

Is it possible to accelerate the growth of gazelle entrepreneurs?

Executive Summary

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1. Summary

The last few decades have seen an unprecedented increase in the number of organizations supporting the growth of innovative ventures. These business accelerators seek to identify and boost ventures with transformational potential that can rapidly scale up to become national and global leaders.

Although the importance of high-growth young firms for productivity and economic development is well-known¹, the evidence regarding the impacts that support organizations have on them is sparse. Can these organizations accelerate the growth of high-potential entrepreneurs? Or, are there systematic conditions in developing economies that prevent high-growth entrepreneurship, which these programs cannot resolve?

Our evidence from the Gonzalez-Uribe and Reyes study (2020), titled "Identifying and Boosting 'Gazelles': Evidence from Business Accelerators", shows that the growth of innovative ventures in developing countries is restricted by access to entrepreneurial capital, and that support programs, such as business accelerators, can be cost-effective policy tools to accelerate the growth of gazelles.

Entrepreneurial capital encompasses all the aspects necessary for business' growth that cannot be easily bought on the market, for example, having access to networks that connect the entrepreneur with corporations that can become their clients, or having access

¹ For example, Eslava, Haltiwanger, and Pinzon (2018) show that the difference in productivity between the United States and Colombia is due to the fact that high-growth companies in the Colombian economy grow at lower rates than high-growth companies in the United States.

to experiences and learning from successful entrepreneurs or senior executives in the entrepreneurial sector.

The research laboratory of Gonzalez-Uribe and Reyes (2020) is ValleE², an acceleration program in Cali, Colombia. ValleE provides entrepreneurial capital to its participants through business training, mentoring and visibility. The authors show that this increase in entrepreneurial capital allows the ventures to have twice as many sales as similar ventures that do not receive such treatment.

However, the authors show that increasing entrepreneurial capital is not effective for all types of ventures. While, for the most innovative ventures, receiving such support leads them to grow faster than the average Colombian gazelles (according to data from Eslava Haltiwanger and Pinzon (2018)), the program has no impact on non-innovative ventures or ventures at an ideation stage. The conclusion of the study is that increasing entrepreneurial capital helps to accelerate innovative ventures, but not necessarily to transform average projects into gazelles.

One lesson for the design of acceleration programs is the vital importance of identifying ventures with gazelle potential during the selection processes to maximize their impact. In the case of ValleE, the authors estimate that the aggregate impact of the program on start-up revenue could have been between 31% and 40% higher if no errors had been made in the selection of participants.

These errors occurred when some of the application judges were more generous in their ratings than others (see section 3). This led to some not-so-innovative projects being selected because of the generosity of their judges, while some high-potential projects were turned down because they were randomly assigned to rigorous evaluators. However, these errors were crucial when evaluating the program, since they allowed the authors to estimate the effect of ValleE by comparing the evolution of ventures with the same potential, but which randomly received or did not receive the entrepreneurial capital.

This section summarizes the main findings of the paper; the second section describes the program and its selection process; the third section explains the methodology and identification strategy; and the final section closes with the policy implications of the

² ValleE is a program of the Regional Network of Entrepreneurship of Valle del Cauca and is executed by the Cali Chamber of Commerce

results of the Gonzalez-Uribe and Reyes study (2020) for the design of entrepreneurship support programs, and researchers seeking to evaluate such programs.

2. ValleE and its offer of entrepreneurial capital

The study by Gonzalez-Uribe and Reyes (2020) uses the ValleE program in Cali, Colombia, as a laboratory to understand the impact that a business accelerator can have on entrepreneurship growth. In particular, this program has three key characteristics that make it ideal for answering the questions mentioned above: i) The program only provides non-monetary support to entrepreneurs, allowing the impact of providing entrepreneurial capital to be distinguished from the impact of monetary support to reduce financial restrictions; ii) the support is provided by the Cali Chamber of Commerce³, which relies on highly qualified personnel who are connected to the regional business sector and able to reduce restrictions to entrepreneurial capital for the program's entrepreneurs; iii) the selection process was done through the evaluation of each project by three judges, independently, and through a score, which allows the traceability of the entire process.

Like the other business accelerators in the world, ValleE is a time-bound acceleration program (six months) where entrepreneurs from all over the region apply to be one of the beneficiaries in each year's cohort. The first step in the selection process consists of filling out an application, where entrepreneurs are asked to provide information about the business model and the characteristics of both the leader and his/her team⁴. This information is used to evaluate the growth potential of the venture through the evaluation of three randomly assigned judges, who independently score components such as potential, scalability, innovation and team.

In the first version of the program in 2015, which corresponds to the authors' sample, the ValleE team averaged these scores and selected, as beneficiaries, the 35 entrepreneurs with the highest average scores. It should be clarified that, from the beginning, the program had defined this as the number of beneficiaries it had a budget to serve.

³ The Chambers of Commerce in Colombia are private non-profit entities, which are in charge of registering all formal businesses in the country. These resources are used for the development of the private sector in each of the regions through different programs

⁴ 255 entrepreneurs applied to the program, of which 135 met the innovation requirements sought by the program. These 135 projects were evaluated by 3 judges as mentioned in the text. A total of 50 judges participated in the evaluation process,

The beneficiaries of the program received eight hours per week of practical workshops over three months (totaling about 100 hours) led by local and national experts. The topics of these workshops ranged from prototyping and business models to early stage financing, public presentation and accounting. In addition to this, the program provided entrepreneurs with two types of one-to-one customized advice sessions: the first type consisted of bi-monthly meetings with high-level mentors (presidents and managers of large companies, as well as senior executives of the Chamber of Commerce) to discuss the business strategy of the venture. Apart from giving their business recommendations, the mentors also introduced potential clients or industry contacts that could be of great value to the entrepreneurs.

The second type of customized advice was provided by the ValleE staff, who assisted the entrepreneurs in meeting goals and advised them on the day-to-day operation of the entrepreneurship. Finally, ValleE participants received several opportunities to increase their visibility in the marketplace: they were featured on the Chamber of Commerce's website, in its monthly publications, and at its events. At the end of the process, the entrepreneurs graduated during a "demo day" where they presented their company to different members of the entrepreneurial ecosystem, including potential investors.

3. Impact Evaluation

ValleE, like the other business accelerators, seeks to select the best entrepreneurs as its beneficiaries. If they are successful in doing this, using the group of 100 entrepreneurs who applied and were rejected as controls would not allow for a rigorous impact evaluation.

However, the study by Gonzalez-Urbe and Reyes (2020) shows that the average score of the judges is not correlated with the growth of the entrepreneurs. Does this mean that the experts are not good at identifying the growth potential of the ventures?

No; the authors show that the lack of correlation is because the simple average of the judges' evaluations hides the ability of the evaluators to judge the growth potential of the entrepreneurs. This is because the simple average ignores the systematic differences in the level of generosity of the judges. For example, two experts may agree that project A has more potential than project B, but they may still rate them very differently. The first

expert may rate project A as 4.5 out of 5, and project B as 4; while the second expert who tends to be less generous in assessments would rate project A as 3.5 and project B as 3. When the group of judges is not the same for all projects, this means that the average does not represent the order of preference of the evaluators.

In the case of ValleE, the program did not adjust for these systematic differences in generosity of its judges, and therefore, projects rated by more generous judges were more likely to be selected, regardless of the potential perceived by individual evaluators. The authors constructed an "adjusted score"⁵ per project that controls for differences in generosity across judges, and demonstrated how that adjusted score predicts growth for the entrepreneurs who applied to the program, even for those who were not accepted to ValleE.

The implications of not adjusting for the generosity of the judges were reflected in two types of errors in the ValleE selection: Type I, high-potential projects that were declined because they were randomly assigned to strict judges, and Type II, average projects that were accepted into the program because they were randomly assigned to generous judges.

The authors used these selection errors to assess the impact of the program with an instrumental variables strategy using expert generosity as an instrument. The concept behind the evaluation is to compare the sales results (1) between the highest potential projects that were correctly selected and the type I selection errors, and (2) between the type II selection errors and the average entrepreneurs that were correctly rejected.

The evaluation was based on annual follow-up data for the three years following the program, data from two years before the program collected during implementation, and administrative data from the Cali business register.

4. Principal findings and policy recommendations

The evaluation data indicate that the program has a positive impact on the sales of the participating entrepreneurs⁶. On average, their annual sales increased by \$66 million Colombian pesos (USD \$20k) more than the sales of similar ventures that were rejected.

⁵ Adjusted score refers to the score obtained by estimating the individual score of each project controlling for fixed effect of evaluator using fixed effect regressions of evaluators and companies.

⁶ Specifically, in enterprises where the generosity of the panel affected their probability of being selected

This corresponds to 166% more than the initial sales of the average program applicant. This impact comes mostly from the impact on existing businesses, not from the impact on business ideas. These results are maintained using small sample methodologies as randomization inference.⁷

The impact also varies according to the potential of the entrepreneurs as measured by the adjusted score. For average quality projects that made it into the program there is no evidence of impact, while the impact is positive and significant for projects with higher adjusted scores. For the latter, their sales reach about three times their initial revenue by the time their companies are four years of age. This defines them as high growth gazelle companies according to data from Eslava Haltiwanger and Pinzon (2018).

The conclusion from these results is that the program served to accelerate innovative entrepreneurship, but not to transform average quality entrepreneurs into gazelles. Selection errors were, therefore, costly. The authors simulated a scenario correcting for the generosity of the judges and found that the aggregate sales of the program's beneficiaries would have been between 31% and 40% higher.

There are two principal policy lessons from Gonzalez-Uribe and Reyes' study (2020). Primarily, the results provide evidence that the success of acceleration programs depends on a good selection process able to identify innovative enterprises. Therefore, correcting for differences in judges' generosity is the first step to improving the performance of accelerators that, such as ValleE, select participants using the average scores of randomly assigned judges. The second lesson is that support for gazelle ventures need not always be monetary; acceleration programs that help such entrepreneurs' increase their entrepreneurial capital, for example, by becoming visible and generating connections, can achieve great benefits at a low cost.

The study by Gonzalez-Uribe and Reyes (2020) helps to close the knowledge gap that exists about what works and what does not, and to encourage and accelerate the growth of entrepreneurship in developing countries. More research like this is needed to continue filling gaps in the literature and guide productive development policy.

⁷ See sections 2.3, 2.4 and 2.5 of the paper for further discussion of the results.