

Analysis Plan

Impact Evaluation of ICH7

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Executive Summary

This document describes the analysis plan for evaluating the impact of the seventh edition of Impulso Chileno (ICH7), a program that combines a training component (access to a digital platform called La Brújula) with capital transfers to formal entrepreneurs with monthly sales between CLP 500,000 and CLP 2,000,000. The evaluation aims to answer two central questions: first, whether receiving the program improves the performance of the business and the entrepreneur compared with not receiving financing; and second, whether larger amounts of capital generate larger effects than smaller amounts. To this end, the evaluation uses a Randomized Controlled Trial (RCT) in which 705 finalists were assigned to three groups of equal size: one control group and two treatment groups. Data collection includes a baseline survey before assignment (October–November 2025) and an endline survey twelve months after the first survey (October–November 2026), both conducted by phone. Finally, the document presents power calculations under different attrition scenarios to characterize the minimum effect size the study can detect.

Introduction

Intervention

Impulso Chileno is a program supporting entrepreneurs developed by Fundación Luksic (FL), whose goal is to foster business growth through financing and training. In its seventh edition (ICH7), the program targets entrepreneurs who meet the following eligibility criteria:

- Having registered their business activity with the tax authority (SII), i.e., being formalized.
- Reporting monthly sales between CLP 500,000 and CLP 2,000,000 (approximately USD 500 to 2,000).
- Being 18 years of age or older.

ICH7 has two components:

- **Financing:** A non-reimbursable capital grant of between CLP 1,500,000 and CLP 3,500,000 (approximately USD 1,500 to 3,500), disbursed in two installments: a first disbursement equal to 70% of the total amount, made two months after selection, and a second disbursement of the remaining 30%, four months after selection.
- **La Brújula:** An asynchronous digital training platform that delivers entrepreneurship content

through text and video. Topics include value proposition, sales channels, formalization (sanitary authorization, types of companies, etc.), people management, accounting and others.

Objective and research question

Fundación Luksic's purpose is to promote Chile's development by trusting in people's capacity to generate well-being at every stage of their lives. To this end, it implements social programs that are evaluated continuously, to ensure a high-standard service with impact for the country. In this context, the objective of this analysis plan is to set out a clear path for identifying the causal impact of ICH7 on business performance. In particular, the study seeks to answer two complementary questions: first, whether receiving the program (Financing and La Brújula) improves the growth and survival of businesses compared with not receiving that financing; and second, whether providing a larger amount of financing translates into larger effects on the outcomes of interest, compared with providing a smaller amount. To answer these questions, the study relies on an experimental design with stratified random assignment, which makes it possible to compare groups that are equivalent at the starting point and to attribute the observed differences to the intervention.

Data Collection

Multiple information sources and instruments are used to evaluate ICH7.

Application Form (AF)

The first data collection instance, in which entrepreneurs apply on an online platform and provide basic information about the business and themselves. The form was available between September 22 and October 6, 2025.

La Brújula Diagnostic (LBD)

In parallel with the Application Form, applicants completed an online diagnostic questionnaire of about 50 questions to identify the entrepreneur's strengths and weaknesses. It is used to personalize the training content made available on the La Brújula platform.

Document Collection (DC)

On October 13, 2,500 applicants were pre-selected. Between October 13 and 20, they were asked to submit their tax records (carpeta tributaria) to verify eligibility according to the program rules.

Baseline (BL), Midline (ML) and Endline (EL)

The BL was collected between mid-October and early November 2025 among eligible entrepreneurs after Document Collection, before assignment¹, and gathered information on the business and the entrepreneur (sales, costs, profits, workers, labor well-being and business practices). The ML was conducted in June 2026 and collected information on sales and workers in both treatment groups. Finally, the EL takes place 12 months after the BL, between mid-October

¹The selection of finalists and the random assignment are described in the Empirical Strategy section.

and early November 2026. It replicates the questionnaire to ensure comparability and adds modules on business operation, credit and debt, other funding received, and capital stock.

Mode

The Application Form, La Brújula Diagnostic, Document Collection and ML are self-administered online surveys. The BL and EL are administered by phone to maximize reliability and response rates.

Empirical Strategy

Selection process and randomization

The seventh edition of Impulso Chileno opened its national call for applications in late September 2025. Based on information from the Application Form and the La Brújula Diagnostic, the program pre-selected 2,500 entrepreneurs, who then went through Document Collection.

Between mid-October and early November 2025, the BL survey was administered to eligible entrepreneurs. Based on targeting criteria (sales levels, hours devoted to the business, years since formalization and motivation), as well as compliance with the program rules, a group of 705 finalists was formed.

Randomization was carried out on November 14, 2025, with a stratified design of 12 strata defined by the interaction of gender (2 categories), macro-region (Norte, Metropolitana and Sur) and baseline sales level (binary variable split at the sample median, approximately CLP 1,066,000). Within each stratum, each participant had an equal probability of being assigned to one of these three groups:

- **Treatment 1:** 235 entrepreneurs receive a capital grant of CLP 1,500,000 and are offered La Brújula.
- **Treatment 2:** 235 entrepreneurs receive a capital grant of CLP 3,500,000 and are offered La Brújula.
- **Control:** 235 entrepreneurs who are offered La Brújula.

Outcomes of interest

To estimate the program's impact, the evaluation relies mainly on the Baseline and Endline surveys, which collect a large number of primary and secondary outcomes before and twelve months after the intervention. The indicators to be measured and analyzed are as follows:

1. Primary outcomes

- **Sales:** Monthly business sales for July, August and September, measured through direct questions. Each month will be analyzed separately, as will the quarterly average (July–September).
- **Costs:** Direct and indirect business costs for September. They will be reported by component and as total costs.
- **Profits:** Two measures for September will be used: (i) self-reported profit and (ii) constructed profit, equal to sales minus total costs.
- **Number of workers:** Total number of workers employed in the business in September.

- **Business survival:** Binary indicator of whether the business is still operating 12 months after the BL. It is built from a business operation module that asks whether the business is still operating (normally, temporarily closed, permanently closed, or sold or transferred), the month and year of closure, the main reason for closure, and the current main activity of those who closed. For permanently closed businesses, business variables (sales, costs, profits and workers) will be coded as zero.

2. Secondary outcomes

- **Labor protection:** Binary indicators of contributions to health insurance and pensions at the time of the EL.
- **Credit and debt:** Indicators of applying for a business loan since October 2025 and of its rejection (with the reason for rejection and, among those who did not apply, the reason for not applying); current debt by source; total amount owed (personal or business debts); and being more than 30 days late on any debt payment.
- **Business practices:** Two items: (i) investment in any type of advertising for the business in the last 6 months, and (ii) having a budget indicating how much must be paid each month for rent, electricity and other overhead costs.
- **Separation of finances:** Binary indicator of whether the entrepreneur separates business expenses from household expenses.
- **Other funding received:** Receipt and amount of prizes, subsidies or non-reimbursable grants from other institutions (Sercotec, Fosis, Corfo, municipalities or regional governments, other foundations or firms) since October 2025. It measures whether the program crowds out or crowds in other sources of funding.
- **Capital stock:** Estimated value of the business's productive assets (machinery, equipment, tools, vehicles and furniture) if they were sold today.

Estimation of average effects

The specification includes the lagged outcome variable to maximize power (de Mel et al., 2014), as follows:

$$Y_{i,t} = \beta_0 + \beta_1 T1_i + \beta_2 T2_i + \gamma Y_{i,0} + \theta X_{i,0} + \delta_s + \epsilon_i$$

Where:

- $Y_{i,t}$ is the value of the outcome variable for individual i at time t .
- $T1_i$ is a dummy equal to 1 if individual i received Treatment 1.
- $T2_i$ is a dummy equal to 1 if individual i received Treatment 2.
- $Y_{i,0}$ is the baseline outcome of individual i .
- $X_{i,0}$ is a vector of individual baseline characteristics.
- δ_s is a set of strata fixed effects (gender, macro-region and sales).
- ϵ_i is the robust error term.

For outcomes without a baseline measure (total amount owed, arrears on debt payments, other funding received and capital stock), the specification omits the lagged variable $Y_{i,0}$.

Heterogeneous Effects

Beyond the average effect, it is important to identify for whom the program works best, that is, to detect systematic differences in impact according to pre-treatment characteristics. To this end, heterogeneous effects will be estimated using three complementary approaches:

- **Randomization strata:** The strata used for assignment (gender, macro-region and sales level) will be the main dimensions of heterogeneity. The impact will be estimated within each stratum. The goal is to identify the effect in each subgroup, not to test differences between strata.
- **Machine learning methods:** The methods of Chernozhukov et al. (2020) will be applied to take advantage of the large set of Baseline and La Brújula Diagnostic variables to explore other heterogeneities in treatment effects.
- **Subgroups with balance checks:** Effects will be estimated for certain predefined subgroups (years since formalization, sector, motivation, credit behavior, business practices). Before reporting these results, baseline balance will be verified within each subgroup. Only subgroups with good balance and sufficient sample size will be presented; otherwise, they will be reported as exploratory analyses in the appendix of the results.

Sample Size and Statistical Power

Power calculations

The calculations below are based on application data from ICH5. To build a scenario comparable to ICH7, we selected the 750 ICH5 applicants who would have obtained the highest scores under the ICH7 selection criteria. With this subsample, we estimated the mean and standard deviation of applicants' self-reported monthly sales. Table 1 summarizes these values:

Table 1: Descriptive Statistics ICH5 - Average Monthly Sales

Mean	Std. Deviation	Minimum	Maximum
CLP 1,082,416	CLP 434,123	CLP 500,000	CLP 2,000,000

Using the mean and standard deviation, and given the sample size per arm defined for randomization, three scenarios were constructed (Table 2). To ensure comparability across arms, the size was set at 235 entrepreneurs per group, and power was recalculated under different attrition assumptions.

Table 2: Power Calculations - Scenarios

	Optimistic Scenario	Intermediate Scenario	Pessimistic Scenario
Attrition (control / treated)	0% / 0%	10% / 10%	20% / 10%
Minimum Detectable Effect (CLP)	112,432	118,400	122,138
Minimum Detectable Effect (SD)	0.259 SD	0.273 SD	0.281 SD

	Optimistic Scenario	Intermediate Scenario	Pessimistic Scenario
$\Delta\%$ Monthly Sales	10.4%	10.9%	11.3%

The resulting MDEs range between 0.25 and 0.30 SD, which corresponds approximately to sales increases of 10%–11%. In other words, with the proposed sample size, the study has 80% power to detect effects in that range; the exact values are reported in Table 2.

References

- Chernozhukov, V., Demirer, M., Duflo, E., & Fernández-Val, I. (2020). Generic machine learning inference on heterogeneous treatment effects in randomized experiments, with an application to immunization in India (Working Paper No. 24678). National Bureau of Economic Research. <https://economics.mit.edu/sites/default/files/2022-08/2020.12%20HeterogTE-RE-v26.pdf>
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