

**ANALYSIS OF ECONOMIC AND OPERATIONAL
FEASIBILITY FOR OPENING A CENTER FOR THE
EXPERIENCE OF THE ELDERLY IN THE METROPOLITAN
REGION OF SÃO PAULO**

**ANÁLISE DE VIABILIDADE ECONÔMICA E
OPERACIONAL PARA ABERTURA DE UM CENTRO DE
CONVIVÊNCIA DO IDOSO NA REGIÃO METROPOLITANA
DE SÃO PAULO**

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ABSTRACT

The quality of life for the elderly is associated with a more active life: moderate physical activity, healthy eating, increasing social ties and keeping the mind stimulated. This article aims to prepare an economic and operational feasibility study of a care center for the elderly in the RMSP. Due to the increase in life expectancy, evidenced by the growth of 21.5 years between 1950 and 2014, and the difficulty of allocating caregivers within the family in large urban centers, the institution that is planned to be created is a center for Daycare of care elderly that does not require special professional care. The study is presented in the following stages: introduction, theoretical reference, applied methodology and conclusions. The results indicate that the enterprise is economically viable and of great relevance, currently 15% of the population in the AMPS is made up of the elderly, projections indicate that in 2030 it will be 20% and in 2050 this population will correspond to 30%. In the demographic scenario, the enterprise is a, responsible for the care of the elderly, promoting the development of healthy aging, autonomy and the strengthening of social.

Keywords: Entrepreneurship; Caregivers; Welfare; Day-care; Elderly.

RESUMO

A qualidade de vida para o idoso está associada a uma vida mais ativa: atividade física moderada, alimentação saudável, aumentar os laços sociais e manter a mente estimulada. Este artigo tem como objetivo a elaboração de um estudo de viabilidade econômica e operacional de um centro de cuidadores para idosos na RMSP. Em função do aumento da expectativa de vida, evidenciado pelo crescimento de 21,5 anos entre 1950 e 2014, e a dificuldade de alocar cuidadores dentro da família em grandes centros urbanos, a instituição que se planeja criar é um centro de cuidadores de atendimento ao idoso que não necessite de cuidados especiais de profissional. O estudo é apresentado nas seguintes etapas: introdução que contextualiza a expectativa de vida no Brasil, referencial teórico, metodologia aplicada e conclusões. Os resultados indicam que o empreendimento é economicamente viável e de grande relevância, atualmente 15% da população na RMSP é constituída por idosos, projeções indicam que em 2030 serão 20% e em 2050 essa população corresponderá a 30%. Além do cenário demográfico promissor, o empreendimento configura-se como instituição promotora de saúde ao ser responsável pelo cuidado dos idosos promovendo o desenvolvimento do envelhecimento saudável, autonomia e o fortalecimento dos vínculos do convívio social.

Palavras-chave: Empreendedorismo; Cuidador; Bem-estar; Centro-dia; Idoso

1. INTRODUCTION

The accelerated aging of the Brazilian population and the increase in life expectancy presents new aspects concerning care for older adults, especially about changes in family composition and the need for services to be provided by social protection systems. Among the countless implications caused by the demographic transition in an increasingly aging society, there are new challenges for the State in the elaboration of public policies that serve this

population (Kuchemann, 2012), in addition to the need to rethink the urban space and the adaptation of the service network.

Even if the elderly has autonomy and physical independence may have health conditions and functional limitations due to aging that increase the possibility of the occurrence of illnesses and reduced physical, cognitive, and emotional capacity, generating a need for care. In this context, a Daycare Center aims to promote social inclusion (important for the well-being of this age group) and improve the quality of life of older adults for people in these conditions. A qualified and qualified team is needed to provide specialized services to people in a situation of dependence who require permanent or temporary care (SEBRAE, 2019)

The elderly caregiver is the person who assumes the responsibility of caring for and offering support and assistance to the person in need. The level of burden is directly related to the degree of dependence of the older adult. The lack of preparation and support for care in the family environment can result in negligence, in addition to subjecting the caregiver to a high-stress level, causing other forms of violence (physical, psychological, and financial, among others). Daycare Centers for the Elderly, whose objective is not only to include, protect and improve the quality of life but also to improve family living conditions and reduce the burden on domestic caregivers, in addition to contributing to the improvement of self-esteem, physical and mental health, stimulating their independence and autonomy, thus avoiding social isolation, depression, as well as helping to delay the appearance of limiting diseases (Jesus et al., 2018).

According to the Brazilian Institute of Geography and Statistics (in Portuguese, IBGE), the aging of the Brazilian population is a strong trend in the coming decades. It also means the need to meet the demands of this public through specific products and specialized services. This demographic scenario and business opportunities focused on health and well-being are the main reason for this Business model.

The proposal of the Center for Daycare for the Elderly provides for socialization activities. In addition to having the company of others in the same age group, it has the monitoring of several professionals who work to provide their well-being and quality of life. Therefore, an institution providing services must have a structure that is, in most cases, reasonable, and the extra costs to carry out this activity must be included in the amount paid by consumers (Salim et al., 2005).

2. METHOD

This business model is a projection and simulation study for operational and financial viability describing the conditions for a business unit to be created to care for older adults in a Daycare Center during the daytime.

Descriptive research does not involve the researcher's intervention, thus seeking to know how often the phenomenon manifests its essence, its attributes, the reasons for its appearance, its involvement, and its link with some facts (Barros, 2000).

As for the means of investigation used as a basis for discussing the importance of the topic in question, bibliographic research, field research, or surveys were adopted, as well as consultation with reports available in electronic format.

The profile considered in this research was the elderly of both genders, aged 60 years and older, in a situation of vulnerability or social risk, and whose condition requires the help of people or special equipment to carry out activities of daily living, such as food, mobility, and hygiene, without cognitive impairment or with controlled cognitive alteration.

Regarding the demographic analysis, the study was carried out in the urban perimeter of São Paulo. Data were collected by age group by micro-region in SP, distribution of the elderly population in the RMSP neighborhoods and the occupation profile of places with residences. In addition to this information, a population projection was verified for the Districts of the Municipality of São Paulo between the years 2014 and 2030.

Data referring to the population and aging index were calculated based on estimates and censuses from the Brazilian Institute of Geography and Statistics (IBGE). These indicators will be used to estimate the demand for this type of service and a possible location for the Daycare Center.

Supported by the SEBRAE budget as a planning instrument, it allowed for estimating the enterprise's revenues, expenses, and results. A socioeconomic and financial feasibility analysis was carried out, drawn up along the lines of a business plan for the project of an institution to support the health and well-being of the elderly.

The costs of leasing the physical space, purchasing furniture, large groups of expenses, hiring professionals and projecting revenue for the financial feasibility study were identified.

After data collection, revenues were projected, simulating the operation of the Daycare Center for the Elderly for three years, allowing the elaboration of the flow and its analysis, such as payback, NPV, and IRR.

The index used for revenue projection was the SELIC+IPC-A rate. For the calculation, it was considered 6% per year, being an average of the last three years.

The study will also contemplate the company's formation, tax framework, its particularities, and prioritization of local development, incentives for companies, and the cost of opportunity.

Based on this information, an attempt will be made to analyze the financial viability of opening a Daycare Center for the Elderly in the Metropolitan Region of São Paulo (in Portuguese, Região Metropolitana de São Paulo -RMSP).

3 RESULTS AND DISCUSSION

For the elaboration of this work, it was chosen as a priority to evaluate the contingent of older adults within the profile for care, considering aging and the lack of family support during the day for the elderly.

The objective is to prevent situations of personal and social risk for older people, avoid social isolation and institutionalization of the elderly, reduce the number of medical hospitalizations and the number of domestic accidents involving the elderly, and strengthen family ties through guidance to the family on care essentials needed by the elderly. In addition, this project is designed to share with families the provision of essential care for their elderly and encourage the promotion of family and community participation in elderly care.

The increase in average life expectancy, on the one hand, and the lower fertility rate in recent decades, on the other, rocked this process, which encompasses a large number of elderly people in the country. And since October 1, 2003, this growing population segment has had the Statute for the Elderly (Law No. 10,741), designed to regulate the rights guaranteed to people aged 60 or over.

The average life expectancy of Brazilians born in 2015 is 75.5 years, according to the Complete Tables of Mortality survey for Brazil, released by the Brazilian Institute of Geography and Statistics (IBGE) in December 2016. In 2015, it was of 75.2 years. The best living conditions in recent decades have favored this increase in the survival rate. There was

also a significant drop in the fertility rate: a woman with an average of six children in 1940 had 1.7 children in 2016.

Still, according to the IBGE, the group of older adults aged 60 years or over will be larger than the group of children up to 14 years old already in 2030. This trend was first observed in the 2002 census and was established in the following years. To exemplify, the participation of the group aged up to 24 years old dropped from 47.4% in 2002 to 39.6% in 2012. The data also show that the adult segment of the population, which are 60 years or over, has as their main source of income financial resources obtained from their retirement or pension, equivalent to 66.2%, and reaches 74.7% in the case of the group aged 65 or over.

In the National Typification of Social Assistance Services (CNAS Resolution No. 109/2009), the Service for Living Together and Strengthening Bonds for the Elderly, aimed at basic social protection, focuses on the development of activities that contribute to the process of healthy aging, development of autonomy and sociability, strengthening of family ties and community life, as well as the prevention of social risk situations. In practice, these activities proposed by the Service for Coexistence and Strengthening of Bonds for the Elderly are based on the characteristics, interests, and demands of those who are in this age group and consider that group experience, artistic, cultural, sports, and leisure experimentation, in addition to valuing lived experiences, constitute privileged.

Following the provisions of the National Council for Social Assistance (in Portuguese, Conselho Nacional de Assistência Social - CNAS), in addition to the general objectives relating to the Service of Coexistence and Strengthening of Bonds, the National Typification of Social Assistance Services (CNAS Resolution No. 109/2009), defines specific objectives for the services aimed at the elderly: a) contribute to an active, healthy and autonomous aging process; b) ensure meeting space for the elderly and intergenerational meetings in order to promote their family and community coexistence; c) detect needs and motivations and develop potentialities and capacities for new life projects; d) to provide experiences that value experiences and that stimulate and enhance the condition of choosing and deciding.

This will contribute to the development of users' social autonomy. So, when observing these guidelines, there is the possibility of exploring a new market segment: Services for older adults.

3.1 Business Description and Executive Summary

Current families are involved in activities outside the home and do not have full time to accompany elderly relatives, especially those who require special care. In this scenario, activities aimed at the elderly public are being considered a niche market with a promising future.

The market for services aimed at the elderly offers a high potential for entrepreneurship as long as market research is carried out, evaluating the region in terms of competition, residents' purchasing power, leisure options, and points of interest for your target audience. The study will considerably influence the formatting of services and their pricing policy.

The ideal places to establish a Community Center or other services for people over 60 are metropolitan regions and/or sites with a large concentration of older adults.

Questions about the company constitution, legal aspects, and brand were observed. A demographic analysis of the State of São Paulo population will be addressed, especially in the RMSP, where it will justify the choice of location for the development, as well as the offer of services, price definition, and plans.

Finally, the investment required to set up the company will be detailed, such as revenues and operating costs, and financial projections, to verify the project's financial and operational viability.

At the end of these analyses, it will be possible to conclude the financial viability of the business and will enable a vision of the success or failure of the institution.

3.2 Proposal for a "Day Center" Company for Elderly Care

The legal aspects necessary for the incorporation of the company must be observed. The corporate name is the name under which a legal entity is individualized and carries out its activities. The legal attribute appears in the deed or in the constitution document to identify a legal person and demonstrate its legal constitution.

Currently, Brazil's most common type of company is the limited liability company, its fundamental element being the articles of incorporation. (PINA, 2011).

The company's name will be Centro de Cuidados de de Idosos Ltda.

The branch of activity is what defines which component of activity the company is inserted. The CNAE Code (National Classification of Economic Activity) is 87.11- 5/01 –

Assistance activities for the elderly, disabled, immunosuppressed, and convalescents provided in collective and private residences (Receita Federal ~ Internal Revenue Service, 2016).

After adequate economic classification, the company should be registered in the Simples Nacional system, a shared regime for collecting, collecting, and inspecting taxes applicable to Micro and Small Businesses. (Portal do Empreendedor - Entrepreneur's Portal, 2019).

In this regime, the entrepreneur can collect the following taxes and contributions through only one tax document - the DAS (Simples Nacional Collection Document), which is generated on the National SIMPLES Portal (<http://www8.receita.fazenda.gov.br/SimplesNacional/>).

Established by Complementary Law No. 123/2006, provided that the annual gross revenue from its activity does not exceed R\$ 360,000.00 (three hundred and sixty thousand reais) for microenterprises R\$ 3,600,000.00 (three million, six hundred thousand reais) for small businesses and respecting the other requirements outlined in the Law.

For this segment, the option for SIMPLES Nacional will always be very advantageous from the tax point of view, as well as the facilities for opening the establishment and for fulfilling ancillary obligations.

Legal Basis: Complementary Laws 123/2006 (with amendments to Complementary Laws 127/2007, 128/2008, and 139/2011) and CGSN Resolution - Simples Nacional Management Committee 94/2011.

3.3 Organizational Guidelines

The brand is the visual representation that concentrates all the company's values ; through it, the company becomes known in the market as a Flagship in Environmental, Social, and Governance (ESG) practices. A trademark registration must be done at the National Institute of Industrial Property (INPI), an agency linked to the Ministry of Development, Industry and Foreign Trade (MDIC), through the e-Marcas website.

As for organizational guidelines, Organizational guidelines are the line of conduct defined for the paths that lead to the organization's objectives. They are rules of procedures that determine the goal to be met. That is, it is the structured and interactive set of the company's objectives, strategies, and policies. (Oliveira, 2012).

The three important considerations that are used by management to establish and document the organization's guidelines are the mission, vision, and values.

The Mission of the Elderly Daycare Center is to make the aging process a privilege, providing well-being, autonomy, and self-esteem.

Its vision is to be recognized as a reference in providing services for older adults in the city of São Paulo.

The company's strong purpose is reflected in teamwork capability development, diversity equity and inclusion in the workplace (DEI) compromise, and human enhancement as values, always seeking continuous improvement, integrity, discipline, dignity, ethics, and transparency to meet its mission.

3.4 Demographic Profile: potential target audience

The market for services for older adults offers a high potential for entrepreneurship. Still, it is necessary to have a business vision, and an analysis of the appropriate demographic profile is essential.

The ideal place to establish a Daycare Center for the Elderly or other services aimed at people over 60 years are metropolitan areas and/or locations with a large concentration of older adults. Therefore, the first step is to conduct market research, evaluating the region's competition, residents' purchasing power, leisure options, and points of interest for your target audience. The study of the location of the Center installation is critical since it will considerably influence the formatting of services and its pricing policy.

IBGE data indicate that between 2000 and 2010, the population residing in the State of São Paulo grew 1.09% per year, slightly lower than that observed for the Brazilian population (1.17%) and the set of States, except São Paulo (1.19%). This variation was different between the age groups that make up the population: those aged up to 14 years old reduced their contingent (-0.95% p.y.), while those over 45 years old were the ones that grew the most (3.58% p.y.).

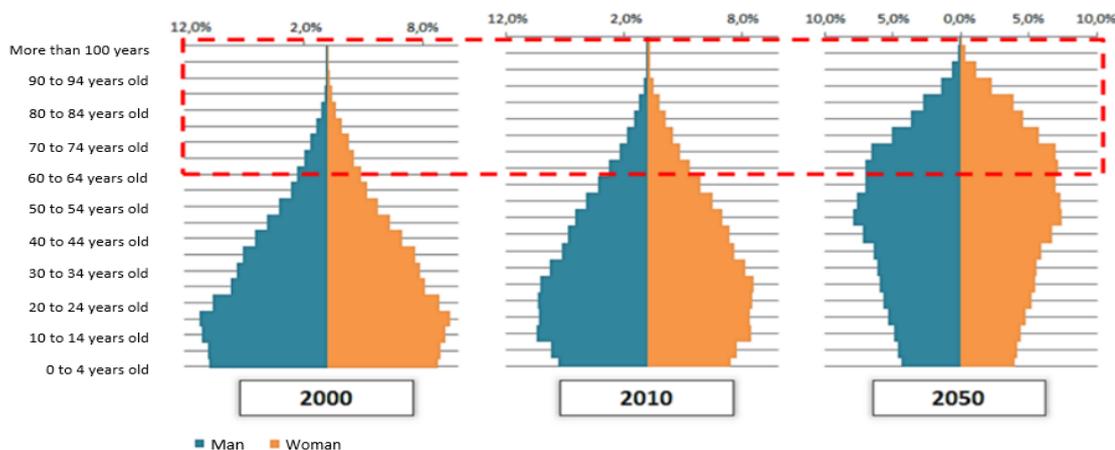


Figure 1: Demographic data by age group by microregion in SP
Source: 2010 census data and projections – IBGE (2013)

In numerical terms, São Paulo has the largest elderly contingent in the country, and it is among the States with the highest proportion of elderly in the population: 11.6% of its inhabitants are over 60 years old. There are older women than older adults, and this difference increases with age. In the 60 to 69 age group, there are eight men for every ten women residing in São Paulo, while among those aged over 90, this ratio is four to ten.

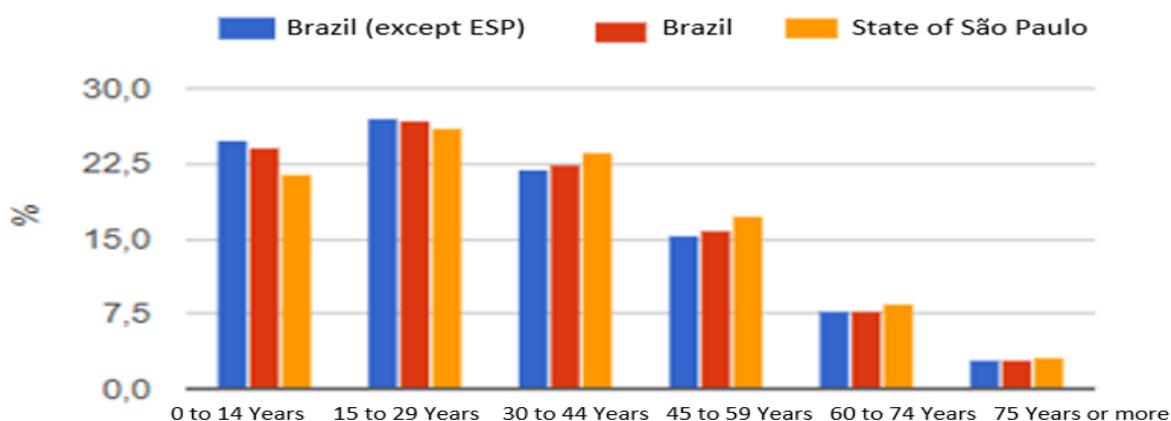


Figure 2: Sex ratio of the population aged 60 and over, by age groups in the State of SP (2010)
Source: 2010 census data and projections – IBGE (2013)

The age composition of the São Paulo population differs from that of the other states. In São Paulo, the participation of those up to 29 years old is lower than in the rest of the country, with the opposite occurring for this age group. People aged 15 to 29 make up the largest population in the State of São Paulo and in the country.

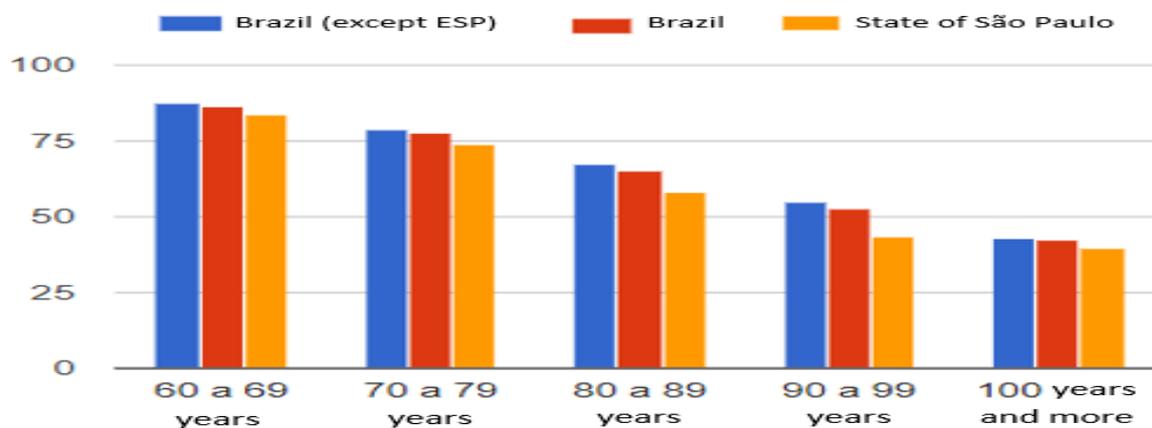


Figure 3: Distribution of the population by age groups in the State of SP (2010)
Source: 2010 census data and projections – IBGE (2013)

In 2014, the Municipality of São Paulo celebrated 460 years with 11,513,836 people residing in its territory of 1,521.10 km². The capital of São Paulo, by far the largest Brazilian city, concentrates 6% of the country's population and 27% of that in the State of São Paulo.

The expectation is that by 2030 the Municipality of São Paulo will reach 12,242,972 inhabitants. In the next 16 years, there will be an annual increase of 45,571 people and an average growth of 0.38%.

The aging process is clear in all Municipality of São Paulo areas. A sensitive indicator to evaluate this phenomenon is the average age of the population, which, in the capital (main city) as a whole, should increase by 4.37 years, from 34.71 years in 2014 to 39.08 years in 2030.

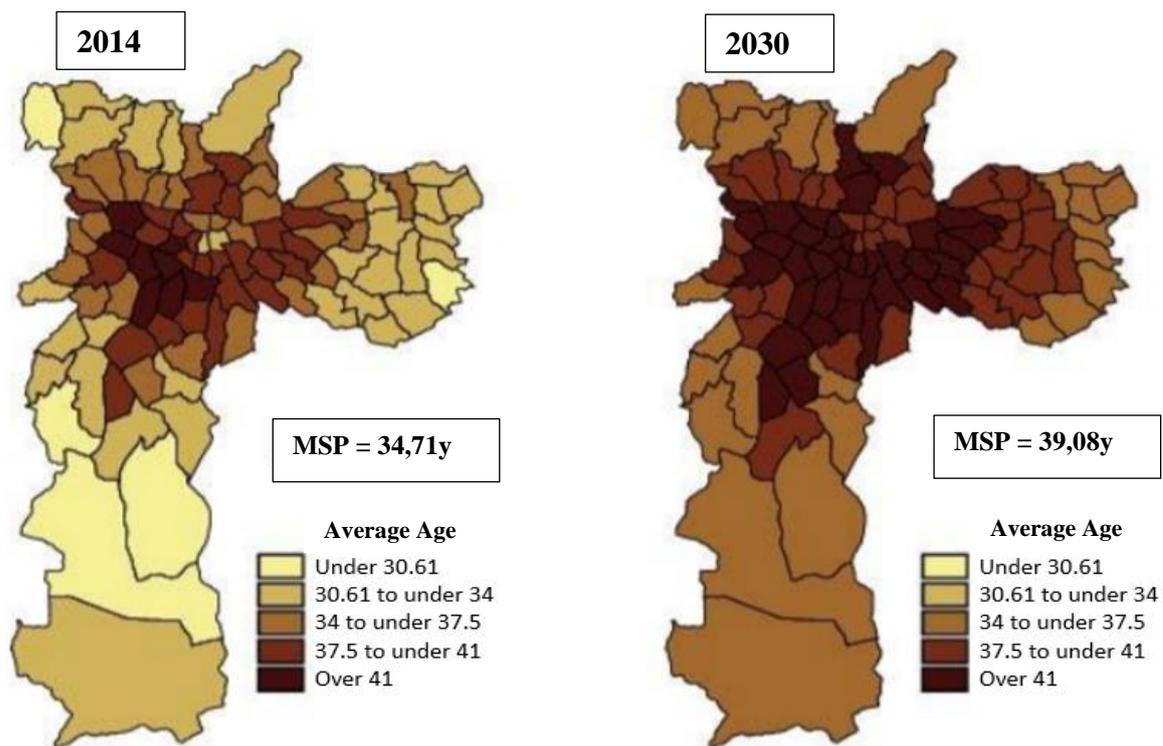


Figure 4: Average age of the population in the districts of the Municipality of São Paulo (MSP).
Source: Seade Foundation (2019)

An important change in the age structure of the São Paulo population is expected in the coming years. Today, about 20% of its population is formed by young people, but in 2030 this participation will correspond to those over 60 years.

To better understand the impact of the aging process on the structure by age and sex of the population, Table 1 presents a population projection for the districts of the municipality of São Paulo, indicating the ten districts with the greatest potential for increase.

Table 1

Population projection for the Districts of the Municipality of São Paulo (2014 -2030)

Neighborhood	By sex (%)		Average age (years)		Population (%)			
	2014	2030	2014	2030	2014		2030	
					Any less 15 years	60 years and over	Under 15 years old	60 years and over
City SP	90,33	91,63	34,71	39,08	19,73	13,18	17,18	20,06
Alto de Pinheiros	82,1	84,3	42,48	47,23	12,53	24,93	10,27	34,48
Moema	83,5	85,2	41,36	46,88	12,89	21,66	10,46	32,00
Pinheiros	81,3	83,7	41,83	46,80	12,29	22,93	10,62	31,37
Jardim Paulista	80,8	84,4	42,32	47,00	11,39	23,85	10,74	31,21
Vila Mariana	82,3	85,4	41,46	46,30	11,95	22,35	11,14	30,45
Saúde	83,5	85,1	40,82	45,79	13,31	21,19	11,53	30,44
Perdizes	83,4	85,8	40,83	46,07	12,99	21,36	10,98	30,25
Consolação	82,7	84,0	41,75	46,96	9,47	22,45	10,40	29,81
Lapa	84,7	87,7	41,10	44,77	13,95	22,37	12,53	29,55
Santo Amaro	86,6	88,7	40,77	44,66	14,35	22,01	12,36	29,46

Source: Fundação Seade (2019)

3.5 Operational Plan

For the definition of the location for the installation of the Center for Daycare for the Elderly, the location and the local population with an adequate demographic profile were taken into account. In this context, the neighborhood of Lapa in São Paulo was chosen for the installation of the Daycare Center for the Elderly. According to IBGE data from 2010, Lapa has an area of 40.10km². Its population is 65,739 inhabitants, with 6,574 inhabitants per km².

In the neighborhood, 48% of homes with only one resident are occupied by older adults, and 33% of heads of households are over 60 years old. The average price per m² for purchase in the region is R\$ 8,854.25, and the rent is R\$ 34.05.

After analyzing the available properties, with adequate installation, it was decided to rent a commercial house with 218m², in the amount of R\$ 3,800.00 per month, plus the IPTU rate of R\$ 160.00.

The purpose of the Center is to be a place of coexistence for older people, where the families will leave their elderly during the day and may stay full-time, day or afternoon, for a minimum stay of 2 to 8 hours a day. You must return to your residence at the end of the

established period. The institution will have the option of daily, monthly, single package, and other seasonal promotions.

The Center for Daycare for the Elderly is open from Monday to Friday (except holidays) from 7:00 am to 6:00 pm, divided into two shifts, the morning shift from 7:00 am to 12:00 pm and the afternoon shift from 1:00 pm to 6:00 pm, serving 100 older adults registered and about 20 active visitors.

Pricing is the key issue, so to define the price for providing the service, this research established the value of the monthly fee for the Elderly Daycare Center at R\$1,425.00 for 8 hours per day spent at the institution, using the sum of fixed and variable costs as a service pricing strategy and a profit margin of 50% concerning the total cost, as detailed in the financial plan below.

This amount of expense may vary depending on the length of stay at the Center. If the customer chooses a period of less than 8 hours a day, an hourly rate will be charged for the service, set at R\$ 12.00.

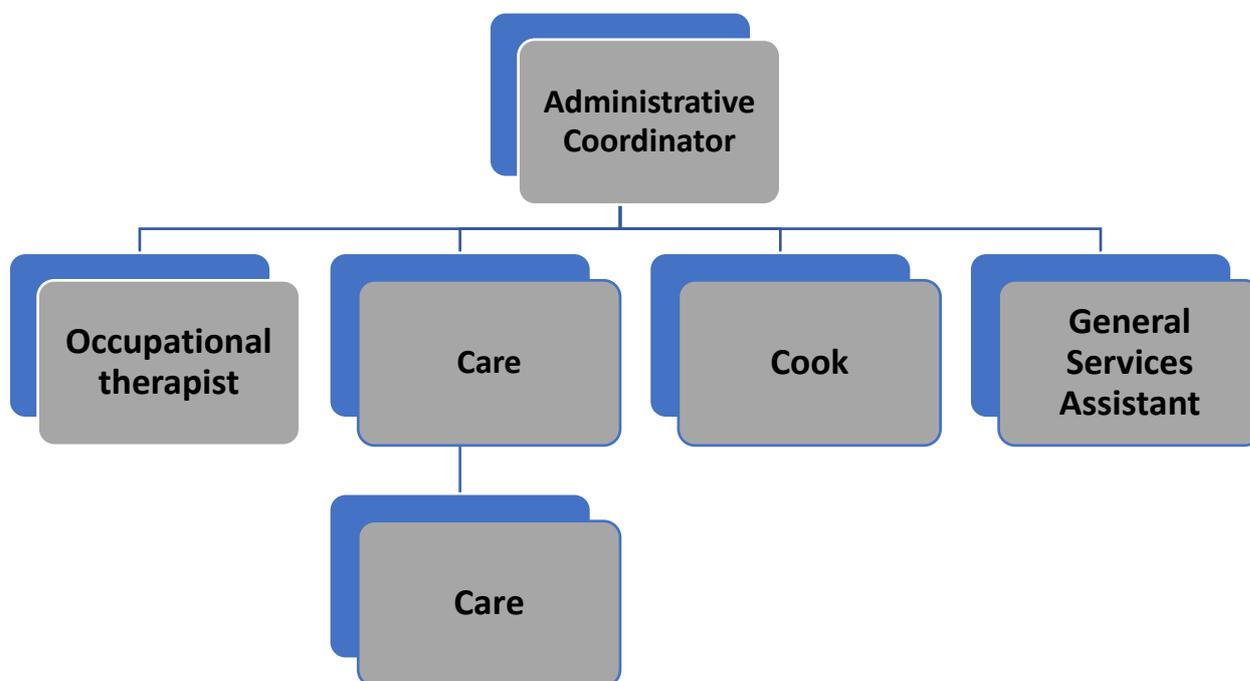
The property contains large rooms, most with wide sliding doors, which facilitate the locomotion of wheelchair users, people with difficulties, canes, and walkers. Outdoors a large external space with a place for sunbathing. It also has a large barbecue area, with a built-in wood stove and pizza oven, where cooking activities can be developed.

The edification adequate to host older adults, meaning the physical structure, must meet the standards of ABNT (Brazilian Association of Technical Standards (in Portuguese, Associação Brasileira de Normas Técnicas), as well as the Technical Regulation that defines operating standards for Long-Term Institutions for the Elderly of ANVISA. The Brazilian Health Regulatory Agency (Anvisa) is an autarchy linked to the Ministry of Health, part of the Brazilian National Health System (SUS) as the coordinator of the Brazilian Health Regulatory System (SNVS), present throughout the national territory.

Regarding this, next some specifications to comply with Brazilian regulations are highlighted:

1. Stairs and ramps at least 1.20 m wide
2. Large bathrooms, all easily accessible and with at least 3.60m²
3. Cafeteria with a minimum area of 1m² per user

The right choice of human resources is crucial to the success of a service provider company. According to the defined organization chart, the organizational structure will consist of six employees. According to the following scheme, the next are required:



Except for the Occupational Therapist, who will be an extra service provider and will be working in a previously established period according to the demand, the other employees will be hired according to the CLT – Consolidation of Labor Laws and the Federal Constitution, being signed through an employment contract and signature in the CTPS (Employment and Social Security Card) and also following the determinations of the Collective Convention of the Labor Union each category.

The space of the coexistence center must allow the performance of activities to vary and be programmed according to the profile and demands of the users. Despite the great diversity of practices, it is possible to set up a program of needs based on commonly applied categories:

- a) Internal meetings and conversations about health, self-care and well-being.
- b) Community and educational events/activities: festive calendar exhibitions, campaigns, walks, excursions, lectures, courses in levels, films and videos, and library.
- c) Physical activities: walking, gymnastics, dancing, recreational games, etc.

d) Socio-cultural activities: conversation circles, intergenerational meetings, cinema, dances, community garden, etc.

e) Artistic and cultural: literary production, sewing, photography, plastic arts, cooking, music, crafts, etc.

Conducting cognitive activities that aim to work and stimulate older adults' brain functions, such as improving their ability to memorize, concentrate, coordinate, pay attention, and solve problems, among others, to preserve or enhance such functions.

Among other activities, group dynamics are capable of awakening different brain areas, working the physical, memory, cognition, concentration, and feelings, also helping to create and strengthen coexistence among older adults, helping in the development of communication and social interaction, promoting relaxation and thus avoiding idleness and sedentary lifestyle.

Handicrafts for the elderly is a practice that greatly benefits older adults in terms of mind occupation, reasoning practice, and entertainment. Through art, older adults can stimulate creativity and put them into action to expose their ideas and skills that help them to exercise their minds.

3.6 Financial Plan

The financial plan is the last step in analyzing the viability of the proposed business. In this step, the factors directly linked to the company's financial results will be dealt with. For this, the following items will undergo analysis: costs and expenses, revenues, need for working capital, leading to the dimensioning of the initial investment, the Income statement for the year ISY (in Portuguese, Demonstração de Resultado do Exercício - DRE in Brazil) and cash flow.

The investment comprises all the capital employed to start and make the business viable until the moment of its self-sustainability (Table 2).

Table 2.
Initial investments for Elderly Daycare Center

Item	Investment (BRL)	Investment (USD)
Company formation	R\$ 3.000,00	US\$ 600.00
Equipment and furniture	R\$ 7.000,00	US\$ 1,400.00
Remodeling	R\$ 5.000,00	US\$ 1,000.00
Working capital	R\$ 15.000,00	US\$ 3,000.00

Total	R\$ 30.000,00	US\$ 6,000.00
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Source: The authors (BRL to USD rate - 1 BRL = 5 USD)

In Brazil, the accounting regulations are dictated by Accounting Standards and Procedures (in Portuguese, Normas e Procedimentos de Contabilidade-NPC) specially NPC 2, which consist in established criteria and practices by Pronouncement Institute of Independent Auditors of Brazil - IBRACON No. 2 of 04/30/1999 should be observed. According to NPC 2 of IBRACON, the cost is the sum of expenses incurred and necessary for the acquisition, conversion, and other procedures required to bring inventories to their current condition and location. It comprises all costs incurred in their acquisition or production in order to place them in conditions to be sold, transformed, used in the elaboration of products, or in the provision of services that are part of the corporate purpose of the entity or carried out in any other way (IBRACON, 1999).

Below (Table 3) is an estimate of the fixed cost for opening the Center for Daycare for the Elderly, contemplating an initial projection of 15 older adults attending in the first year:

Table 3
Elderly Daycare Center Fixed Cost

Item	Monthly cost	Annual cost
Wages and charges	R\$ 9.750,00	R\$ 117.000,00
Rent and city taxes (IPTU)*	R\$ 3.960,00	R\$ 47.520,00
Accounting Services	R\$ 250,00	R\$ 3.000,00
Total	R\$ 13.960,00	R\$ 167.520,00

* Property Tax (IPTU)

Source: The authors

Next is an estimate of the variable cost (Table 4) for opening the Center for Daycare for the Elderly, contemplating an initial projection of 15 older adults attending in the first year:

Table 4
Elderly Daycare Center Variable Cost

Item	Monthly cost	Annual cost
Internet and Phone expenses	R\$ 90,00	R\$ 1.080,00
Marketing and Promotion Expenses	R\$ 100,00	R\$ 1.200,00
Meal (food suppliers)	R\$ 1.800,00	R\$ 21.600,00
Hygiene and cleaning supplies	R\$ 1.200,00	R\$ 14.400,00
Electricity	R\$ 380,00	R\$ 4.560,00
Gas	R\$ 120,00	R\$ 1.440,00
Water	R\$ 150,00	R\$ 1.800,00
Third-party services	R\$ 500,00	R\$ 6.000,00

Taxes	R\$ 1.710,00	R\$ 20.520,00
Total	R\$ 6.150,00	R\$ 73.800,00

Source: The authors

According to NPC 14 Pronouncement Instituto dos Auditores Independentes do Brasil - IBRACON revenue is the gross inflow of economic benefits during the period that occurs in the course of a company's ordinary activities, when such inflows result in an increase in shareholders' equity, excluding those resulting from contributions of the owners, shareholders or quota holders. (IBRACON, 2001).

In the following Table 5 the revenue forecast for the Elderly Daycare Center is displayed:

Table 5
Elderly Daycare Center Gross revenue projection (first year)

Number of seniors	Monthly billing	Annual billing
1	R\$ 1.425,00	R\$ 17.100,00
15	R\$ 21.375,00	R\$ 256.500,00

Source: The authors

SELIC rate is the basic interest tax defined by the Brazilian government and used by private and public banks as the reference for their own interest rate. Also important is the Extended National Consumer Price Index (of IBGE), measured by the National Wide Consumer Price Index (Índice Nacional de Preços ao Consumidor Amplo, or IPCA in Portuguese).

The revenue projection was made for a period of 3 years, between 2020 and 2022. The price level of the service provided was considered annually adjusted by the SELIC+IPC-A rate. For the calculation, 6% per year was considered, an average of 3 years (period of time for this financial analysis), 4.5% per year from the SELIC rate, and 1.5% from the IPCA. The Table 6 below shows the projections:

Table 6
Elderly Daycare Center Projected annual gross revenue (3 years)

Number of seniors	2023	2024	2025
1	R\$ 17.100,00	R\$ 18.126,00	R\$ 19.213,56
15	R\$ 256.500,00	R\$ 271.890,00	R\$ 288.203,40

Source: The authors

The break-even point represents the activity level from which the enterprise becomes profitable (EHRlich; MORAES, 2009). The break-even point (BP) is obtained by dividing

total fixed costs and expenses by the contribution margin (CM). The results are displayed in Table 7. The contribution margin is calculated as follows:

$$\text{Contribution Margin} = \text{Sales Value} - (\text{Variable Costs} + \text{Variable Expenses}).$$

$$\text{CM} = 256,500 - 73,800 \text{ so } \text{CM} = 182,700$$

$$\text{BP} = \text{Fixed cost} / \text{contribution margin} = 91.69\%$$

Table 7

Elderly Daycare Center accounting break-even point

Break-even point =	$\frac{167.520}{182.700 \times 100}$	= 91,69%
	$256.500 \times 91,69\% = 235.184,85$	

Source: The authors

The amount of BRL 235,184.85 is the minimum amount that the company has to earn in a year to have neither profit nor loss. The number of seniors to keep the company without prejudice is 14 seniors in the period of 1 year.

So, bearing in mind the analysis of costs, expenses, and revenues, it is possible to proceed to the income statement, which makes a great summary of all the company's obligations, and, in this way, it is possible to measure earnings before interest, taxes, depreciation and amortization (EBITDA) and net income.

The estimated values were adjusted annually by the IGP-M with inflation of 6% per year. The Table 8 below shows the projections:

Table 8

Elderly Daycare Center Income Statements for the Year - ISY (R\$)

Description	2023	2024	2025
Gross Income	256.500	271.890	288.203
(-) Taxes	15.390	16.313	17.292
Net Revenue	241.110	255.577	270.911
(-) Costs	-	-	-
Gross profit	241.110	255.577	270.911
Expenses	229.200	242.952	257.528
Fixed expenses	167.520	177.571	188.225
Variable expenses	61.680	65.381	69.303
Net profit	11.910	12.625	13.383

Source: The authors

After analyzing the income statement (ISY), revenues, costs, expenses, and working capital, it is possible to project the company's cash flow. Cash flow seeks to evaluate the inflows and outflows of a given year and to assess how much cash will remain at the end of that year for the company (Table 9).

Table 9

Elderly Daycare Center Cash Flow (R\$- BRL)

Description	2023	2024	2025
Inicial cash	30.000	6.910	7.325
(+) Operating income			
Receipt of montly payments	256.500	271.890	288.203
(-)Operational outputs			
Wages and charges	117.000	124.020	131.461
Rent and City Taxes (IPTU)	47.520	50.371	53.393
Accounting Services	3.000	3.180	3.371
Payment of general expenses			
Internet and telephone expenses	1.080	1.145	1.213
Marketing Expenses	1.200	1.272	1.348
Meal (food supplies)	21.600	22.896	24.270
Hygiene and cleaning supplies	14.400	15.264	16.180
Electricity	4.560	4.834	5.124
Gas	1.440	1.526	1.618
Water	1.800	1.908	2.022
Third-party services	6.000	6.360	6.742
Tax			
Simples Nacional **	20.520	21.750	23.056
Investiments			
Acquisition of fixed assets	5.000	5.300	5.618
Total	6.910	7.325	7.765

* Property Tax (IPTU)

** Simples Nacional (in English is Simplified Taxation System-designed for mini or small Brazilian business (SMEs))

Source: The authors

Profitability is an indicator used to indicate the company's gain in relation to the activity developed (Table 10). It indicates whether the business is justifying the operation, that is, whether sales are sufficient to pay costs and expenses and still generate profit.

$$\text{Profitability} = (\text{net profit/gross revenue}) \times 100$$

Table 10
Elderly Daycare Center Profitability

$$\text{Profitability} = \frac{11.910}{256.500 \times 100} = 4,64\%$$

Source: The authors

The profitability index measures the return that an investment can provide to the business (Table 11). The profitability rate is calculated by dividing the net profit by the initial investment of the enterprise.

$$\text{Profitability Index} = (\text{net profit}/\text{investment}) \times 100$$

Table 11
Elderly Daycare Center Profitability Index

$$\text{Profitability Index} = \frac{11.910}{30.000 \times 100} = 39,7\%$$

Source: The authors

Generally expressed in years, a project's Payback or payback period is the time required for cash flows to cover the investment made (Damodaran, 2002).

The following table indicates that the payback will be reached in the second year in March/24.

$$\text{Payback} = \text{initial investment} / \text{average cash flow balance}$$

Table 12
Elderly Daycare Center Payback

Year	Investment	Cash Flow	%
2023	R\$ 30.000,00	R\$ 39.351	1,31 ano
Jan/2024		R\$ 3.279,25	0,11
Fev/2024		R\$ 6.558,50	0,21
Mar/2024		R\$ 9.837,75	0,33

Source: The authors

The Net Present Value is the formula capable of determining the present value of future payments discounted at an appropriate interest rate, less the initial investment cost. It is the calculation of how much future payments plus an initial cost would be currently worth. (Santos, 2010).

For Santos, 2010, the NPV of an investment is equal to the present value of the net cash flow, being, therefore, a monetary value that represents the difference between cash inflows and outflows, brought to present value.

This NPV is an alternative method for decision-making. The model is used to compare more than one investment, accepting the one with the highest net present value. When the NPV is positive, the project should be accepted, as it gives the company a return greater than its cost of capital. It will demonstrate the contribution that the investment will generate for the company.

$$NPV = \sum_{j=1}^n \frac{CF_j}{(1+MRA)^j} - \text{Initial investment}$$

NPV= Net Present Value

CF = Cash Flow

MRA = Minimum Attractiveness Rate

j = period of each cash flow

The monthly average cash flow projection for the next five years is R\$ 7,791.00. In this regard, to calculate the minimum attractiveness rate, the average SELIC+IPCA rate (former explained) of the last three years was considered at 6% per year. At the end of the five years, the NPV will be R\$ 2,819.00, making the project viable, as it brought a higher return than the initial capital cost in the period.

Table 13
Elderly Daycare Center Net Present Value (NPV)

Period (years)	Cash Flow	NPV formula	Updated Cash Flow
0	R\$ -30.000,00	$-30.000/(1+0,06)^0$	-30.000
1	R\$ 7.791,00	$7.791/(1+0,06)^1$	7.350
2	R\$ 7.791,00	$7.791/(1+0,06)^2$	6.934
3	R\$ 7.791,00	$7.791/(1+0,06)^3$	6.542
4	R\$ 7.791,00	$7.791/(1+0,06)^4$	6.171
5	R\$ 7.791,00	$7.791/(1+0,06)^5$	5.822
			NPV = 2.819

Source: The authors

The Internal Rate of Return IRR is the discount rate that equates the inflows with the outflows of an investment, determining a single rate of return that depends exclusively on the investment's cash flows. (Rossi, Westerfield & Jordan, 1998).

The calculation is conducted by adding each cash flow entry minus the initial investment, where this value is equal to zero, using the formula:

$$\sum_{i=1}^n \frac{CF_i}{(1+IRR)^i} - \text{Initial investment} = 0$$

CF = Cash Flow

i = period of each investment

n = final period of investment

IRR = Internal Rate of Return

Specifically useful for new entrepreneurial activity and generally used business plan evaluation, IRR is ideal for analyzing capital budgeting projects to understand and compare potential annual return rates over time. In addition to being used by companies to determine which capital projects to use, IRR can help investors determine the investment return of various assets. Table 14 shows the IRR for the Elderly Daycare center.

Table 14
Elderly Daycare Center Internal Rate of Return (IRR)

Year	Cash Flow	IRR formula	IRR
2023	6.910	$6.910/(1+IRR)^1-30.000=0$	
2024	7.325	$7.325/(1+IRR)^2-30.000=0$	
2025	7.765	$7.765/(1+IRR)^3-30.000=0$	
2026	8.230	$8.230/(1+IRR)^4-30.000=0$	
2027	8.725	$8.725/(1+IRR)^5-30.000=0$	TIR = 9%

Source: The authors

With a value of 9% for the IRR, when compared with the investment attractiveness rate of 6%, we conclude that the investment is viable since the internal rate of return is greater than the minimum attractiveness rate of 3%.

4. CONCLUSION

Concerning the general objective, it is concluded that the opening of a Daycare Center for the Elderly in the RMSP is feasible, being proven by the composition of the items analyzed in the present study, the demographic profile, operational and financial analysis were observed, making this enterprise a proposal attractive and promising for investment.

Physical, psychological, and social changes can bring limitations and decline in functional capabilities as we age. Such changes can be prevented and rescued through actions that promote active aging, such as healthy eating, physical activity, mental stimulation, and social integration.

The services offered by the Daycare Center for the Elderly contribute to older adults not suffering from social exclusion nor do violations of rights that weaken their autonomy, as well as help caregivers and family members provide long-term care.

The study is of great relevance, as it will enable new reflections on care for the elderly and numerous strategies for the care practice of nurses in caring.

Nowadays, several precautions are required in addition to changing habits and the property's physical structure to keep an older person at home, such as placing grab bars in the bathroom, maintaining an adequate diet for the elderly, and controlling medication schedules (Chaimowicz et al., 2009).

For family members, the elderly's participation in the community center was an alternative to support care and institutionalization, providing time for self-care, maintaining or engaging in the formal job market, and positively influencing relationships with relatives.

Given this scenario, programs, public policies, projects, and services are sought that serve the elderly population best, remembering that they need multidisciplinary care and continuous assistance. With that in mind, it is clear that activities aimed at older adults are a promising niche market. However, it is a new service with many challenges.

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