AN APPROACH TO THE CHARACTERIZATION OF INFORMAL BUSINESSES IN MEDELLÍN

centro de estudios de la **empresa** Micro®

SPONSORED BY





PROANTIOQUIA









Introduction

Informal businesses, also referred to as shadow or underground economies, play an important role in developing countries as a source of employment, income, and economic and social development. Though poor statistical information and different viewpoints have made it difficult to study these economies, this has not deterred the characterization of informal businesses¹. The survey on Microbusinesses conducted by DANE (2016) points out that 27 % of micro-businesses in Colombia lack a PBR or Public Business Register ('Registro Público Mercantil'). Indeed, those not registered rank high among businesses having one or two workers in the main sectors. On the other hand, in terms of occupation, the numbers of self-employed and unpaid family workers are quite significant. While informal economies play a decisive role in an economy, the overall breach of regulations amount to high fiscal costs for society and may hurt the competitiveness of formal businesses (Cárdenas & Rozo, 2009).

Acknowledging the importance of informal economies with their pros and cons, four institutions - Proantioquia, Comfama, Interactuar and the Medellín-Antioquia Chamber of Commerce – joined to build and develop an institutional agreement which, through a Study Center (CEM), would lead to understand the role and scope of formal and informal micro-businesses for the economic development and production inclusion of the region. The purpose: To create effective and sustainability-based public-private activities.

To meet this purpose, one of the initial tasks of the Center was to determine and learn about the work done so far on this subject matter, and to build knowledge based on the information gained from all four institutions above mentioned. This paper represents a major contribution to the research made on informal economies in Antioquia, mainly fed by the information gained by the 'Crecer es Posible' program in the 2018 period - an initiative of the Municipality of Medellín in alliance with the Medellín-Antioquia Chamber of Commerce. The purpose of this alliance is to train informal businesses in communes and villages, where the highest unemployment rates and the lower business density indices are found.









¹ Defined as not having the Public Business Register.



Indeed, the purpose of this paper is to provide insights to broaden the knowledge and understanding of informal productive units in Medellín. This paper is divided into two chapters. The first chapter discusses the impact of informal economies under different definitions, the difference between exclusion and escape², and the characterization of informal businesses. Results underscore that the chance of being informal is higher if we use define informal businesses as those that lack a public business register).

Business informality is a last resort for individuals due to unemployment or labor market restrictions while formal businesses are more often established as a conscious decision by the entrepreneur after analyzing the costs and benefits of formality. Findings show that a business has increased chances of being informal if it is small, hires and sells small amounts, is managed entirely by a single individual, and if the owner has a low level of education.

The second chapter benchmarks formal and informal entrepreneurs, evidencing that formal entrepreneurs have more insights and capabilities. The last part of this paper provides conclusions.











² This distinction is made by the World Bank (2007) in which 'exclusion' is known as a need while 'escape' is defined as an opportunity.



1. Informal Businesses

1.1. Impact Based on Different Definitions

Drawing from the diagnosis made by the 'Crecer es Posible' 2018 program, information was gathered from 2,715 persons with businesses in operation while facts over business informality were detected and validated. This paper follows the definition of Schneider and Enste (2000) who stated that informal activities are all those legal activities made for the production of goods and services which are not registered with the authorities, and display the following characteristics: i) lack of a business registration; ii) lack of an accounting system; iii) no contributions made to social security; iv) no taxes paid; and v) no expenses made in licenses or business registrations.

To quantify the informality of each of the previous definitions, similar proxy questions were taken from the diagnosis. Results show that entrepreneurs lacking a PBR are 76,33 % of total, while 77,08 % lack an accounting system. The figures of 79,06 %, 81,31 % and 86,9 % correspond to no payment of taxes and contributions (health and occupational risks, respectively). Meanwhile, no expenses made in licenses are 78,22 %. *Table 1*.

A feature of informal production units is that they mainly share the traits of single-employee businesses. In this case, fixed assets and other amounts do not belong to the business per se but instead to their owners, and in many cases, it is impossible to tell the expenses assigned to the business and those which are simply normal expenses of the owner. Likewise, certain goods, such as buildings or vehicles, many be indistinctively used for commercial and personal use³.

That being said, the incidence of being a single-employee informal business was revised. This segment displayed the highest share in each of the definitions, indicating that informality is more frequent in one-person enterprises.

S P O N S O R E D B Y











³ ILO Resolution on labor statistics in the informal sector, adopted by the XV International Conference of Labor Statisticians. *1993.*



Table 1. Incidence of business informality as defined by Schneider and Enste (2000)

Definition of Informal Businesses	Status	All Businesses	Single- employee Businesses	
		9	6	
i) Business Register	Formal	23,67	14,63	
Is your business registered with the Chamber of Commerce?	Informal	76,33	85,37	
ii) Accounting	Formal	22,92	15,19	
Does your business have written administrative, or accounting processes?	Informal	77,08	84,81	
iii) Tax Payments	Formal	20,94	13,98	
Does your business have an Industry and Trade Registration?	Informal	79,06	86,02	
iv) Contributions	Formal	18,69	16,11	
would pay for their expenses? There were five alternatives offered: the SISBEN, they do not know who would pay for them, the employee would pay for him or herself, they are self-employed, and they are not registered.	Informal	81,31	83,89	
If one of your employees were to get sick today, who would pay for their expenses? There were five alternatives offered: the worker's compensation (ARL), they do not know who would pay for them, the employee would pay for him or herself, they are self- employed, and they are not registered.		13,1	4,96	
		86,9	95,04	
v) Registration expenses				
	Formal	21,78	3,22	
Depending on your economic activity, do you know the procedures and permits you need to operate your business? Two options were given: Those who do not know the procedures, and those who know them but do not follow them.	Informal	78,22	96,78	

Source: 'Crecer es Posible' 2018 program

Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)











Although the lower percentage of workers in the underground economy is found using the definition of PBR; this does not mean that, as a definition, it excludes others. This is why the conditional probability was calculated and the likelihood of being in the underground economy, using the other definitions, is higher with the definition of the lack of a PBR. *Table 2*.

	Given					
Likelihood of	Registration	Accounting	Industry and Trade	Proceedings	Health	ARL
Registration	1,00	0,84	0,95	0,75	0,86	0,84
Accounting	0,85	1,00	0,81	0,69	0,74	0,73
Industry and Trade	0,99	0,83	1,00	0,74	0,83	0,81
Proceedings	0,77	0,70	0,73	1,00	0,68	0,66
Health	0,92	0,79	0,85	0,70	1,00	0,84
ARL	0,96	0,82	0,89	0,73	0,89	1,00

Table 2. Conditional likelihood for the 'Crecer es Posible' diagnostics

Source: 'Crecer es Posible' 2018 program

Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

Another discussion about informal businesses refers to the difference between subsistence and opportunity, known as well as exclusion and escape. The former is the last resort for individuals due to unemployment or labor market restrictions. The latter is the result of a conscious decision by the entrepreneur after analyzing the costs and benefits of formality. (Cárdenas & Rozo, 2009).

According to Cárdenas and Rozo, who used DANE's motivation questions from the 123⁴ survey to deal with this differentiation, the question from the 'Crecer es Posible' diagnostics "What is the reason why you have your business today? was used as well as the answers thereof, to understand this differentiation in Medellin. For the exclusion analysis, the answer selected was "it is the only alternative to get an income", and for the escape, "the business is the result of a market opportunity, it is a family tradition, or for independence" were included.

Thus, the finding is that the reasons for exclusion are most representative, with 86.43 % among informal entrepreneurs, graph 1, and the reasons of opportunity are more frequent in the formal sector: 54.62 %. Graph 2.







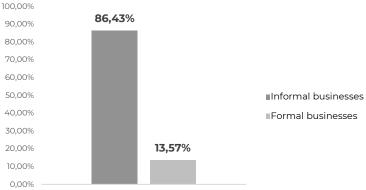






⁴ In 2001 and 2002, DANE conducted a measurement of the informal business sector using the "123 Survey" ("Encuesta 123"); a mixed survey carried out in three phases.

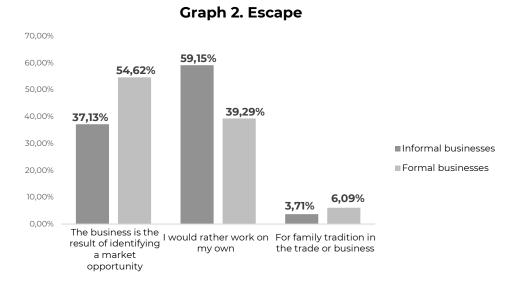




Graph 1. Exclusion

It is the only way to earn an income

Source: 'Crecer es Posible 2018 ´ Program Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)



Source: 'Crecer es Posible' 2018 Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

S P O N S O R E D B Y





comfama nteractuar







Although the above is true for informal entrepreneurs, there are major differences among them, which should be determined for a proper intervention. 'Crecer es Posible' developed a methodology⁵ that allows to classify informal entrepreneurs based on their vulnerability.

Graph 3 shows three groups. The first group shows the most vulnerable entrepreneurs: those with economic activities which barely help for subsistence, with very few sales, lacking a business vision, and unaware of the procedures to formalize them.

The second group, representing 66,34 %, comprises productive units that have been in the market for several years, which have gained experience and developed skills. However, their knowledge is not enough to take advantage of their opportunities. Lastly, the third group, displays a low level of vulnerability because of its potential. This group features good knowledge of its product(s) and market, good negotiation skills with clearly a defined operating and administrative structure, and a long-term business vision.

What stands out in this identification and classification is the design which is based on the needs of an informal business; while understanding that the most vulnerable could mean their disappearance.

S P O N S O R E D ΒY







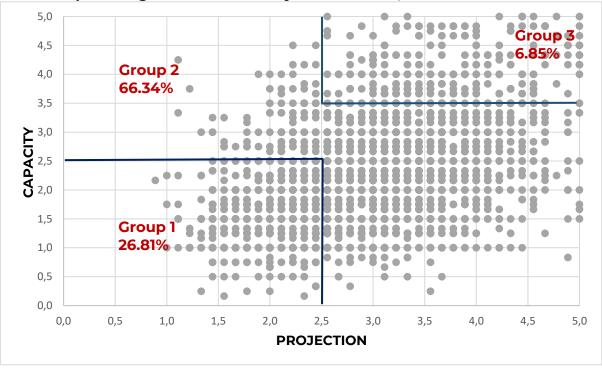






⁵ This methodology leads to assess the users' capacity and projection using a questionnaire divided into three modules. The first module is answered by all the users and is a characterization. The second and third modules are a series of questions intended to profile the entrepreneur and its business, and is answered by the users that stated, in the first module, that they had an on-going concern. Each question is rated on a scale of I through 5, to determine their classification.





Graph 3. Degree of vulnerability of a business, 'Crecer es Posible'

Source: 'Crecer es Posible' 2018 Program. Calculations: 'Crecer es Posible' team

1.2. <u>Characterization of informal businesses and their</u> <u>entrepreneurs</u>

This section shows an approach to the key elements of an informal economy according to available data. Although it is close to what really happens, it cannot be interpreted as a cause and effect relation since the correlation is merely based on information. A probit was used where the dependent variable is a dichotomous variable that equals one (1) if the business is informal and zero (0) if the business is not informal. Seven dummy variables were used as independent variables. The first three describe the age range of the individual to capture the effect of age. The fourth variable takes the value of one (1) if the individual has a degree equal to or higher than that of a technician. The fifth variable captures the self-employed individuals, and the sixth and seventh pertain to the size of the business, according to the number employees, where one (1) is for businesses with four or more employees, and for businesses with sales equal to or greater than \$3.000.000, which are equal to one (1).







The findings shown in *Table 3* indicate that none of the age groups is significant, unlike the others. This means that a business has a higher chance of being informal if it is small, hires few people and has low sales, is a single-person business, and if the owner has little education.

Table 3. Estimated business informality based on the diagnostics carried out
by 'Crecer es Posible'

Dependent variable: 1 if the business is informal						
	Description	Coefficient	Std. Err.	P-value		
Age_1	ls in the age range of 18_25	-0,0393144	0,1662	0,813		
Age_2	Is in the age range of 26_35	-0,0272797	0,1502	0,856		
Age_3 Technical or	Is in the age range over 35	0,0414933	0,1436	0,773		
higher	Last level attended is technical or higher	-0,2447033	0,0604	0		
Independ	Is self-employed	0,3705246	0,0638	0		
Sizel	Has 4 or more employees	-0,4281164	0,0988	0		
Size2	Sells three million pesos or more	-0,8509772	0,0818	0		
_cons	Constant	0,8412445	0,1492	0		

Source: 'Crecer es Posible' 2018 Program.

Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

2. Comparison of formal and informal businesses with an on-going concern

Public-private institutions responsible for business development in Medellin are fully aware that informality is not a deliberate action committed by the entrepreneurs or that it derives from illegal actions. On the contrary, in most cases, they exhibit the same pattern of micro-entrepreneurs with assets worth less than COP 5.000.000⁶. For example, their activities take place in the same areas and the same order (retail, services and industry), and most are a single worker. Hence, there is little job creation. Although these similarities exist, literature suggests that after resolving the gap between formality and informality, there is a tangible benefit for the entrepreneurs, the authorities, and the economy.







⁶ Data taken from CCMA's 2017 business database.



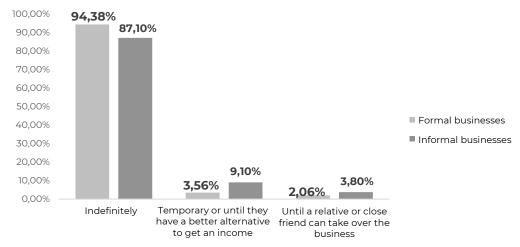
The purpose of this section is to compare informal and formal businesses in terms of projection and capacity, and to determine the incidence of formality on entrepreneurs.

A total of 2,030 entrepreneurs replied the question about the Public Business Register (PBR); 73.,5 % said that they did **Not** have a PBR while 26.50 % who said '**They did, renewed'**. For this exercise, those who replied they did not have a PBR will be defined as informal, and those that did not have the PBR will be defined as formal.

2.1. <u>Projection</u>

Motivation is a key element to set up an enterprise. As stated in the previous section, and what the literature suggests, motivation in informal businesses is a matter of exclusion. With the information available, an issue that is close to motivation was observed: the entrepreneurs' aspirations and priorities. In both cases, formal entrepreneurs seem to be more committed to having a business projection. However, it should be noted that even with those differences, the aspiration of informal entrepreneurs is not significantly different. *Graphs 4 and 5*.

Graph 4. Share of formal and informal businesses regarding the aspiration of having a business



Source: 'Crecer es Posible' 2018 Program. Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)



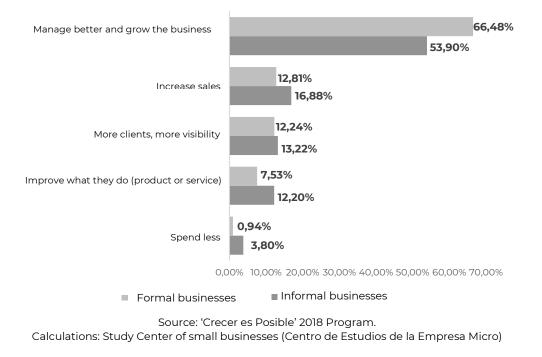












According to the UN National Accounts System (Rev. 4), household businesses are different from corporations in terms of their legal nature and the accounting system they use. As a rule, household businesses do not keep full accounting records to clearly set apart the activities of the business from the other activities of their owners. This makes it difficult to make decisions for growing the business.

This statement is valid for the knowledge and decision-making exercise based on accounting information. A total of 36.52 % of informal entrepreneurs reported not knowing about it, while over half of the formal entrepreneurs use that information to grow their businesses. *Graph 6*.



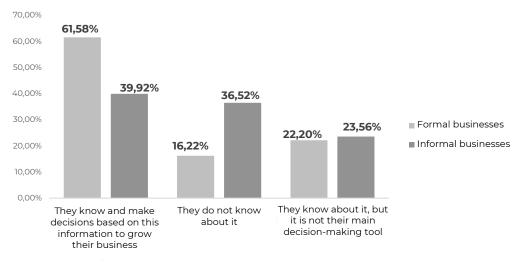






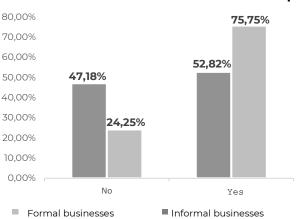


Graph 6. Share of formal and informal businesses in terms of knowledge and decision-making based on accounting information



Source: 'Crecer es Posible' 2018 Program. Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

Due to their education level, entrepreneurs probably lack knowledge on advanced financial and administrative matters to manage a business. However, and that is clearer in the case of the formal businesses, as shown in Graph 7.



Graph 7. Share of formal and informal businesses in terms of prior sales knowledge

PONSORED ВY



S



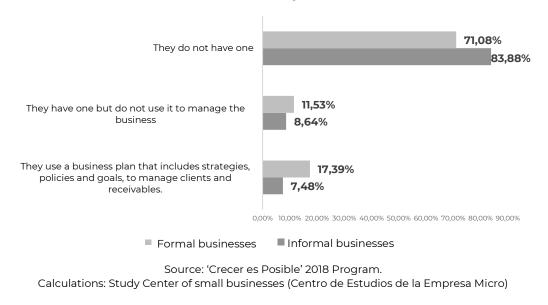


ERCIO

Source: 'Crecer es Posible' 2018 Program. Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)



In the world of business, especially in retail, there is the belief that the most important thing is closing the sale and the volume sold, regardless, in some cases, of the terms of payment. That belief is not always wrong as long as there is a business plan that backs such decisions. However, businesses usually rely on their intuition and not on a written plan. According to *Graph 8*, formal business people are more prone to use a business plan to grow their business. But the percentage of those who do not have one is exceedingly high in both cases. Therefore, this information is irrelevant regarding whether or not they are registered.



Graph 8. Share of formal and informal businesses in terms of having a business plan

Office automation tools are a set of computer techniques, applications, and tools used in offices or workplaces for task optimization, and are increasingly relevant when doing business. *Graph 9* shows that formal businesses have a better knowledge of both basic and advanced tools.

SPONSORED BY



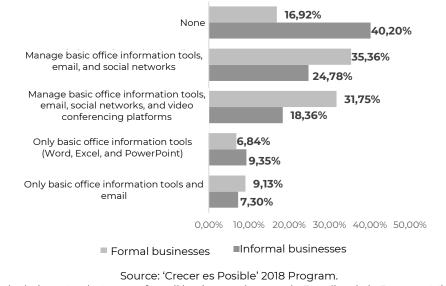






S

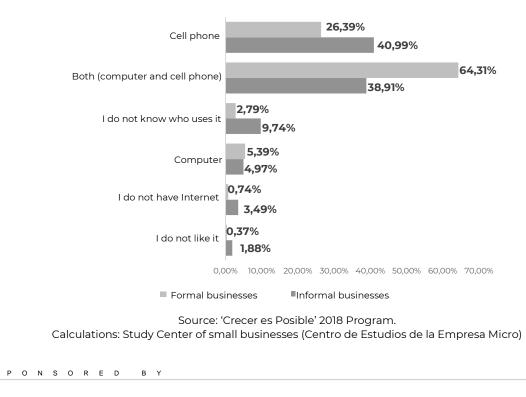
Graph 9. Share of formal and informal businesses in terms of the use of office information technology



Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

Moreover, the Internet and, therefore, the means used to connect, are increasingly important. In this case, formal businesses indicate more access to the media and better management thereof. Graph 10.

Graph 10. Share of formal and informal businesses in terms of the media used to connect



comfama

PROANTIOQUIA

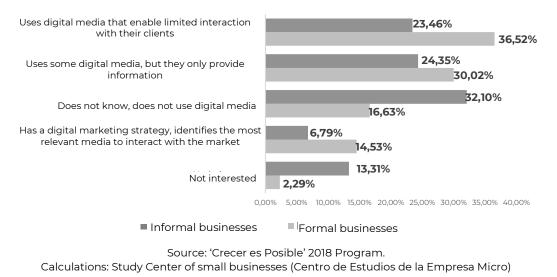






The use of digital media to manage clients and sales is an important marketing practice increasingly used by formal businesses. *Graph 11.*

Graph 11. Share of formal and informal businesses in terms of the use of digital media to manage clients



2.2. <u>Capacity</u>

Business informality features small production units, a lack of differentiation between production and capital factors, the creation of temporary jobs, and the lack of knowledge about official proceedings and procedures which often is not deliberate. This is clear with the figures shown in Graph 12 which show a lack of knowledge by the informal businesses; for the formal businesses, the number is representative, although 30.58 % said they knew and applied them.

SPONSORED BY





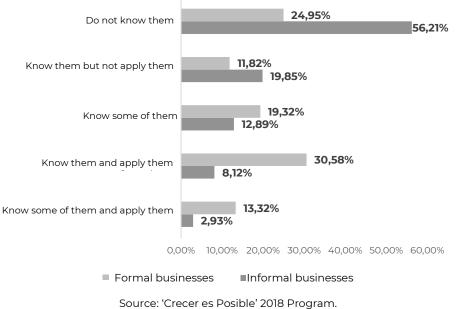








Graph 12. Share of formal and informal businesses in terms of knowledge of official procedures and proceedings



Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

Since the income for the home and the business are intermingled, savings become necessary. Graph 13 shows that formal businesses save more. However, being a formal business, this is not solely an administrative action but also an act of sustainability over time. This is why savings are key. In this respect, 31.23 % are more conscientious and use their savings mostly for reinvestment, capitalization or business improvement to ensure, somehow, they remain in the market. Informal businesses, on the other hand, are only concerned with subsisting. *Graph 14*.



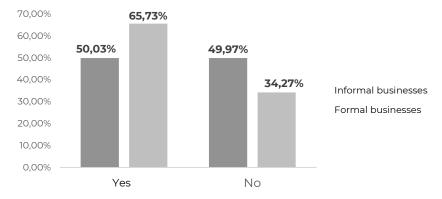






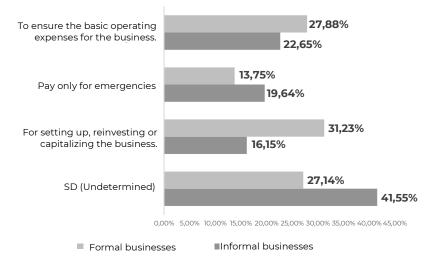


Graph 13 Share of formal and informal businesses in terms of statements about savings



Source: 'Crecer es Posible' 2018 Program Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

Graph 14. Share of formal and informal businesses in terms of the use of savings



Source: 'Crecer es Posible' 2018 Program. Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)



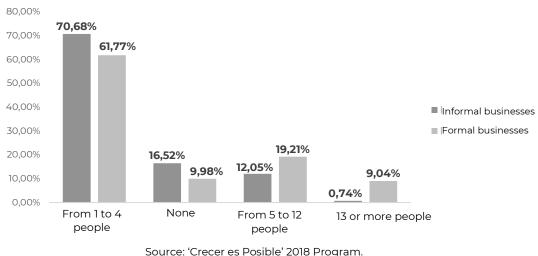








One of the features of informal businesses is that they are a subset of individual companies that belong to households. *Individual businesses that belong to households include single-owners and operated by one individual in a household or by several individuals from the same household*⁷. Given this setting, it is no surprise that there should be a relation between the dependence of the business' income and the income for members of the household. The study found that there are more persons that depend on the business in the formal business sector. *Graph 15.*



Graph 15. Share of formal and informal businesses in terms of dependence on business revenue

Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

A feature of informal businesses is self-employment and temporary employment. Consequently, the creation of jobs is a challenge. Graph *1*6 shows that formal businesses create more jobs and that most informal businesses are selfemployed.





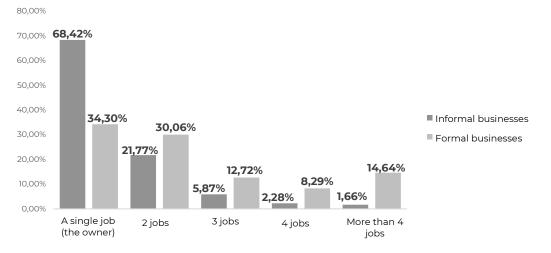






⁷ ILO resolution about employment statistics in the informal sector, adopted by the XV International Conference of Labor Statisticians. *1993.*

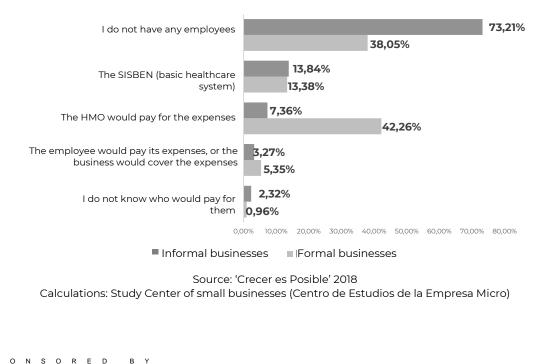




Graph 16. Share of formal and informal businesses in terms of job creation

The challenge of formal employability is to ensure, on the one hand, that the job is not temporary, and on the other, that it is a quality job. Although quality does not only mean making the parafiscal payments for the sector, such as enrolling in the Social Security program, it should be noted that, in this case, formal businesses represent the highest percentages in HMOs and Workers Compensation. Graph 17 and 18.

Graph 17. Shares of formal and informal businesses in terms of covering medical expenses for employees



PONSORED







comfama

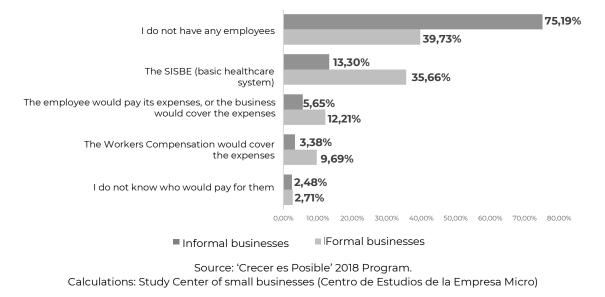




Source: 'Crecer es Posible' 2018 Program. Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

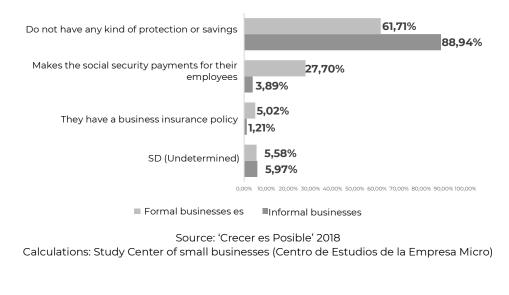


Graph 18. Share of formal and informal businesses in terms of coverage of employee accidents



Following the logic of the intent to protect the business and the employees, Graph 19 shows that 27.7 % of formal businesses make payments to social security and 5% have a business policy, unlike informal businesses which report 3.89 % and 1.21 %, respectively.

Graph 19. Share of formal and informal businesses in terms of protecting the business and the employees



SPONSORED BY









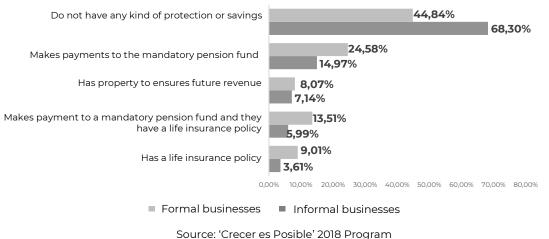






Although protecting the business and the employees is important, it is important to remember that in the informal sector, production units usually consist of relatives or close acquaintances, so protection through some method that produces an income is urgently needed. *Graph 20* shows that formal businesses use individual and family protection methods more often that informal businesses.

Graph 20. Share of formal and informal businesses in terms of individual and family protection



Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)

The first and foremost benefit of a formal business is its high sales level. A total of 21 % of formal businesses have sales levels above COP 5.000.000, compared to 2.8 % among informal businesses. In contrast, most of the informal businesses (62.40 %) do not exceed COP 1.000.000. Thus, those who decided to formalize their businesses gain more revenues. *Graph 21*.

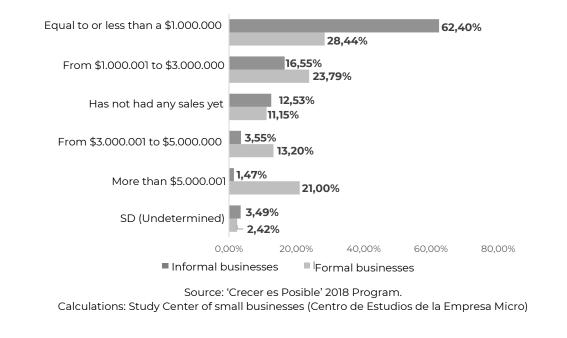








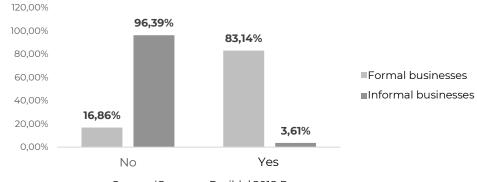




Graph 21. Share of formal and informal businesses in terms of sales levels

Formality benefits not only the entrepreneurs but also the public treasury because more taxes are collected. This is the case of the formal businesses in Medellín most of whom said they had their business registrations. *Graph 22*.

Graph 22. Share of formal and informal businesses in terms of having an Industry and Trade Registration



Source: 'Crecer es Posible' 2018 Program. Calculations: Study Center of small businesses (Centro de Estudios de la Empresa Micro)



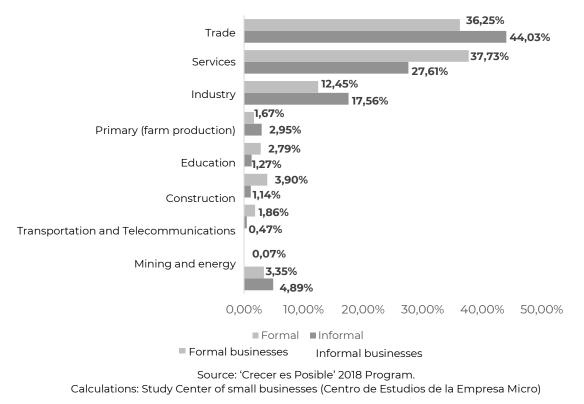








In terms of sectors, more similarities than differences are found. Both formal and informal businesses are in the main sectors —retail, services, and industry. Services has the highest share in the formal businesses. *Graph 23*.



Graph 23. Share of formal and informal businesses by sector











3. Conclusions

Although the term Informality has different definitions, the lack of a public business registration (PBR) is the most robust. This is why Chambers play a key role among informal businesses.

The likelihood of being an informal business increases with single-owner businesses. Thus, it is necessary to be clear on who they are and how they operate within their settings and in turn, to propose priorities and actions to help improve their situation in the market and their quality of life.

Although the results for formal businesses in terms of capacity and growth are higher than those reported for informal businesses, it is important to bear in mind that the informal still have unresolved issues: market stability, product and service innovation, user experience, etc. To make it easier to achieve a lasting formalization, CEM believes that a program should be set up to strengthen this population so it can be part of the market and of the value chain.

CEM also found that informal businesses, and formal businesses with assets under \$5M, carry out their activities in the same sectors and the same order (retail, services and industry) and most companies only have a single worker. In areas such as the use of business plans or the implementation of office automation methods, the differences are not significant. Thus, the proposal is to facilitate programs for on-going training and education, and to create a database for research purposes to intervene through specific strategies.

Job creation is lower in informal companies and companies with fewer assets, so the authorities should review their occupation policies so this type of unit can have a greater and better impact on these indicators.

Formal businesses are more likely to pay taxes. Therefore, the authorities should support initiatives that encourage formal businesses and design flexible tax policies for those who decide to follow the formal route.

Although most entrepreneurs choose to be informal for reasons of exclusion, that is not a reason why initiatives such as 'Crecer es Posible' should not develop relevant interventions. It is important to continue these kinds of initiatives and continue gathering information. The biggest challenge for the city in this aspect is to provide more spaces for training and to systematize the information derived from those spaces. That can be used to design appropriate strategies to help reduce the informality that hinders progress in the region's productive development policy.

S P O N S O R E D ВY











Bibliography

- Cárdenas, M., & Rozo, S. (2009). Informalidad empresarial en Colombia: problemas y soluciones. *Desarrollo y Sociedad*.
- F, S., & Enste, D. (2000). Shadow economy: size, causes and consequences. *Journal of Economic Literature*.
- OIT. (1993). Resolución sobre las estadísticas del empleo en el sector informal, adoptada por la decimoquinta Conferencia Internacional de Estadísticos del Trabajo. *1993*.

Comisión de las Comunidades Europeas, *Sistema de Cuentas Nacionales*, 1993, ISBN 92-1-161352-3, Bruselas/Luxemburgo, Nueva York, París, Washington.

DANE. (2016). Encuesta nacional de Microestablecimientos. Bogotá.









