

PowerUp Pre-analysis Plan

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Background, Random Assignment, and Sample Characteristics

The PowerUp program is a capacity-building program for innovative small and medium enterprises in six countries in the Western Balkans: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia. It has the main goal of helping firms to attract new customers, expand markets, adapt their business model, and bounce back from the COVID-19 pandemic by boosting demand for their products, thereby potentially making the firms more attractive to investors.

A public call for applications to the program was launched on September 2, 2020. The call was launched through Deloitte and the World Bank's social media channels, through Facebook and LinkedIn, local media, and through partnering organizations such as entrepreneurship hubs and Chambers of Commerce in each country. To be eligible for participation, firms had to be legally incorporated and registered in one of the six countries; operating for at least one year; have between 2 and 100 employees; be innovative and have a product or service that is already generating revenue in at least one market and be looking to boost sales; and not be conducting activities on a "negative list" such as arms, alcohol or tobacco. Firms had to apply online and fill out an application form. The program was offered free of charge, but companies had to sign a Memorandum of Understanding to commit their time to take part in the project.

A total of 412 firms applied for the program by the deadline of October 4, 2020, of which 250 firms were selected based on the eligibility criteria (the main reasons for rejection were being too small or not innovative enough). These firms were then asked to fill out a diagnostic questionnaire that would provide more details on their current traction and sales, their business practices, and their investment readiness. The 225 firms that answered this diagnostic then provide the experimental sample used for this study. They were stratified based on country of operation (Serbia, Bosnia and Herzegovina, or other); whether or not they sold a digital product; and into three groups based on a diagnostic score assessed by Deloitte that measured their baseline levels of business practices and investment readiness. Half of the firms were then randomized to treatment and half to control within each stratum¹, resulting in 113 firms assigned to treatment and 112 firms assigned to control.

The selected firms are heterogeneous in sector. Just over one-third (36%) of firms are in the ICT sector, making customized software or providing information technology solutions for other businesses and consumers. Most of these firms are in software development. Examples include companies that develop mobile and web applications, e-commerce support, enterprise management software, cloud services, and other software consulting for other firms; companies providing digital marketing tools and support; supply-chain management; and helping firms to use new technologies such as virtual and augmented reality and 3D printing. The second most common industry is manufacturing (24%), which covers a wide

¹ The three categories provided (location, digital product, and diagnostic score group) formed 18 strata. There were 214 firms who had answered the diagnostic questionnaire by December 2, and they were randomly assigned within these strata. A further 11 firms that were late in responding were then separately randomized with equal probability to treatment and control within a 19th stratum consisting of 10 of these stragglers, and then the final firm was randomly assigned to treatment as a singleton.

range of activities including making specialized metal products, specialized clothing (e.g. safety gear for factories, medical uniforms, fashion items), food products (e.g. traditional food shipped online, organic processed food products) and wooden products (e.g. handmade window frames and shutters, boats). Professional services accounts for 14 percent of firms, and includes digital marketing firms, legal consulting, health services, and energy consulting. Four to five percent of firms are each in retail, tourism, and education.

Half (50.7%) of the firms rely on information technology for their core business model – as well as the ICT sector, this includes firms engaged in providing online learning, digital marketing services, financial payment technologies, remote sensing, and other digital services. 72 percent of firms are largely B2B firms, with firms in the ICT sector (94%) and professional services sector (90%) being particularly focused towards other businesses as customers, compared to firms in tourism (100%), education (100%), and retail (67%) being more focused on consumers as customers.

Treatment

The program content was implemented by Deloitte Consulting, led by its office in Bosnia and Herzegovina.

The treatment group is then offered a combination of virtual group-based training sessions by Zoom, as well as a series of one-on-one meetings with a Deloitte consultant. These training sessions took place between December 2020 and May 2021, with homework set after each one, and the one-on-one follow-up sessions interspersed. In total, they were offered just over 30 hours of group-training sessions, and 5 hours of one-on-one consulting. The group-based training sessions were as follows:

- Customer and Markets 1: COVID 19 Impact, Market growth, Competitive positioning, December 16, 2020
- Customers and Markets 2 –Customers and Digital Transformation - January 26, 27 2021
- Financial Management and Profitability – February 23, 24, 2021
- Human Resource Management and Internal Organization- March 24, 25, 2021
- Customers and Markets and Market Expansion – April 28 or 29 (split by type of firm)
- Pitching – May 18, 19, 2021

The control group were offered 3 sessions of approximately 1 to 1.5 hours each, for a total of 4 hours of training. One session was on customers and markets, one on finance and internal performance, and one on pitching.

At the conclusion of training, firms were provided with a pitch deck and traction sheet, which they were asked to submit to Deloitte by the end of May, 2021. These would be then scored by judges, and the top 25 proposals asked to submit video pitches, with the top 11 firms then selected to pitch live to investors at a finals event to be held at the end of June, 2021.

Baseline Data Collection

Baseline data come from the application form and diagnostic questionnaire carried out in October and November 2020, and are in our possession at the time of writing this pre-analysis plan. No outcome data have currently been collected, and this short plan sets out our main plans for collecting outcome data and plans for analysis.

Follow-up Data Collection Planned

We currently plan on collecting follow-up data through:

- Submission of Pitch decks and Traction sheets (available June 2021)
- Judges scoring the pitch decks (June 2021)
- A follow-up survey of firms (planned tentatively for October-December 2021)

We also are investigating what sources of administrative data we may be able to link the firms to, and would like to conduct a longer-term follow-up survey in the second half of 2022 budget permitting.

Theory of Change

We have a simple three-step process in mind, which leads to examination of impacts at three levels. First, training should lead the firms to adopt new business practices and take specific actions recommended by the program. Second, these practices and the advice given may lead to the firm pivoting, innovating, and getting short-term traction with customers. Thirdly, these changes could lead to firms experiencing more demand for their products and achieving more customers, sales, and expansion into new markets.

Domain 1: Business Practices and Specific Actions

The traction sheet measures the following practices:

- Has surveyed customers to measure customer satisfaction
- Has calculated customer churn rate

These practices will be collected in the follow-up survey, and will be refined during the development and piloting of that survey, but we currently plan on measuring the following:

Area: Customers and Markets

Does your firm use any form of customer loyalty program?

Do you use the Google Analytics tool to track your website traffic?

Do you track and analyze customer retention and churn?

Does your firm use Search Engine Optimization (SEO)?

If so, have you revised this in the last 6 months to add new keywords or meta-data?

Have you redesigned your website in the past 6 months to include:

- a. Faster loading of the website?
- b. Specific customer stories or recommendations?
- c. Blogs, videos or other story-telling content?

d. Reworked how you describe your main product offerings?

e. A clear call for action to the potential customer

Do you track the conversation rate on sales leads?
Have you surveyed customers in the last 6 months to measure customer satisfaction?
Did you take any specific action to improve customer satisfaction?
Have you started using a new social media platform in the past 6 months?

Have you introduced a change in sales protocols to make it easier or safer for customers to buy from you during the COVID-19 pandemic?

Have you increased your use of stories, customer examples, and other content on LinkedIn?
Have you used data to calculate your market share?

Do you have a good set of customer personas developed, to understand ideal target customers?
Do you use metrics or KPIs to regularly track marketing initiatives and sales growth?

Digitalization

Have you adopted a new digital technology in the last 6 months that allows improving the product or service the firm offers?
What percentage of your goods or services do you sell online?

Area: Financial and Internal Performance

Which of the following financial indicators have you calculated in the last 6 months?

- a. Debt to equity ratio
- b. Return on equity

- c. Cash runway
- d. Receivables turnover ratio

Have you prepared a business forecast that covers the next year?
Have you done a cash flow projection and compared actual cash flows to projections?

Area: Networking

How many other firms from the PowerUp program have you communicated directly with in the past 6 months?

Which of the following have you done with another PowerUp participant:

- a. Purchased a product or service from them
- b. Made a sale of your product or service to them
- c. Received information/leads on how to enter a new market

Do you have any new business from a network connection provided by Deloitte that was not a PowerUp program company?

Area: Market Expansion

Which of the following have you done in the past 6 months?

- a. Contacted a member of the diaspora to get advice/help entering a new market
- b. Identified a new potential partner in a foreign market?
- c. Hired a salesperson in another country?
- d. Benchmarked your product or service against that of your main competitors in the target market

Area: HR

Have you done an employee satisfaction survey in the past 6 months?

Have you made any changes in your employee compensation to more directly link employee compensation to new sales?

Have you implemented any new training program or discussion with employees to better improve the way they interact with customers?

Does your company have clearly set OKRs?

If so, a) were employees involved in developing these OKRs?

b) How frequently do you track performance against these OKRs?

Have you hired a new sales person in the past 6 months?

Domain 2: Pivots, Innovations and Short-Term Traction

The traction sheet measures:

- **New pivot:** the firm has pivoted since December 1, 2020 to change the focus of their business to a different product, type of customer, or target market
- **New innovation:** the firm has started selling a new, upgraded, or improved version of a product or service
- **Change in CSAT:** change in customer satisfaction score between November/December 2020 and March/April 2021
- **Change in Customer Churn rate:** between November/December 2020 and March/April 2021
- **Change in Website Visitors:** between November 2020 and April 2021
- **Change in Facebook likes:** between November 2020 and April 2021
- **Interested in outside financing**
- **Financial traction: number of months of operating expenses on hand**

The most important measures here are the new pivot, new innovation, and then we will construct a standardized index of the other customer measures (CSAT, churn rate, website visitors, facebook likes). Being interested in outside financing and financial traction we consider as secondary outcomes.

More detailed questions on pivoting and innovation will be asked in the firm follow-up survey, and measures like website visitors and Facebook likes will be tracked over a longer time horizon with the survey.

Domain 3: Judges Scores

Firms will submit their traction sheets and pitch decks at the end of May/early June 2021. Each of these will be scored by three judges, who will be a mix of investors and experts in small and medium enterprise growth in the region. The judges will give firms a score out of 5 for each of the following seven categories, with pre-assigned weights then used to arrive at a total score. The total scores of each of the three judges will then be averaged to get a final score for each firm.

- a. **Unique value proposition** (20%) – this should aim to get at what the firm has to offer to customers, how it solves customer needs, and what distinguishes them from the competition. That is, does the firm have a “special sauce” and how good is it?
- b. **Technology** (10%) - does the firm have an innovative or new technology, where technology should be considered broadly to also include innovative processes as well as product innovation.
- c. **Business model** (10%) – is there a clear and compelling business model which explains how the firm will make revenue, grow and be able to return money to investors?
- d. **Team** (10%) – does the team have the relevant background and experience to make this happen?
- e. **Traction** (30%) – is there demonstrated growth in the business, that shows customer interest and growth, and rebound from the COVID-19 pandemic?
- f. **Market expansion** (10%) – has the firm expanded into new markets or new customer segments in the past year?
- g. **Pitch deck effectiveness** (10%) – is the overall pitch clear and compelling, and effective?

Final score by Judges: the sum of the above seven scores, aggregated using the weights noted above.

We hypothesize that the treatment will be most likely to have an impact on *traction*, *market expansion*, and *pitch deck effectiveness*, but may also help the firms in better being able to explain their business and may have lead to changes in these other categories as well.

Note that these scores will only be available for firms that submit their traction sheets and pitch decks. Firms will be incentivized to do this by the chance of qualifying as one of the best projects to pitch to investors, being told they will get feedback on their pitch deck, and by this submission giving them automatic inclusion in a directory of participating firms that will be circulated to potential investors, as well as the chance for one on one meetings with investors and potential mentors. Nevertheless, we expect not all firms to submit these materials. We will check for whether attrition is balanced by treatment status and use inverse probability weighting as a robustness check if there is differential selection based on baseline observables.

Domain 4: Firm Performance and Market Expansion

The traction sheet measures:

- **Market expansion:** Started selling products in a new city or country
- **Employment growth:** Change in full-time employees from December 1, 2020 to April 30, 2021
- **Customer growth:** Change in paying customers from September and December 2020 to April 2021
- **Number of Countries Sales Made to in first four months of 2021**
 - **Number of Countries in the Western Balkans (out of 6)**
 - **Made a sale in the European Union**
- **Value of export sales**
 - **Has positive export sales**
- **Quarterly revenues of the company**

- **Profit/loss in Q1 of 2021 and April 2021**
- **Made a new deal with an investor since December 1, 2020**

We will group these into two main subdomains: (a) Market expansion (measured by market expansion, number of countries sold to, making a sale in the EU, and having positive exports). We will construct a summary index measure also in this subdomain; and (b) firm growth and performance (measured by sales, profits, export values, and employment) and will construct an index in this domain. Since firm sales and profits are expected to be heterogenous and have long tails, we will use the inverse hyperbolic sine transformation for these outcomes.

The follow-up survey will measure these outcomes over a longer time horizon, and ask more detailed questions on market expansion to also try to capture whether firms are expanding by adding new types of customers in existing markets, as well as expanding to new markets.