

A Behavioural Insights Toolkit for Entrepreneurship Programming

The United Nations Development Programme and The Behavioural Insights Team





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Introducing the toolkit

Globally, almost 68 million young people aged 15-24 are unemployed (that is, are available for and seeking work), a rate three times that of adults 25 and over. Labour force participation is particularly low among young women who are twice as likely as young men to not be in education, employment, or training (NEET). This is particularly stark in the Arab States where the unemployment rate among youth aged 15-24 currently stands at an estimated 23%, compared with a global average of 13.7%. Promoting entrepreneurship can create alternative opportunities for youth to contribute to economic development. For example, 65% of employment in the European Union is generated by small- and medium-sized enterprises (enterprises with between 0 and 250 employees).

Entrepreneurship is inherently a set of behaviours, from designing a product or a service to applying for funding. Interventions to promote entrepreneurship can therefore be more effective if they are based on a realistic and evidence-based understanding of human behaviour. Using a Behavioural Insights (BI) approach to understand the problem and design interventions can help to improve business outcomes. Even small changes to existing policies and programmes - or how they are communicated - can have a positive impact. For example, one study done in Turkey by the Behavioural Insights Team (BIT) found that businesses were 27% more likely to apply for export support funding if the government had been upfront about the challenges involved and provided step-by-step guidance on how to apply.

The aim of this toolkit is to equip development practitioners, such as policy-makers, project designers and managers, with practical tools to develop behaviourally-informed interventions that support youth and women's entrepreneurship. The tools and insights found in this toolkit were gathered through a one-year behavioural insights programme led by UNDP's Regional Innovation Team in the Arab States and BIT. Through this project, we supported 10 UNDP Country Offices across the Arab States region* and their local partners to:

- identify a pressing behavioural challenge specific to entrepreneurship and linked to existing UNDP country initiatives;
- understand the barriers to, and enablers of, positive entrepreneurial behaviours in their context;
- design and prototype BI interventions to promote positive entrepreneurial behaviours; and
- pilot and evaluate their chosen intervention.

With the Country Offices, we applied the methodology laid out in this toolkit to help tackle some of the biggest challenges faced by entrepreneurs. Projects have included simplifying and digitising the business registration process to make it easier for young entrepreneurs to access support; encouraging women entrepreneurs to keep their books up to date; and increasing participation in entrepreneurship training programmes for people with disabilities. We hope that this toolkit provides other development practitioners with the knowledge and tools to conduct their own behavioural insights projects to promote successful entrepreneurship globally.

* Djibouti, Iraq, Jordan, Lebanon, Libya, Morocco, Somalia, Sudan, Syria, and Tunisia.

Why is a Behavioural Insights toolkit needed?

Promoting entrepreneurship can contribute to economic growth and recovery, and help address the challenge of unemployment. Not only can it provide alternative employment opportunities for young entrepreneurs, it also creates more jobs for others as businesses grow. One study of 23 OECD countries from 1974-2002 found that every 1 percentage point increase in self-employment (a common measure of entrepreneurship) predicts a 1.12 percentage point reduction in unemployment eight years later.

Successfully promoting entrepreneurship requires a range of policy tools such as financial incentives, education programmes, and changes to the regulatory environment. A Behavioural Insights approach can complement these tools by introducing an evidence-based understanding of human behaviour. Behavioural Insights is a concept used to refer to the insights from a group of disciplines – including psychology, economics, sociology, cognitive science and neuroscience – that are applied to real-world problems.

In 2021, UN Secretary-General Antonio Guterres recognised the key role of behavioural science to advance the UN's mandates and

The BI approach provides a realistic account of how and why humans act the way they do, and encourages the design of policies, products, and services to reflect this understanding.

A BI approach also emphasises the importance of testing and evaluating interventions to ensure that resources are channeled to where they are having the most impact. It can complement traditional policy tools. For example, a government may decide to reduce the regulatory burden on banks that offer loans to potential young entrepreneurs, and a BI project might involve working with banks to make it easier for young people to successfully complete the loan application process. Without addressing behavioural barriers in the application process, a regulatory approach might lead to banks offering more loans but young entrepreneurs not applying for them.



Entrepreneurship is a good target for a BI approach because it is inherently behavioural. Successful entrepreneurship can be broken down into a series of behaviours, such as drafting a business plan, designing a product or a service, identifying customers and suppliers, registering a business, and creating new networks to extend business reach, to name only a few. By narrowing in on the specific behaviours involved in entrepreneurship, development practitioners can focus on understanding barriers that are preventing youth from pursuing and succeeding in entrepreneurship. For example, some young people may decide and make plans to start their own business, but then struggle to find the time to successfully follow through. One common barrier preventing people from successfully implementing their intentions is *planning fallacy*, a cognitive bias describing our systematic tendency to underestimate the time, effort or risk implied in an action. By identifying this as a key barrier, development practitioners can design targeted interventions to overcome it, for example by offering programmes that strengthen young people's *action planning* skills. For more detail and examples of how a behavioural approach can be applied to entrepreneurship you can consult the following resources of our programme Paving the Path to Successful Youth Entrepreneurship:

-
- Presentation at

Blog post:

-
-

This toolkit outlines how to apply a BI approach to your own entrepreneurship programming, starting with the following questions:

- What behaviour should be the focus?
- What are the motivators that help explain this behaviour?
- How can this behaviour be encouraged?
- How can the success of the intervention be measured?

In this toolkit, you will find a series of activities and tools to answer these questions. You will also find barrier cards that highlight the psychological barriers which may prevent entrepreneurs from being successful, and solutions cards with levers to address these barriers. These barrier and solution cards are mostly focused on entrepreneurs' behaviours, but the solution is not always in the hands of the entrepreneurs. As you will see, behavioural enablers can be designed and implemented by a series of actors (from banks, universities through to incubators and governments). These actors play a critical role in removing barriers to entrepreneurship and in designing a more supportive environment for entrepreneurs.



How to use this toolkit

This toolkit has five sections that represent key stages in the process of conducting a BI project:

1. Select a behaviour to target
2. Understand your target group and their behaviour
3. Design a behaviourally-informed intervention
4. Prototype your intervention
5. Pilot your intervention

Although each stage is designed to build on the previous stage, the process outlined in this toolkit is not linear but iterative. At each stage you'll find knowledge, tools, and activities to help you create a behaviourally-informed intervention. Throughout the guide, you will find case studies and examples inspired by activities conducted by UNDP Country Offices.

As you progress through each stage, you will learn new information that might prompt you to revisit previous decisions. For example, you might identify 'young entrepreneurs applying to formally register their business' as a suitable target behaviour, but later find that the main barrier young people are facing is not registration but instead accessing bank loans. In this case, you may need to reconsider your target behaviour. Each stage can therefore be revised and continually refined by feeding learning back from later stages. Sometimes, you may explore more than one stage in parallel. To ensure that new information feeds into previous decisions and enriches the success of your work, we recommend that you pause after completing each stage and ask yourself if you have learned anything new in this stage that could inform and adjust the decisions made at previous stages.

This toolkit can be used as an interactive PDF, which you can fill out digitally. Alternatively, it can be printed out as a booklet and filled out by hand. For each activity, we have provided space for you to write your answers. However, do not hesitate to think bigger, go to a white board, or use pencil and paper and allow yourself more flexibility in your answers!

Note! While this toolkit describes how to conduct a BI project, it does not discuss all the ethical considerations that need to be thought through during your project. For more information on how to conduct a BI project ethically, see

“ At UNDP Libya, we partner with incubation programmes, and have found that young entrepreneurs from rural areas are underrepresented in these. Our main objective was to increase the number of applicants from rural areas, so we crafted an SMS campaign aiming to enhance awareness of the programmes. While prototyping the messages, we exchanged more with our target audience and we realised that young entrepreneurs weren't participating because they didn't know about the programmes but also because they didn't believe they had a chance of being selected. We decided to iterate on the messages in a way that highlights grit and motivation, to test whether this would have an effect on the quality of their applications. ”

— UNDP Libya



STAGE 1:

Select a
behaviour to
target

Policy or organisational objectives are often broad and complex, for example promoting 'youth entrepreneurship', 'financial inclusion', or 'women's empowerment'.

But as Nobel Prize winners, Esther Duflo and Abhijit Banerjee say: "it is possible to make very significant progress against the biggest problem in the world through the accumulation of a set of small steps, each well thought out, carefully tested, and judiciously implemented...".

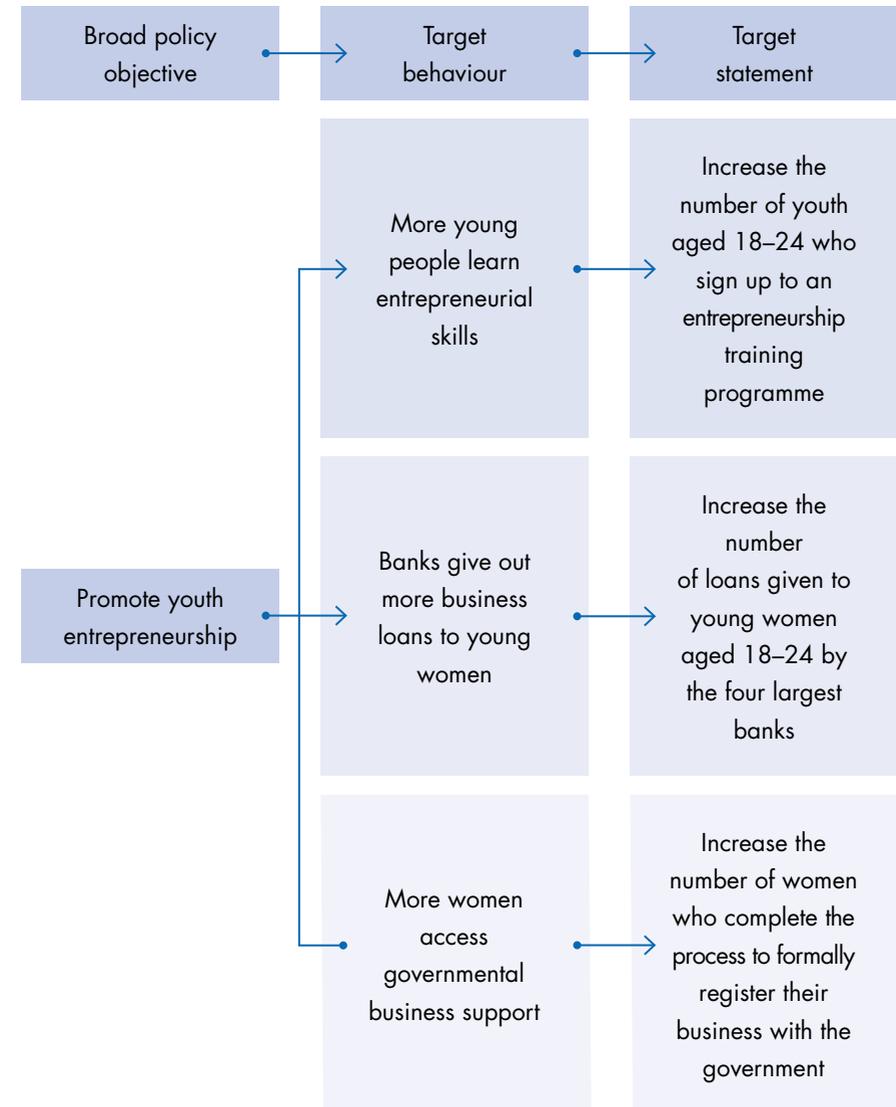
A BI approach will thus require you to narrow down a broad policy objective into a series of target behaviours and then to choose the one that would be the most feasible and impactful to change. To do this :

- First identify your broad policy objective
- Generate a list of specific behaviours that people do in the context of your policy challenge (and who does them)
- Prioritise the behaviours by assessing which are most feasible to change and are likely to have impact if shifted
- Determine whether each prioritised target behaviour is measurable and the data source for each
- Write a target statement for each target behaviour you have selected.

"The political constraints are real, and they make it difficult to find big solutions to big problems. But there is considerable slack to improve institutions and policy at the margin...These changes will be incremental, but they will sustain and build on themselves. They can be the start of a quiet revolution."

—Esther Duflo and Abhijit Banerjee.

The diagram below provides an example of how the overall policy objective of promoting youth entrepreneurship can be narrowed down to specific target behaviours in specific populations. The next stage of the toolkit lays out a set of activities to help you narrow your focus too.



This is an interactive PDF.

All the activities are in green-framed pages like the one that immediately follows. Each time you see **I** you can write in it and save the text to refer to later and to track your progress.

Try it out here :

I

If you can't write here, you might have to change your PDF reader. We recommend you use Acrobat PDF reader (free PDF reader).

The  shows you an example of answer for each question.

In the grey boxes you'll find testimonials from the UNDP Country Offices that participated in the programme.



STAGE 1 : Activity 1

Your broad policy objective

Before you identify a behaviour to target with your BI project, you need to know what your overall policy objective is. What entrepreneurial outcome are you hoping to change in the world?

Example: promote youth entrepreneurship.

Now, ask yourself if this policy objective is more effectively achieved by addressing wider structural factors (such as broader political and social conditions and institutions at national, regional and international levels) or if a behavioural approach is suitable and can complement traditional policy tools?

Example:

Having an unregistered business can prevent entrepreneurs from accessing government services and benefits for business owners, e.g., credit, training. For this case, the overall objective is:



supporting entrepreneurs to access government-provided business development services (by registering their businesses)

I

Create a behaviour map

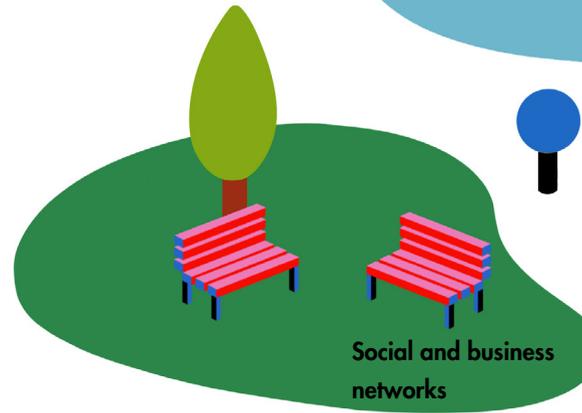
You can now start to map out the specific behaviours that people do that contribute to the objective. 'More entrepreneurship' may be your objective, but it is not a specific behaviour. The degree of effectiveness of a behavioural solution is often dependent upon specific targeting. How will you know when 'more entrepreneurship' has been achieved? What will people be doing more (or less) of that will tell you your project is succeeding? To help you identify the specific behaviours involved, it can help to first map out all the different actors in the ecosystem. Entrepreneurship involves not only potential entrepreneurs themselves, but also (for example):

- National and local government,
- Banks, credit and insurance agencies,
- Incubators and accelerators,
- Universities and other training institutions, and
- Social and business networks around the entrepreneur.

Each of these actors can adopt behaviours that help (or hinder) successful entrepreneurship. For example, family and friends of a potential entrepreneur can provide financial support to the entrepreneur, or can volunteer their time to work for the entrepreneur or teach them new skills such as how to use social media to promote their business. Governments (which of course are made up of people) can change legislation or streamline their services to make it easier for entrepreneurs to access support or to register their business. Financial institutions can make loans easier to obtain, and training institutions can provide evidence-based programmes that provide entrepreneurs with the relevant skills to succeed. All of these behaviours (and many more) could be targeted with a BI project.



Potential young entrepreneurs



Social and business networks



Universities and training institutions

Remember!

The focus here is on **behaviours**, not attitudes or awareness. Even if you want to raise awareness or change attitudes around entrepreneurship, the ultimate aim will be to change behaviour. Influencing attitudes is only one possible way to do this, and not an end in itself. Therefore, try to focus on the end goal.



Banks and insurance agencies



National and local government



Incubators and accelerators



STAGE 1 : Activity 2

Your behaviour map

Now create your own behaviour map! This mapping exercise will help you to identify key actors and the specific behaviours they are doing that are helping or hurting your overall goal.

Place your overall goal in the centre of your map.

Who contributes to the success or failure of this goal?

- Write down all the groups of people or entities you can think of that are involved in this space.
- **For each 'actor' you mapped out, list all the behaviours or actions they take (or you would like them to take) that contribute to the success of this goal.** As shown in the examples, you can list behaviours that the actors are already engaging in and you would like them to do more or less of, or you can list behaviours that you would like them to start doing. The goal here is quantity - write down all the behaviours you can think of for each actor.



Actor:
Entrepreneurs

Behaviours or actions:

- Download the registration form
- Fill the form
- Submit the documentation

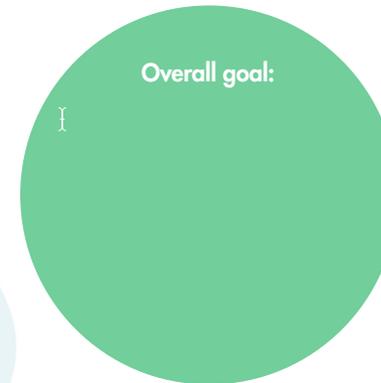
Actor:
Business registration Office

Behaviours or actions:

- Provide entrepreneurs with information
- Provide support on filling out the forms
- Communicate availability of registration appointments

Actor:

Behaviours or actions:



Actor:



Behaviours or actions:



Actor:



Behaviours or actions:



Actor:



Behaviours or actions:



Identify potential partners

The behaviour map is a useful tool for identifying not only the behaviour and actor you want to target with a BI intervention, but also the main partners you could collaborate with to design and deliver your BI intervention.

For example, if you want to encourage more young people to go into entrepreneurship, you could decide to focus on increasing the number of youth who apply for a bank loan to start their own business. You may have existing connections with some banks and therefore seek to involve them in the design and delivery of your BI intervention.



Tips on how to choose a partner to work with:

- Who do you have access to? Who do you already work with? How strong is your relationship? Does this partner provide you with an entry point for your intervention?
- Who would be willing to collect data or give you access to data?
- Who would be willing to work with you to design or deliver a BI intervention?
- Who is able to adapt and possibly scale your intervention?

“ The Covid-19 pandemic prompted UNDP Morocco to invest in supporting the Moroccan government’s digital transformation goals. As part of these efforts, the behavioural challenge the team chose to focus on was the slow uptake of mobile money, despite the Moroccan Central Bank’s efforts to expand digital finance and financial inclusion. The Central Bank embraced this opportunity to work with UNDP on testing out new approaches – without them, it would have been impossible to pursue such a strategic leverage point. ”

—UNDP Morocco



STAGE 1 : Activity 3

Identifying partners

Look at your behaviour map and the questions above and write down which of these groups you could partner with.

(For each potential partner listed) How will you approach this partner? What actions will you take, and who will be responsible for them?

Actor 1:

I

Actor 2:

I

Actor 3:

I

Actor 4:

I

Prioritise 1-2 target behaviours

Now that you have mapped out the landscape and identified a partner to work with, you've got to dive in and make some choices! Not all of the behaviours you wrote down in your behaviour map will make good targets for a BI project. To begin with, for a BI project to be successful, the target behaviour must be:



- **Observable:** you must be able to see it. A behaviour is a physical event.
- **Measurable:** you must be able to collect qualitative or quantitative data that you can use to assess whether the behaviour is happening and to what extent.
- **Specific:** It should be described in a way that an outside observer can easily identify the behaviour in question.

This point is crucial!

If your project does not target a observable, measurable, specific behaviour then how will you know how to change it and how will you know if your intervention worked or if it backfired? For example, a goal to encourage 'more entrepreneurship among youth in the Arab region' does not meet this criteria because 'entrepreneurship' is not a behaviour. 'Completing a 1-year entrepreneurship training programme' or 'applying for a business loan', however, are specific behaviours.



STAGE 1 : Bonus Activity

Quiz: Is this a behaviour ?

1. Is *completing an entrepreneurship training programme* a behaviour?

Yes

No

2. Is *providing a platform for dialogue between potential investors and entrepreneurs* a behaviour?

Yes

No

3. Is *promoting an entrepreneurial mindset* a behaviour?

Yes

No

Now that you have a shorter list of behaviours that you could potentially target with your BI project, you need to prioritise which behaviours to take forward into the next phase. You want to end up with one or two behaviours. You could prioritise based on **impact** and **feasibility**.

- **Impact:** Consider the potential *overall* impact on your policy objective of changing a particular behaviour. Think about how many people do, or are directly or indirectly affected by the behaviour, and whether a small change in the behaviour would be considered a success by different stakeholders.
- **Feasibility:** Consider the ease with which the behaviour can be changed. Even the most impactful behaviour might not be a good target behaviour if it is very difficult to change. Think about what level of individual effort it would take for people to change their behaviour, and how much capacity you/your partners have to intervene in the environment in which the behaviour takes place.





STAGE 1 : Activity 4

Defining a target behaviour

Now, it's time to choose one or two target behaviours to focus on. Remember that these must be observable, measurable and specific. It is often more effective to focus on one or two behaviours for which you can design tailored BI interventions for, rather than intervening less intensely on too many behaviours with generic interventions. It is helpful to use existing data at this stage if you have access to it.

Which behaviour(s) is likely to have the most impact if successfully changed?

I

Which behaviour(s) could you and your partners more easily change? (e.g. who do you/your partners have access to, where in the entrepreneurial ecosystem could you potentially intervene?)

I

Write down the 1-2 behaviours that have the highest impact AND feasibility (and note whose behaviours they are):

I

Now, it's important to refine your target population as much as you possibly can.

Who are the specific people whose behaviour you want to change? Your project is likely to have more success if you focus on a specific group of people (e.g. 'young women entrepreneurs between the ages of 18 and 35 who have a microbusiness and who live in Amman') instead of a broad population (e.g. 'women entrepreneurs'). This is because you can focus your intervention on addressing the barriers that this group faces, which may be different to the barriers other groups face.

Who is your target group?

I

“ At UNDP Somalia, we have a strong partnership with SIMAD University’s Institute for Innovation, Technology and Entrepreneurship, based in Mogadishu. The Institute is looking to encourage its students and alumni to register their businesses and keeps track of the impact of the support it provides to them. We decided that this would be the best entry point for a small-scale pilot, the learnings of which could later feed into the design of a planned one-stop centre for registration. According to the World Bank, Somalia ranks 190 on ease of doing business, and it is estimated that opening a new company in Somalia takes about 70 days while the cost of business start-up procedures is 198.2 as a percentage of GNI per capita (World Bank Doing Business 2019). Improvements to the registration process could have significant ripple effects. ”

—UNDP Somalia

Summary

Now let’s piece it all together!



Example:

- **Overall goal:** Supporting entrepreneurs to access government-provided business development services (by registering their businesses)
- **Your target behaviour:** Once they have started, encourage the entrepreneurs to complete the business registration process
- **Your target group:** Young urban entrepreneurs
- **Any additional collaborators/stakeholders:** registration office

Your overall goal:

I

Your target group (whose behaviour you are hoping to change):

I

Your target behaviour (what you want the target group to do more/less of):

I

Your (potential) partners:

I



STAGE 2:

Understand Your target group and their behaviour

Once you have identified the behaviour you want to encourage or discourage, you have to understand the mechanics behind it. You might have beliefs and hypotheses about this behaviour, but you need to confront them with reality and evidence. The goals of this stage are to:

- Understand the context in which existing interventions are delivered
- Understand the perspectives of the target group
- Understand decision points and barriers to the desired target behaviour



Review existing information and collect new data

There are several research methods you can use to help you better understand your target group and target behaviour. An ideal place to start is to review existing literature to learn what is already known about the topic and assess the strength of the evidence. For some help on how to do this, you can check the guide, [Reviewing Existing Literature](#), from Walden University.

By 'literature', we mean both academic literature (books and peer-reviewed journal articles) and grey literature (material produced by non-academic actors such as NGOs and governments). You can also consult Monitoring & Evaluation reports to understand what has (or hasn't) worked in the past.

This research will help you understand barriers and levers to your chosen behaviour, solutions that have been tried and tested and where there are still gaps in knowledge or evidence.

Reviewing existing literature is only the first step. It is also necessary to go into the field and meet your target users to better understand their perspectives. What are they currently doing? What do they want to be doing? What is standing in the way of them engaging in the desired behaviour? What is happening around them that is influencing their behaviour? In some cases, it will be useful to also speak with other stakeholders. For example, if you would like more young people to apply for business loans from the bank, you should collect data from both young people and bank representatives in order to understand the system as a whole.

There are several research techniques you can use to explore your issue. You can gather data through:

- **Experiencing the journey yourself or observing others doing so.** (e.g. spend a day at the business registration office to see how people register their business). This will allow you to identify pain points in the process or potential points of intervention.
- **Surveys.** Surveys allow you to get a broad impression of an issue from a larger number of people in a short time. Surveys are ideal for estimating the prevalence of particular issues, and contrasting and comparing different people's perspectives and experiences. For example, if your goal is for more young entrepreneurs to complete the process of registering their business, you may want to survey people who have completed the registration process to understand what they found easy and difficult about the process, and what would have helped them.
- **Focus groups or interviews with people who have first-hand experience of the behaviour (e.g. target users, front-line service providers).** By speaking with users about their views, experiences, values, emotions, and motivations, you can get an in-depth understanding of the issues they face.



A few tips to keep in mind to ensure interviews/surveys are conducted ethically:

- Participants must provide informed consent to take part in the research.
- Remind your participants that they are free to opt out of the interview at any time, and not answer any question they do not wish to.
- Remember that data should be stored securely and reported anonymously, unless participants have given express permission to be identified.

For more information on conducting ethical BI research, see BIT's recent UNICEF discussion paper and associated toolkit on applying BI ethically with children.

- **Analyse existing historical data.** Analysing existing data (e.g. administrative data from stakeholders) can be a very useful way of identifying the key aspects and scale of a problem. For instance, if you are interested in the formal registration process, try to analyse government data on the registration process to identify where in the process people are most often dropping off.

You may not need to use every tool in every project. The tools you should use in your project will depend on what questions you have. Once you have collected and analysed the data you need, you should look at the findings all together to give you a clear picture of the issue.

“ Learning about the behavioural barriers preventing women entrepreneurs from accessing microfinance services was so enlightening for UNDP Djibouti. We quickly realised that some of our approaches - which had been grounded in survey data - were not adapted to the social context of some of the communities we serve. Direct interviews were the only way to truly understand their needs and why only 26% of the population has a bank account. ”

—UNDP Djibouti

“ During the exploration phase of our experiment, we gathered secondary data via questionnaires and semi-structured interviews with young entrepreneurs, start-up hubs and corporate lawyers involved in the business registration process. We found that each party displayed some level of in-group and self-serving bias towards some of the other parties involved. To overcome this, we decided to conduct first-hand observation at the commercial registrar’s office.

We were directed to an independent printing store a few metres away from the registration office in order to print and sign a small booklet which in turn must be signed by an attorney in order to begin the process within the registration office. The next step, for all types of business, is to present this booklet to the commercial registrar’s office along with a fee of 50,000 SDG (over 100 USD) in order to receive initial approval. In the absence of formal information materials, we were fortunate to receive detailed guidance from the staff at the printing store. They had time to dedicate to us, because the economic situation in Sudan meant very few entrepreneurs could afford to register.

The observation exercise proved to be extremely helpful in debiasing the information that we had received and understanding how the parties involved interact with one another during the registration process. It gave us better insight into the process overall and how to select the most impactful and efficient intervention. ”

— UNDP Sudan

Map out the user journey

Once you have an understanding of the user and their context, you should identify possible points in the user’s journey that can be effectively targeted with a behavioural insights intervention. In order to find your entry point you have to zoom in, breaking down the process into a series of precise actions. One way of doing this is by drawing a user journey.

A user journey is a tool that allows the diagnosis of the current state of an experience for a particular user. It shows step by step the different actions that a person must perform to access and use a service or a product, or to perform a behaviour. It is used to identify the bottlenecks or problematic points of an experience, and thus identify possible areas for action. The knowledge you have gathered in the previous section should help you to draw your user journey. If your targeted audience is very diverse, do not hesitate to draw up various user journeys, for example if you are targeting people with disabilities you might want to draw different user journeys concerning different types of disabilities.

If you still have questions about the journey, consider going back to the previous step and collecting more data. The user journey process can benefit from a collaborative approach with users. For example, during interviews you could ask users to describe the process as they have experienced it while you note down the different steps on post-it notes. You can then work with the user to move the post-it notes around until they confirm that the journey you have mapped out reflects their experience.



STAGE 2: Activity 5

Your user journey map

Step 1

Write down every step of the user journey to better understand the process your user goes through.

As shown in the example, each step in the journey should be a decision or action the user (or someone they interact with) has taken.



Step 2

Now that you have your user journey map, you can identify the main pain points in your journey.

Ask yourself, what is the most difficult or/and frustrating step for the user?

Use the dot line to rate each step as follows:

Not difficult/ frustrating at all	A little bit difficult/ frustrating	Frustrating	Very difficult/ frustrating



Example:

Go to the registrar's office	Get the forms required for registration	Fill out the form correctly depending on the type of business you want to register	Gather all the paperwork needed	Go to the office meet with registrar, the office is closed	Unable to find clear information about the process	Try to find someone at the registrar office to follow up and inform you	Wait and follow up	The company has now been approved and register. Entrepreneurs can start filing taxes and applying for funding.

The step with the most black dots is:

Bonus step

You can copy and use the same template to map out what your ideal process "should" look like.

Identify barriers to, and enablers of, the target behaviour

There are many reasons why a behaviour can occur or not. People can face barriers to enacting a particular behaviour, or they can face enablers that encourage the behaviour.

Behavioural science has identified and developed an increasingly sophisticated number of behavioural insights that capture when, how and why we are motivated to act (or not) as we do. They reveal, among other things, that people:

- Rely on a set of known mental shortcuts to make important decisions (known as heuristics);
- Are susceptible to systematic and predictable errors in judgement when they make decisions;
- Can make worse (rather than better) decisions when offered more information or more choices;
- Struggle to convert their intentions into actions, even when they are motivated.

To identify the particular barriers and facilitators impacting your target behaviour, you should review the information you have gathered, up until this point. What is stopping your target group from engaging in the desired behaviour? Is there anything that encourages people to perform the behaviour? Although the exact barriers at play will be different for every target behaviour, there are some common barriers to entrepreneurial behaviours that we identified during our project. On the next page, you will find a list of the main barriers that we have identified as inhibiting entrepreneurial behaviour. Please note

that not all will apply to your context or behaviour. Moreover, while we have conceptualised these as barriers, they can also be turned into behaviour levers.



Barriers



Missing conceptual models

Does the entrepreneur know what they need to do to start and run a business?

Starting and running a business venture requires knowledge of what steps are required and how to perform them successfully (e.g. understanding the competitive landscape, identifying a gap in the market, exploring the viability of the product or service, seeking market feedback, choosing the right employees and incentivising them, accessing resources, and developing and growing one's business). When entrepreneurs have little or no conceptual understanding of how to start a business, they may be less successful.



Frictions

How complex and demanding is the process that the entrepreneur needs to engage with?

Entrepreneurs are often faced with administrative processes and requirements when starting, operating, and growing a business. Real or perceived regulatory complexity may prevent them from undertaking these tasks, despite being initially motivated to complete them. Even small frictions in a process such as one extra step in a form or unnecessarily complex language on a website can make the difference between taking action and not.



Lack of self-efficacy

Does the entrepreneur believe they have the ability to succeed?

Self-efficacy is the belief that one has the necessary abilities and skills to succeed. Entrepreneurs' self-perceptions influence how interested and likely they are to start a business, and how motivated and likely they are to succeed at it. It also impacts their perceived control, how much stress and self-blame they experience, and how long they persevere for. Finally, it predicts the scope of career options and occupational interests considered (especially for girls and women).



Poor goal-setting

Does the entrepreneur set ambitious goals for their business?

Setting goals and committing to them affects performance because they focus attention and lead to greater efforts and persistence. Entrepreneurs who set specific and challenging growth goals for their ventures (e.g., regarding sales and employment) achieve higher growth rates and new venture survival rates. Goal-setting can also increase and nurture motivation among prospective entrepreneurs.



Choice overload

Does the entrepreneur have too many choices available?

Having too many choices available in any given situation can impact the decision-making process because it takes more time and effort to choose. We have limited cognitive resources to process complex information and to weigh up pros and cons. When it takes too much time and effort to decide, entrepreneurs may stick to the status quo and the default option - even if it's not in our best interests. They may also defer or avoid making this decision altogether, or make poor decisions because of decision fatigue.



Feeling helpless

Does the entrepreneur feel helpless and discouraged when they fail?

Business ventures are associated with high risks and therefore high failure rates. Repeated failure may negatively impact a person's perceived ability to solve a given task and lead to a lack of motivation to even try. When faced with repeated failure, entrepreneurs may become discouraged and give up on their entrepreneurial endeavours. Feeling helpless may worsen the entrepreneur's performance and lead to higher exit rates.



Scarcity mindset

Are the entrepreneur's decision-making abilities affected because of pressing needs?

Poverty and associated stressors can be a source of cognitive load, leading people to 'tunnel' their attention towards their most pressing needs (such as food or money), leaving limited mental bandwidth for other important issues. Entrepreneurs who face this 'scarcity mindset' may be less able to focus on business activities, especially those that involve planning for the future. As a result, they can make suboptimal decisions (e.g. not saving enough, overborrowing, or not investing enough in education). Unnecessarily complicated processes may therefore particularly discriminate against entrepreneurs from low income or otherwise marginalized backgrounds.



Negative emotions

Does the entrepreneur experience negative emotions that impede performance?

The uncertainty of entrepreneurial environments can make people more susceptible to negative emotions such as stress, fear of failure, loneliness, mental strain, and grief. These emotions may cause severe emotional strain and impede one's ability to perform at their best.

If entrepreneurs are too afraid of failing, for instance, their likelihood of starting a new venture decreases. Entrepreneurs need suitable coping strategies to manage these emotions, such as cognitive reappraisal of a situation to lessen its emotional impact.



Self-identity

Does the entrepreneur think of themselves as an entrepreneur?

Self-identifying as an entrepreneur is an important motivator of entrepreneurial activity (beyond monetary incentives which are often low and/or uncertain). When 'being an entrepreneur' is central to a person's identity, they experience more *entrepreneurial passion* and work harder to pursue their business goals. Individuals who have been socialised in an entrepreneurial environment (through parental and peer influence) and identify with the prevailing values of these groups are more likely to start a venture themselves. Because entrepreneurship is often associated with masculine norms of success, women may find it harder to strongly identify as entrepreneurs.



Optimism and overconfidence bias

Does the entrepreneur overestimate their chances of success?

Overconfidence or optimism bias is the tendency to overestimate one's abilities and chances of success. Optimism is required for entrepreneurs to believe in the feasibility and success of their enterprise and provides impetus for them to start their business. But too much confidence or optimism may be a barrier to success, especially later in the entrepreneurial process. It can lead entrepreneurs to set unrealistic goals, overestimate the demand for their products and services; underestimate risks or the competitive response, ignore important cues that a business venture may fail, make flawed decisions, and persist with unsuccessful strategies longer than is helpful.



Lack of support from family and friends

Does the entrepreneur have support from family and friends?

Support from close friends and family, including spouses, in-laws, relatives and friends and peers, as well as mentors and close business contacts, can provide access to human and financial capital. These strong affective ties are particularly important during the emergence phase of an enterprise and can help entrepreneurs access input, knowledge and resources that lead to improved performance and potential customers. Emotional support (i.e. the provision of reassurance and encouragement) can also reinforce self-esteem and reduce work-life conflict. The lack of such support is a particularly strong barrier for women, who are often carrying more care responsibilities and may not identify as strongly as entrepreneurs.



Lack of networks

Does the entrepreneur have many acquaintances and/or connections?

Weak ties or acquaintances (such as former employers, co-workers, bankers, venture capitalists, etc.) are important to acquire insights, advice and material benefits, and to access alternative sources of capital. They are particularly important for newly established or mature businesses. Not having enough weak ties may impede an entrepreneur's ability to discover and identify new business opportunities, gather resources and establish their venture within the market. The lack of these economic and instrumental ties is especially challenging for youth and women entrepreneurs.



Negative and harmful stereotypes

How do negative stereotypes harm entrepreneurs' prospects and/or activities?

Gender stereotypes, whether explicit or implicit, affect women's aspirations to become entrepreneurs, but also affect the decision-making of suppliers, clients and other members of entrepreneurs' networks and make financing or growing their business more difficult.

Women are associated with gender-based stereotypes (e.g. personality traits such as being emotional, or behaviours such as being expected to take on domestic roles) which can lead to gender-based discrimination towards women from institutions and clients (e.g. investors being less likely to provide finance to women). Some traits are generally perceived as positive in male entrepreneurs (e.g. confidence) but negative for women.



Implicit bias

Does implicit bias get in the way of accessing finance or resources for certain groups?

Implicit bias, which can be based on stereotypes and attitudes, affects our behaviours and actions and can impede women's ability to access finance to uptake or grow their ventures.

Financial capital is an important prerequisite for entrepreneurial activity. Yet, the lack of fair access to financial resources (loans, credits, investments etc) is a particularly strong barrier for youth, women and minority entrepreneurs. Implicit gender bias has been found in loan officers, which can lead to lesser likelihood of receiving credit or higher interest rates. Implicit bias is subconscious and automatic - people may not be aware that they are biased against women entrepreneurs.



Planning fallacy

Have entrepreneurs adequately planned for how they will achieve their goals?

Entrepreneurs may be full of good ideas and big intentions, but one key finding from behavioural science is that intentions do not always translate into action. One common reason for this is the planning fallacy, the tendency for people to underestimate the time, effort or risk required for an action. When entrepreneurs don't have plans - particularly specific, action-focused plans - to calibrate these estimations, they are less likely to follow through on their goals and succeed in their business endeavours.



STAGE 2: Activity 6

Identifying the barriers

Looking back to the user journey you have created and the different barriers that have been identified, write down the top three barriers to your behaviour:

Now be more specific. How does each barrier manifest itself in your context?

Look at your journey map again. Where are the barriers occurring in the user journey?



Missing conceptual models

Many young entrepreneurs do not know where to find the forms or what documents they need in order to complete the process.

Choice Overload

There are many legal categories under which companies can register, and it can be difficult to choose.

Small frictions

The process is arduous and unclear, discouraging people from completing their registration.

Resources and time

Follow-up on the progress of the paperwork can only be done physically, forcing entrepreneurs to spend a lot of time and money commuting to and from the registration office.

Barrier 1:



Barrier 2:



Barrier 3:



Are the barriers you've identified happening at the key bottlenecks you found when mapping your journey in activity 5?

Yes

No



STAGE 3:

Design behaviourally-informed interventions

Now that you have a thorough understanding of your target group and the barriers to the target behaviour, you are ready to design targeted solutions to overcome them! BI solutions can come in different forms, and the right solution for you will depend on the target behaviour, the key barriers you have identified, as well as the resources you have available for your project. BI interventions often include things like:

- Redesigning individual communications such as letters, emails, and SMS, based on behavioural science principles
- Imparting skills through training or using education to increase knowledge or understanding,
- Changing or streamlining processes to make it easier for users to complete them,
- Redesigning incentives (financial or symbolic) to encourage or discourage certain behaviours,
- Creating or adapting infrastructure to alter the environment in which behaviours take place,
- Changing systemic rules and regulations to make the desired behaviour easier for people to complete.

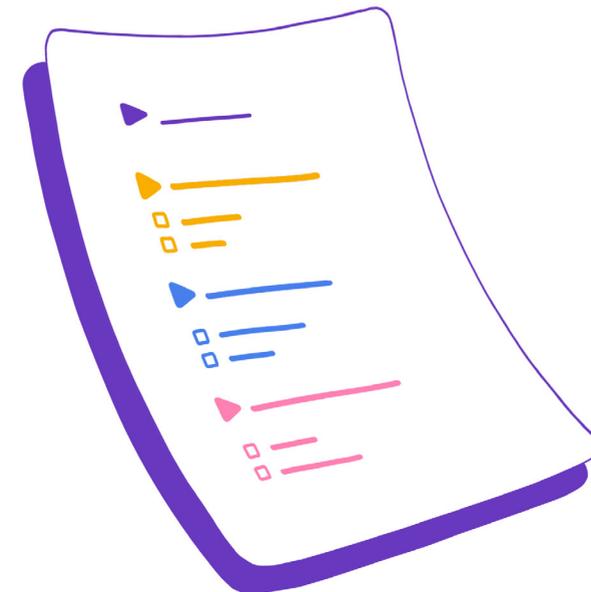


Tip!

The intervention design stage of your project can really benefit from collaboration with users. With their first-hand experience of the challenges and touchpoints in the process, users can provide a unique perspective on interventions that might be effective. Provide space for co-design with users or seek their feedback early on initial ideas.

Generate a long list of solutions

There are several activities you can undertake to help you generate solution ideas, such as reviewing the behavioural science and other relevant literature and frameworks (including BIT's) or formalising existing ideas that have been informally tried elsewhere. But we have also identified 15 solution ideas that are promising in promoting successful entrepreneurship behaviours, which we outline on the next page. You can use these behavioural levers and tailor them for your context. If there is a particular idea you would like to learn more about, head to the References card where we list further reading for each solution.



Solutions



Leverage positive or dynamic social norms

We are more likely to adopt behaviours that are 'normal' or that we think most others are doing. For example, female students in Saudi Arabia who were provided with information about their female peers' (quite high) labour market aspirations reported greater expectations about their own labour market participation. Two types of norms can be communicated to encourage behaviour change: *injunctive* norms describe acceptable or desirable behaviours and *descriptive* norms describe what most others are doing. They need to be used with caution to avoid a backfire effect (such as regressing to undesirable behaviours).



Adapt loan and grant processes to minimise bias

Women and other underrepresented groups face additional barriers when applying for business finance. For example, in the context of business loans, applying techniques that have shown to be successful in mitigating gender bias in recruitment could help to reduce discrimination against marginalised entrepreneurs. Examples of such techniques include blinding processes, setting specific equality targets, appointing diversity leads / taskforces to hold staff accountable, running structured and skills-based assessments with applicants, and increasing process transparency.



Simplify application forms

Applications for new business registrations, grants, and training courses can often be long, complex, and require information that is not readily at hand. Removing friction and simplifying processes can increase completion. For example, you can remove unnecessary steps or pre-fill application forms with existing data already held by governments and agencies. Streamlining processes have been successful in reducing errors in tax submissions and increasing applications for college aid.



Create opportunities for structured peer networking

Connecting with other business owners can allow an entrepreneur to learn from their peers and identify new opportunities. Facilitate opportunities for entrepreneurs to connect with their peers through networking programmes. Entrepreneurs can be assigned by default to a peer with conversation prompts to ease the interaction. For example, an intensive and focused networking programme in China increased small business revenues by 8.1%. In another study, young manufacturing entrepreneurs in Ethiopia, Tanzania, and Zambia who connected with their peers engaged in more best-practice business formalisation activities.



Match potential entrepreneurs with relatable mentors

Timely and effective one-to-one mentorship can encourage people to pursue entrepreneurial activities and develop their business. Mentees should be matched with successful entrepreneurs who come from a similar background and have market-specific localised information that usually isn't available via formal class training. For example, female microenterprise owners in Kenya who were mentored by experienced women entrepreneurs in the same community saw a 20% increase in profits compared to the control group. However, the effects diminished after mentorship finished, so this solution should be supplemented with other strategies.



Find and expose entrepreneurs to role models

Role models can influence individuals' choices about whether to become entrepreneurs and their business decisions thereafter. For example, participants in an entrepreneurship programme who were exposed to presentations from successful previous course participants showed a 15% increase in income one year later compared to those with no role model exposure. Role models increased entrepreneurs' confidence, in turn influencing their investment decisions, resulting in better business results. For under-represented groups who have limited role models (e.g. women), exposure is likely to be particularly powerful.



Set smart defaults

People have a strong tendency to follow the pre-set option. Consider whether you can set smart defaults based on 'what works' to improve entrepreneurial outcomes. For example, you can automatically enrol students into training or mentoring programmes, or default newly registered business owners into receiving support. You can also review existing processes and forms and ensure that any existing defaults are helpful. A default is different to a mandate and it should not limit choice (i.e. people should still be easily able to opt-out and choose a different option for themselves if they want to).



Personalise and customise training and support

We are more likely to pay attention and respond to information which is personalised or tailored to us. In one example from Chile, personalised (compared with group) assistance in a training programme increased business income by 15%. Understanding target groups and their main barriers to entrepreneurship will help to develop customised materials to address these. Personalisation can also be incorporated into communications, for example by including the person's name, which can help attract attention.



Encourage action planning

Action planning has been positively linked to the creation and performance of successful businesses. Encourage entrepreneurs to develop action plans that break down complex goals into small practical steps, and that specify how, when, and where actions should occur. You can also encourage them to include opportunities to monitor progress and gather feedback, so that they can be responsive to changes in the business environment.



Encourage a personal initiative mindset

A personal initiative mindset (being self-starting, future-oriented, proactive, and persistent) can help entrepreneurs to overcome barriers and increase their chances of success. Skills such as exploiting new opportunities, anticipating problems, better overcoming setbacks, and fostering better planning can be taught. Personal initiative training works and can sometimes lead to better outcomes (such as increasing sales and profit) than traditional business training that focuses on basic financial and marketing practices.



STAGE 3: Activity 7

Generating solution ideas

Write down all possible solutions that could address the barriers to your target behaviour. You do not need to limit yourself to the cards above, you can add other ideas based on your own research and field work. Don't worry too much about feasibility just yet, this is just the brainstorming phase.

Solution 1:

Solution 2:

Solution 3:

Solution 4:

Solution 5:

Solution 6:

Solution 7:

Now that you have your longlist of ideas, you can start to think about how they might work in practice. Be specific - how can this solution be applied to your context? What could it look like in practice?

Prioritise your solutions

You will now have a longlist of solution ideas, but it's unlikely you'll be able to implement all of them, so it's time to prioritize. Ideally, you want to cut down your list to no more than two ideas that you can take forward to prototyping. To help you prioritize, you should think about **feasibility**, **impact**, and **ethics and equity**. Consider the following questions to help you:

Feasibility:

- What investment (time and cost) is required to implement this solution? Consider both immediate costs and potential ongoing costs.
- Can the solution be implemented in the available time frame?
- Do you control the system within which the solution needs to be implemented?
- Can you get access to data to measure the outcome?
- Will the solution be acceptable to the target population? And to the partner you're working with?
- Can the solution be scaled beyond an initial pilot or test site?

Impact:

- What impact will this solution likely have on the target behaviour?
- How does it compare to other solutions with regards to potential impact?

Ethics and equity:

- Is it ethical to promote this behaviour? Could it have side effects or boomerang effects on entrepreneurs? Could this disadvantage them in the short or long-run?
- Would this solution impact different groups of people equally (e.g. women, those living in rural areas, those with lower levels of literacy)? A solution that impacts groups unequally isn't necessarily problematic; for example, a solution that is open to everyone but benefits disadvantaged groups more than advantaged groups can serve to reduce inequality. However, you should ensure that no group will be harmed by the intervention and that it won't contribute to existing inequalities (for example, by benefiting advantaged groups more than disadvantaged groups).
- Do you need to add any design features to ensure equity? You may need to add elements to your solution to ensure that different groups can access it, for example providing communications in different languages or using videos as well as text to cater to groups with different levels of literacy.



STAGE 3 : Activity 8

Prioritizing your solutions

Using the questions above score each solution. **For impact:** from 1 to 10, 1 being the least impactful and 10 being the most impactful. **For feasibility:** from 1 to 10, 1 being hardly feasible and 10 being the easy to do.

Solution 1:

I

Impact: Feasibility:

Solution 2:

I

Impact: Feasibility:

Solution 3:

I

Impact: Feasibility:

Solution 4:

I

Impact: Feasibility:

Solution 5:

I

Impact: Feasibility:

Solution 6:

I

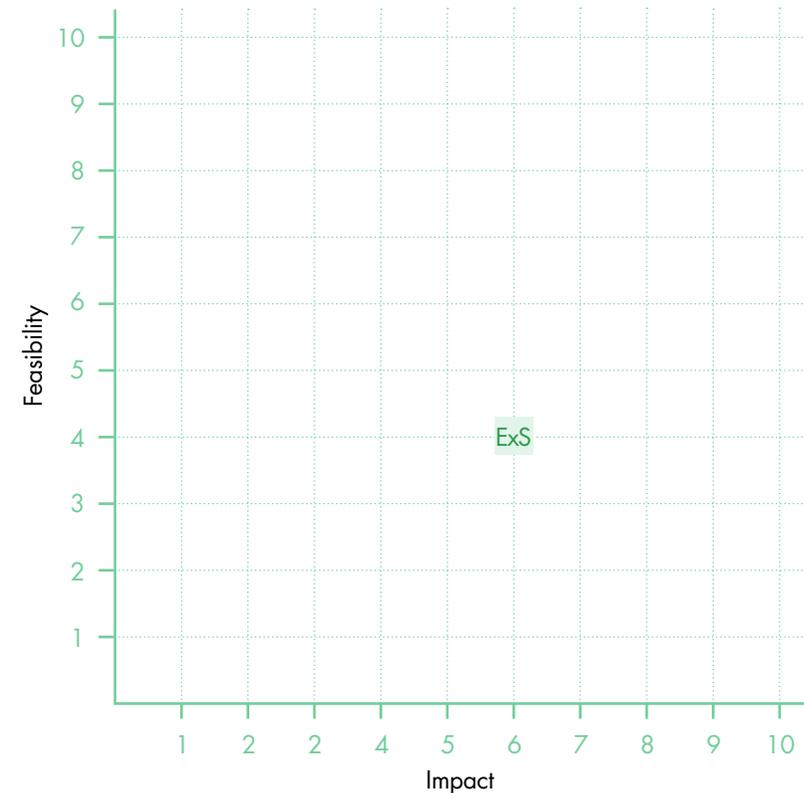
Impact: Feasibility:

Solution 7:

I

Impact: Feasibility:

Then place your solutions in the graph. For example if your example solution (**ExS**) rates 4 on feasibility and 6 on impact it would be placed like this:



Using the list of additional questions above and other criteria you deem relevant, decide on one or two solutions that are equitable and have the highest potential for impact and highest feasibility to take through to the next stage (the ones closest to the up right corner of the graph). Write them here:

Solution 1:

I

Solution 2:

I

Note that there may be impactful solutions you can't feasibly implement right now but could advocate for!



Example:

Reducing friction by providing personalised and relevant information to the business owner (such as the documents required to register one's business based on the size of their business, or the location of the nearest registration office, etc.)

“ A quarter of the Syrian population is estimated to be living with a disability, with young people disproportionately affected as a result of the war. Supporting young persons with disabilities is a priority for UNDP Syria, and yet they are underrepresented in our entrepreneurship development programmes. By applying BIT's LEAD tool (Listen, Experience, Ask, Data), we found that our usual way of publicizing these programmes isn't attractive and easy enough to capture the attention of persons with disabilities and nudge them to apply. While phrasing like “persons with disabilities are strongly encouraged to apply” may have been effective at first, it no longer seems to be a sufficient motivator. Based on the behavioural barriers and enablers we identified, we brainstormed several solution options. We went on to prioritize these based on cost-effectiveness, availability of data, and learning potential (what do we most want/need to find out?) By leveraging framing and messenger effects (e.g. use of role models), we will be testing the impact of different social media posts on the rate of engagement of our target audience and ultimately the number of applications received from persons with disabilities.

—UNDP Syria ”



STAGE 4:

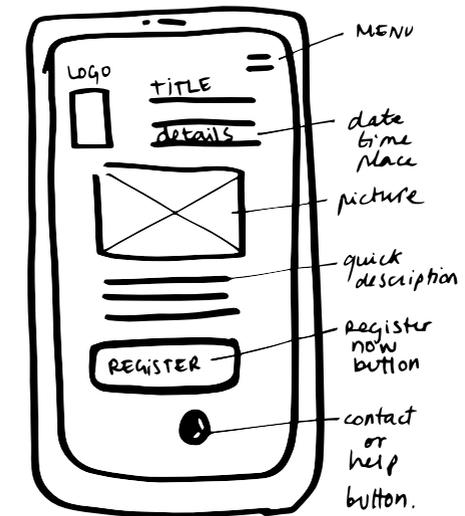
**Prototype
Your chosen
intervention**

Once you have prioritized your solution ideas and selected one or two to pursue, you need to refine them. This is where prototyping can help. **Prototyping** is the process of making ideas tangible, and to quickly get key feedback from users on those ideas. Rapidly testing your intervention ideas with real users helps you to select ideas that are accessible, feasible, and desirable, and to refine and improve them.

Sometimes known as “failing fast,” it’s better to know if something won’t work (or needs to be changed) as soon as possible, before you’ve spent lots of time and resources developing it. You can also consult this [document](#) for ideas of activities you could do to involve users in the prototyping process and to get their insights.

Below we also suggest how to develop prototypes to test out your solution ideas.

There are different types of prototypes you can use to test out your intervention ideas. Early stage **low-fidelity** prototypes allow you to quickly test and receive feedback on early ideas. These prototypes are a rough ‘mock-up’ of the idea, for example a sketch of the concept that can be shown to target users for feedback. Once you have refined your early idea, you can develop a **higher-fidelity** prototype that more closely resembles the final intervention design. The kind of prototype you develop will depend on the nature of the intervention, but below we outline some possible options you can choose from.



Low-fidelity prototype



High-fidelity prototype

Note that the prototyping process is distinct from research - it is a method used to create and improve on intervention designs by testing them with end users. This process requires **user testing**, where a small number of target users react to prototypes and provide feedback that will help to refine content designs. Findings from user testing are not published in a single report; instead, they are collected and used to quickly inform the next version of content designs.

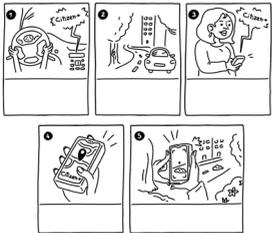
There are different types of prototypes for different types of interventions:

Role play:



Role play prototypes involve drafting scripts and role playing an interaction or scenario with users. Role play prototypes are best for interventions that are focused on process or service delivery design.

Storyboard:



Like the user journey, a storyboard is a tool that allows you to illustrate an experience, a service or an activity step by step. It is presented in the form of frames, which makes it possible to visualise the form that the service/product experience will take. Storyboards can be shown and explained to users in interviews. Storyboard prototypes are best for process design interventions, or interventions that change incentives or systemic rules.

Paper interface:



Paper prototypes are either drafts of paper interfaces or analogue versions of digital interfaces. They don't need to be very refined, as they are meant to be rapid to design. You can quickly

imagine the navigation between several sections or pages of a website/application and therefore imagine the structure of a website without having to code or develop a real platform to begin with. These prototypes can be drawn up and shown to users in interviews. This kind of prototype is best for information or communication interventions.

Desk walkthrough, serious games and play your service:



This method consists of demonstrating the process or experience of a service through a reduced scale model. LEGO bricks, toys, or cardboard can be used to recreate the steps necessary for the service or intervention to take place.

The idea is to play the service from beginning to end "as if for real" in order to identify the critical steps of an experience and to spot any omissions or problems that have yet to be addressed. This kind of prototype is best for environmental or process re-design interventions.

How to get the data you need during your prototyping:

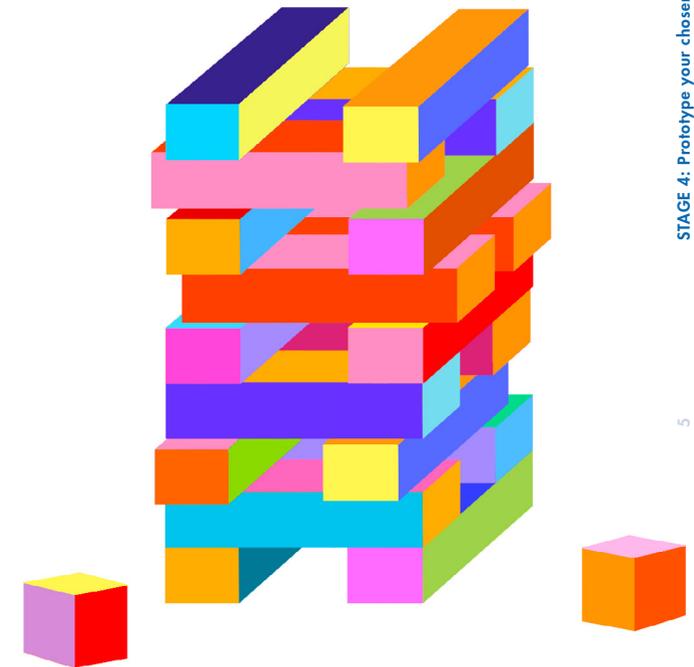
Once you have mocked-up your prototype, you want to get feedback from real users. There are different ways to do this but most often you will conduct **brief interviews** with a small number of people from your target group. In these interviews you will present your prototype and, depending on the prototype you use, explain it to users. You will likely want to develop specific questions to ask users. For example, you might want to prompt participants to share their first impressions, their emotional reactions and thoughts about different aspects of the intervention, and what they would like to see changed or kept in the final version.

You can also use another technique known as **'thinking out loud'**. This technique involves asking users to verbalize their thoughts while examining your prototype. For example, if you have mocked up a website on a few pieces of paper, you could ask users to look at each page and say all their thoughts out loud. The idea behind this technique is that you seek to understand people's free responses to your idea, rather than probing them to examine particular aspects of your intervention. You could also combine different methods, for example by using the 'thinking out loud' technique at the start of the interview and then asking specific questions of interest afterwards. Regardless of the method you choose, it is important that you remain open and responsive to feedback, iterating your idea as you go.

One question you may have is how many users you should gather feedback from. There is no magic number, however you do not need to collect data from a large number of users here. Try to have the most representative sample and to collect feedback from every subgroup within your target population (thinking about gender, age, ethnicity, disabilities, economical background). Remember that the goal is to get rapid feedback from a small number of people so that you can iterate and refine your intervention without wasting resources. The goal is not to launch the intervention and determine whether it works and can be scaled - that's for the next phase, the Pilot phase.

How to know when you're ready to move on from prototyping

The goal of prototyping is to refine and improve your ideas so that they have the best chance of success in the field. So you should finish prototyping when you have developed a high-fidelity (as close to the real thing as possible), fully-testable working version of your intervention and have refined it based on some rapid user feedback. Then you are ready to test it for real in the field!



STAGE 4: Activity 9

Prototyping (Fill this in for each intervention idea)

What is the intervention idea?

I

Example:

Providing information tailored to the stage of the application the business owner is at (or some other dimension: location of the nearest registration office, type of business) in an easy to understand / accessible way.

What prototype will you develop first?

Concept sketch	Role play
Desk walkthrough	Storyboard
Paper interface	

Example:

Paper interface Storyboard

What materials do you need to develop for your chosen prototype, and how will you do it?

I

Example:

Paper and pens, or if I can, a prototyping digital tool.

Who will you get feedback from? Ideally you will gather feedback from your target group, but you may also want feedback from the group delivering the intervention (if there is one). Also note how many people you will aim to speak to and how you will reach them.

I

Example:

We will get feedback from young entrepreneurs, but also from people of the registrars office and lawyers specialized in business registration.

What data will you collect, and how? What methods will you use to gather user feedback (e.g. one-on-one interviews, focus groups, think out loud method)? What data will you collect (for example, what questions will you ask users)? Consider whether these data will tell you if the intervention targets the right barriers and whether it is likely to effectively address them.

I

Example:

At this stage the best approach will be to get feedback from a focus group with the different actors and stakeholders.

Once you have got some feedback on your first prototype, use it to refine and improve your intervention. **This is an iterative process**, so keep refining and testing your prototype with users until you are ready to pilot your intervention.



STAGE 5:

**Pilot your
intervention**

Now that you have refined your intervention, it is time to confront it with reality. A pilot is a process of testing the implementation of an intervention with a small sample of the target audience. A pilot will help you identify any tweaks to the design or implementation of your intervention that you can make to increase its effectiveness in encouraging your target behaviour. In essence, you are comparing reality to your implementation plan.

Note! High-quality implementation of your intervention is necessary to achieve change in your target outcomes; a pilot will help you assess whether your intervention is well-implemented and has the potential to achieve the intended effect. However, a pilot will not allow you to rigorously estimate the impact of your intervention on your target outcome. To find that out you will need to conduct a rigorous impact evaluation such as a randomised controlled trial (see BIT's [framework](#) for more information on such evaluations).

Defining your research question(s)

To maximise the learning from your pilot, it is important to define good research questions. A good research question tells you specifically what you are going to learn at the end of your pilot. In this way, it also clarifies exactly what you will **not** learn. Crafting a research question requires making a lot of decisions. No matter what, it's important that you bring your partners in to help you make these choices. Collaboratively writing your research questions will ensure that everyone knows exactly what you're spending your time and money to learn.

There are four key components of a good research question: **sample**, **indicators**, **comparator**, and **timeframe**.

Sample

Your sample is the group whose behaviour or outcomes you are interested in. You will only be able to gather evidence about the people you have included in your sample. This means it's important that the group of people you include in your pilot are the people whose behaviour or experience you want to learn about. Your sample also needs to be people that you can reach and collect data on, so that you can measure the outcomes you're interested in. It can be useful to gather the perspectives of both end users (the group you are targeting with your intervention) and implementation actors (those who are involved in delivering your intervention).

Indicators

Indicators are the outcomes you are measuring as a result of your intervention, for example the data you will collect to tell you whether your intervention was effective or not. An indicator needs to be:

- something you want to learn about;
- something you can collect data on; and
- something that could be plausibly influenced by your intervention.

The tools available to you for measuring your indicators are the same methods that were available during Step 2 of your project (Understand your target group and their behaviour): observation; interviews or focus groups; surveys; and analysing data that is already being collected. You can use more than one of these methods and then bring the data together to help you answer your research question. To help you answer your research question, you could:

- **Observe the implementation of the intervention.**
Observing users experience the intervention can help you determine if it is feasible, implemented as intended, and if there are any side effects.
- **Ask people about their experiences of the intervention.**
This can be done through qualitative methods (semi-structured interviews, focus groups) or quantitative methods (surveys). Gathering the perspectives of end users can shed light on whether an intervention is acceptable, received as intended, and shifts intermediate measures of interest (e.g. understanding/knowledge). Speaking with implementation actors can help you to understand their experiences related to implementation, including any challenges they faced.

- **Analyse data.** Data can help you understand if the intervention is implemented as intended, and give you some indication as to whether it has the potential to be effective (or if it appears to be backfiring). Use administrative data that are already being collected when you can.

For example, if you are working with the government to simplify the business registration process and your intervention has streamlined the process at 3 different points, then you could:

- **Observe** interactions between business owners and government staff at these 3 key points in the process;
- **Interview** business owners who have completed the registration process, as well as people who have started it but did not complete it, to understand whether people responded to the intervention as intended;
- **Survey** government staff about their experiences delivering the new process; and
- **Analyse** government data on how many business owners are beginning the registration process, how many are completing it, and where people are dropping off in the process to see if they are still dropping off at your points of intervention.

Comparator

Your comparator is what you are comparing your intervention against. After you have collected your data, what yardstick will you use to determine if your intervention was “successful” or not? The comparator could be your implementation plan, another version of the programme, the ‘business as usual’ programme or approach, or a world without the programme.

Timeframe

The timeframe of your pilot is the period of time you are measuring your outcomes over. Thoughtfully choosing a time frame is important because many indicators change over time and it can take time to see change occur. When choosing your timeframe, consider:

- How long you expect it to take to see a change in your indicators in response to your intervention;
- When you can collect data and for how long; and
- Whether there are any seasonal effects or external events outside of your intervention that could influence your indicators. For instance, if business registration data show that fewer businesses are registered over the summer months because that is when people are on holiday, then you may want to avoid conducting a pilot over the holiday weeks/months.

It is also important to think about how long you will implement your intervention for in order to give it the best chance of success.

Bringing it all together

Now that you have defined your sample, indicators, comparator, and timeframe, you are ready to define your research question.



Remember!

You may need to refine your intervention or its implementation parameters and collect more feedback before moving forward. Before you roll your intervention out to a larger group to test more rigorously, you should feel confident that your intervention is being implemented as you planned and it is being accepted by users and other stakeholders.



STAGE 5: Activity 10

How to design your pilot evaluation

What is the goal of your pilot? What are you trying to learn about the implementation of your intervention?



What is your sample? Who, among the people who will receive the intervention, will you collect data for? How many? Are they representative of the population receiving the intervention? Do you or your partners have a way of reaching your sample already? What steps do you need to take to get access to your sample?



What are your indicators? What indicators will you collect data for, and using what tools/processes? What will this data tell you about the implementation of your intervention?



What is your comparator? What are you comparing the intervention to? The implementation plan? Another version of the intervention? A world without the intervention?

I

What is your timeframe? Over what period will you collect data for your indicators?

I

What is your research question(s)? Now that you have defined your sample, indicators, and timeframe, how would you define your research question(s)?

I

How will you use the results? How will you use the feedback to refine the implementation of your intervention? How will you know when you are ready to implement the intervention at a larger scale and more rigorously evaluate its impact?

I

Example:

For the intervention:



Reducing friction by providing personalised and relevant information to the business owner (such as the documents required to register one's business based on the size of their business, or the location of the nearest registration office, etc.)

A possible piloting research question could be:

"Is the information provided to entrepreneurs to help them to complete additional stages of the registration process well-tailored to the needs of the entrepreneurs and easy to understand?"

- The indicators here could be reported usefulness, or understanding of the information as measured by some questionnaire
- The sample would be many entrepreneurs you send the information to
- The time frame could be whatever period you think it would take people to receive, read and process the messages
- The comparator here is "relative to the plan/objectives" - is the information as useful as the intervention developers thought it would be?



Conclusion

Promoting entrepreneurship can help to reduce unemployment and enhance economic growth and recovery, and taking a behavioural approach can improve the design, delivery or evaluation of entrepreneurship policies, communications, programmes and services.

The aim of this toolkit was to equip development practitioners and programmers with practical tools to develop behaviourally-informed interventions that support youth and women's entrepreneurship.

The toolkit lays out five key stages to conduct a Behavioural Insights project to support entrepreneurship, from selecting a behaviour to change and understanding the barriers people face, to designing, prototyping, and piloting an intervention to overcome these barriers.

We hope that the practical resources, activities, and examples we have provided throughout the toolkit have supported you to conduct your own BI entrepreneurship project.

Bibliography

International Labour Organization. (2020).

Global Employment Trends for Youth 2020: Arab States. ILO: Switzerland.

International Labour Organization. (n.d.) Entrepreneurship Development. Retrieved from https://www.ilo.org/moscow/areas-of-work/employment/WCMS_249136/lang-en/index.htm

European Commission. (2021). *Annual report on European SMEs (2020/2021)*.

DellaVigna, S., & Linos, E. (2020). RCTs to scale: Comprehensive evidence from two nudge units (No. w27594). *National Bureau of Economic Research*.

Behavioural Insights Team (2019) Retrieved from: <https://www.bi.team/blogs/your-training-programme-isnt-working-heres-how-to-make-sure-it-does/>

Behavioural Insights Team (2019). Boosting businesses: Applying behavioural insights to business policy. Retrieved from <https://www.bi.team/publications/boosting-businesses-applying-behavioural-insights-to-business-policy/>

International Labour Organization. (2020). *Global Employment Trends for Youth 2020: Technology and the future of jobs*. ILO: Switzerland.

Halabisky, D. (2012). *Policy Brief on Youth Entrepreneurship: Entrepreneurial Activities in Europe*. Publications Office of the European Union: Luxembourg.

International Labour Organization. (n.d.) Entrepreneurship Development. Retrieved from https://www.ilo.org/moscow/areas-of-work/employment/WCMS_249136/lang-en/index.htm

Thurik, A. R., Carree, M. A., Van Stel, A., & Audretsch, D. B. (2008). *Does self-employment reduce unemployment?* *Journal of Business Venturing*, 23(6), 673-686.

Buehler, R., Griffin, D., & Peetz, J. (2010). *The planning fallacy: Cognitive, motivational, and social origins*. In *Advances in experimental social psychology* (Vol. 43, pp. 1-62). Academic Press.

Frese, M., & Gielnik, M. M. (2014). The psychology of entrepreneurship. *Annu. Rev. Organ. Psychol. Organ. Behav.*, 1(1), 413-438.

Tindall, K., Hayward, L., Hunt, E., & Hickler, B. (2021) *Ethical Considerations When Applying Behavioural Science in Projects Focused on Children*. UNICEF Office of Research - Innocenti Discussion Papers

Barrier cards references

Missing conceptual models

- Pryor, C., Webb, J. W., Ireland, R. D., and Ketchen, Jr., D. J. (2016) Toward An Integration of the Behavioral and Cognitive Influences on the Entrepreneurship Process. *Strategic Entrepreneurship Journal*, 10: 21–42. doi: 10.1002/sej.1204.
- Olson, P. D. (1985). Entrepreneurship: Process and Abilities. *American Journal of Small Business*, 10(1), 25–31. <https://doi.org/10.1177/104225878501000103>
- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 413–438. <https://doi.org/10.1146/annurev-orgpsych-031413-091326>

Frictions

- Sweller, J. (2011). Cognitive load theory. In *Psychology of learning and motivation* (Vol. 55, pp. 37–76). Elsevier.
- Spencer, J. W., & Gomez, C. (2004). The relationship among national institutional structures, economic factors, and domestic entrepreneurial activity: A multicountry study. *Journal of Business Research*, 57(10), 1098–1107.

- Fuentelsaz, L., González, C., Maicas, J. P., & Montero, J. (2015). How Different Formal Institutions Affect Opportunity and Necessity Entrepreneurship. *BRQ Business Research Quarterly*, 18(4), 246–258. <https://doi.org/10.1016/j.brq.2015.02.001>
- Heckelman, 2000 ?
- Levie, J. and Autio, E. (2011), Regulatory Burden, Rule of Law, and Entry of Strategic Entrepreneurs: An International Panel Study. *Journal of Management Studies*, 48: 1392–1419. <https://doi.org/10.1111/j.1467-6486.2010.01006.x>

Lack of self-efficacy

- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship theory and practice*, 18(4), 63-77.
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship theory and Practice*, 33(4), 965-988.
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature

on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of vocational behavior*, 110, 403-419.

- Coleman, S., & Kariv, D. (2014). 'Deconstructing entrepreneurial self-efficacy: a gendered perspective on the impact of ESE and community entrepreneurial culture on the financial strategies and performance of new firms. *Venture Capital*, 16(2), 157-181.
- Markman, G. D., Balkin, D. B., & Baron, R. A. (2002). Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship theory and practice*, 27(2), 149-165.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, 2(2), 128–163. <https://doi.org/10.1080/10413209008406426>
- Bandura, A., & Wood, R. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision making. *Journal of Personality and Social Psychology*, 56(5), 805–814. <https://doi.org/10.1037/0022-3514.56.5.805>

Poor goal-setting

- Erikson, T. (2002). Goal-Setting and Entrepreneurial Self-Efficacy. *The International Journal of Entrepreneurship and Innovation*, 3(3), 183–189. <https://doi.org/10.5367/000000002101299187>
- Locke, E., & Latham, G. (2022). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *Am. Psychol.*, 57(9), 705–717.
- Baum, J. R., & Locke, E. A. (2004). The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology*, 89(4), 587–598.
- Baum, J. R., Locke, E. A., & Smith, K. G. (2001). A Multidimensional Model of Venture Growth. *The Academy of Management Journal*, 44(2), 292–303. <https://doi.org/10.2307/3069456>

Choice overload

- Czech, S. (2016). Choice overload paradox and public policy design. The case of Swedish pension system. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 11(3), 559-584.

- Chernev, A., & Blair, S. (2015). Doing well by doing good: The benevolent halo of corporate social responsibility. *Journal of Consumer Research*, 41(6), 1412-1425.
- Gerasimou, G. (2018). Indecisiveness, undesirability and overload revealed through rational choice deferral. *The Economic Journal*, 128(614), 2450-2479.
- Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing?. *Journal of personality and social psychology*, 79(6), 995.
- Hirshleifer, D., Levi, Y., Lourie, B., & Teoh, S. H. (2019). Decision fatigue and heuristic analyst forecasts. *Journal of Financial Economics*, 133(1), 83-98. <https://doi.org/10.1016/j.jfineco.2019.01.005>

Feeling Helpless

- Kuhl, J. (1984). Volitional Aspects of Achievement Motivation and Learned Helplessness: Toward a Comprehensive Theory of Action Control. In B. A. Maher (Ed.), *Progress in Experimental Personality Research* (Vol. 13, pp. 99-171). New York: Academic Press.
- Martinko, M. J., & Gardner, W. L. (1982). Learned helplessness: An alternative explanation for performance deficits. *Academy of Management review*, 7(2), 195-204.

Scarcity mindset

- Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science*, 338(6107), 682-685.
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *science*, 341(6149), 976-980.
- Bruijn, de, & Antonides, G. (2021). Poverty and economic decision making: A review of scarcity theory. *Theory and Decision*. <https://doi.org/10.1007/s11238-021-09802-7>

Negative emotions

- Boudreaux, C. J., Nikolaev, B. N., & Klein, P. (2019). Socio-cognitive traits and entrepreneurship: The moderating role of economic institutions. *Journal of Business Venturing*, 34(1), 178-196.
- De Cock, R., Denoo, L., & Clarysse, B. (2020). Surviving the emotional rollercoaster called entrepreneurship: the role of emotion regulation. *Journal of Business Venturing*, 35(2), 105936.

Self identity

- Falck, O., Heblich, S., & Luedemann, E. (2012). Identity and entrepreneurship: do school peers shape entrepreneurial intentions?. *Small Business Economics*, 39(1), 39-59.

- Ladge, J., Eddleston, K. A., & Sugiyama, K. (2019). Am I an entrepreneur? How imposter fears hinder women entrepreneurs' business growth. *Business Horizons*, 62(5), 615-624.
- Donnellon, A., Ollila, A., & Middleton, K. W. (2014). Constructing entrepreneurial identity in entrepreneurship education. *The International Journal of Management Education*, 12(3), 490-499.
- Obschonka, M., Silbereisen, R. K., Cantner, U., & Goethner, M. (2015). Entrepreneurial Self-Identity: Predictors and Effects Within the Theory of Planned Behavior Framework. *Journal of Business and Psychology*, 30(4), 773-794. <https://doi.org/10.1007/s10869-014-9385-2>
- Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2013). Measuring entrepreneurial passion: Conceptual foundations and scale validation. *Journal of Business Venturing*, 28(3), 373-396. <https://doi.org/10.1016/j.jbusvent.2012.03.003>
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511-532. <https://doi.org/10.5465/amr.2009.40633190>

Optimism and overconfidence bias

- Cassar, G. (2010). Are individuals entering self-employment overly optimistic? An empirical test of plans and projections on nascent entrepreneur expectations. *Strategic Management Journal*, 31(8), 822-840.
- Baron, R. A., Hmieleski, K. M., & Henry, R. A. (2012). Entrepreneurs' dispositional positive affect: The potential benefits – and potential costs – of being “up”. *Journal of Business Venturing*, 27(3), 310-324. <https://doi.org/10.1016/j.jbusvent.2011.04.002>
- Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, 3(2), 97-108. [https://doi.org/10.1016/0883-9026\(88\)90020-1](https://doi.org/10.1016/0883-9026(88)90020-1)
- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 413-438. <https://doi.org/10.1146/annurev-orgpsych-031413-091326>
- Koellinger, P., Minniti, M., & Schade, C. (2007). “I think I can, I think I can”: Overconfidence and entrepreneurial behavior. *Journal of Economic Psychology*, 28(4), 502-527. <https://doi.org/10.1016/j.joep.2006.11.002>

Hmieleski, K. M., & Baron, R. A. (2009). Entrepreneurs' Optimism And New Venture Performance: A Social Cognitive Perspective. *Academy of Management Journal*, 52(3), 473–488. <https://doi.org/10.5465/amj.2009.41330755>

Lack of support from family and friends

- Ulhøi, J. P. (2005). The social dimensions of entrepreneurship. *Technovation*, 25(8), 939-946.
- Welsh, D. H., Memili, E., Kaciak, E., & Al Sadoon, A. (2014). Saudi women entrepreneurs: A growing economic segment. *Journal of Business Research*, 67(5), 758-762.
- Schoof, U. (2006). *Stimulating Youth Entrepreneurship: Barriers and Incentives to Enterprise Start-Ups by Young People* [Working paper No. 76]. ILO.
- Hu, Y., & Korneliusson, T. (1997). The effects of personal ties and reciprocity on the performance of small firms in horizontal strategic alliances. *Scandinavian Journal of Management*, 13(2), 159–173. [https://doi.org/10.1016/S0956-5221\(96\)00046-2](https://doi.org/10.1016/S0956-5221(96)00046-2)
- Anderson, A., Park, J., & Jack, S. (2007). Entrepreneurial Social Capital: Conceptualizing Social Capital in New High-tech Firms. *International Small Business Journal*, 25(3), 245–272. <https://doi.org/10.1177/0266242607076526>

- Evald, M. R., Klyver, K., & Svendsen, S. G. (2006). The Changing Importance of the Strength of Ties Throughout the Entrepreneurial Process. *Journal of Enterprising Culture*, 14(1), 1–26. <https://doi.org/10.1142/S0218495806000027>
- Welsh, D. H. B., Botero, I. C., Kaciak, E., & Kopani ová, J. (2021). Family emotional support in the transformation of women entrepreneurs. *Journal of Business Research*, 137, 444–451. <https://doi.org/10.1016/j.jbusres.2021.08.059>

Lack of networks

- Ulhøi, J. P. (2005). The social dimensions of entrepreneurship. *Technovation*, 25(8), 939-946.
- Elfring, T., & Hulsink, W. (2003). Networks in entrepreneurship: The case of high-technology firms. *Small business economics*, 21(4), 409-422.
- Nziku, D. M., & Struthers, J. J. (2017). Female entrepreneurship in Africa: Strength of weak ties in mitigating principal-agent problems. *Journal of Small Business and Enterprise Development*.
- Grichnik, D., Brinckmann, J., Singh, L., & Manigart, S. (2014). Beyond environmental scarcity: Human and social capital as driving forces of bootstrapping activities. *Journal of Business Venturing*, 29(2), 310-326.

- Evald, M. R., Klyver, K. I. M., & Svendsen, S. G. (2006). The changing importance of the strength of ties throughout the entrepreneurial process. *Journal of Enterprising Culture*, 14(01), 1-26.

Negative and harmful stereotypes

- Marlow, S., & McAdam, M. (2013). Gender and entrepreneurship: Advancing debate and challenging myths; exploring the mystery of the under-performing female entrepreneur. *International Journal of Entrepreneurial Behavior & Research*.
- Brush, C. G., De Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and entrepreneurship*.
- Carlin, B. A., Gelb, B. D., Belinne, J. K., & Ramchand, L. (2018). Bridging the gender gap in confidence. *Business Horizons*, 61(5), 765-774.
- Bastian, B. L., Sidani, Y. M., & El Amine, Y. (2018). Women entrepreneurship in the Middle East and North Africa: A review of knowledge areas and research gaps. *Gender in Management: An International Journal*.

Implicit bias

- Schoof, U. (2006). *Stimulating Youth Entrepreneurship: Barriers and incentives to enterprise start-ups by young people*. International Labour Organization.
- Coleman, S., Henry, C., Orser, B., Foss, L., & Welter, F. (2019). Policy support for women entrepreneurs' access to financial capital: Evidence from Canada, Germany, Ireland, Norway, and the United States. *Journal of Small Business Management*, 57, 296-322.
- Bates, T., Jackson III, W. E., & Johnson Jr, J. H. (2007). Advancing research on minority entrepreneurship. *The Annals of the American Academy of Political and Social Science*, 613(1), 10-17.
- Beck, T., Behr, P., & Madestam, A. (2018). Sex and credit: Is there a gender bias in lending?. *Journal of Banking and Finance*, 87.
- Fay, M., & Williams, L. (1993). Gender bias and the availability of business loans. *Journal of Business Venturing*, 8(4), 363-376.

Planning fallacy

- Buehler, R., Griffin, D., & Peetz, J. (2010). Chapter One - The Planning Fallacy: Cognitive, Motivational, and Social Origins. In M. P. Zanna & J. M. Olson (Eds.), *Advances in Experimental Social Psychology* (Vol. 43, pp. 1–62). Academic Press. [https://doi.org/10.1016/S0065-2601\(10\)43001-4](https://doi.org/10.1016/S0065-2601(10)43001-4)
- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 413–438. <https://doi.org/10.1146/annurev-orgpsych-031413-091326>
- Brinckmann, J., Dew, N., Read, S., Mayer-Haug, K., & Grichnik, D. (2019). Of those who plan: A meta-analysis of the relationship between human capital and business planning. *Long Range Planning*, 52(2), 173–188. <https://doi.org/10.1016/j.lrp.2018.01.003>
- Brinckmann, J., Grichnik, D., & Kapsa, D. (2010). Should entrepreneurs plan or just storm the castle? A meta-analysis on contextual factors impacting the business planning–performance relationship in small firms. *Journal of Business Venturing*, 25(1), 24–40. <https://doi.org/10.1016/j.jbusvent.2008.10.007>

- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385. <https://doi.org/10.1080/13594320701595438>

Solution cards references

Leverage positive or dynamic social norms

- Stephan, U., & Uhlaner, L. M. (2010). Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. *Journal of International Business Studies*, 41(8), 1347–1364.
- Aloud, M. E., Al-Rashood, S., Ganguli, I., & Zafar, B. (2020). Information and social norms: Experimental evidence on the labor market aspirations of Saudi women (No. w26693). National Bureau of Economic Research.
- Sparkman, G., & Walton, G. M. (2017). Dynamic norms promote sustainable behavior, even if it is counternormative. *Psychological science*, 28(11), 1663–1674.

Simplify application forms

- Dohrmann, T., & Pinshaw, G. (2009). The Road to Improve Compliance - A McKinsey benchmark study of tax administrations - 2008-2009. McKinsey&Company.
- Fuentelsaz, L., González, C., Maicas, J. P., & Montero, J. (2015). How Different Formal Institutions Affect Opportunity and Necessity Entrepreneurship. *BRQ Business Research Quarterly*, 18(4), 246–258. <https://doi.org/10.1016/j.brq.2015.02.001>
- Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *science*, 341(6149), 976–980.
- Shafir, E. (2014). The Scarcity Mindset and Its Consequences.
- Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. *The Quarterly Journal of Economics*, 127(3), 1205–1242.
- Kanonuhwa, M., Rungani, E. C., & Chimucheka, T. (2018). The association between emotional intelligence and entrepreneurship as a career choice: A study on university students in South Africa. *SA Journal of Human Resource Management*, 16(1), 1–9.

Adapt loan and grant processes to minimize bias

- Organisation for Economic Co-operation and Development. (2015). New approaches to SME and entrepreneurship financing: Broadening the range of instruments. OECD Publishing.
- World Bank Group. (2019). Profiting from Parity: Unlocking the Potential of Women's Business in Africa. World Bank.
- Team, B. I. (2021) How to improve gender equality in the workplace.
- Alonso, P., Moscoso, S., & Salgado, J. F. (2017). Structured behavioral interview as a legal guarantee for ensuring equal employment opportunities for women: A meta-analysis. *The European journal of psychology applied to legal context*, 9(1), 15–23. Organisation for Economic Co-operation and Development. (2015). New approaches to SME and entrepreneurship financing: Broadening the range of instruments. OECD Publishing.
- World Bank Group. (2019). Profiting from Parity: Unlocking the Potential of Women's Business in Africa. World Bank.
- Team, B. I. (2021) How to improve gender equality in the workplace.

Alonso, P., Moscoso, S., & Salgado, J. F. (2017). Structured behavioral interview as a legal guarantee for ensuring equal employment opportunities for women: A meta-analysis. *The European journal of psychology applied to legal context*, 9(1), 15-23.

Create opportunities for structured peer networking

- Cai, J., & Szeidl, A. (2018). Interfirm relationships and business performance. *The Quarterly Journal of Economics*, 133(3), 1229-1282.
- Eesley, C., & Wang, Y. (2017). Social influence in career choice: Evidence from a randomized field experiment on entrepreneurial mentorship. *Research policy*, 46(3), 636-650.
- Guiso, L., Pistaferri, L., & Schivardi, F. (2021). Learning entrepreneurship from other entrepreneurs?. *Journal of Labor Economics*, 39(1), 135-191.
- Rider, C. I., Thompson, P., Kacperczyk, A., & Tåg, J. (2013). Experience and entrepreneurship (No. 970). IFN Working Paper.
- Kacperczyk, A. J. (2013). Social influence and entrepreneurship: The effect of university peers on entrepreneurial entry. *Organization Science*, 24(3), 664-683.

- Kim, H. (2019). Knitting community: Human and social capital in the transition to entrepreneurship. In *Academy of Management Proceedings* (Vol. 2019, No. 1, p. 14259). Briarcliff Manor, NY 10510: Academy of Management.
- Fafchamps, M., & Quinn, S. (2018). Networks and manufacturing firms in Africa: Results from a randomized field experiment. *The World Bank Economic Review*, 32(3), 656-675.

Match potential entrepreneurs

- BarNir, A., Watson, W. E., & Hutchins, H. M. (2011). Mediation and moderated mediation in the relationship among role models, self-efficacy, entrepreneurial career intention, and gender. *Journal of applied social psychology*, 41(2), 270-297.
- Eesley, C., & Wang, Y. (2017). Social influence in career choice: Evidence from a randomized field experiment on entrepreneurial mentorship. *Research policy*, 46(3), 636-650.
- Mouammer, L., & Bazan, C. (2021). Effect of mentorship on the early entrepreneurial journey of university students. *Proceedings of the Canadian Engineering Education Association (CEEAA)*.
- Brooks, W., Donovan, K., & Johnson, T. R. (2018). Mentors or teachers? Microenterprise training in Kenya. *American Economic Journal: Applied Economics*, 10(4), 196-221.

- Jain, S. K., & Chaudhary, H. (2017). Impact of Entrepreneurship Education on entrepreneurial intentions of potential entrepreneurs in India. In *Entrepreneurship education* (pp. 289-303). Springer, Singapore.

Find and expose entrepreneurs to role models

- Lafortune, J., Riutort, J., & Tessada, J. (2018). Role models or individual consulting: The impact of personalizing micro-entrepreneurship training. *American Economic Journal: Applied Economics*, 10(4), 222-45.
- Lafortune, J., & Tessada, J. (2015). Improving financial literacy and participation of female entrepreneurs in Chile. *Final Report to Global Development Network-CAF/GDN Project*, 1-48.
- Lindquist, M. J., Sol, J., & Van Praag, M. (2015). Why do entrepreneurial parents have entrepreneurial children?. *Journal of Labor Economics*, 33(2), 269-296.
- Carrell, S. E., Page, M. E., & West, J. E. (2010). Sex and science: How professor gender perpetuates the gender gap. *The Quarterly journal of economics*, 125(3), 1101-1144.

Set smart defaults

- Team, B. I. (2014). EAST. *Four Simple Ways to Apply Behavioural Insights*.
- Madrinan, B. C. & Shea, D. F. (2001). The power of suggestion: Inertia in 401(k) participation and savings behavior. *The Quarterly Journal of Economics*, 116(4), 1149-1187.
- HMG (2013). Automatic enrolment opt out rates: findings from research with large employers. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/227039/opt-out-research-large-Employers_ad_hoc.pdf

Personalize and customize training and support

- Lafortune, J., Riutort, J., & Tessada, J. (2018). Role models or individual consulting: The impact of personalizing micro-entrepreneurship training.
- Lafortune, J., Riutort, J., & Tessada, J. (2018). Role models or individual consulting: The impact of personalizing micro-entrepreneurship training. *American Economic Journal: Applied Economics*, 10(4), 222-45.
- Cho, Y., Honorati, M., (2013). Entrepreneurship Programs in Developing Countries: A Meta Regression Analysis. Policy Research Working Paper; No. 6402. World Bank

Encourage action planning

- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 413–438. <https://doi.org/10.1146/annurev-orgpsych-031413-091326>
- Frese, M. (2009). *Toward a psychology of entrepreneurship: An action theory perspective*. Now Publishers Inc.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385. <https://doi.org/10.1080/13594320701595438>
- Gielnik, M. M., Frese, M., Kahara-Kawuki, A., Wasswa Katono, I., Kyejjusa, S., Ngoma, M., ... & Dlugosch, T. J. (2015). Action and action-regulation in entrepreneurship: Evaluating a student training for promoting entrepreneurship. *Academy of Management Learning & Education*, 14(1), 69-94.

- Glaub, M. E., Frese, M., Fischer, S., & Hoppe, M. (2014). Increasing personal initiative in small business managers or owners leads to entrepreneurial success: A theory-based controlled randomized field intervention for evidence-based management. *Academy of Management Learning & Education*, 13(3), 354-379

Encourage a personal initiative mindset

- Glaub, M. E., Frese, M., Fischer, S., & Hoppe, M. (2014). Increasing personal initiative in small business managers or owners leads to entrepreneurial success: A theory-based controlled randomized field intervention for evidence-based management. *Academy of Management Learning & Education*, 13(3), 354-379.
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017). Teaching personal initiative beats traditional training in boosting small business in West Africa. *Science*, 357(6357), 1287-1290.
- Ubfal, D., Arraiz, I., Beuermann, D. W., Frese, M., Maffioli, A., & Verch, D. (2022). The impact of soft-skills training for entrepreneurs in Jamaica. *World Development*, 152, 105787.

- Bruno Crépon, Igor Asanov, Diego d'Andria, Thomas Astebro, Guido Buenstorf, Francisco Flores, Mona Mensmann, Mathis Schulte, David McKenzie (Ongoing project). The impact of an online entrepreneurial mindset training for youth in Ecuador <https://www.povertyactionlab.org/evaluation/impact-online-entrepreneurial-mindset-training-youth-ecuador>