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FINANCIAL INCLUSION AND SMALL BUSINESSES GROWTH

TESIS PARA OPTAR AL GRADO DE MAGISTER EN ECONOMIA APLICADA.
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RESUMEN DE LA TESIS PARA OPTAR
AL TÍTULO DE INGENIERO CIVIL INDUSTRIAL
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Las pequeñas y medianas empresas (PyMEs) representan la mayoría de los negocios en Chile. Por ello, el estudio de su rendimiento y crecimiento es vital para entender la realidad del mercado laboral y rendimiento económico chileno. Dos de los mayores obstáculos que las PyMEs enfrentan son la dificultad de obtener financiamiento y el manejo de sus finanzas, siendo la primera una de las razones principales que conllevan a que estos negocios se declaren en bancarrota.

Estudios previos han analizado el impacto de la posesión de diversos instrumentos financieros y productos bancarios en el crecimiento de las PyMEs y emprendimiento, con un casi nulo enfoque en la posesión de una cuenta bancaria, o con una muestras de pequeños tamaños acotadas a pequeñas zonas geográficas. En paralelo, han habido estudios que analizan el impacto de centros de apoyo a las PyMEs en el crecimiento de éstas. Esta tesis estudia la diferencia en crecimiento, medida como la variación en el número de trabajadores, entre empresas que poseen una cuenta bancaria con acceso a crédito y aquellas que no, sobre una muestra de PyMEs que asistieron a centros de apoyo que es representativa de las PyMEs chilenas. Esta tesis contribuye a la literatura al proveer un análisis del impacto de la inclusión financiera en las PyMEs sobre una muestra representativa de un país con una economía emergente, algo que es escaso en la literatura actual.

Para llevar a cabo este fin, esta tesis consideró una base de datos de 485 emprendedores de PyMEs que fueron clientes o potenciales clientes de los primeros 27 Centros de Desarrollo para Pequeños Negocios (SBDCs por sus siglas en inglés) en Chile. Los datos fueron recolectados entre 2015 y 2017 y consisten de una muestra representativa de las PyMEs chilenas. Este estudio implementó la técnica de diferencias en diferencias al asumir tendencias paralelas entre aquellos negocios que tuvieron la formación de los SBDCs y aquellos que no, junto con también considerar las características del jefe del emprendimiento, con el fin de controlar por factores demográficos relevantes. Sólo los individuos que recibieron la asesoría de los SBDCs fueron considerados en las especificaciones, esto para evitar posibles distorsiones en los resultados que se podrían generar debido al impacto positivo que la asesoría misma genera en las PyMEs.

Los resultados muestran que el poseer una cuenta bancaria, genera un aumenta en el número total de trabajadores, junto con el número de trabajadores formales, independiente de las variables demográficas del jefe del emprendimiento. Mediante la creación de submuestras, según cada variable demográfica, fue posible analizar cómo el impacto de tener una cuenta bancaria en el número de trabajadores fue amplificado o mitigado para cada segmento demográfico. En general, hubo un aumento en el número de trabajadores totales, de trabajadores de tiempo completo y de trabajadores formales asociados a la PyME, junto con un descenso en el númeor de trabajadores familiares no remunerados.

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Small and Medium Enterprises (SME) account for the majority of business in Chile. Therefore, the study of the performance and growth is vital in order to understand the reality of the labor marketplace and the economic performance of the country. Two major obstacles faced by SMEs are the difficulty to obtain funding and the management of their own finances, with the former being one of the main reasons for entrepreneurships to declare bankruptcy.

Previous studies have analyzed the impact of the possession of different financial instruments and banking products in the growth of SMEs and entrepreneurships, with little to no focus on the possession of a bank account, or limited to small samples in small communities. In a parallel manner, there has been studies that analyze the impact of counseling centers in the growth of SMEs. This thesis studies the difference in growth, measured in the variation of the number of workers, between enterprises that possess a bank account with access to credit and those who don't, over a sample of SMEs that underwent treatment from a counseling center that is representative of Chilean SMEs. This thesis contributes to the literature by providing an analysis of the impact of financial inclusion for SMEs over a nationwide sample of an emerging economy, something that was found to be scarce in the existing literature.

In order to do so, this thesis considered a database of 485 small business entrepreneurs who were clients or prospective clients of the first 27 Small Business Development Centers (SBDCs) in Chile. This data was collected between 2015 and 2017 and consists of a representative sample of Chilean SMEs. This study implemented a difference-in-differences approach that assumed parallel trends between individuals that underwent the formation that SBDCs offer and those who do not, while also considering the characteristics of the head of the entrepreneurship in order to control by relevant demographic factors. Only individuals that underwent treatment of the SBDCs are considered in the specifications, this was done in order to prevent possible distortions in the coefficients due to the positive impact that the treatment by itself generated on the SMEs.

Results show that the possession of a bank account generates an increase in the number of total and formal workers independent of the demographic variables of the head of the entrepreneurship. By creating sub-samples according to each demographic variable, it was possible to analyze how the impact of having a bank account in the number of workers was amplified or mitigated for each demographic segment. In general, there was an increase in the number of total, full-time and formal workers associated in the entrepreneurship and a decrease in the number of unpaid family workers.

A mis padres, por darme la mejor educación que pude tener
Y a todos los niños ¡Felicidades!

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Introduction

Entrepreneurship has become one of the most discussed topics in business in the recent years. Plenty of people, see in entrepreneurship a viable alternative from the typical path of being an employee in a company and also a career path that allows the entrepreneur to empower themselves by having a say in their business decisions. Among OECD countries, small and medium-sized enterprises, along with entrepreneurships, represent 99 % of all business, generate 60 % of employment and account for barely less than 60 % of the added value in the OECD area (OECD, 2019). In Chile, the number of micro-entrepreneurs[1] has risen from 1,812,708 to 1,992,578 between the years 2015 and 2017 (Ministry of Chilean Economy, 2018), which represents a 9.9 % increase from the 10.20 % of the population of the country in 2015 to 11.04 % of the total population of the country in 2017 (World Bank, 2019). The previous figures, indicate an explosive growth in the area, which seems to lend credit to the theory that understanding the Chilean entrepreneurship climate, can aid in the understanding of economic tendencies within the country.

A study conducted by the Association of Chilean Entrepreneurs[2](ASECH) indicated that among those surveyed, the biggest reason for entrepreneurs to have decided to initiate an entrepreneurship is due to the opportunity presenting itself, with 77.4 % of the surveyed pointing that reason as the principal cause; a figure that largely surpasses those who decide to undertake an entrepreneurship due to necessity (the second highest reason with 22.6 % of the surveyed). That is a very different reality than the one of those surveyed by the National Institute of Statistics (INE), where 57.9 % indicated that they started an entrepreneurship due to necessity and that 30.3 % started an entrepreneurship due to having the opportunity to do so (INE, 2017). The discrepancy in these figures, serves as an indicator of two different realities among the entrepreneurship climate in Chile.

Although the two studies appear to have conflicting tendencies, there is also common ground among them. The ASECH study, indicated that 41.7 % of the surveyed consider financing as the biggest hurdle that Chilean entrepreneurs have to overcome; in a similar regard, 43.3 % of the surveyed consider that lack of funds is the hardest part of starting an entrepreneurship and 83.4 % of the surveyed indicated that they had to recur to their own funds in order to start an entrepreneurship. In a similar vein, the INE study stated that 58.1 % of those surveyed had to recur to their own funds in order to start an entrepreneurship and that 16.1 % had to ask for credit or a loan; of the latter group, 47.1 % indicated that they had to recur to bank entities for financing. It is interesting to note that 76.2 % of the surveyed in the INE study indicated that they had never recurred to a bank credit in order to finance their entrepreneurship; out of those inside that group, 21.7 % indicate that they did

[1]This is defined as an entrepreneurship with less than ten workers

[2]This Association encompasses over 36.000 members as of December of 2019. They require a monthly fee from their members in order to provide benefits to them. The association is mostly focused in creating an entrepreneurs' network, representing entrepreneurs on a national level and providing education in how to properly conduct their business and on the laws that affect entrepreneurs.

not recur to a bank due to having an aversion towards asking for credit and 20.0 % believed that they would not be granted the credit. These figures, illustrate that a considerable group among entrepreneurs that require funding, have a pre-existing bias that prevents them from attempting to ask for it.

The values presented in the last paragraph, indicate that those that participate in the Chilean entrepreneurial landscape consider that obtaining funds is one of the hardest parts of starting an entrepreneurship, and that most of those that are starting, have to do so with their own funds. This implies that those who lack their own funds, face a bigger barrier of entry for becoming an entrepreneur. The previous argument is sustained by another figure of the ASECH study, which indicates that 13.1 % of those surveyed that had failed in a previous entrepreneurship, did so due to difficulties to obtain funds, the fourth highest reason behind .ºther reasons"(25.4 %), bad business administration (17.4 %) and lack of work capital (13.8 %). These tendencies are also present in OECD countries, where entrepreneurs find difficulties in identifying and attracting appropriate sources of financing. It is worth noting that bank credits are also considered the main source of obtaining funds in those countries, although many entrepreneurs are looking for alternate methods of obtaining proper funding (OECD, 2019).

All of the previous analysis, evidence two big problems with regards to the Chilean entrepreneurship climate. First, a lack of knowledge of how to administer the enterprise and how to obtain funding and the second is the difficulty of obtaining funds, which has a relation with the first problem due to certain entrepreneurs not understanding how to access those funds.

The first problem is, in a big part, covered by the Small Business Development Centers (SBDC). The SBDC iniciative consists of centers all along the Chilean territory that are supervised by the Technical Assistance Agency of the Ministry of Economy (SERCOTEC), whose specific goal is to promote job creation, formalization, and sales growth of small business and aspiring entrepreneurs through improvements to their business administration, access to capital, technology, and market penetration. This is carried out by providing free one-on-one, long-term consulting assistance to clients. A more detailed explanation of the SBDC program and of the data collected can be found on section 2.

This thesis aimed to explore the second problem by analyzing the growth of enterprises with access to a bank account, that are associated with the SBDC program, between the years 2015 and 2017 in Chile. The usage of the information of SBDCs was due to their success in aiding entrepreneurs to develop their entrepreneurships as supported by previous studies (Johan, Valenzuela, 2020), and due to the database containing a representative sample of the entrepreneurship reality of Chile, which is useful for finding general results and information about entrepreneurs in the country.

As a complement for the main objective, different specifications of the model were ran that considered demographic variables of the entrepreneur as well. This was done in order to understand how different demographic variables affect the possession of a bank account associated to the entrepreneur, and as an effort to understand if there were differences for the performances of the entrepreneurships that could be correlated to different demographic variables.

Although previous cited references consider access to financing as one of the problems that prevent the growth of entrepreneurships, this thesis used the access to a bank account in it's stead due to two reasons: the first one being the lack of responses in regards to actually receiving and asking for financing in the database, as shown in Table 2, and the second one being that having a bank account allows the entrepreneurship access to financing and also that it allows the entrepreneurship better control of their finances. Although the database contained entrepreneurs with bank accounts with access to credit and on-sight accounts, only entrepreneurs with a bank account that had access to credit were considered, since those with on-sight accounts did not have access to credit and, therefore, could distort possible results of the regressions.

The findings in this thesis suggest that access to a bank account enhances the growth of entrepreneurships associated to the SBDC centers, where growth is defined as the increase in the number of workers. This is consistent with what was expected, since, as mentioned in the previous paragraph, having a bank account can be considered as a proof of financial robustness that allows the business venture access to higher financial possibilities.

The structure of this thesis is as follows: the first section consists of figures and a brief explanation that allows the reader to better understand the Chilean entrepreneurial landscape, the second section focuses on explaining the SBDC initiative, it's reach and how it operates, the third section describes the empirical strategy used, the fourth section presents a general overview of the utilized data, the fifth section presents the main results obtained from applying the empirical strategy to the data and the sixth section describes the main conclusions.

1. The Chilean Entrepreneurial Landscape

In Chile, micro, small and medium sized enterprises account for 98 % of formal business ventures with reported sales and they give employment to 46 % of dependent workers. In spite of those big figures, they only amount to a 15 % of total income in the country. [3] [4] (SBIF, 2019). A common problem when SMEs apply for financing, is that the potential lender usually has a small amount of information about the enterprise and a lack of knowledge in regards to how the business will perform in the future, which in some occasions ends up preventing them for obtaining funding.

In regards to the Latin American and the Caribbean region, Chile has a high amount of business ventures sustained by financing: 78.0 % of SMEs in the country are financed by either bank loans or a credit line. A figure that differs greatly with the average of 49.1 % for the

[3] It is important to note that Chilean law, has a different definition of enterprise size than other countries. All of the business ventures that are considered within that group, amount to either less that 25,000UF in sales in the last calendar year (micro and small enterprises) or over 100,000UF in the current calendar year, but less than 25,000UF in the previous calendar year.

[4] A UF is a chilean monetary unit which accounts for 38.12 dollars as of the 29th of October of 2019

region; this is coupled with the fact that 47.4 % of enterprises in Chile use banks as a method for financing, compared with the 37.4 % in the region (SBIF 2019). The main conclusion from the authors of the previous study, is that Chile has more restrictive credit conditions than other OECD countries, but is more lax than other countries in the Latin American and Caribbean region. The previous figures indicate an entrepreneurial reality that is dependant on the relationship between banks and entrepreneurs, even more so than other neighbouring countries in the region. Other important conclusions from that study indicate that SMEs tended to have a limited number of financial relationships when compared to companies of a bigger size and, just as one could expect, SMEs tended to have a higher default risk and higher tendencies to renegotiate than their bigger size counterparts. The previous findings seem to give a clue as to why financing institutions tend to be more reluctant to provide banking accounts to SMEs than bigger sized companies, which creates the opportunity to posit a question: Would granting more access to banking instruments enable SMEs and entrepreneurships to perform better and, therefore, prevent their bankruptcy due to unpaid debts? The authors of the SBIF document, found that having more financial instruments may lead to higher debt. This last point is explained due to the ability of bigger sized business ventures to manage money outside of the banking system. The authors claim that government policies should focus on enabling higher financial development and on reducing costs of access to banking instruments for SMEs along with increasing competition in the credit offering segment.

A study conducted in Chile by Cancino and Bonilla (2015) indicate that SMEs financed by the Seed Capital Program (SCP) [5] see an increase in their number of workers, which can be used as a measure of their increasing success as a business, in part due to their ability to pay a higher number of salaries, and also due to the fact that they need to hire more personnel in order to maintain their service level.

In summary, the Chilean entrepreneurial landscape consists of a big number of small entrepreneurships that want to acquire funding. This funding is difficult to obtain due to various factors; among them, the existence of a bias against new business ventures, since there is a huge uncertainty about their future performances, and due to the overall difficulty in obtaining credits generated by requirements from the financing institutions and lack of knowledge from entrepreneurs. In order to compare a group of entrepreneurs with different degrees of possibility to gain access to a credit, the idea to compare entrepreneurs with a bank account to those without one is stipulated.

2. Small Business Development Centers Program

The SBDC program is an initiative originated in the United States in 1977 with the main objective of increasing employment, sales, and tax revenues among national SMEs. To achieve

[5] A subsidy destined to help enterprises initiate their economic activities and that is provided by SERCOTEC

its objective, the program provides current and aspiring small business owners one-on-one, long-term consulting advising free of cost and low-cost training services to their clients.

The program covers general business skills and strategy training, as well as client-specific problem-solving. This includes: business plan development, financial packaging and lending assistance, exporting and importing support and disaster recovery assistance among others. In the United States, the centers are funded in part through a partnership with the Small Business Administration (SBA) of that country.

The success of the SBDC program in the United States, encouraged the University of Texas at San Antonio (UTSA) to export the model to other countries. Since 2003, UTSA has been supporting and advising foreign governments on how to adapt, implement, and establish networks of SBDCs in their respective countries (Institute for Economic Development, 2017). So far, the SBDC program has expanded—or is in process of expanding—to several counties in different regions of the world, including Africa (Tunisia), the Caribbean (Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Jamaica, Saint Kitts and Nevis, and St. Lucia), Central America (Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Panama), North America (Mexico), and South America (Argentina, Chile, Colombia, and Peru).

In Chile, the program was established in October 2014 with the SBDC Certificate Training that transferred the SBDC methodology to local professionals. The initiative in Chile is funded by the Embassy of the United States which is located in Santiago of Chile and it's execution is carried out by SERCOTEC in a partnership with UTSA. The first center in Chile opened in the city of Valparaiso in October 2015.

Since the beginning of the program in the country, centers throughout the Chilean territory have rapidly expanded. With 51 centers by the end of the year 2018. The Chilean SBDC network represents one of the most comprehensive resources outside the United States for small business.

3. Empirical Strategy

Throughout this thesis, the change in the number of workers of an entrepreneurship is considered as the primary metric of interest in the analysis of the growth of the enterprise. This is based on the fact that, if parallel trends are assumed (meaning that the number of workers for those treated and those untreated would have evolved in a similar way in absence of the treatment), the difference-in-differences estimator is a valid way for identifying the causal effect of the program and would, therefore, indicate a significant difference between both groups.

Following the work of Johan, Valenzuela (2020), in order to mitigate self-selection biases associated with the inherent differences between those who seek treatment and those who do not, the fact that certain entrepreneurs enrolled at different dates was used. Therefore, those that are in the control group, are the enterprises that did not enroll during 2015, but

approached for enrollment during 2017. This provided control and treatment groups properly balanced on observable characteristics, and, considering that no matching techniques were used, also similar in non observable characteristics. This is further supported by the results presented on Table 2, which indicates that at the moment treatment began, entrepreneurships in the control and the treatment group do not have significant differences between demographic variables.

The model specification follows a difference-in-differences approach, also considering a fixed effect that prevents characteristics inherent to the entrepreneurship from distorting the results. The general specification is specified by the following equation:

$$Dependent_{\mathrm{i},t} = A_{\mathrm{i}} + \beta \cdot Year_t + \gamma Year_t \cdot Independent_{\mathrm{i}} + \varepsilon_{\mathrm{i},t} \tag{1}$$

Where $Dependent_{\mathrm{i}t}$ represents the dependent variable for enterprise "i" at the year "t", $Year_t$ is a dummy variable that takes the value 1 when the year is 2017 and 0 otherwise and $Independent_{\mathrm{i}}$ corresponds to a variable associated by the enterprise being studied, the variable A_{i} corresponds to the fixed effect exhibited by enterprise "i" that prevents omitted variable problems and $\varepsilon_{\mathrm{i},t}$ represents the error. This is a loosely defined specification that is altered throughout this thesis depending on the phenomenon of interest.

The first specification that was ran, was the one that related the impact of demographic variables and the passage of time in the number of workers, which was defined as:

$$Type\_of\_Worker_{\mathrm{i},t} = A_{\mathrm{i}} + \beta \cdot Year_t + \gamma Year_t \cdot Demographic_{\mathrm{i}} + \varepsilon_{\mathrm{i},t}, \tag{2}$$

Where $Type\_of\_Worker_{\mathrm{i},t}$ corresponds to either total, formal, full-time or unpaid family workers as specified in the Data section and demographic variables can represent any of the variables explicitly defined in the same section.

After studying the impact of the demographic variables in the variation of the number of workers, an effort was made to understand the impact of receiving credit in the growth of the entrepreneurship, this is done through the following specification:

$$Type\_of\_Worker_{\mathrm{i},t} = A_{\mathrm{i}} + \beta \cdot Year_t + \gamma Year_t \cdot ReceivedCredit_{\mathrm{i}} + \varepsilon_{\mathrm{i},t} \tag{3}$$

Where $ReceivedCredit_{\mathrm{i}}$ is a dummy variable that indicates whether the entrepreneurship received credit or not.

Following the previous specifications, the explicit impact of having a bank account on the increase in the number of workers was analyzed by running the specification:

$$Type\_of\_Worker_{\mathrm{i},t} = A_{\mathrm{i}} + \beta \cdot Year_t + \gamma Year_t \cdot Bank\_Account\mathrm{i} + \varepsilon_{\mathrm{i},t} \tag{4}$$

Where $Bank_Account$i is a dummy variable that indicates if the individual has a bank account during the year 2017. It is worth noting that in this case, that variable is denotated as $Bank_Account$i and not as $Bank_Account$i, t because the state of the bank account in the year 2015 did not affect the regression due to the interaction with the $Year_t$ variable. This same specification was ran again at the end of the thesis, with the difference that in that case, it was ran through sub-samples of the data that segment by demographic variables. This was done as an attempt to understand how the possession a bank account may impact differently on different subgroups.

A detailed explanation of the reasoning beneath each of the previous specifications can be found in the Results section. Unless explicitly stated, regressions were ran over the treated individuals. This was done in order to understand how demographic variables make an impact alongside those that are treated, since not conditioning the data to those that were treated could have caused the impact of the variable being studied to be distorted, since the treatment variable will inevitably manifest in the coefficient of the studied variable. Creating models where the treatment variable appears alongside the other variables of interest is possible, although those models are beyond the scope of this thesis.

4. Data

The database used in this thesis, consists of a survey conducted to 485 small business entrepreneurs-224 in the treatment group and 261 in the control group- who were clients or prospective clients of the first 27 SBDCs in Chile (Centers in the cities of: Arica, Iquique, Antofagasta, Copiapó, Vallenar, La Serena, Quillota, Independencia, Santiago, Valparaíso, San Bernardo, Melipilla, Santa Cruz, Talca, Cauquenes, Chillan, Cañete, Angol, Temuco, Valdivia, La Unión, Osorno, Puerto Montt, Coyhaique, Aysén, Puerto Natales, and Punta Arenas). The wide geographical area that was surveyed, prevents possible biases associated to the geographical distribution of those surveyed from arising.

The survey was conducted on a face-to-face basis in the dependencies of the participating SBDC centers. The questionnaire collected information on basic demographic characteristics, employment, educational history and enterprises' number of workers. The number of workers were segmented in four different categories: (1) total workers, (2) formally hired workers, (3) unpaid family workers and (4) full-time workers. [6] Although in the original database, each segment is further divided by the gender of the respondent into two different categories, this division is not considered for the purposes of this thesis, since gender is studied as a demographic variable.

In order to avoid the impact of outliers in future results and, following the recommendations of Rosen (1981) and Hamilton (2000), those enterprises with the top 1 % of workers were eliminated from the analysis. In addition to the variables that indicate the number of

[6] As the name suggests, total workers is simply the sum of the workers in the entrepreneurship. Formally hired workers correspond to workers with a contract. Unpaid family workers are workers that are relatives of the head of the entrepreneurship and do not receive payment for their services and full-time workers are workers that work full-time for the entrepreneurship (44 hours as of December 2019)

the different types of workers, variables associated with the banking characteristics of the entrepreneurs were also considered as descriptive statistics. The banking variables that were considered, correspond to the possession of a bank account, the use of personal funds to finance the entrepreneurship, the presence of unpaid debts at the moment of the survey, if the entrepreneur asked for a credit and if that credit was approved.

The previously described values at the start of the treatment are shown in Table 1. It is immediate that most of the variables have roughly the same number of observations except for the variable associated to receiving credit. The reason for such a difference is that the question associated with receiving credit was not mandatory in the survey, therefore, even though there should exist a response for those that asked for credit; most of those that answered positively to the previous question did not provide an answer for that one. In addition to the previous observation, some entrepreneurs may not have had a response for their credit solicitation at the time of the survey, which indicates that they could not provide either a positive or negative answer. It is also worth noting that the high mean of the own inversion variable supports the results indicated in the surveys described in the Introduction section.

Since, previous studies (Johan, Valenzuela, 2020) have shown that those who enrolled in the SBCD program have experienced a different growth than those who have not, a split between a treated and a control group was created. Although not explicitly presented as a variable in this study, it is important to note that since those treated experience an enhanced growth due to being treated, the regressions in this thesis only consider the impact of a bank account in that sub-group of the sample. This was done so that the coefficient γ associated to specification 4 explains the impact that a bank account generates for treated individuals, as opposed to what would have happened if regressions were ran across the whole sample, where γ would indicate the impact of a bank account for all individuals, but, that coefficient would be distorted by the inherent impact that being treated entails.

The treatment group was created by considering entrepreneurs that had enrolled in any of the 27 participating centers between October 5, 2015 (opening day of the first center in Chile), and April 30, 2016. In addition, only entrepreneurs who had an SBCD intervention of at least six months and a last follow-up consulting session that had taken place in May 2016 or afterwards were considered. Out of the 2,009 entrepreneurs that fitted the criteria, a nationally representative random sample of 285 entrepreneurs was surveyed and information on the number of workers was collected only for 224 entrepreneurs. For the control group, all entrepreneurs who applied to any of the participating 27 centers during June and September of 2017 were considered, although only 261 of the 709 surveyed had a business at the end of 2015. Considering that there was only info available on the number of workers for those 261, those came to be the control group.

Following the treatment of the variables associated to the number of workers and the definition of the different groups, came the treatment of the demographic variables. For simplicity purposes, all of the variables of interest were converted to a binary variable. This was done by considering where a cut-off on each value of the segment as the most probable to generate a different behavior in the sample. This also simplified models and interpretations

since, instead of considering each different possible value as a different category, an easier segmentation was proposed. The generated variables and their cut-offs are the following:

- **Gender**: Indicates if the entrepreneur is male. This separation was done by considering the existing literature that indicates a gender gap in entrepreneurship, namely Mitteness and Balachnadra's (2016) study of different access to financing by female entrepreneurs, Fareed's et. al, study of access to financial instruments by female entrepreneurs and Robb and Watson's (2011) study of the size of female's entrepreneurships.
- **Urban**: Indicates if the entrepreneur lives in an urban area. This separation was done by considering that those who live in urban areas, have access to a different availability of resources and different commuting times than those who reside in urban areas (Matus de La Parra, Salinas 2014).
- **Education**: Since high-school education is mandatory for students in Chile, the greatest cut-off is made for those that had the means and/or desire to continue pursuing a higher type of education. This variable indicates if the entrepreneur has finished high-school, is a university drop-out or has at the very least an undergraduate title.
- **Age**: Age can be considered as a possible factor that explains the development and success of the entrepreneurship, in one hand due to the inherent correlation with the experience of the entrepreneur and on the other hand, due to younger people having less restrictions (such as providing for a family or paying mortgage) which is supposed to enable them to take bigger risks such as initiating a business venture (Gielnik et al. 2018). Instead of using the well-known approach of considering that age impacts on a quadratic manner and including it in that form in the regression, a cut-off of the sample into five different age group was preferred. This was done in order to utilize the age groups as a binary variables, following the trend of the rest of the demographic variables. The age groups were split every 9 years, following the cut-off proposed by the Caracterización Socioeconómica Nacional (CASEN) survey[7] and following the indications of the Carrillo et.al (2018) that indicate the presence of differences between the numbers of entrepreneurs between each age group. The last cutoff is 54 years and not 65 (the age where men are allowed to retire in Chile), due to the low number of observations in that age group.
- **Partner**: Indicates if the entrepreneur was living with a partner (not necessarily married). This was done by considering that living with a person is very different that living alone, mostly due to expenses and self-imposed household rules. Özcan (2011) considers cohabitation and marriage as different entities, however, due to simplicity and the previously described argument, the decision to consider them in the same group was taken.
- **Children**: Similarly to the previous case, those with children have different expenses and time allocation than those who don't. Therefore, this variable indicates if the entrepreneur had at least one children. Although Kolvereid 2018 indicates a linear relationship between number of children and business ownership, the number of children is not considered since it is assumed that the biggest difference in terms of time allocation at the moment of raising a child is done on the transition from having none to having one.

[7]The CASEN is a socio-economical survey conducted on a national level by the goverment of Chile (Ministerio de Desarrollo Social, 2016)

- **Head of Household**: Those that are considered the head of their household are expected to have different responsibilities than those who don't. Therefore, considering how they may manage their time in a different fashion, a decision was conducted to split them into two groups.

A summary for the frequency of different values in those variables and the results of various mean differences tests among the variables can be found in Table 2. Overall, the treatment and control groups are similar in terms of the means of the variables, excepting variables that are not included in the study and the age group between 45 and 54 years. In order to provide completeness for this thesis, regressions with that age group are included, but are not expected to be used for conclusions due to the imbalance between both groups.

It is also worth considering the demographic differences between those with and without a bank account. Table 3 showcases that there is not a significant difference inside the group of treated individuals, which implies that there was not a considerable difference between those that decided to underwent treatment and those who did not in terms of already having a bank account open, which implies that the growth in bank accounts for those treated can be attributed as part of the treatment, and not due to an inherent factor of those entrepreneurs. Significant differences were found between those that are male, those that have higher education and those that are heads of their household. These cases are not impressive if one considers that, in general, males face fewer barriers of entry in order to open a bank account, those with higher level education are more attractive clients for banks due to their higher wages and that heads of households have a need for a bank account since they need a higher control over their finances.

If one considers the data collected by the survey, an argument could be made for the usage of reported sales as a method to measure growth of the enterprises. However, since that was a self-reported value, and there was no access to each entrepreneurship' financial books, there was no way to prove that those are indeed real numbers. This lead to the decision to eliminate reported sales from the analysis in order to prevent possible biases.

In order to avoid measurement errors, it is worth reiterating that the data collected by the survey was done on a one-on-one basis and with a informational website containing a detailed tutorial video. This video showed the instructions for how to properly conduct the survey and was shown to the center's staff prior to the collection of data, which aided in mitigating possible errors due to possible misunderstandings of the instructions.

5. Results

A first approach towards the database was conducted by running the model described by specification 2 for each type of workers and for each demographic variable, conditional to the individuals being treated. This was done in order to understand how an entrepreneurship receives a boost or a reduction in the number of each different type of workers in the presence of these variables. Due to simplicity purposes, only regressions with significant results are shown.

The results of this first approach are shown in Table 4. It is immediate that, among treated individuals, having children boosts the number of total workers by 0.727 on average and of the number of full-time workers by 0.515, with both of these coefficients statistically significant at the 5 % level. These results makes sense if it is considered that an entrepreneur who has children has a need to obtain higher economical returns in order to provide for the extra expenses that entrepreneurs without children do not have to cover. Although having children has a negative effect in the amount of time available to work on the entrepreneurship, and one could expect that the growth of the business would diminish in the presence of kids, it is also worth noting than having less time to take care of business can work as an incentive to be more efficient and to make better use the available time. This interpretation translates into the need to hire more workers which would explain this positive trend. Following the former argument, one could point out that the increase consists of full-time workers due to the entrepreneur needing a constant presence in the entrepreneurship; which is done in order to cover for possible sporadic absences related to taking care of their children, specially in the case of very young children. Unfortunately, the survey does not contain information about children's age, which does not allow this thesis to study in further detail the underlying reasons for this increase in the number of workers.

After testing the impact of demographic variables, the results of running specification 3 were analyzed. Table 5 shows how receiving credit translates in a variation of the number of workers among treated individuals. The relevant coefficient. is the one associated with formal workers, with a positive impact of of 0.733 at the 5 % significance level. This can be rationalized by considering that entrepreneurships that have received credit, can afford to pay higher wages and tend to have more resources to invest and generate higher economic returns than those that do not receive them. Following the previous rationalization, the formal hiring of workers seems a viable path for the entrepreneur to provide a higher level of stability to their employees. It is worth noting that the number of observations for this case is considerably smaller than the previous analyzed case, due to the relatively small number of answers for the receiving of credit. Therefore, this result should be only considered as a possible guideline and not as a robust conclusion.

In order to understand the impact of a bank account in the growth of the entrepreneurship, specification 4 is ran throughout all treated individuals. Table 6 indicates that having a bank account increases the number of total and formal workers by coefficients of 0.554 and 0.531, with a significance of 5 % and 1 % respectively. These numbers make sense if one considers that the bank account allows for better finance control of the entrepreneurship, is a symbol of higher financial solidity than those ventures that lack that possibility and allows the entrepreneur access to credit. Although not significant, the impact of the bank account on unpaid family workers is negative, which lends credit to the notion that having a bank account moves the workforce from unpaid family workers into other type of workers. This is understandable if one considers the bank account as a symbol of financial stability which allows entrepreneurs to stop relying on family members and give them the possibility to hire personnel with capabilities similar to those that are required for the position.

As a final approach, in order to understand the impact of the bank account in the increase in number of workers among the treated individuals, specification 4 was ran again, but with the difference that the treated individuals were segmented according to their demographic

variables. This process was conducted for each type of worker and generates the tables presented from Table 7 until Table 14. It is worth noting that sub-samples that consider the age group of the entrepreneur are not presented, since they did not provide any significant values for any type of worker. An important element to consider is that, although this results provide valuable information about the impact of the bank account in the growth of the entrepreneurship, they also suffer a reduction in the number of observations, which may imply that when conducted on a higher sample size, the coefficients may vary accordingly. Nonetheless, these coefficients work as a guideline for guiding future studies and for corroborating expected behaviour.

For total workers, Tables 7 and 8 show that having a bank account has a positive impact among males, heads of household, those without higher level education, those with a partner, those who live in urban areas and those with children. The coefficients for these variables are: 0.753, 0.557, 0.993, 0.736, 0.519 and 0.549 with a significance of 10 % in the first case and of 5 % in the rest. The results are consistent with what is expected since those that are heads of their household, tend to have higher responsibilities, and therefore, a skill-set of abilities that they must develop in order to successfully lead their household; this characteristics, combined with the financial stability or access to credit that a bank account can provide, imply a higher degree for success for the business. Those without higher level education have a tremendous benefit in comparison to their peers, specially if one considers that not having a higher level education, in most cases, leads to lower levels of income and of underdeveloped skill-sets; for those cases, having a bank account is a differentiating asset by allowing them access to credit and higher financial control. For those that do not have a partner, the increase in number of workers can be explained by considering that those with a bank account in that demographic group may have more time to dedicate to the business and therefore have a necessity to hire in order to enhance the venture's growth. The variable being significant in males and not in females can be explained by considering the differences in access to a bank account between both genders (SBIF, 2019). Since males have an easier time opening a bank account, it seems that those who do not have one are in a large disadvantage, and therefore do not enjoy a boost in number of workers as their counterparts. This last argument may also explain the impact of the variable among individuals in urban areas.

For formal workers, Tables 9 and 10 show that having a bank account has a positive impact in all of the demographic sub-samples, except for those that do not have a partner and those that do not have children. This can be explained by considering that having a bank account, can be seen as a symbol of financial stability and of higher financial accountability for the entrepreneurship. Therefore, independent of the entrepreneur characteristics, the possession of a bank account seems to have a impact that transcends characteristics and can be considered beneficial for each of the groups.

The case of unpaid family workers seems to be different. Tables 11 and 12 indicate that having a bank account only has an impact on the number of unpaid family workers in the case of those who do not reside in urban areas, with a coefficient of -0.419 at the 5 %. The fact that the coefficient is negative, is in line with what was expected, since a bank account can help formalize work and therefore reduce the need for entrepreneurs to depend on their family, a need that can be exacerbated in rural areas, where the reduced population density implies a reduced pool of possible employees that the entrepreneur can choose from and increases

the possibilities of them relying on their family. The fact that only one demographic sub-sample is significantly affected by having a bank account is counter-intuitive to what was expected at the beginning, since there was an expectation for the coefficients to be negative and significant due to the formalization of work that a bank account enables. In any case, although not significant, the coefficients for most of the demographic sub-samples (except those that do not have a higher level education and those that live in urban areas) are negative, which is in line with the notion that having a bank account can formalize the workforce of the entrepreneurship and reduce the number of unpaid family workers that are mostly used as placeholders in the initial stages of the business venture.

Finally, the case of full-time workers is analyzed. Tables 13 and 14 indicate that there is an impact in the groups corresponding to heads of households, those without partners, those who live in urban areas and those with children, with coefficients of 0.348, 0.283, 0.324 respectively and a significance of 10 % in all cases. The increase in full-time workers among those with children and those who are heads of household, can be explained by considering that those groups have to spend more time apart from the entrepreneurship, and therefore, need employees to be able to cover the time when the entrepreneur is not present. Having a bank account facilitates the previously described process and allows them to have easier access to those type of employees. For those in urban areas, the notion can be explained by considering that bigger companies and most demanding jobs are in the urban area, therefore, a full-time dedication to the job is necessary in order to compete with the giants of the industry.

Conclusion

This thesis reports the impact of having a bank account with access to credit in the growth of enterprises associated with the SBDC program. As such, it contributes to the literature of the impact of entrepreneurship counseling activities and to the literature of the impact of financial inclusion in the development of entrepreneurships and to the literature of the impact of demographic variables among the growth and performance of entrepreneurships. The results and evidence presented, seem to indicate that having a bank account has a positive impact on the growth of enterprises, independent of the demographic variables associated with the entrepreneur that is in charge of the enterprise. This impact is seen in the increase of total and formal workers associated with the entrepreneurship, which signals a tendency towards better working conditions and growth for the analyzed entrepreneurships. Further specifications were ran, that considered the impact of a bank account in the growth of different types of workers subject to a small sub-sample of treated individuals. The results indicate that the impact can me mitigated or amplified depending on the studied group; but, in general, entrepreneurships tend to increase it's number of total, formal and full-time workers and to decrease it's number of unpaid family workers.

This thesis expands upon previous studies of the effectiveness of the SBDC program by analyzing the impact of having access to a bank account and the demographic variables of each of the entrepreneurs. It also presents an interesting case in support of the benefits of the

SBDC program if one considers that Chile is one of the countries with the largest presence of the SBDC program outside of the United States. It is also worth noting that this thesis analyzes both the impact of the counseling activities and financial inclusion in the growth of businesses in an emerging economy by using a nationwide sample, a combination that is scarce in literature where usually one of those factors is missing.

The previous findings lend credit to repeated critiques that those with access to financial instruments have a bigger chance of finding success in their ventures than those who do not, as seen by the main entrepreneurship surveys conducted in Chile. Although having a bank account is not a synonym of automatically having asked for a credit, it does function as a testament to the solidity of the entrepreneurship and also provides it with access to financial banking, which translates into higher chances of obtaining funding.

Future studies may use this thesis as reference for studying the impact of financing in the growth of enterprises. A suggestion is posed for future researchers to focus their surveys towards financing methods and access to credit. This is based on the fact that the survey used for this thesis was not conducted with that end in mind and, even though it reached important conclusions, a more precise study could be made by using a survey created to specially monitor those variables; which may lead to even more robust and interesting findings in the aspect of financing and it's impact on entrepreneurial growth.

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Tables

Table 1: Descriptive Statistics for Banking and Workers

	Obs.	Mean.	Std. Dev.	Min.	Max.
Total Workers	955	1.46	1.98	0	12
Formal workers	961	0.82	1.44	0	8
Full-time workers	949	0.82	1.45	0	8
Unpaid family workers	949	0.82	1.45	0	8
Bank Account	972	0.31	0.46	0	1
Own inversion	969	0.84	0.37	0	1
Unpaid debts	969	0.13	0.33	0	1
Asked for credit	947	0.40	0.49	0	1
Received credit	390	0.92	0.27	0	1

Table 2: Demographic Descriptive Statistics

	Treatment Group		Control Group		Mean Differences
	Mean.	Std. Dev.	Mean.	Std. Dev.	Test (p-value)
Banking					
Bank Account	0.48	0.50	0.51	0.50	0.46
Gender					
Male	0.47	0.50	0.51	0.50	0.46
Area of Residence					
Urban	0.79	0.41	0.85	0.36	0.31
Education					
Primary Education	0.04	0.20	0.05	0.22	0.19
Secondary Education Incomplete	0.05	0.22	0.04	0.18	1.00
Secondary Education	0.22	0.41	0.20	0.40	0.76
Higher School Incomplete	0.11	0.31	0.13	0.34	0.69
Higher School	0.54	0.50	0.56	0.50	0.50
Postgraduate	0.04	0.20	0.02	0.13	0.09
Higher Education	0.58	0.49	0.52	0.50	0.26
Age					
Years	44.37	10.76	39.18	12.00	0.23
Between 15 and 24 years	0.01	0.11	0.07	0.26	0.40
Between 25 and 34 years	0.19	0.39	0.34	0.48	0.14
Between 35 and 44 years	0.30	0.46	0.28	0.45	0.69
Between 45 and 54 years	0.32	0.47	0.19	0.39	0.03
Above 54 years	0.17	0.38	0.12	0.32	0.85
Household					
Partner	0.44	0.50	0.47	0.50	0.11
Children	0.83	0.38	0.71	0.45	0.31
Economic dependents	0.83	0.37	1.00	0.00	0.00
Head of household	0.82	0.39	0.65	0.48	0.08
Activity Sector					
Agriculture	0.09	0.28	0.05	0.22	0.51
Mining	0.02	0.14	0.01	0.10	0.96
Industry	0.09	0.28	0.04	0.19	0.61
Construction	0.03	0.16	0.02	0.16	0.14
Retail	0.19	0.39	0.10	0.30	0.71
Transportation and Telecommunication	0.02	0.14	0.02	0.16	0.08
Services and Administration	0.04	0.20	0.02	0.14	0.76
Social work. Community and Personal Services	0.17	0.38	0.06	0.24	0.14
Observations	224		261		

Table 3: Demographic Descriptive Statistics by Bank Account

	Bank Account		No Bank Account		Mean Differences
	Mean.	Std. Dev.	Mean.	Std. Dev.	Test (p-value)
Treatment					
Treated	0.47	0.03	0.46	0.03	0.85
Gender					
Male	0.55	0.50	0.44	0.50	0.02
Area of Residence					
Urban	0.80	0.39	0.82	0.40	0.99
Education					
Primary Education	0.07	0.26	0.05	0.22	0.44
Secondary Education Incomplete	0.07	0.26	0.04	0.19	0.07
Secondary Education	0.28	0.45	0.17	0.37	0.00
Higher School Incomplete	0.12	0.34	0.01	0.30	0.32
Higher School	0.44	0.50	0.61	0.49	0.00
Postgraduate	0.01	0.11	0.04	0.20	0.07
Higher Education	0.65	0.50	0.45	0.48	0.00
Age					
Years	44.85	11.47	43.25	11.30	0.13
Between 15 and 24 years	0.03	0.16	0.01	0.11	0.25
Between 25 and 34 years	0.18	0.39	0.22	0.42	0.29
Between 35 and 44 years	0.28	0.45	0.35	0.48	0.10
Between 45 and 54 years	0.31	0.46	0.25	0.43	0.14
Above 54 years	0.20	0.40	0.16	0.40	0.33
Household					
Partner	0.47	0.50	0.51	0.50	0.87
Children	0.78	0.41	0.83	0.38	0.47
Economic dependents	0.93	0.26	0.92	0.28	0.73
Head of household	0.80	0.40	0.78	0.41	0.00
Activity Sector					
Agriculture	0.09	0.29	0.10	0.31	0.95
Mining	0.04	0.07	0.04	0.20	0.56
Industry	0.10	0.30	0.07	0.25	0.53
Construction	0.05	0.22	0.03	0.18	0.28
Retail	0.21	0.40	0.21	0.41	0.29
Transportation and Telecommunication	0.02	0.13	0.06	0.24	0.38
Services and Administration	0.04	0.20	0.04	0.21	0.38
Social work. Community and Personal Services	0.16	0.37	0.14	0.35	0.19
Observations	234		251		

Table 4: Effect of Having Children in the Increase of Workers for Treated Individuals

Workers	**(1) Total Workers**	**(2) Formal Workers**	**(3) Unpaid Family Workers**	**(4) Full-time Workers**
Year 2017	0.053	0.158	0.000	-0.079
	(0.283)	(0.204)	(0.094)	(0.191)
Children x Year 2017	0.727**	0.233	0.032	0.515**
	(0.312)	(0.225)	(0.103)	(0.210)
Observations	437	440	448	440
Adjusted R-squared	0.683	0.740	0.824	0.778
Entrepreneur fixed effects	YES	YES	YES	YES

Table 5: Effect of Receiving Credit in the Increase of Workers for Treated Individuals

Workers	**(1) Total Workers**	**(2) Formal Workers**	**(3) Unpaid Family Workers**	**(4) Full-time Workers**
Year 2017	0.690*	0.267	-0.000	0.400*
	(0.360)	(0.226)	(0.076)	(0.216)
Received Credit x Year 2017	0.350	0.733**	-0.069	0.433
	(0.529)	(0.339)	(0.108)	(0.323)
Observations	148	149	155	149
Adjusted R-squared	0.679	0.813	0.785	0.832
Entrepreneur fixed effects	YES	YES	YES	YES

Table 6: Effect of Bank Account in the Increase of Workers for Treated Individuals

Workers	**(1) Total Workers**	**(2) Formal Workers**	**(3) Unpaid Family Workers**	**(4) Full-time Workers**
Year 2017	0.365**	0.076	0.065	0.210*
	(0.171)	(0.120)	(0.056)	(0.116)
Bank Account x Year 2017	0.554**	0.531***	-0.074	0.264
	(0.238)	(0.167)	(0.078)	(0.161)
Observations	437	440	448	440
Adjusted R-squared	0.683	0.750	0.824	0.775
Entrepreneur fixed effects	YES	YES	YES	YES

Table 7: Impact of Bank Account in the Increase of Total Workers by Sub-samples for Treated Individuals (1)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Total Workers	**Males**	**Females**	**Head of Household**	**Not Head of Household**	**Higher Level Education**	**Not Higher Level Education**
Year 2017	0.450	0.312*	0.409**	0.125	0.340	0.389
	(0.319)	(0.178)	(0.187)	(0.431)	(0.248)	(0.234)
Bank Account x Year 2017	0.753*	0.219	0.557**	0.614	0.374	0.993**
	(0.406)	(0.274)	(0.265)	(0.562)	(0.318)	(0.377)
Observations	210	227	359	78	255	182
Adjusted R-squared	0.609	0.763	0.689	0.627	0.704	0.655
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 8: Impact of Bank Account in the Increase of Total Workers by Sub-samples for Treated Individuals (2)

Total Workers	**(1) Partner**	**(2) No Partner**	**(3) Urban**	**(4) Not Urban**	**(5) Children**	**(6) No Children**
Year 2017	0.317	0.397*	0.329*	0.526	0.494***	-0.211
	(0.275)	(0.219)	(0.177)	(0.498)	(0.185)	(0.425)
Bank Account x Year 2017	0.736**	0.381	0.519**	0.634	0.549**	0.526
	(0.361)	(0.323)	(0.249)	(0.661)	(0.257)	(0.600)
Observations	199	238	347	90	361	76
Adjusted R-squared	0.651	0.701	0.720	0.537	0.692	0.669
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 9: Impact of Bank Account in the Increase of Formal Workers by Sub-samples for Treated Individuals (1)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Formal Workers	**Males**	**Females**	**Head of Household**	**Not Head of Household**	**Higher Level Education**	**Not Higher Level Education**
Year 2017	0.098	0.063	0.112	-0.125	0.059	0.093
	(0.229)	(0.122)	(0.134)	(0.259)	(0.185)	(0.150)
Bank Account x Year 2017	0.601**	0.427***	0.416***	1.038***	0.513**	0.593**
	(0.294)	(0.185)	(0.190)	(0.337)	(0.238)	(0.240)
Observations	211	229	362	78	257	183
Adjusted R-squared	0.693	0.808	0.752	0.727	0.735	0.773
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 10: Impact of Bank Account in the Increase of Formal Workers by Sub-samples for Treated Individuals (2)

Formal Workers	**(1) Partner**	**(2) No Partner**	**(3) Urban**	**(4) Not Urban**	**(5) Children**	**(6) No Children**
Year 2017	-0.024	0.143	0.094	0.000	0.116	-0.105
	(0.216)	(0.134)	(0.139)	(0.237)	(0.133)	(0.282)
Bank Account x Year 2017	0.782***	0.302	0.527***	0.560*	0.529***	0.526
	(0.283)	(0.198)	(0.195)	(0.317)	(0.185)	(0.399)
Observations	202	238	348	92	363	77
Adjusted R-squared	0.660	0.821	0.757	0.671	0.743	0.777
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 11: Impact of Bank Account in the Increase of Unpaid Family Workers by Sub-samples for Treated Individuals (1)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Unpaid Family Workers	**Males**	**Females**	**Head of Household**	**Not Head of Household**	**Higher Level Education**	**Not Higher Level Education**
Year 2017	0.024	0.091	0.055	0.125	0.059	0.071
	(0.068)	(0.085)	(0.059)	(0.166)	(0.061)	(0.099)
Bank Account x Year 2017	-0.009	-0.130	-0.034	-0.255	-0.008	-0.203
	(0.087)	(0.129)	(0.083)	(0.216)	(0.079)	(0.155)
Observations	214	234	370	78	260	188
Adjusted R-squared	0.880	0.784	0.849	0.590	0.862	0.790
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 12: Impact of Bank Account in the Increase of Unpaid Family Workers by Sub-samples for Treated Individuals (2)

Unpaid Family Workers	**(1) Partner**	**(2) No Partner**	**(3) Urban**	**(4) Not Urban**	**(5) Children**	**(6) No Children**
Year 2017	0.140	0.016	-0.012	0.381**	0.068	0.053
	(0.095)	(0.068)	(0.052)	(0.184)	(0.068)	(0.052)
Bank Account x Year 2017	-0.140	-0.033	0.012	-0.419*	-0.068	-0.103
	(0.125)	(0.099)	(0.073)	(0.247)	(0.093)	(0.073)
Observations	204	224	354	94	370	78
Adjusted R-squared	0.830	0.807	0.891	0.376	0.819	0.883
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 13: Impact of Bank Account in the Increase of Full-time Workers by Sub-samples for Treated Individuals (1)

Full-time Workers	**(1)** **Males**	**(2)** **Females**	**(3)** **Head of Household**	**(4)** **Not Head of Household**	**(5)** **Higher Level Education**	**(6)** **Not Higher Level Education**
Year 2017	0.341	0.125	0.202	0.250	0.137	0.278
	(0.212)	(0.124)	(0.127)	(0.274)	(0.161)	(0.168)
Bank Account x Year 2017	0.262	0.181	0.348*	-0.076	0.252	0.379
	(0.273)	(0.188)	(0.180)	(0.356)	(0.207)	(0.268)
Observations	211	229	362	78	257	183
Adjusted R-squared	0.753	0.788	0.787	0.639	0.782	0.764
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES

Table 14: Impact of Bank Account in the Increase of Full-time Workers by Sub-samples for Treated Individuals (2)

Full-time Workers	**(1)** **Partner**	**(2)** **No Partner**	**(3)** **Urban**	**(4)** **Not Urban**	**(5)** **Children**	**(6)** **No Children**
Year 2017	0.286	0.159	0.176	0.350	0.267**	-0.053
	(0.215)	(0.122)	(0.121)	(0.325)	(0.132)	(0.205)
Bank Account x Year 2017	0.352	0.138	0.283*	0.170	0.324*	-0.053
	(0.282)	(0.179)	(0.169)	(0.436)	(0.182)	(0.290)
Observations	202	238	348	92	363	77
Adjusted R-squared	0.717	0.833	0.812	0.574	0.773	0.823
Entrepreneur fixed effects	YES	YES	YES	YES	YES	YES