	28.6
Construction industry	46.9	53.1
Commerce	84.9	15.1
Hotels	77.4	22.6
Travel and booking agencies	62.9	37.1
Transportation and communication	74.2	25.8
Information media	66.7	33.3
Computational services	57.5	42.5
Health services	70.0	30.0
Leisure services	73.2	26.8
Company, personal, technical, and professional services	65.4	34.6
TOTAL	73.2	26.8

Pearson  $\chi^2$ : \*:  $p \leq 0.1$ ; \*\*:  $p \leq 0.05$ ; \*\*\*:  $p \leq 0.01$ . Significance level=48.261\*\*\*

Source: Created by the author.

Table 3. Subcontracting/Outsourcing of Jobs to Other Companies or Freelancers by City Borough

<i>Variables</i>	<i>No (%)</i>	<i>Yes (%)</i>
Álvaro Obregón	76.9	23.1
Azcapotzalco	93.3	6.7
Benito Juárez	62.0	38.0
Coyoacán	66.7	33.3
Cuajimalpa	83.3	16.7
Cuauhtémoc	77.3	22.7
Gustavo A. Madero	59.7	40.3
Iztacalco	74.1	25.9
Iztapalapa	73.3	26.7
Magdalena Contreras	83.3	16.7
Miguel Hidalgo	59.2	40.8
Milpa Alta	93.9	6.1
Tláhuac	75.0	25.0
Tlalpan	80.0	20.0
Venustiano Carranza	87.9	12.1
Xochimilco	71.4	28.6
TOTAL	73.2	26.8

Pearson  $\chi^2$ : \*:  $p \leq 0.1$ ; \*\*:  $p \leq 0.05$ ; \*\*\*:  $p \leq 0.01$ . Significance level=50.833\*\*\*

Source: Created by the author.

Table 4. Subcontracting/Outsourcing of Jobs to Other Companies or Freelancers by Size of Company

<i>Variables</i>	<i>No (%)</i>	<i>Yes (%)</i>
Micro	80.3	19.7
Small	68.6	31.4
Medium	46.8	53.2
TOTAL	73.2	26.8

Pearson  $\chi^2$ : \*:  $p \leq 0.1$ ; \*\*:  $p \leq 0.05$ ; \*\*\*:  $p \leq 0.01$ . Significance level=39.455\*\*\*

Source: Created by the author.

Table 5. Subcontracting/Outsourcing of Jobs to Other Companies or Freelancers by Company Age

<i>Variables</i>	<i>No (%)</i>	<i>Yes (%)</i>
Young (less than 10 years)	73.0	27.0
Mature (more than 10 years)	73.3	26.7
TOTAL	73.2	26.8

Pearson  $\chi^2$ : \*:  $p \leq 0.1$ ; \*\*:  $p \leq 0.05$ ; \*\*\*:  $p \leq 0.01$ . Significance level=0.010 not significant

Source: Created by the author.

Table 6. Subcontracting/Outsourcing of Jobs to Other Companies or Freelancers

<i>Variables</i>	<i>No (%)</i>	<i>Yes (%)</i>	<i>Significance</i>
<i>Performance Indicators</i>			
Market share growth	3.08	3.40	15.053***
Profitability growth	3.04	3.25	6.172**
Productivity growth	3.27	3.63	18.417***

F-test (ANOVA): \*:  $p \leq 0.1$ ; \*\*:  $p \leq 0.05$ ; \*\*\*:  $p \leq 0.01$ . Likert scale: 1: Very unfavorable to 5: Very favorable.

Source: Created by the author.

## ANALYSIS OF RESULTS

Regarding the topic of numerical flexibility, companies in the sample were asked about both contractual and distance flexibility. As shown in Table 1, 26.8% of the companies had outsourced or subcontracted work to other companies or freelancers in the past two years; in addition, 40.8% of the companies had hired temporary or part-time employees, or interns.

Table 4 reveals that a greater percentage of small (31.4%) and medium-sized enterprises (53.2%) subcontracted or outsourced work to other companies or freelancers.

As Table 2 indicates, the sectors with the highest percentage hiring interns or part-time workers were construction (53%), followed by computational services (42.5%), travel and booking agencies (37%), and technical and professional services (34.6%), which were statistically significant. One example of the foregoing can be seen in the construction industry, where bricklayers are frequently hired only for the work they will actually do, and when the work is done, the employment relationship comes to an end (Domínguez Pastrana, 2013).

These results coincide with Table 3, where the highest percentage of outsourcing to other companies or freelancers takes place in boroughs where technical and professional service activities dominate: Miguel Hidalgo at 40.8%, Gustavo A. Madero at 40.3%, and Benito Juárez at 38.0%.

In Table 5, the relationship between outsourcing and company age was not statistically significant.

Finally, looking at performance indicators in Table 6, outsourcing led to higher productivity with a significance level of 18.417\*\*\* and an increase in market share of 15.053\*\*\*.



## CONCLUSIONS

In a globalized world, MSMEs have had to adopt various strategies to survive. It is clear that discrepancies in competitiveness and productivity depend above all on the capacity of an organization to learn, and this obviously includes its employees; labor flexibility constitutes a competitive advantage, and demands the participation of company employees, governance, and management, which is why it is important to measure variables that indicate productivity and quality of life.

The central objective of the study, which was to quantify the economic or performance benefits companies reap by implementing numerical flexibility in MSMEs in Mexico City, was achieved. This paper identified the percentage of companies and in what sectors, sizes, activities, and boroughs outsourcing is used most frequently; it also found some loopholes in the labor laws that regulate outsourcing in Mexico. In addition, this research introduced a theoretical framework and described the state of the art of the field, identifying the key concepts and variables involved in labor flexibility. This is an initial, cross-sectional research paper, which will serve for subsequent work to delve into the economic and fiscal impact of labor flexibility in Mexico using longitudinal studies.

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