Enhancing Employment Promotion Interventions Through Behavioural Science

An Introductory Guide

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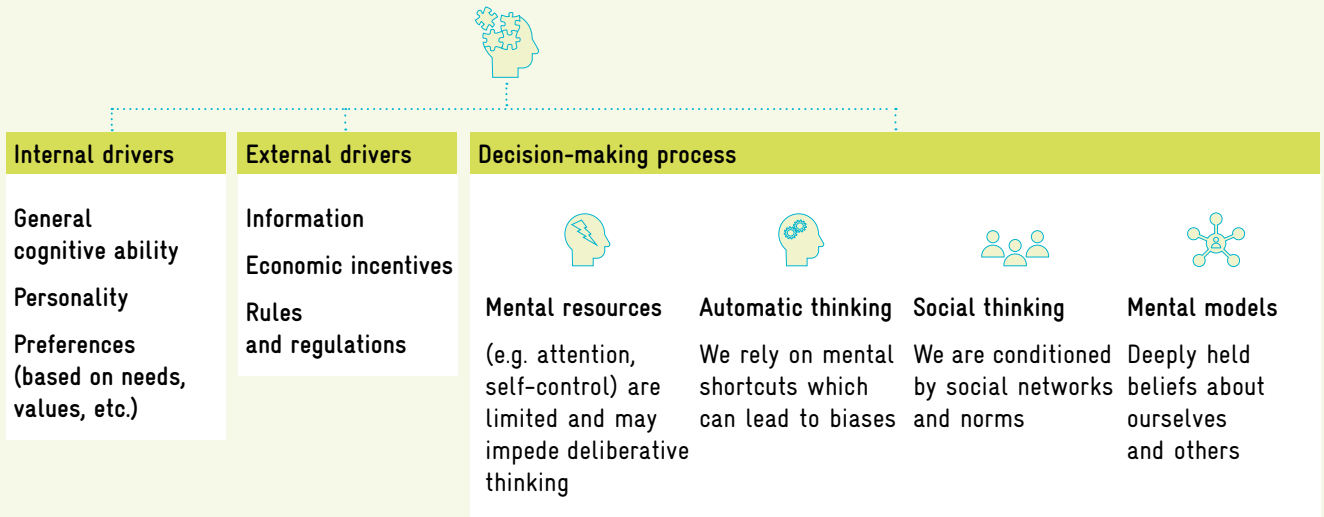
Executive Summary

What is behavioural science?

Behavioural Science refers to the systematic analysis of human behaviour and decision-making, drawing on academic fields such as economics, psychology, sociology, and neuroscience. Behavioural science focuses on understanding *why* people choose and behave the way they do. It emphasises that people's decision-making and behaviour is not just driven by internal drivers (e.g., personality, preferences) and external drivers (e.g., information, economic incentives, rules), but also by a complex decision-making process affected by mental resources, automatic thinking, social influence, and mental models (see Figure A). The realities of this (often subconscious) decision-making process can explain why, contrary to the traditional assumption of fully "rational" individuals, people may often act in ways that are not in their best interest. This better understanding of people's behaviour can, in turn, lead to a better diagnosis of (policy) problems, which in turn can inform better-designed solutions.

The importance of behavioural science is increasingly recognised by policymakers and development agencies, including Germany's Ministry of Economic Cooperation and Development (BMZ) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). While the behavioural science discipline dates back to the 1950s, it has become increasingly popular in the last two decades, as highlighted by two Nobel prizes, the rise of behavioural science units in governments across the globe, and increased use by many international development agencies. In 2018, BMZ issued a strategy paper on behavioural science in German development cooperation calling on Germany's development institutions to increase their involvement with the topic. While the application of behavioural science is still limited within GIZ, a growing number of projects in different sectors have been applying behavioural insights in their work and an internal community of practice has been established.

Figure A Simplified overview of the determinants of decision-making



How does behavioural science apply to employment promotion efforts?

How people think and behave strongly influences their employment trajectories. Choosing and completing relevant education, finding and keeping a job, or starting and growing a business all require countless decisions and actions, both big and small, as well as overcoming obstacles in the process. Hence, people's beliefs about education and work, how they make decisions about if and where to work, and their ability to follow-through on their intentions are crucially important in determining their employment outcomes throughout their lives. The labour market conditions in low- and middle-income countries, such as the dominance of microenterprises and small firms, widespread self-employment, and high levels of precarious and informal employment may further increase the relevance of "behavioural" factors in the lives and decisions of students, jobseekers, workers, and firms.

The diagnosis of employment problems must consider potential behavioural barriers. Many undesirable employment outcomes may be linked to a range of behavioural barriers. For instance, limited job search can be rooted in biased beliefs about the benefits of intensive search, low self-confidence or overconfidence, impatience, or a lack of willpower. An adequate understanding of how target groups think and behave is therefore essential to ensure the effectiveness of policies and programmes. In practice, there are countless factors that can interfere with the decisions of students, jobseekers, workers, and businesses. Figure B summarizes key factors that have been shown to negatively affect people's decisions and behaviours in the context of education, employment, and firm development. The relative importance of the different bottlenecks strongly depends on the local context. Note that different subgroups of (prospective) beneficiaries (e.g., by age, sex, migrant status, etc.) are likely affected by behavioural barriers to a different extent, and that behavioural barriers typically do not exist in isolation, but in combination with conventional employment constraints.

Figure B Common behavioural bottlenecks in the context of employment




Mental resources	Automatic thinking	Social thinking	Mental models
Limited attention & time	Present bias	Social preferences	Identity
Limited self-control	Over-confidence	Negative peer effects	Flawed beliefs about education and work
Limited memory	Hassle factors	Messenger effect (incl. low trust)	Low aspirations
Low self-confidence & self-esteem	Loss aversion	Detrimental social norms	Low self-efficacy
	Status-quo bias		Fixed mindset
			Discrimination

To address these barriers, policymakers and practitioners can draw on a large toolbox of behavioural insights to enhance policies and interventions in the field of employment promotion (see Figure C). While many of these tools have already been explicitly studied in the context of education and employment interventions (e.g., growth mindset, social proof, action plans), others have so far been applied primarily in different policy areas but hold promise in the context of employment as well. In practice, the selection of one or more of these behavioural tools must be based on a diagnosis of the (behavioural) bottlenecks found in the local context. The empirical evidence base suggests that behaviourally informed interventions can significantly enhance the effectiveness of employment interventions. However, since many interventions so far have been targeted just at a small part of a broader policy or programme, the majority of the evidence relates to influencing intermediate outcomes (e.g., enhancing enrolment and completion rates), with relatively less available evidence so far related to final outcomes such as job creation, employment quality, and business performance. That being said, examples where behavioural science was not just used to improve selected processes but also to influence the design of the entire intervention (e.g., simplified training focusing on rules of thumbs vs. traditional business training), show the potential of behavioural science to improve final employment outcomes.

How can behavioural science be applied to employment projects implemented by GIZ?

There is a relatively standard process for applying behavioural science to policy interventions. Behaviourally based interventions involve an iterative process of problem definition, diagnosis of underlying barriers, intervention design, testing (including through rigorous impact evaluation) and adaptation (see Figure D). Hence, a behavioural approach starts with the behaviour to be influenced and then moves from there to the programme. This behavioural science process - through its strong focus on diagnosis, robust evaluation, and iterative learning - implies several changes to "traditional" programming at GIZ or other development agencies, which is often characterised by limited time for diagnosis, relatively stable programme designs, and only the rare use of counterfactual impact evaluation.

Adopting a behavioural science approach can be confronted with a range of obstacles at the project level, the institutional level, and the research level (see Figure E).

Figure C Toolbox of behavioural interventions (summary)

Motivate good decisions

1. Attract attention
2. Promote self-confidence & self-esteem
3. Foster a growth mindset & self-efficacy beliefs
4. Invoke social proof / norms
5. Choose the right messenger & build connections
6. Make it timely
7. Leverage (micro-)incentives
8. Activate positive aspects of people's identity

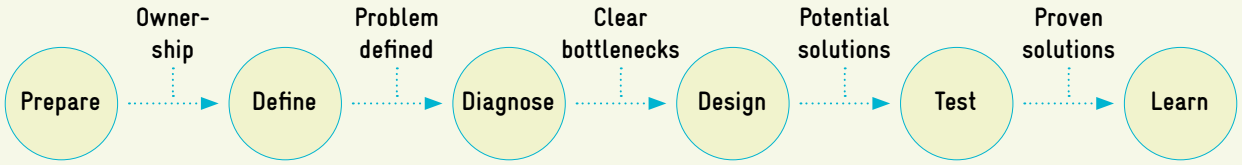
Facilitate taking action

9. Simple & clear language
10. Change the default
11. Reduce hassles
12. Minimise restrictions
13. Enhance physical environment

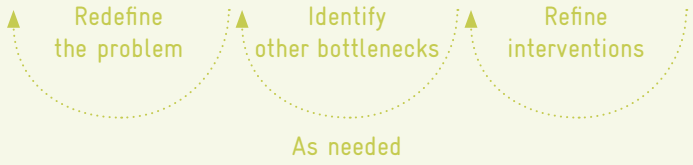
Sustain behaviour change

14. Reminders
15. Simplify options & information
16. Clear action plan
17. Leverage commitments
18. Strengthen self-control & perseverance
19. Promote good habits
20. Continuous support

Figure D Typical steps in applying behavioural insights



Prepare	Define	Diagnose	Design	Test	Learn
Enhance stakeholders' awareness Ensure buy-in of decision makers Engage in early dialogue	Agree on concrete problem to be solved Identify what behaviour is to be influenced	Background research Mapping of behavioural bottlenecks Validate most binding constraints	Identify several potential interventions Determine most feasible and useful interventions Prototype and finetune intervention	Get ownership from programming staff Initiate small pilot programme Grow the intervention and introduce rigorous evaluation design	Take stock of results Document learnings Identify further behavioural bottlenecks Identify avenues to scale or replicate



Source Adapted from Aibana et al. (2020)

Figure E Common barriers in applying behavioural insights

Project-level barriers

1. Low familiarity with behavioural science by project teams
2. Bigger workload and resistance to change, i.e. limited time and attention to think about new things
3. Lack of incentives, esp. when project documents don't provide a "mandate"
4. Immature or convoluted interventions, e.g. when project is very early-stage and has many small activities
5. Lack of (administrative) data due to weak Monitoring and Evaluation
6. Resource constraints, esp. when no earmarked funding in proposal

GIZ-level barriers

1. Lack of inhouse behavioural science experts that could guide project teams
2. No systematic emphasis on problem diagnosis during appraisal and implementation
3. Limited experience with rapid prototyping and impact evaluation which are part of behavioural science process
4. Rigid results matrix, complicating iterative and adaptive programming
5. Insufficient project duration to apply full behavioural science process

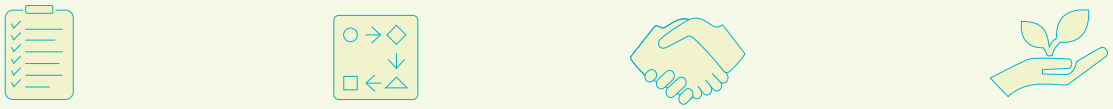
Research-level barriers

1. Local experts often lacking, thus often requiring international research partners
2. Coordination and bureaucratic challenges, e.g. in terms of procurement and lack of familiarity with each others' processes
3. Limited evidence on behavioural insights in LMICs, making it difficult to prioritise behavioural barriers and interventions in the context of employment

For instance, a bigger workload and resistance to change may limit the willingness of project staff and counterparts to engage (project-level barrier). Similarly, relatively short project durations (institutional-level barrier) can inhibit the application of the full behavioural science process, while the lack of local experts (research-level barrier) can also present a challenge. Hence, many stakeholders will wonder whether the resources needed (time and money) are proportionate to the learning. In other words: "Is the effort worth it?". The answer to this question will typically depend on whether project characteristics and contextual factors are conducive to applying behavioural science (see success factors further below).

The successful integration of behavioural insights in employment promotion interventions requires careful consideration at several levels (see Figure F). First, the characteristics of the project itself need to be conducive (e.g., sufficiently mature intervention, open-minded team). Second, the process of implementing the behavioural science process must be carefully managed, e.g., in terms of focusing on actionable problems and generating sufficiently quick results to keep up the momentum. Third, given the key role of a specialized external partner, the selection of that partner and division of responsibilities with the GIZ team are essential for a fruitful collaboration. Finally, a supportive ecosystem (e.g., in-house expertise) within GIZ is highly desirable to facilitate the operationalisation of behavioural insights and systematise lessons learned.

Figure F Overview of success factors in applying behavioural insights



Project characteristics

1. Commissioning party and higher management support, e.g. BMZ, GIZ country/regional directors
2. Sufficiently mature project, e.g. second half of project or follow-up phase
3. Integration in planning processes (e.g. results matrix) strengthens the mandate to work on it
4. Open-minded project manager and team (willing to try new things)
5. Strong M&E system (e.g. good administrative data) and larger samples

Managing the process

1. Focus on concrete problems, i.e. tangible challenges the team is trying to overcome
2. Prioritise intervention to be tested, e.g. where there is doubt about most effective approach
3. Expectation management, being explicit about challenges and limitations
4. Keep it simple and generate "quick wins" to build buy-in
5. Context sensitivity, i.e. informed by local diagnosis

Research partnership

1. Dedicated GIZ focal point who acts as a bridge between project and research team
2. Careful selection of research partner that also brings employment expertise and flexibility
3. Clear roles and responsibilities for GIZ and research partner
4. Trusting working relationship, i.e. growing together as a team

Project-level barriers

1. Availability of in-house technical expertise, e.g. to integrate behavioural insights into planning, knowledge management, pursue learning agenda
2. Availability of central funding to provide incentive when project resources are limited

Where do we go from here?

GIZ's employment promotion efforts are well-positioned to advance the use of behavioural insights in partner countries. There are many potential applications for behavioural science in the context of vocational and higher education, ALMPs, and private sector development. Given its broad portfolio in employment promotion as well as the presence of many leading behavioural science scholars in Germany, GIZ appears well-prepared to apply behavioural science more systematically and contribute to global learning in this field. Behavioural insights also have potential to inform GIZ's capacity development activities in partner countries. Indeed, building institutional capacity and developing systems and policies requires understanding the stakeholders involved, generating buy-in, and changing behaviour for any "technical solutions" to be successful.

To reap the benefits of behavioural science in employment promotion programming, GIZ must make a conscious effort to strengthen its internal enabling environment to apply behavioural insights. While there has been growing interest and experience within GIZ in applying behavioural science (as reflected in several behaviourally-informed projects and an internal community of practice), the topic remains generally unknown among staff and internal processes are not yet set up to proactively support efforts in this space. Strengthening the internal enabling environment for behavioural science should include the following aspects:

1. Develop GIZ staff awareness and capacity to apply behavioural insights in employment promotion contexts, for example through webinar series with behavioural science experts, conferences, staff trainings through the Academy for International Cooperation, external trainings, etc.

2. Strengthen the internal ecosystem to help staff integrate behavioural insights into their work, for instance through dedicated resource persons (with demonstrated behavioural science expertise) in the sectoral or regional department and some centrally available funding.

3. Define a learning agenda. Given its rich portfolio and presence in many countries, GIZ is well-positioned to set an overarching learning agenda that reflects priority challenges and questions for GIZ employment projects, which behavioural science initiatives could help answer.

4. Operationalize behavioural science in the project cycle. In the short term, to create momentum, it could be useful to identify (top-down) a few projects that are well suited to apply behavioural insights and work closely with them to apply the full behavioural science process. In parallel, efforts should be made to facilitate the (bottom-up) integration of behavioural science into standard processes (e.g., project appraisals) and capacity development of partners.

Acknowledgements

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Moreover, I am extremely grateful to the following people who have generously offered their time to share their experiences in applying behavioural science in their work: Kadri Sternberg, Natalia Herberg-Jimenez, Susan Leichtweiss (all GIZ), Zeina Afif, Samantha de Martino (World Bank), Saugato Datta, Jessica Jean-Francois (ideas42), James Vancel (Busara Center for Behavioral Economics), Karen Tan (International Rescue Committee), Florian Kutzner (University of Heidelberg), Laura de Molière (University College London), and Mario Negre (German Development Institute).[1] The section on barriers and success factors in applying behavioural science would not have been possible without them.

Finally, I would like to thank all participants from the GIZ internal workshop held on July 2, 2020 that took stock of current experiences within GIZ of applying behavioural science and discussed the potential way forward.

1 The list of interview partners is also available in Annex 1.

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Acronyms

ALMPs	Active Labour Market Programmes/Policies
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry for Economic Cooperation and Development)
CBT	Cognitive behavioural therapy
eMBeD	Mind, Behaviour and Development Unit (World Bank)
FLFP	Female labour force participation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HCD	Human-centred design
LMIC	Low- and middle-income countries
M&E	Monitoring and Evaluation
MSME	Micro-, Small- and Medium Enterprise
NGO	Non-governmental organisation
OSHA	Occupational Safety and Health Administration
PDIA	Problem-driven iterative adaptation
RCT	Randomised-control-trial
SBCC	Social and behaviour change communication
STEM	Science, technology, engineering, and mathematics
TOR	Terms of Reference
TVET	Technical Vocational Education and Training
WEIRD	Western, Educated, Industrialised, Rich and Democratic

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1. Background & Rationale

> "Impactful development policy should take into account the reality of the human decision-making process and, based on that and based on evidence, develop suitable development policy measures."[2]

Towards a holistic view of the determinants of employment

A lack of (quality) employment is one of the primary issues facing low- and middle-income countries (LMICs).Given the lack of strong social protection systems in many countries, many people cannot afford to be unemployed. Yet, while a large share of the population may be working, their employment is often characterised by precariousness and instability, poor working conditions, low productivity, and low income.[3] Key employment challenges in LMICs include:[4]

- Informal employment and poor job quality are the reality for the vast majority (84%) of workers. Indeed, many workers must take up unattractive jobs characterized by low pay and little or no access to social protection.
- Self-employment is very widespread. About 50% of those employed are own-account workers, often in subsistence activities. Self-employment and microenterprises (fewer than 10 people in the firm) together represent 80-90% of total employment.[5]
- Working poverty is common. Over 20% of workers are living in poverty despite having employment.
- High turnover of jobs. Due to the lack of stable work arrangements and poor working conditions, people transition much more frequently between employment and unemployment and between different employment opportunities.[6]
- Some groups are particularly affected. Youth, women, and other disadvantaged groups (e.g., minorities, persons with disabilities) face the strongest disadvantages in the labour market. For instance, there is a large gender gap in labour force participation (only 36% of women in LMICs are in the labour force, compared to 77% of men).

To understand these issues, there is growing recognition that the diagnosis of employment barriers must include a broad range of factors.[7] Traditional factors to explain weak employment outcomes include jobseekers' lack of skills, work experience, or labour market information. Similarly, firm performance is typically considered to be constrained by poor infrastructure or limited access to finance. However, these are not enough. Decisions to enter the labour market and the ability to find a job can also be affected by factors such as poor mental health, conservative social norms, and discrimination. Similarly, (aspiring) entrepreneurs and farmers can be held back by limited social networks or restrictive norms. Taking a holistic view that captures all relevant elements, including the psychology and social environment of jobseekers, workers, and firms, is therefore essential.

How people make decisions and the implications for policy design

People's decision-making is not as rational as we think. Typically, we consider people to be "rational" human beings. The basic assumption is that we weigh all available information, assess the costs and benefits of each option, make a choice that is in our own best interests, and act on it.[8] In other words, we know what is good for us and behave accordingly. Applying this to the real world, for instance, implies that a jobseeker would assess the advantages and disadvantages of being wage- or self-employed, decide that she wants to find salaried employment, and then engage in an intensive job search until she finds a suitable job. However, this assumption of rational decision-making is often simply not true.[9] We let "little" things interfere with our decision-making, such as fatigue, stress, small inconveniences, etc. We may hold negative beliefs about ourselves and others that influence our decisions. We follow what others do and expect from us, whether we like it or not. And even when we intend to do the "right" thing, we are often not able to follow

2 BMZ (2018).
3 EC (2018).
4 ILO (2019a).
5 ILO (2019b).
6 Donovan, Jianyu Lu and Schoellman (2020).
7 For a more detailed discussion of common employment constraints related to labour-supply, labour-demand, and matching, see European Commission (2018). See also Annex 2 for an overview.
8 https://www.ideas42.org/learn/.
9 Gilovich, Griffin, and Kahneman (2002); Thaler (2016).

through (e.g., due to a lack of willpower). These influences can constrain us from achieving the goals we set ourselves (e.g., bad health habits, lack of saving, not applying for jobs, etc.). Using the above example, the real experience of a jobseeker may be quite different from what we would expect. The jobseeker may find it difficult to decide what is best for her given the stress in her life. The decision of what type of work to pursue may not just depend on her own goals but also be influenced by how she views herself or by peer pressure. If she does decide to look for a job, she may procrastinate, lose motivation, or face rejection, leading her to give up on the job search.

Successful policies and interventions must take the realities of people's decision-making and behaviour into account. Given the complexities of people's decision-making, it is not enough to offer a quality service or programme. Policymakers and practitioners must also ensure target group adoption and use (e.g., enrol, stay engaged, learn, translate learning into behaviour change, etc.). Even well-planned programmes can fail if their design makes incorrect assumptions about user behaviour. For instance, a well-designed job training based on market needs may not work if the target group does not trust the implementing agency or if the sign-up process is too complicated. Hence, we must pay sufficient attention to understanding our target groups and the ways they make decisions to design effective policies and programmes that match people's actual psychology.[10]

What is behavioural science?

Behavioural science refers to the systematic analysis of human behaviour and decision-making, drawing on academic fields such as economics, psychology, sociology, and neuroscience.[11] Behavioural science focuses on understanding *why* people choose and behave the way they do. A better understanding of people's behaviour can, in turn, lead to better diagnosis of problems, which in turn can inform better-designed solutions.[12] While the behavioural science discipline dates back to the 1950s, it has become increasingly popular in the last two decades, as highlighted by two Nobel prizes.[13] The growing interest in behavioural science is also reflected in the rise of behavioural science units in governments across the globe (including in LMICs such as Peru and South Africa).[14] It has also made inroads in many development organisations, such as the World Bank[15] and the United Nations[16], as well as international non-governmental organisations (NGOs) such as the International Rescue Committee[17].

10 Datta and Mullainathan (2014).
11 https://www.britannica.com/science/behavioral-science. There is no official definition of "behavioural science".
12 Datta and Mullainathan (2014).
13 Daniel Kahneman received the Nobel Prize in Economics in 2002, and Richard Thaler received the same prize in 2017.
14 Afif et al. (2019).
15 https://www.worldbank.org/en/programs/embed
16 Shankar and Foster (2016); https://www.uninnovation.network/behavioural-insights.
17 https://airbel.rescue.org/who-we-are.

In practice, behavioural science provides a range of additional tools to understand policy problems and design promising solutions. Based on assumptions of rationality, traditional policies and programmes seek to influence behaviour by providing information, economic incentives, rules, and regulations. Behavioural science provides a complementary perspective, recognizing that, due to limited rationality, individuals' mental resources (e.g., limited attention), thinking patterns (e.g., loss aversion), social context (e.g., peer pressure), and beliefs (e.g., weak beliefs in own abilities to achieve a goal) can strongly influence behaviours and lead to undesirable outcomes. In turn, behavioural science provides an additional toolbox of instruments to address these behavioural bottlenecks. For instance, making interventions easily understandable (e.g., simple messages), attractive (e.g., personalised communication), social (e.g., role models), and timely (e.g., reminders) has been found to be an effective strategy to induce people to revise their beliefs and encourage desirable behaviours.[18]

International experience suggests that behaviourally informed policies and programmes can have significant impact across a broad range of policy areas, including in the field of employment promotion and labour market integration. The application of behavioural science in policymaking and programming has come to span a broad range of sectors, including poverty reduction, education, labour markets, health, financial services, public finance, etc. – both in developed and developing countries. While most experience to date still comes from high-income countries,[19] behavioural insights are also increasingly applied in low- and middle-income countries, with promising results.[20] Specifically, evidence has grown in recent years supporting the application of behavioural insights to strengthen employment promotion efforts, e.g., in the context of Active Labour Market Policies (ALMPs) and business-support interventions.[21] At a more macroeconomic level, the role of a society's culture, social norms, and belief systems have also been recognised as important ingredients for countries' sustained and inclusive economic development.[22]

Table 1 Comparison of traditional thinking and thinking informed by behavioural science

	Traditional approach	Behavioural approach
How do we think about human behaviour?	People are rational decision-makers that behave in predictable ways (weigh information, decide, act accordingly).	People do not always behave rationally. They are subject to "bounded rationality". However, their irrational behaviour can also be predictable.
How do we assess target groups?	Understand what structural barriers are holding them back.	Understand their life circumstances (e.g., poverty) and how these are affecting their choices and actions.
What drives humans' behaviour?	External factors such as information, economic incentives, and regulations, coupled with stable internal factors such as people's personality, preferences and values, drive behaviour in consistent ways.	People's behaviour is also strongly influenced by their mental resources, automatic thinking patterns, social context, and mental models, which are malleable.
How do we motivate behaviour change?	Providing new information, economic incentives, and changing rules and regulations will drive behaviour change.	There are many tools to encourage good decisions, facilitate taking action, and address intention-behaviour gaps. These include attracting attention, simplification, leveraging social influence, etc.
What does inaction tell us about a person?	If people fail to act, they probably do not need a service or resource.	Inaction may not accurately reflect preferences or needs. Inaction may indicate complexities or barriers to action.

Source Adapted from Daminger et al. (2015)

18 BIT (2014).

19 See for example EC (2016); OECD (2017).

20 See for example World Bank (2015); Kremer, Rao and Schilbach (2019).

21 Aibana et al. (2019); Briscese and Tan (2018), Broughten et al. (2019); World Bank (2018).

22 See for example Becker (2008), ILO (2019c).

Behavioural science in German development cooperation

The importance of behavioural science is already recognised by the Federal Ministry for Economic Cooperation and Development (BMZ) and within the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).[23] In 2018, BMZ issued a strategy paper on behavioural science in German development cooperation.[24] The paper highlights that behavioural approaches are important complements to conventional development cooperation instruments across sectors. Moreover, it calls on Germany's development institutions, including GIZ, to increase their involvement in the topic, build up methodological expertise, and strengthen Germany's footprint in this field. Indeed, there has only been limited use of behavioural science in German development cooperation so far, including at GIZ. Yet, a growing number of GIZ projects in different sectors have been applying behavioural insights in their work, including in public finance (Kosovo, Mozambique), health (Southeast Asia, Pakistan), municipal waste management (Argentina), social cohesion in urban areas (Lebanon), and transitional development assistance (Iraq, Jordan).[25] The majority of these initialexperiences have been in cooperation with the World Bank's behavioural science unit (eMBeD). While some of these projects related to strengthening livelihoods and employment (e.g., in Lebanon, Iraq, Jordan), there have been no applications of behavioural science in explicit employment and labour market interventions to date.

There is fertile ground for better integration of behavioural insights into GIZ's employment promotion portfolio. BMZ and GIZ believe that behavioural science increases the understanding of target groups and that it can "enhance the effectiveness and efficiency of future projects, providing empirically tested results."[26] This growing interest by BMZ and GIZ in behavioural science, coupled with the expanding international evidence on applying behavioural science to employment-related interventions, provides a good opportunity to further explore the potential of behavioural science in Germany's integrated employment promotion approach. Indeed, there are many potential applications related to technical and higher education, ALMPs, private sector development interventions, and financial system development.

Given its broad portfolio in employment promotion as well as the presence of many leading behavioural science scholars in Germany, GIZ appears well-positioned to apply behavioural science more systematically and contribute to global learning in this field.

Purpose of this paper

The objective of this document is to create a common understanding on the main concepts and applications of behavioural science in the field of employment promotion and how they apply to GIZ's work. Specifically, the paper seeks to:

- Raise awareness among policymakers and implementers of the broad range of factors influencing the decisions and behaviours of target groups (e.g., students, jobseekers, firms, etc.), since these factors can have a strong influence on the effectiveness of policies and interventions;
- Highlight the behavioural barriers and tools that are most relevant in the context of employment and labour market integration;
- Illustrate examples of successful applications and the impact that can be expected from integrating behavioural science into Germany's integrated approach to employment promotion;
- Show how behavioural science could be operationalised within GIZ's programming, including potential barriers and drivers of success.

Disclaimer: The author acknowledges that there remain debates within and between the different academic disciplines on the relative importance of different behavioural barriers and adequate tools to address them. Moreover, applying behavioural science in the context of labour markets in low- and middle-income countries is still very much an emerging field. It is beyond the scope of this publication to highlight all the conceptual and empirical nuances. Instead, the paper seeks to provide an introductory overview and inspiration to practitioners working on employment promotion to consider the lessons from behavioural science and to be open to start experimenting with the new tools in their work. In this spirit, the paper focuses on an intuitive explanation of key concepts and evidence, rather than adopting an academic style.

23 In addition, there is also recognition of the importance of behavioural science at the broader government level in Germany, as reflected in the "citizen-centred government" team housed in the chancellery. https://www.bundesregierung.de/breg-en/issues/wirksam-regieren-with-citizens-for-citizens

24 BMZ (2018).

25 For a more detailed overview, see chapter on GIZ in World Bank (forthcoming).

26 World Bank (forthcoming), p.42.

2. Behavioural Science: Main Concepts

"Wouldn't economics make a lot more sense if it were based on how people actually behave, instead of how they should behave?"[27] – Dan Ariely

Introduction

Typically, we think of people's decision-making as a deliberative and rational process, whereby people adequately process the information available to them, weigh the predicted costs and benefits of different options, pick the option that maximises their utility, and act accordingly. As a result, individuals can be expected to respond to external influences such as new information, (financial) incentives, formal and informal rules, and regulations. Based on this understanding, many traditional public policies and programmes offer awareness-raising and training (providing access to information and knowledge) as well as assets and subsidies (increasing economic benefits). When presented with the same external environment, people's choices may still differ, given differences in internal drivers, such as cognitive ability, personality[28], and preferences[29] (which in turn are determined by individual needs[30], values[31], etc.).

Behavioural science looks beyond the traditional external and internal drivers of behaviour, and emphasizes the psychological, social, and cultural foundations of human decision-making (Figure 1). The starting point of behavioural science is the (empirical) observation that people's decision-making is often not as rational as one may expect. For instance, complex circumstances, limited time, and inadequate mental "space" reduce decision-makers to a state of "bounded rationality".[32] Some examples of common deviations in our decision-making process from the standard model include:[33]

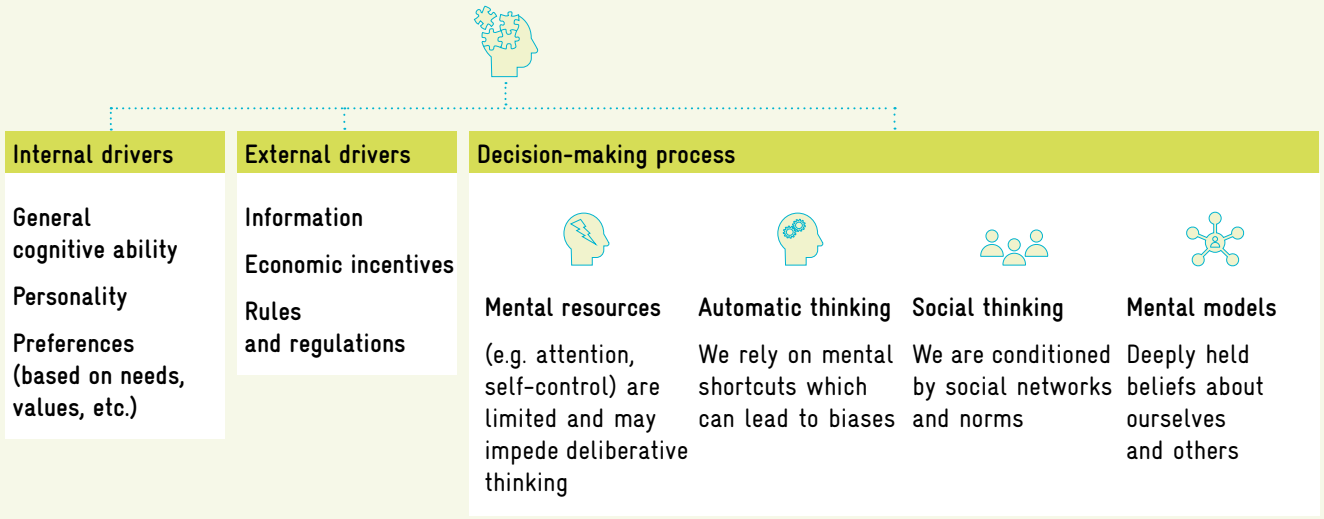
- People are not only interested in their personal benefits, have a strong preference for immediate gratification (over future benefits), or feel more strongly about losses compared to gains.
- Individuals may form beliefs in a way that is not guided by a desire for accuracy but rather by trying to hold a positive self-view or maintain a certain conviction (e.g., overestimating their own abilities).
- The quality of our decisions depends on our attention span and emotional state at the time we make the decision.
- Rather than carefully evaluating the costs and benefits of different options, people often use rules of thumb to reach a decision more quickly, which can lead to systematic errors (biases).
- Decisions not only depend on individuals themselves, but also on their social environments (e.g., influence through peers, social norms).
- Even when people know what is good for them and decide to do something, they often fail to start or subsequently maintain that behaviour.

Bounded rationality is a concept that challenges the assumption of *homo economicus* that human beings are consistently rational in their decision-making. In reality, rationality is bounded for a variety of reasons, including limits to our thinking capacity, available information, and time.[34]

Based on the above, the focus of behavioural science is the decision-making process itself: the psychological and contextual constraints on people's ability to make decisions. This broader perspective can, in turn, provide us with a more nuanced understanding of the challenges that policies and programmes must consider, as well as the tools available to policymakers and practitioners. The present report therefore focuses on this decision-making process.

27 Ariely (2008), p. 239.
28 Borghans et al. (2008); Almlund et al. (2011).
29 For instance, see Falk et al. (2018) for evidence on the drivers of economic preferences.
30 See for example Maslow's hierarchy of needs.
31 See Schwartz (2012). Human values refer to normative beliefs about how life ought to be. They relate to a variety of constructs, such as security, tradition, benevolence, achievement, etc.
32 Simon (1990).
33 See for example DellaVigna (2009).
34 https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/bounded-rationality/

Figure 1 Simplified overview of the determinants of decision-making[35]



Drivers of the decision-making process[36]

This section discusses four key inputs to the decision-making process reflecting the influence by people's mental processes and their external environment: 1) mental resources, 2) automatic thinking, 3) social thinking, and 4) mental models.

(i) Mental resources

Making calculated and deliberative decisions requires mental effort. People make many decisions every day, both big and small, about work, family, health, and more. When thinking is conscious and deliberative (such as dealing with everyday challenges, looking for work, saving money, signing up for a programme), it requires the processing of information, reflection, analysis, and problem-solving. This type of logical, rational thinking requires mental effort. Indeed, it requires the ability to pay attention, absorb information, concentrate, exercise willpower and resist temptations (also called "executive functions").[37]

Mental resources are scarce, and once depleted, decision-making suffers. The brain only has limited capacity to process and act on new information. Hence, we only have a very limited amount of energy to carry out deliberative thinking and decision-making, and there can be a vast number of influences depleting that energy.

These include:

a. Physiological factors, such as the lack of sleep, nutrition and exercise;
b. Stress, distractions and worries, including juggling multiple activities at once;
c. Poor mental health;
d. Environmental factors (e.g., noise, temperature);
e. Negative stereotypes[38].

For instance, a preoccupation about an unmet need (e.g., a shortage of money) or other worries (e.g., related to health, caregiving) can capture our attention and impede our ability to focus on other things (e.g., work, planning for the future, etc.).[39] The consequences may be severe. Many studies have shown that these negative influencing factors reduce people's mental capabilities (or executive functions) such as reasoning and problem solving (fluid intelligence), planning, working memory, and self-control.[40] As a result, people's ability to pay attention, retain information, set goals, finish tasks, resist temptations, and regulate emotions, among other things, can suffer, negatively affecting their performance in different areas of life, such as school, work, and health.[41]

35 The proposed representation does not claim to be comprehensive. The author recognizes that there is no unifying theory about the determinants of decision-making and that there are many different organizing frameworks and interpretations which vary according to the different academic disciplines (e.g. economics, sociology, public health, etc.).

36 Building on World Bank (2015). While the World Development Report focused on three principles, this paper presents deliberative thinking and the mental resources required for it as a separate (fourth) element.

37 https://developingchild.harvard.edu/guide/a-guide-to-executive-function/

38 "Stereotype threat" refers to a situation where individuals are reminded of the negative stereotypes about their racial, ethnic, gender, or cultural group; which in turn can inhibit their performance. See https://www.apa.org/research/action/stereotype and https://www.edglossary.org/stereotype-threat/.

39 Mullainathan and Shafir (2014).

40 Ibid.

41 Diamond (2013).

Box 1 Concepts related to mental resources

Executive functions

Executive functions refer to a family of top-down mental processes needed when you have to concentrate and pay attention. There are three core executive functions: inhibition (incl. self-control, selective attention), working memory, and cognitive flexibility. From these, higher-order executive functions are built, such as reasoning, problem solving, and planning.[42]

Self-control

Self-control is a cognitive process that serves to restrain certain behaviours and emotions vis-a-vis temptations and impulses. It allows people to achieve goals.[43]

Grit

Grit refers to the perseverance and passion to achieve long-term goals. Grit helps overcome obstacles or challenges and therefore serves as a driving force to achievement.[44]

Cognitive load

Cognitive load refers to the amount of working memory resources required to perform a task. The level of cognitive load depends on the complexity of the information/task, how information is presented, and whether it can be integrated and connected with existing knowledge.[45]

Mental bandwidth (or scarcity)

Mental bandwidth (or brainpower, "mental space") refers to our cognitive capacity and our ability to pay attention and exercise self-control. It is a finite resource that may become reduced or depleted. When a significant portion of our mental bandwidth is occupied (e.g., with a specific task or worries), there are fewer mental resources to focus on other things in life.[46]

Decision-fatigue

Since choosing can be difficult and requires effort like any other activity, long sessions of decision-making can lead to poor choices. Similar to other activities that consume resources required for executive functions, decision fatigue is reflected in self-regulation, such as a diminished ability to exercise self-control.[47]

Self-esteem and self-confidence

Refers to a person's subjective evaluation of their own worth (self-esteem) and ability (self-confidence). The level of people's self-esteem and self-confidence can affect their decisions and behaviour (e.g., how information is interpreted, whether to enrol in certain activities, trying new things, taking risks).[48]

(ii) Automatic thinking

Contrary to what we may think, most human thinking is automatic, not deliberative. Most of the time, people evaluate alternatives quickly (and unconsciously), based on what first comes to mind. For instance, people's emotions, such as affection or anger, can strongly influence their decisions and behaviours and interfere with their rational reasoning (e.g., when failing to use contraception or when voting decisions are based on "liking" a candidate rather than the candidate's policy proposals).

Such automatic, intuitive thinking is usually considered our primary system of thinking, while deliberative and analytical thinking and reasoning retains a supporting function.[49] Automatic thinking is based on mental shortcuts, or rules of thumb (also called "heuristics"). These rules of thumb serve as a framework or guide through which we can make decisions quickly and easily, thus reducing the effort needed. As a result, automatic thinking influences a lot of our judgement and decisions, often in ways we may not be aware of.

42 Diamond (2013) and https://developingchild.harvard.edu/guide/a-guide-to-executive-function/.

43 https://www.psychologytoday.com/intl/basics/self-control; Duckworth and Seligman (2017).

44 Duckworth (2016).

45 http://theelearningcoach.com/learning/what-is-cognitive-load/

46 https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/scarcity-psychology-of/

47 https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/decision-fatigue/

48 See for example https://my.uq.edu.au/information-and-services/student-support/health-and-wellbeing/self-help-resources/self-esteem-and-self-confidence.

49 Kahneman (2011).

The role of emotions: Two types of emotions can influence behaviour: immediate emotions (experienced at the moment of choice) and expected emotions (anticipated as a result of the decision to be taken).[50] One key determinant of immediate emotions is the decision-making environment. For instance, a pleasant design and atmosphere in an office building or shop can affect whether people are willing to go there or buy things.

While relying on "rules of thumb" is generally useful, it can lead to biases, i.e. systematic errors in the way we think. Cognitive biases are (unconscious) faulty thinking patterns that may lead us to judgements and decisions that deviate from what would be desirable or logical.[51] For instance, we may only remember or pay attention to information that confirms our opinions, or believe that we are less likely to suffer from misfortunes than others. These biases, in turn, can affect our behaviours in all areas of life.

Box 2 Selected heuristics and cognitive biases

Availability bias

People make judgments about the likelihood of an event based on how easily an example, instance, or case comes to mind.

Anchoring bias

People exposed to initial information (such as a random number) use that information, even if irrelevant, as a reference point that influences subsequent judgements.

Confirmation bias

People seek out or evaluate information in a way that fits with their existing thinking and preconceptions.

Loss aversion

Refers to the fact that the pain of losing is more powerful than the pleasure of gaining ("losses loom larger than gains"). Hence, people are often more sensitive to (and willing to take risks to avoid) a loss than to make a gain.

Present bias

Refers to people's tendency to give stronger weight to benefits and costs that are closer to the present (conversely, when rewards or costs are distant in time, they are perceived less strongly). Therefore, people are willing to accept a smaller but sooner reward rather than to wait for a (sometimes substantially) larger reward (also called "hyperbolic discounting"). In decision-making, present bias can be used to describe impatience, immediate gratification, and procrastination.

Status-quo and default bias

People often have the tendency to prefer the current situation, resist change, and take the option that requires the least effort. This also includes the tendency to accept whatever is the default option when confronted with several options to choose from.

Source https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/

50 Rick and Loewenstein (2008). See also the work of neuroscientist Antonio Damasio on the role of emotions on social cognition and decision-making.

51 https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/cognitive-bias/.

(iii) Social thinking

People's thinking and behaviour is strongly conditioned by their social environment.[52] Humans are social animals, and not purely selfish and wealth-maximising. Human decision-making is therefore not a purely individual and internal process but the result of their environment and social interaction. Indeed, our desires, values, beliefs, and decisions are influenced by our social motivations (or preferences), our relationships, and the prevalent social norms where we live.[53] For instance, social rewards, such as status and recognition, can provide a strong motivation to act (sometimes even stronger than monetary rewards).[54] Other examples of these influences include the impact of peers and family on our behaviour (including copying other people's behaviour) or the role of gender norms in decisions about girls' education and women's participation in the labour market. A major factor in why we are easily influenced by others is that we like to conform to social norms[55] in an effort to build or protect our reputation.

People's social environment can both promote and undermine their wellbeing. On one hand, our social relationships can be a powerful force for good. Family, peers, and others can provide information, inspiration, counsel, and encouragement to make good decisions and overcome challenges. On the other hand, they can hold people back (e.g., pressure to share money dedicated to long-term investments with other family members for non-essential consumption expenses) or induce negative behaviours (e.g., peer pressure to engage in substance abuse).[56] The same is true for social norms. While they have an important function as the "glue" of society and can promote positive behaviours in virtually all areas of life (from road safety to paying taxes), they can sometimes also be highly restrictive, thus limiting personal freedoms and opportunities. Based on this understanding, policies and programmes can seek to harness some social pressures to promote positive behaviours while diminishing other pressures that undermine people's wellbeing.

Box 3 Concepts related to social thinking

Social preferences

Social preferences refer to the pattern that people do not only care about benefits to themselves, but also about gains to others and/or the intentions that lead to the benefits. Types of social preferences include social recognition, altruism, fairness, reciprocity, and inequity aversion.[57]

Social relationships and networks

Social networks are the sets of actors and relationships that form the building blocks of human social experience. Networks provide scope for individuals to transmit novel information, reinforce existing behaviours among one another, and exert normative pressures.[58] How much people are influenced by others strongly depends on the profile of the messenger (see below).

Messenger effect

People are heavily influenced by who communicates information. There are several aspects of the messenger's profile that are important. First, similarities matter. This includes shared socio-demographic characteristics or experiences between messenger and recipient, as well as peer effects (e.g., friends, colleagues), i.e., people considering what "others like me" do when making important decisions. Second, people are affected by the feelings they have for the messenger, i.e. whether they like that person or not. Finally, people tend to be strongly influenced by people of authority and credibility (e.g., high-level officials, superiors, experts).[59]

Social norms

Social norms refer to the commonly accepted rules or expectations of behaviour within a group of people or culture. They signal appropriate behaviour to which individuals conform. Following social norms is met by social approval while violation leads to disapproval or penalties. Social norms are dynamic and can change over time.[60]

52 The role of the social environment stipulated by behavioural science is broadly consistent with the ecological framework on human development which stresses that human development outcomes strongly depend on the direct social and broader environment in which a person grows up. See Bronfenbrenner (1979).
53 World Bank (2015).
54 Ibid.
55 Cialdini (2007); Thaler and Sunstein (2008).
56 Fiala (2017); Blakemore (2018).
57 https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/social-preferences/
58 World Bank (2015).
59 Dolan et al. (2010).
60 https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/social-norm/

(iv) Thinking with mental models

Mental models are deeply held beliefs about how the world works. They help individuals understand themselves and interpret their environment, providing them with default assumptions about the people they interact with and the situations they face.[61] Mental models include personal identities, stereotypes, and worldviews – for instance as they relate to our views of others, gender roles, the value of education, work ethic, or the role of government. Most mental models are shaped by our personal experiences, social environment (see above) and the culture in which we were raised, often being passed down across generations.[62] They emerge from shared (historical) experiences and institutions in our community and society.

While generally useful to make decisions in daily life and allow institutions to function, sometimes individuals and communities may hold on to mental models that have negative consequences for their lives. For instance, people may believe that they cannot change their future, and that belief may hold them back in seeing economic opportunities and engaging in concrete steps to pursue them. Similarly, people's behaviours can change depending on what part of their identity is being triggered; for instance, prompting a stigmatized identity (e.g., caste, race) can affect people's performance.[63] It is therefore essential to understand the mental models of target populations, in particular because they may differ from the mental models of the policymakers and practitioners trying to serve them.

Box 4 Concepts related to mental models

Identity

Identity refers to the qualities and beliefs that make a person. People have several identities (e.g., psychological, gender, religious, ethnic, occupational) which shape their mental model of themselves and others. People's sense of identity can affect economic decisions and behaviours by influencing identity-based preferences and perceptions on how one should behave in a particular identity.[64]

Aspirations

Aspirations refer to strongly desired ambitions to achieve something. Weak individual aspirations have been shown to negatively affect life outcomes and are a potential driver of poverty traps. The existing literature discusses different potential sources of people's low aspirations, such as low expectations in one's ability to achieve a goal (low "capacity to aspire"), difficulty in attaining what one wants, or lack of hope.[65]

Self-efficacy

Self-efficacy refers to people's beliefs about their ability to successfully complete the tasks they set themselves. Individuals with higher levels of self-efficacy tend to set challenging goals; persist toward the achievement of their goals, even under difficult circumstances; and recover quickly from failure. On the other hand, people who doubt their capabilities will shy away from tasks perceived as difficult and may exhibit low aspirations. Overall, a strong sense of efficacy is associated with achievement and personal well-being in many areas of life.[66]

Growth mindset

A growth mindset refers to the belief that people's basic qualities and abilities can be cultivated through effort. According to this view, intelligence or other talents are not innate, fixed traits, but something that people can develop through determination, learning, and persistence. People with a growth mindset are more likely to accept challenges and persevere in the face of setbacks.[67]

Stereotypes and prejudices

A stereotype is an over-generalized belief (positive or negative) about the characteristics of a particular group of people. Prejudice refers to an unjustifiable negative attitude toward another group and can take many forms (e.g., discomfort, dislike, fear). Stereotypes and prejudices are problematic because they are often linked to discriminatory behaviours (negative behaviours towards people based on their belonging to a specific group).[68]

61 World Bank (2015).
62 Ibid.
63 See for example the negative impact of "stereotype threat" on academic achievement. https://www.apa.org/research/action/stereotype.
64 See for example Akerlof and Kranton (2000).
65 See for example Appandurai (2004), Ray (2006), Duflo (2012).
66 Bandura (1994).
67 Dweck (2006).
68 https://opentextbc.ca/socialpsychology/part/chapter-12-stereotypes-prejudice-and-discrimination/.

Relevance in low- and middle-income countries

> "The richer you are, the less responsibility you need to take for the basic constituents of your life (retirement savings, clean water, immunizations) because everything is taken care of for you. […] For most of the poor, if they do nothing, they are on the wrong track."[69]

Although the drivers of individuals' decision-making processes are universal, they carry additional significance in low- and middle-income countries. Life circumstances differ according to the country and community where people live. These circumstances, in turn, influence individuals' mental resources, automatic thinking, social context and beliefs – and hence their decision-making and behaviours. People in low- and middle-income countries (as well as many low-income families in high-income countries) face additional challenges and complexities in their daily lives, and their basic needs are often not met. Poverty, weak institutions, and high levels of violence, among other external factors, can result in negative outcomes including material deprivation (e.g., malnutrition), stress, uncertainty, and worry, which in turn affect individuals' decision-making and behaviour (see Table 2).

Challenging living conditions, including poverty, can negatively affect decision-making and alter the decision-making environment. The more stressors people face in their daily lives, the more decision-making may be negatively affected. Policymakers and practitioners therefore should be conscious of these decision-making dynamics when designing interventions. Channels through which external conditions in developing countries may detrimentally impact decision-making include:

- Reduced ability to think and plan: As previously discussed, the human brain can only process a limited amount of information and activity at one time (mental bandwidth). When mental resources are occupied (e.g., through poverty-related concerns), fewer cognitive resources remain for other tasks. Several studies have shown diminished cognitive performance in individuals confronted with financial concerns or scarcity (e.g., farmers before the harvest compared to after).[70]

- Modified preferences: Difficult living conditions can alter individuals' preferences in a way that may be detrimental for them in the long-term. For instance, the stress and negative feelings that result from poverty have been shown to cause short-sighted and risk-averse decision-making.[71] If people are worried about making ends meet in the short term, they may not give priority to decisions that would enhance their future wellbeing (e.g., spending on children's education, investing in business opportunities, etc.).

- Detrimental beliefs: Individuals' hardships can perpetuate detrimental mental models about themselves. For example, material deprivation combined with limited exposure to positive external influences may negatively affect individuals' expectations about their ability to achieve goals (low "capacity to aspire"), increase the perceived unattainability of their goals, or simply engender a lack of hope, all of which contribute to low aspirations (e.g., in terms of schooling, labour market participation, programme enrolment).[72]

- Social dynamics and norms: In contexts where social safety nets are lacking, institutions are weak, and trust is limited, people may rely more heavily on their immediate social network (family, community) for mutual support. This can lead to a social norm of "family first" and pressure to act in ways that may not be in the best interest of the individual. For instance, a small business owner may be prevented from reinvesting his profits to grow his business due to obligations to give money to family members, or he may be obligated to hire a less qualified candidate who is part of the family.

In short, these and other factors can prevent people from behaving in ways that are in their best interests, including regarding their health, education, personal finances, or ability to take advantage of economic opportunities. Moreover, poor decisions may have worse outcomes for the poor than the non-poor given the poor's lack of financial cushion.[73] Yet, it is wrong to interpret these decision-making patterns solely as "biases". In fact, the behavioural responses of poor people illustrated above can be perfectly rational adaptive strategies for their context.[74] For instance, in an environment characterized by high levels of uncertainty, having a strong preference for immediate rather than (uncertain and unreliable) future benefits is clearly understandable, though the trade-offs must be carefully considered.

69 Duflo (2012).
70 Mani et al. (2013).
71 Haushofer and Fehr (2014).
72 See for example Appandurai (2004), Ray (2006), Duflo (2012).
73 Mani, Mullainathan, and Shafir (2013).
74 Todd and Gigerenzer (2012).

Table 2 Common characteristics of LMICs and potential implications on decision-making

Country characteristics	Selected direct consequences (transmission mechanism)	Potential consequences on decision-making process
Poverty	Material deprivation consumes mental resources (unmet physiological and safety needs) Increased exposure to negative environmental factors (e.g., noise, heat, air, and water pollution) Limited exposure to diverse and positive influences (e.g., role models) Negative intergenerational impacts on children (e.g., through poor maternal nutrition and stress in pregnancy, lack of stimulation)	Increased cognitive load impairs executive functions Focus on immediate needs Higher risk aversion Detrimental beliefs about oneself and the world (e.g., lower self-worth, lack of hope, low aspirations) Higher incidence of mental illness Weak socio-emotional skills (e.g., self-control, self-efficacy)
Economic structure and lack of social safety net	Predominance of informal employment, self-employment, and microenterprises increases economic uncertainty and thus creates stress and worry about the future, and reduces mental bandwidth Vulnerability to negative income and health shocks	Increased cognitive load impairs executive functions More susceptible to self-control issues Higher risk aversion Stronger dependence on and obligations to familial and community networks Focus on immediate needs
Poor infrastructure	Higher transaction costs (minor things such as paying a bill or getting from A to B can be complicated and time-consuming) use up mental bandwidth Higher levels of hassle and stress	Increased cognitive load impairs executive functions Increased likelihood of procrastination Lower levels of life satisfaction and more negative outlook on life
Weak institutions	Increased transaction costs dealing with authorities, companies, etc. (e.g., burdensome bureaucracy) Higher levels of corruption (e.g., necessity of paying bribes) Increased uncertainty about dealing with institutions (e.g., lack of contract enforcement, weak property rights) Increased uncertainty due to macroeconomic instability Weak education systems	Increased cognitive load impairs executive functions Low levels of trust and reciprocity (within communities, in government and other institutions), greater willingness to cheat outsiders Stronger dependence on and obligations to familial and community networks Focus on immediate needs Reduced cognitive and socio-emotional skills; detrimental beliefs
Fragility and violence	Negative impact on food security, health, and education Increased interpersonal violence and worry about personal safety reduces mental bandwidth Limited mobility creates hassle and increases transaction costs	Increased cognitive load impairs executive functions Lower levels of trust in communities and government, greater reliance on familial networks Focus on immediate needs Higher rates of PTSD, aggression, attention problems, and depression
Values and Norms	Larger families Differing moral attitudes and cultural beliefs Group loyalty Respect for authority Religiosity Discriminatory customs or legal frameworks (e.g., customary tenure regimes that favour men's right to land over women's, gender-based violence)	Greater dependence on and obligations to familial and community networks Greater collective decision-making Less cooperative behaviour with outgroup members Mental models about other people (e.g., stereotypes) Discriminatory practices negatively impact internal mental models and mental health

Sources Own analysis, drawing on Duflo (2012); Kremer, Rao and Schilbach (2019); Mani et al. (2013); Haushofer and Fehr (2014); World Bank (2015).

Approaches for behaviourally informed programming

To be effective, policies and programmes must consider the broad range of factors that influence people's decision-making and behaviour. People's mental resources, automatic thinking patterns, social thinking, and mental models affect how they engage with and benefit from policies and programmes. For instance, given their beliefs and social environment, they may not be interested in the services offered. Alternatively, they may be interested, but too overwhelmed to take advantage of available opportunities. They may engage in a programme but not be able to complete it. Even when they complete it, they may not adopt or sustain the desired behaviours. Clearly, psychological and contextual factors can contribute to many of the common challenges policies and programmes face, such as limited take-up, high drop-out rates, and low impact on final target group outcomes. Thus, programming should consider these behavioural dynamics. In practice, this requires applying a behavioural lens both in terms of both diagnosing policy problems and designing interventions.

Box 5 Approaches related to behavioural science

Behavioural science shares features with other approaches. Behavioural science typically involves a structured, iterative process of diagnosis, design, and testing (for a more comprehensive discussion of the behavioural science process, see section 5). In terms of process, this is similar to approaches like "human-centred design" or "problem-driven iterative adaptation", though these are not behaviour-focused.[75] In terms of its focus on behaviour (change), behavioural science has commonalities with approaches like social marketing and social and behaviour change communication, though its application is much broader than those concepts.

Human-centred design (HCD)

HCD is a problem-solving approach that prioritises understanding the people one is trying to reach and designing solutions from their perspective. It consists of three core phases: inspiration, ideation, and implementation.[76]

Problem-driven iterative adaptation (PDIA)

PDIA is a step-by-step approach which helps break down problems into its root causes, identify entry points, search for possible solutions, take action, reflect on learnings, adapt and then act again. It is a dynamic process with tight feedback loops that allows users to build their own solution to problems that fit their local context.[77]

Adaptive management

Adaptive management is a structured, iterative process of decision-making in the face of uncertainty based on observation and assessment of project performance.[78]

Social and behaviour change communication (SBCC)

SBCC is the use of communication to change behaviours, including service utilisation, by positively influencing knowledge, attitudes, and social norms.[79]

Social marketing

Combining ideas from commercial marketing and the social sciences, social marketing is an approach used to develop activities aimed at changing or maintaining people's behaviour for the benefit of individuals and society as a whole.[80]

75 Carter (2017).
76 https://www.designkit.org/human-centered-design.
77 https://bsc.cid.harvard.edu/PDIAtoolkit.
78 Rist et al. (2013).
79 https://ccp.jhu.edu/social-behavior-change-communication/
80 https://www.thensmc.com/content/what-social-marketing-1

(i) Behaviourally informed diagnostics

Policies and programmes must be informed by the behavioural bottlenecks that target groups face. The first key component of behaviourally informed programming is a behaviourally informed problem analysis. That is, integrating a behavioural perspective into existing assessments and/or applying self-standing tools to better understand the target group and their decision-making. Based on this analysis, policymakers and practitioners can identify potential behavioural barriers at play (e.g., limited attention, hassle factors, detrimental social norms, low self-efficacy) to answer why target groups are (not) engaging in certain behaviours. This analysis can follow the structure presented in the previous section (related to external, internal, and decision-making drivers of behaviour) or alternative frameworks.[81] Specifically, the diagnosis will involve data collection from various sources and then analysing and presenting findings in an intuitive way. While it is beyond the scope of this review to provide a holistic discussion, Table 3 indicates common sources for data collection and analytical tools.

Finally, behavioural diagnostics can also be applied to other stakeholders beyond final target groups, such as professionals in development agencies, consultants, and policymakers.[83] Programming and policymaking, e.g., in terms of prioritising target groups, selecting certain activities, or implementing interventions can be subject to a host of psychological and social influences. For instance, development professionals or policymakers may favour certain interventions because they are most familiar with them (availability bias) or based on what other organisations do (peer effects), continue implementing very similar interventions over and over again despite a lack of evidence regarding their impact (default bias), and interpret positive or negative results in line with their previously held beliefs (confirmation bias). They may also be subject to many other influences, such as time and attention constraints, overconfidence, or forgetting, which in turn can negatively affect the quality of project planning and implementation. Therefore, rather than applying a behavioural perspective to target groups alone, it can also be useful to reflect on behavioural influences within one's organisation and partners (e.g., through internal workshops).

Table 3: Selected information sources and analytical tools for behavioural diagnostics

Information sources	Analytical tools
Ethnographic research (incl. observation, shadowing, and immersion with the target group in their real-life environment) Qualitative research (e.g., interviews and focus groups) with the target group and key stakeholders Quantitative surveys with specific questions or modules on behavioural concepts Review of existing literature	User journey mappings, i.e. visual representations of the user experience highlighting key decision steps and touch points with other stakeholders (potentially including interaction of behaviours by different stakeholders) Behavioural analysis indicating the target group's necessary capabilities, motivators, barriers, etc. along the different steps of the user journey[82] "Personas", i.e. the representation of the needs, thoughts, and goals of different types of target user

Behaviourally informed diagnostics may not only uncover behavioural barriers related to people's decision-making. They often also uncover or confirm traditional constraints (e.g., related to information, access to resources, skills, etc.), which in turn may require "traditional" intervention strategies. Hence, some programmes may simply benefit from behavioural science in terms of a thorough understanding of user-needs and behaviours, without necessarily moving on to applying actual "behavioural" interventions.

81 See for example the ISM model of behaviour change which describes factors impacting behaviours on three different levels: the individual level (e.g. emotions, attitudes, skills), the social level (e.g. social norms, networks, relationships) and the material level (e.g. resources, infrastructures). Darnton and Horne (2013).

82 See also Michie, van Stralen and West (2011) for the COM-B framework.

83 For a detailed discussion, see for example World Bank (2015), chapter 10.

(ii) Behaviourally informed interventions

Policies and programmes should be based on a sound understanding of the behavioural patterns of the target group (and relevant stakeholders), which can even be leveraged to enhance their impact. To foster behaviours that help people achieve their goals or to promote the interest of society at large, interventions that leverage behavioural insights can help target groups in different steps of the decision-making process. Specifically, interventions can help motivate good decisions, facilitate taking action, and sustain behaviour change (Figure 2).

Approaches based on behavioural science to support the different steps of the decision-making process typically fall into two broad categories – "nudging" and "boosting" (Table 4), though there is also some overlap between the two concepts. While nudging seeks to influence the decision-making environment to address or leverage behavioural biases, boosting seeks to foster people's competences to make informed decisions. These approaches, in turn, can complement traditional instruments of behaviour change, such as information (which is given to change knowledge and preferences), economic incentives (which make certain options more or less appealing by changing their costs or benefits), and rules and regulations (which restrict people's choice by prohibiting certain options and providing sanctions).[84] One approach is not superior to the other per se, and it is therefore important

Figure 2 Key objectives of behaviourally informed interventions

Motivate good decisions	Facilitate taking action	Sustain behaviour change
Help revise individuals' beliefs and foster good intentions.	Make the desirable behaviours easier to adopt by reducing barriers to action.	Help people remember and follow-through on intended actions.
For instance Counteract detrimental mental models (e.g. by invoking how other people behave)	**For instance** Simplify the process	**For instance** Send reminders
Encourage positive behaviours (e.g. through peer influence)	Change the default setting	Leverage commitment devices
Strengthen decision-making capacity (e.g. fostering self-confidence and self-efficacy)		Provide continuous support

84 Gravert and Nobel (2018).

to consider the efficiency, effectiveness, and acceptability of both when choosing between the two kinds of approaches. For a more detailed discussion of nudging and boosting, see Annex 3.

In many cases, behavioural barriers can also be addressed through small design considerations within traditional interventions that are neither related to nudging nor boosting. Indeed, many existing interventions across policy areas already address behavioural challenges without framing their response as a "behavioural intervention". For instance, education and skills trainings may adopt certain schedules to accommodate time and attention constraints of participants. Similarly, traditional coaching for small businesses is commonly recognized as an important ingredient not only for the expertise and knowledge provided, but also for reinforcing certain messages so they are not forgotten or for psychological support in difficult situations. Behaviourally informed interventions therefore do not always involve a "new" type of intervention but merely the systematic adaptation of design and implementation arrangements in line with people's actual needs and behaviours.

Table 4 Comparison of nudging and boosting

Dimensions	Nudging	Boosting
Objective	Steer people to make good decisions in specific contexts	Strengthen decision-making capacity
Target of intervention	Behaviour	Competences
Mechanism	Change behaviour by influencing the decision-making environment to address cognitive and motivational deficiencies	Foster competences to make informed choices through changes in skills, knowledge, decision tools, or external environment
Sample interventions	Defaults; Framing; Reminders; Simplification	Different types of training; Motivational interventions
Transparency to target audience	May not be transparent, can seem manipulative	Requires active cooperation, hence transparent
Assumption about cognitive architecture	Automatic and deliberative thinking (dual-system theory)	The brain is malleable
View of decision-making process	Decision-makers are imperfect and subject to biases	Decision-makers face bounded rationality, but relevant competences can improve decision-making

Source Adapted from Hertwig and Grüne-Yanoff (2017)

Box 6 Example contrasting nudging and boosting

Assume the objective is to encourage people to save money. A nudging approach might address this by framing the decision as setting aside money in the future following every paycheck as well as by setting up an automatic participation in a savings plan with the possibility to opt out of that default. Boosting, by contrast, may focus on a "rules-of-thumb" training to foster financial literacy and savings behaviour, as well as increasing people's awareness about their future selves and needs in order to influence their time preferences. While the nudge approach focuses on influencing the decision-making environment, the boost approach focuses on strengthening the competences to make an informed decision.

Source Adapted from Hertwig and Grüne-Yanoff (2017)

3. Applying Behavioural Science to Employment Programmes: Conceptual Framework

"To design effective employment policies, governments must improve their understanding of how job seekers and employers make decisions, and how they interact in the labour market, including through job service providers."[85]

Rationale

How people think and behave strongly influences their employment trajectories. Choosing and completing relevant educational programmes, finding and keeping a job, or starting and growing a business all require countless decisions and actions, both big and small, as well as overcoming obstacles in the process. Hence, people's beliefs about education and work, how they make decisions whether and where to work, and their ability to follow-through on their intentions are crucially important in determining their employment outcomes throughout their lives.

Experience in high-income countries shows that leveraging behavioural science can improve the impact of employment policies and programmes. Examples include a broad range of employment-related interventions such as employment services, job training, unemployment insurance, business policy, and improving working conditions. For instance, the United States Department of Labor has integrated behavioural insights in several of its programmes on reemployment for the unemployed, occupational safety and health, and retirement savings.[86] Similarly, public authorities in England, Australia, and other countries have been applying behavioural science to job search and job matching services, employers' recruitment practices, and support services for (Micro-,) Small- and Medium Enterprises (MSMEs) in order to increase programme effectiveness.[87]

There is reason to believe that the different labour market characteristics of low- and middle-income countries may further increase the relevance of behavioural bottlenecks and hence the need for behavioural interventions. Labour markets in developing countries are characterized by dominance of micro- and small firms, widespread precariousness and self-employment, and high levels of informality (see Box 7). These features can significantly affect the lives and decisions of students, jobseekers, workers, and firms.

For instance:

- Students (and parents): Students in developing countries face higher levels of uncertainty regarding the relevance and quality of additional levels of schooling and subsequent labour market opportunities.

- Jobseekers: Given the lack of social safety nets in many countries, people often cannot afford to stay unemployed and must accept any type of work available in the short-term. They often lack the ability to signal their competences (e.g., due to the lack of meaningful diplomas or certificates), making the hiring process more arbitrary and contingent on other factors (e.g., family ties).

- Employees: Whereas permanent full-time jobs provide reliable income, security, and protections by default, workers in developing countries expend more effort navigating irregular schedules and juggling scattered and unpredictable jobs (e.g., casual labour and own household enterprise) with unfavourable (and sometimes coercive) working conditions – thus drawing on their mental resources.[88]

- Businesses/firms: Since most businesses consist of self-employed workers and micro- and small enterprises (or farms), individuals face a less structured work environment (e.g., in terms of setting work hours and effort, lack of supervision), decisions are typically made by one person only, and there is often a lack of separation between work and the household (e.g., in terms of workplace, finances). This situation can foster stress, draw mental resources, and exacerbate behavioural phenomena such as limited self-control, making it more difficult to make appropriate business decisions and follow-through on intentions.[89]

Moreover, across all groups, the social environment can have a stronger influence on decision-making in many developing countries. For instance, in collectivistic cultures, families and communities play a more central role in people's identity, while social rules put community needs ahead of individual needs.[90] In practice, these dynamics can be reflected, for example, in the expectation and pressure that successful people (e.g., entrepreneurs) should give money to their family and community.[91]

85 Briscese and Tan (2018), p.5.

86 https://www.mathematica.org/our-publications-and-findings/projects/behavioral-interventions-for-laborrelated-programs

87 Briscese and Tan (2018); Broughton et al. (2019).

88 World Bank (2018).

89 Kremer, Rao and Schilbach (2019).

90 https://www.verywellmind.com/what-are-collectivistic-cultures-2794962.

91 See for example Fiala (2017); Grimm, Hartwig and Lay (2017).

Box 7 Typical labour market characteristics in developing countries

Regular wage employment is the exception

Wage employment (especially in the formal sector) is the exception, while self-employment is the norm. Indeed, self-employment and employment in microenterprises (less than 10 people in the firm) represents 80-90% of total employment in low- and middle-income countries (much of it in subsistence farming).[92]

Informal is normal

Most people hold jobs that lack contractual arrangements, access to social protection and worker representation, and protection under basic labour standards.

Portfolios of work

To make ends meet, people often engage in a range of income-generating activities simultaneously, including agriculture, casual or seasonal labour, petty trade, and possibly formal work.

Difficult working conditions

Employment is often characterised by precarity and instability, poor working conditions (e.g., in terms of stability, working hours, occupational health, or lack of benefits), low productivity, and low income.

High turnover of jobs

Due to the lack of stable work arrangements and poor working conditions, people transition more frequently between employment and unemployment and between different employment opportunities.

Some groups are particularly affected by weak employment outcomes

Youth, women, and other disadvantaged groups (e.g., minorities, persons with disabilities) face the strongest disadvantages in the labour market. For instance, female labour force participation is significantly lower compared to men.

Source European Commission (2018)

Many employment promotion interventions fall short of their desired impacts, in part due to an incomplete understanding of how different labour market actors make decisions. Systematic reviews of active labour market programmes and business support services have found that the impacts are typically small.[93] While the reasons are manifold, one common challenge is the limited understanding of policymakers and practitioners of the key barriers to more and better employment (i.e., weak diagnosis).[94] For instance, a training on business skills for aspiring entrepreneurs is unlikely to work if the real problem is the lack of access to finance. Similarly, a job training programme for young women will not be effective if the real reason behind low female employment is that families discourage or prevent women from working.

The same problem occurs when policymakers and practitioners have incorrect assumptions about how students, jobseekers, self-employed workers, firms, and employees think, and what drives their behaviour (e.g., related to their perceptions and use of the services offered). For instance, a common assumption is that providing information and knowledge (e.g., about job searching, improved business practices, etc.) will translate into changes in behaviour (as reflected in the common focus on training interventions). The reality, however, is often quite different, and increases in knowledge do not necessarily lead to the desired behaviours. Table 5 provides selected examples on how the reality of deciding on education, finding a job, or running a business may differ from common assumptions.

> "It just annoys me when they talk about growing your business, when a lot of the time, people don't necessarily want to grow the business."[95]

92 ILO (2019b).

93 See for example Card, Kluve, and Weber (2018); Kluve et al. (2017); Grimm and Paffhausen (2015); McKenzie (2020).

94 Hempel (2020).

95 Small business owner. Cited in Broughton et al. (2019).

Table 5 Flawed assumptions on the behaviour of students, jobseekers, businesses, and employees

Theory	Reality
Students (and parents)	
Families invest in the type of education that increases economic opportunity	Education aspirations and decisions are not only driven by perceived economic consequences, but also by students' and families' views of themselves, social influences, and attitudes towards different occupations (e.g., in terms of prestige). Moreover, there can be gaps between educational intentions and actual attendance, for instance due to inconveniences related to the search, application, and enrolment process.
Students maximise effort to improve future opportunities	Many factors can undermine student persistence and performance, such as distractions, competing demands, procrastination, mental exhaustion, etc. As a result, students may acquire fewer skills and/or drop out altogether.
Jobseekers	
Jobseekers look for a job that is suitable for them	Jobseekers make decisions with imperfect information (e.g., lack of information about the job market and employment potential in different fields, as well as their own fit for different jobs), making it hard to know what the best decision is. Moreover, decisions about what kind of work they pursue is often driven by their social environment, short-term financial pressures, etc.
Jobseekers invest effort in job searches to minimize the duration of unemployment	The complexity of the search process (many steps are needed) as well as negative responses put a strain on self-confidence, motivation, and willpower, which can lead to procrastination and eventually abandonment of the search effort (e.g., discouragement).
Jobseekers prefer accepting a job rather than being unemployed	Even in the absence of better alternatives, jobseekers may reject job offers if they do not meet their own or perceived expectations (e.g., wage perceived as unfair, lower pay than previous job, insufficient status or prestige associated with the job).
People can easily participate in programmes (e.g., training)	In addition to the monetary costs of attendance (e.g., transportation costs, opportunity cost of forgone income), prospective participants must dedicate time and mental effort in order to sign up, engage with, and complete the programme. Therefore, even small hassles such as registering, accommodating one's schedule, and traveling to the training centre can prevent participation in a programme.
Employees (wage-workers)	
Workers keep looking for more suitable and higher-wage jobs	Workers are often not able to follow-through on their plans to look for better jobs and do not invest as much effort for job search as desired (e.g due to present bias and limited self-control).[96]
Workers stay in their current jobs until they find something better	Workers may quit their jobs prematurely even if they have no alternative employment opportunity lined up. For instance, a conflict with a supervisor may trigger a spontaneous prematuredeparture due to limited self-control.
Workers' effort and productivity largely depends on the level of salary and general working conditions	Workers' level of effort and productivity is influenced by a vast range of factors. For instance, how contracts are structured (e.g., to minimise procrastination), how tasks are framed (e.g., links to a broader purpose and employees' values), whether workers' expectations are (un)met or exceeded, how awards (e.g., bonuses) are framed, whether workers can compare their performance to others, non-financial rewards (e.g., recognition), and the quality of social relations in the workplace.

96 Meyer (2018).

Table 5 Flawed assumptions on the behaviour of students, jobseekers, businesses, and employees

Theory	Reality
Businesses (incl. self-employed workers)	
Businesses make decisions by carefully weighing information	In smaller businesses, there is often only a single decision-maker (often with limited education and training) who needs to juggle many decisions under substantial time and financial pressure, which makes their judgements more prone to behavioural influences (e.g., limited attention, present focus, inertia). This can lead to missing important information, neglecting opportunities, etc. Due to the complexities they face, many businesses rely on rules of thumb rather than detailed analysis.
Improved business knowledge will enhance business performance	Many (small) businesses face difficulties in translating knowledge and intentions into action (e.g., adopting new processes, making investments, following-up on strategic decisions, saving money). Reasons can include lack of time and "mental bandwidth", more pronounced self-control problems due to the lack of explicit work arrangements that dictate what to do (e.g., procrastination), pressure to meet short-term requests, etc.
Businesses recruit the most competitive candidates	Many businesses rely on their social networks for hiring. This can be due to practicalities (easier hiring process) and existing relationships (trust), but also social norms pressuring business owners to hire (even extended) family members or not fire underperforming staff if they are family. Businesses may also discriminate people from certain backgrounds.
Businesses are interested in growth	Many business owners do not aspire to grow the business (e.g., because it would be more stressful, would take time from family responsibilities) and are happy with the status-quo. Others think of growth in terms of improving their reputation or providing employment (including to family) rather than turnover or profits.
Businesses seek to maximise profits	Businesses and the self-employed are often satisfied with average profits (e.g., readily foregoing opportunities for additional earnings), often working just enough to meet their (sometimes daily) needs.[97] Even larger firms may ignore opportunities to improve processes, lower costs, or increase sales as long as things are going "reasonably well".

Source Own analysis, based on Aibana et al. (2020), Broughton et al. (2019), Duflo (2012), Ross et al. (2013), WB (2015)

To maximize the impact of employment promotion interventions, policymakers and practitioners must improve their understanding of what drives the target group's decisions and behaviours. By applying the principles of behavioural science and putting (prospective) beneficiaries at the centre of attention, policymakers and practitioners can broaden their understanding of the factors leading to unsatisfactory employment outcomes (initial problem analysis) and the factors limiting the effectiveness of employment policies and programmes.Behavioural insights therefore provide additional tools for:

- Employment diagnostics: Behavioural diagnostics can complement standard analysis of labour market conditions, skills needs, value chains, etc.;
- Design and implementation of employment promotion interventions: Integrating behaviourally informed strategies into existing interventions (often through small and simple tweaks) can enhance their effectiveness and provide a basis to think about new, innovative approaches to foster employment outcomes.

97 This phenomenon is labeled income- or effort-targeting.

Behavioural bottlenecks in the context of employment

> "By nature, the target population of ALMPs is in a continuous state of scarcity ofresources and cognitive bandwidth and thus is unable to think too far ahead."[98]

The diagnosis of employment problems must consider potential behavioural barriers. As discussed above, many undesirable employment outcomes may be linked to a range of behavioural barriers. For instance, limited job search can be rooted in biased beliefs about the benefits of intensive search, low self-confidence or overconfidence, impatience, or a lack of willpower.[99] Understanding relevant behavioural barriers is therefore key to designing policies and programmes accordingly. In practice, there are countless factors that can interfere with the decisions of students, jobseekers, workers, and businesses. Figure 3 summarizes key factors that have been shown to negatively affect people's decisions and behaviours in the context of education, employment, and firm development. The relative importance of the different bottlenecks strongly depends on the local context.

Note that behavioural barriers typically do not exist in isolation, but in combination with conventional employment constraints (e.g., lack of information, skills gaps, lack of financial resources), and sometimes decisions may be driven by either behavioural or conventional factors. For instance, people may not want to work in factories due to low aspirations or negative beliefs about the private sector (behavioural explanations), but it may also be the case that the jobs offered are of such bad quality (e.g., in terms of occupational safety, working hours, etc.) that people rationally do not want them (conventional explanation).[100]

Not all beneficiaries are affected in the same way. The extent to which behavioural bottlenecks such as negative beliefs, biases in decision-making, and intention-action mismatches constitute key barriers to employment may vary for different segments of the target group. Different sub-groups of (prospective) beneficiaries (e.g., by age, sex, migrant status, etc.) are likely to differ in the extent and ways how they are affected by different behavioural barriers (see Box 8). Similarly, even within the same target group (e.g., youth or women), there is typically some heterogeneity in behavioural (and conventional) barriers that can be revealed by adopting a behavioural perspective.

Figure 3 Common behavioural bottlenecks in the context of employment




Mental resources	Automatic thinking	Social thinking	Mental models
Limited attention & time	Present bias	Social preferences	Identity
Limited self-control	Over-confidence	Negative peer effects	Flawed beliefs about education and work
Limited memory	Hassle factors	Messenger effect (incl. low trust)	Low aspirations
Low self-confidence & self-esteem	Loss aversion	Detrimental social norms	Low self-efficacy
	Status-quo bias		Fixed mindset
			Discrimination

98 Aibana et al. (2020), p.16

99 Abel et al. (2019).

100 See for example Blattman and Dercon (2018) on poor working conditions in Ethiopian factories.

Box 8 Behavioural bottlenecks for specific target groups – the case of displaced populations

Displaced populations, i.e. refugees, asylum seekers, and internally displaced persons, have been shown to be subject to various behavioural barriers that can affect labour market integration. For instance, experience of violence and forced displacement might lead to lower trust towards others and a negative outlook on life and lower hope and aspirations. In line with more negative expectations about the future, the experience of conflict can also have an impact on risk-aversion, which in turn may impact the level of risks that people are ready to take (e.g., in the context of self-employment). Moreover, the time horizon of forced migrants (i.e. whether and when they may expect to return to their home) likely influences their willingness to make specific investments. Depending on their time horizon and the local context, they might be less willing or more willing to make investments in skills (incl. language) and assets.

Source Schuettler and Caron (2020)

Type 1 bottlenecks Related to mental resources

Behavioural bottleneck	Explanation	Illustrative challenges in context of employment promotion
Limited attention (and time)	We only have a finite amount of attention at our disposal. When our attention is divided, we cannot fully concentrate and may perform a task less well. For example, when we are worried about something, we may focus less on other tasks.	Participants of employment programmes may struggle when a programme demands a high level of attention (e.g., fill out long forms, follow complicated instructions), time (e.g., long programmes, inconvenient schedules), and complicated content Business-owners are exposed to a lot of stress and must take many decisions, big and small, every day, often under time pressure. This can lead them to rush decisions and lack the attention span for the longer-term strategic thinking required to make decisions about new investments and innovation or applying for business support Business owners may simply not care enough about perfectly adopting various business practices when not interested in maximising profits or growing the business
Limited self-control / will-power	We often lack the ability to follow through on intended actions. For instance, we fail to resist short-term temptations to meet long-term goals. We procrastinate, putting aside important tasks.	Jobseekers and workers may not follow through on their intentions to search for a new job Given the lack of supervision, business owners and the self-employed may not work as hard as they would like to and may put aside important but unpleasant tasks (e.g., dealing with taxes, changing business processes) Workers and businesses may not set aside money for savings and future investments
Forgetting / limited memory	We often plan to do something in the future but fail to take action when the time comes – even when it is something important.	Participants of labour market programs may forget to sign up for or to attend certain activities (e.g., training sessions, recruitment fairs, etc.) Business owners may forget to make loan payments on time (thus incurring additional expenses), keep change on hand (foregoing sales), or make inventory assessments (to avoid being out of stock)
Low self-confidence and self-esteem	We are sometimes uncertain about our own abilities and/or do not have a high sense of self-worth, which can prevent us from taking action or reduce the quality of what we do.	Jobseekers are less likely to engage in employment programmes or job search if they think that they are "not good enough" or self-select into less demanding jobs Self-employed workers and business owners with low confidence are less likely to seize opportunities and face disadvantage in business transactions (e.g., negotiations) Workers with lower psychological well-being are less productive

Source Own analysis, drawing on Aibana et al. (2020), Darling et al. (2017), Dohmen (2014), Kremer, Rao and Schilbach (2019), Nielsen and Sebald (2016), Wu and Broughton (2019)

Box 9 How a lack of time and attention can impede business growth

Growing a business often requires sizable investments that may be out of reach for many small business owners. Moreover, it requires time and effort that may conflict with household responsibilities. Indeed, many micro-businesses are run by women who are also running the household and raising children. Paying full attention to the business would take away from time at home and sacrificing that time at home for the business might not seem worthwhile.

While there may be benefits to making the right business decision or saving some money for future investments, the overall gains may not be large enough to change the life of the business owner and her family. In that case, it may be perfectly rational to decide that it is not worthwhile to spend too much effort trying to manage the business perfectly. Accordingly, businesses like this will be run without much personal (or financial) investment and will not be as productive as they could otherwise have been.

Source Duflo (2012), p.34-35

Type 2 bottlenecks Related to automatic thinking

Behavioural bottleneck	Explanation	Illustrative challenges in context of employment promotion
Present bias and impatience	We tend to put greater weight on what happens in the present over what will happen in the future. Hence, benefits (e.g., income, services) received today are valued more than the same (or even greater) benefits in the future. Similarly, costs incurred today (e.g.,effort, expenses) are perceived more negatively than potential future costs.	Jobseekers may attach greater weight to the effort needed for job search relative to the associated benefit (better job) that they will only realize in the future Young people may prefer informal self-employment (e.g., driving tuk-tuks, moto-taxis) which provides immediate income over less-well paid, but formal, wage-employment, potentially limiting future career prospects Business-owners may postpone important activities (e.g., changing business processes) whose benefits will only materialize in the future and may be unable to save money for future investments
Optimism bias / Overconfidence	We sometimes overestimate our abilities or assume everything will go according to plan. Similarly, we tend to underestimate the time, costs, and risks of future actions and overestimate the benefits (planning fallacy).	Jobseekers may be overly optimistic concerning their chances of finding a job. Hence, they may search too little or not sign up for support programmes Many business owners may believe that their firms are performing as well or better than their peers, failing to realise potential improvements in business practices Prospective start-ups often overestimate their chances of success and underestimate the time it will take to get up and running
Hassle factors	Small inconveniences can prevent us from taking action or following through. Similarly, programme requirements and conditionalities increase complexity and the mental burden on beneficiaries.	When students and jobseekers cannot easily find useful information about the labour market, they may dismiss relevant education and work opportunities Jobseekers may not sign up to or follow through with employment programmes due to a complicated registration process or inconvenient transit options Firms may forego support services or avoid making certain business decisions (e.g., introducing new IT) if they are perceived to create inconveniences
Loss aversion	We tend to feel more strongly about avoiding losses than making gains.	Jobseekers may be reluctant to accept a job that they consider worse than what they would expect (e.g., in terms of income), even if this implies (longer) unemployment Firms may be slow to adopt new processes or technologies, putting stronger emphasis on the immediate costs than the associated benefits Firms or farms may find it difficult to (temporarily) reduce their staff in difficult times
Status quo bias / inertia	We often continue to do things in the way we are used to (even if not ideal) and resist change. This can be reinforced by the complexity of a choice or decision.	Workers may stay in jobs they dislike instead of seeking to change their employer and/or career path Self-employed workers and firms often continue business as usual (traditional ways of operating) as long as it works to "get by" and do not take opportunities for improvement

Source Own analysis, drawing on Aibana et al. (2020), Darling et al. (2017), Dohmen (2014), Kremer, Rao and Schilbach (2019), Nielsen and Sebald (2016), Wu and Broughton (2019)

Box 10 How hassle factors can prevent programme attendance

Enrolling in a programme is often a complex, lengthy, and unpleasant process. Potential participants must often attend one or more information sessions and complete a significant amount of (potentially redundant) paperwork. When they express interest by phone or email, days or weeks may go by before they get a response, and when they come to sign-up in person, they may have to wait for hours and/or come back again to bring missing documents. Small hassles such as these can be enough to discourage potential participants or delay their entry into a programme.

Similarly, many programmes come with requirements: to access service X, you must attend class Y; grant A can only be used towards goods B and C. Requirements and restrictions like these can contribute to low uptake and high attrition rates. More subtly, they impose a tax on people's mental bandwidth. For instance, unemployed jobseekers may be required to attend daily sessions in order to remain eligible for benefits. Though such classes can be useful in theory, in practice they may hinder the economic progress of beneficiaries if they are not sufficiently useful and prevent people from other important activities (e.g., looking and applying for jobs).

Source Daminger et al. (2015), p.23 and p.25

Type 3 bottlenecks Related to social environment

Behavioural bottleneck	Explanation	Illustrative challenges in context of employment promotion
Social preferences	We are strongly influenced by perceived fairness as well as non-monetary incentives.	Workers may exhibit lower job satisfaction and reduce effort and productivity (due to lower morale) when subject to lower pay than their co-workers (especially when co-worker performance is hard to observe) Worker satisfaction and productivity (in public and private sector) may respond strongly to non-monetary incentives (e.g., social recognition and awards)
Negative peer effects	We are heavily influenced by what people around us do and think. Our decisions also strongly depend on who communicates information, including whether we like that person.	Students may invest less effort towards doing well in school if they expect social punishment from their peers People may not strive to find paid employment if their peers are also not working (e.g., discouraged workers, women focusing on household and care work) Students' and jobseekers' decisions about what to study and where to work are influenced by family and peers Self-employed and wage workers can be negatively influenced by sub-optimal behaviours of other workers around them (e.g., inadequate products, low productivity) Job search often flows along kin networks, leading to potentially inefficient matching of workers with jobs
Low levels of trust / messenger effect	Depending on our institutional and social environment, we may only trust kin networks.	Jobseekers may be reluctant to sign up to employment support programmes if they have low levels of trust in the quality of government services and/or NGOs Jobseekers may not want to interact with or may not follow recommendations by service providers (e.g., employment services, training) if they dislike the counsellor/trainer Business owners may be reluctant to hire or cooperate with people outside the family or close community, and less likely to decentralize decision-making (to middle management of non-family members), thus inhibiting the adoption of good management practices and firm growth
Detrimental social norms	We are influenced by the commonly accepted rules or expectations of behaviour within our social networks and culture (i.e. social pressure).	Young women may be discouraged from pursuing higher education or work (in general or in specific occupations) because they are expected to take care of household responsibilities and traditional female work When successful, small business owners may be expected to financially support (even remote) family members, thus limiting capacity to reinvest profits into growing the business.

Source Own analysis, drawing on Aibana et al. (2020), Darling et al. (2017), Dohmen (2014), Kremer, Rao and Schilbach (2019), Nielsen and Sebald (2016), Wu and Broughton (2019)

Box 11 The detrimental effect of social norms on female labour force participation in Jordan

In Jordan, female labour force participation is among the lowest in the world. Even though 60% of non-working women aspire to work, only 14% do so. A behavioural analysis highlighted the detrimental influence of social norms on the acceptability of women's work:

- 1 in 4 women who stops working does so because she got married
- People do not find it socially acceptable for a mother to go back to work if her child is less than 4 years old
- Only 17% of men agree with working mothers returning from work after 5 p.m.
- 3 out of 4 people think that a woman works because her family is financially unsuccessful

Source World Bank (2020)

Type 4 bottlenecks Related to mental models

Behavioural bottleneck	Explanation	Illustrative challenges in context of employment promotion
Identity	Our sense of identity (e.g., related to gender, religion, ethnicity, profession) shapes our decisions and behaviours. We may also be afraid of "stigma" when engaging in selected behaviours, i.e., an expectation of negative judgement by others.	People of certain socio-demographic backgrounds (e.g., ethnic minorities, certain castes) may not pursue work that is incoherent with their group identity Women may choose not to work due to a high value placed on household responsibilities Jobseekers may not use certain services or apply for (unemployment) benefits if they perceive there is stigma attached to it
Low aspirations	We sometimes do not aspire to do something even if it would be beneficial to us.	Parents may not aspire to higher levels of education for (some of) their children (e.g., daughters) Poor workers may not aspire to have more decent employment conditions Micro-business owners may not aspire to grow or maximise profits
Low self-efficacy	We sometimes do not believe that we can succeed in new and/or challenging situations.	Jobseekers may not show the necessary effort and persistence when engaging in a programme or faced with difficult job search and setbacks Business owners may not believe that they are able to tackle certain challenges and hence shy away from potential opportunities to grow
Fixed mindset	We may sometimes believe that whether we can do something well is an innate, fixed trait, and thus neglect the role of determination, learning, and persistence.	Students may believe that they are not good at something, and hence not make an effort to learn new skills Teachers and trainers may focus on the "best" students or participants, rather than supporting all students equally Small business owners may give up when facing challenges rather than trying to improve and persevere
Flawed beliefs about education and work	We may hold incorrect beliefs about the value of education. Similarly, we may hold inadequate beliefs about what type of work is desirable and unrealistic expectations about what kind of job can be obtained.	Despite its potential benefits, vocational education and training, which is more likely to lead to blue-collar work, is often seen as unattractive compared to general education any young people and their families hold the belief that the ideal outcome of education is a white-collar public sector position, disregarding opportunities in the private sector
Discrimination	We may think negatively about people belonging to certain groups (e.g., by sex, disability, race, religion) and therefore treat them unfavourably.	Certain groups of students (e.g., with disabilities, ethnic minorities, etc.)face discrimination in their access to higher education or while engaged in it Women and minority groups often face discrimination during recruitment and career advancement

Source Own analysis, drawing on Aibana et al. (2020), Darling et al. (2017), Dohmen (2014), Kremer, Rao and Schilbach (2019), Nielsen and Sebald (2016), Wu and Broughton (2019)

Box 12 How the lack of self-efficacy can impede job search and employment for women in India

In traditional Indian culture, rigid gender norms can result in low education, arranged marriages, restrictions on mobility, low intra-household bargaining power, and, often, violence against women. These practices and life experiences may produce low self-efficacy in women by suggesting to women that they are unable to attain outcomes they desire or by limiting women's opportunities to experiment and learn about their abilities. While many women may desire to work, finding employment requires a lot of effort, for instance in terms of overcoming opposition to women's employment from family members, acquiring skills, or juggling a job search alongside chores at home. Low self-efficacy can therefore represent a barrier by preventing women from exerting the necessary effort and persistence.

Source McKelway (2018)

Key behavioural tools for employment interventions

"If you want to get people to do something, make it easy."[101]

While there is no commonly accepted framework, policymakers and practitioners can draw on a large toolbox of behavioural insights to enhance policies and interventions in the field of employment promotion. Drawing on behavioural science, policymakers and practitioners can influence different parts of the decision-making process:

a Motivate good decisions: Help revise beliefs and foster good intentions, by counteracting detrimental mental models (e.g., by invoking what others do); strengthening decision-making capacity (e.g., fostering self-confidence and self-efficacy) and encouraging beneficial behaviours (e.g., through adequate framing or peer influence);

b Facilitate taking action: Minimise the time and mental effort required when engaging with policies and interventions. By reducing barriers to action (e.g., through simplification of the process), it becomes easier for individuals to adopt good decisions and behaviours in accordance with their best intentions;

c Sustain behaviour change: Help people remember and follow-through, by addressing limited attention and self-control (e.g., through reminders and continuous support).

Existing experience on applying behavioural insights suggests a key set of tools that policymakers and practitioners can draw upon as needed (see Figure 4, Table 6). While some of these tools have already been explicitly studied in the context of education and employment interventions (e.g., growth mindset, social proof, action plans), others have so far been mostly applied in different policy areas but hold promise in the context of employment as well. In practice, the selection of one or more of these behavioural tools must be based on a diagnosis of the (behavioural) bottlenecks found in the local context.

101 Richard Thaler, recipient of the Nobel prize in economics in 2017.

Figure 4 Toolbox of behavioural interventions (summary)

Motivate good decisions

1. Attract attention
2. Promote self-confidence & self-esteem
3. Foster a growth mindset & self-efficacy beliefs
4. Invoke social proof / norms
5. Choose the right messenger & build connections
6. Make it timely
7. Leverage (micro-)incentives
8. Activate positive aspects of people's identity

Facilitate taking action

9. Simple & clear language
10. Change the default
11. Reduce hassles
12. Minimise restrictions
13. Enhance physical environment

Sustain behaviour change

14. Reminders
15. Simplify options & information
16. Clear action plan
17. Leverage commitments
18. Strengthen self-control & perseverance
19. Promote good habits
20. Continuous support

Table 6 Toolbox of behavioural interventions

Tool	Theory	Reality
Motivate good decisions Revise beliefs and encourage good choices		
1	Attract attention (make it "salient"[102]): People are more likely to do something if their attention is drawn towards it. To do so, invoke scarcity (e.g., through limited availability, deadlines) and/or apply other flags to be noticed, trigger emotions and attract interest (e.g., images, personalisation, warnings). Also, frame information and benefits in line with the target group's core needs and interests (e.g., increased income, stability, belonging) or by highlighting the costs/losses that can be prevented.	Training programmes may emphasise key benefits (e.g., in terms of incomes of graduates) to make the advantages of participation more concrete. Similarly, to motivate business owners to adopt improved business practices, entrepreneurship interventions may highlight how much money the businesses are losing due to inadequate practices.
2	Promote self-confidence and self-esteem: As needed, apply evidence-based individual or group-based techniques to increase participants' morale and mitigate (potential) mental health issues.	To maximise the engagement with services provided (and their effectiveness), incorporate confidence-building activities and/or psychosocial support in training programmes, especially for vulnerable groups and in post-conflict settings.
3	Foster a growth mindset and strengthen self-efficacy: Develop or strengthen people's beliefs that their abilities can be cultivated through effort and that they can influence their own lives by taking initiative, setting goals and working towards their achievement.	To increase academic engagement and performance, education programmes can incorporate growth mindset activities especially for disadvantaged students.

102 The term salient refers to "anything (person, behavior, trait, etc.) that is prominent, conspicuous, or otherwise noticeable compared with its surroundings. Salience is usually produced by novelty or unexpectedness, but can also be brought about by shifting one's attention to that feature." http://psychology.iresearchnet.com/social-psychology/social-cognition/salience/

Table 6 Toolbox of behavioural interventions

Tool	Theory	Reality
4	Invoke social proof / norms: Show that other people are performing the desired behaviour and inspire/encourage them to follow their peers' example. Avoid reinforcing a problematic behaviour by emphasising its high prevalence. As needed, foster people's social networks to increase their exposure to "good" influencers.	To increase female labour force participation, provide role models of other women working (e.g., in particular fields) to make it more commonly acceptable. Similarly, to enhance the adoption of business or farming practices, expose people to their peers who successfully use those practices.
5	Choose the right messenger and build strong connections: Make sure your target group can relate to, likes, and trusts the people they are receiving information and advice from. Hence, invest in relationship-building between frontline staff and the target group (thus triggering positive reciprocity) to generate goodwill and a sense of connectedness or belonging as a basis for engagement.	To attract more young women or persons from minority groups into higher education or labour market programmes, ensure that there are educators, trainers, or counsellors from the target group's socio-demographic background (e.g., in terms of gender or ethnic origin).
6	Make it timely: Interventions and communications should be carefully timed. Prompt or contact people when they are likely to be most receptive and can use the information or support. In addition, consider whether the immediate (vs. future) costs and benefits experienced by the target group can be adjusted.	Approach business owners at key moments when they are more receptive to external advice and implementing new strategies, such as leadership changes, economy-wide events, regulatory changes or certain periods of the budget and reporting cycle.
7	Leverage (micro-) incentives: To enhance short-term benefits (immediate gratification) of the desired behaviour, consider providing small rewards (e.g., little gifts, prizes). Moreover, leverage non-monetary incentives (e.g., social recognition and awards) that make people feel good about themselves.	To encourage the adoption of good business practices, one can test giving social recognition (e.g., leaderboards) or small awards (e.g., extra coaching session) to entrepreneurs when they successfully implement what they have learned.
8	Activate positive aspects of people's identity and remind them of their values and goals: People seek to preserve a positive and consistent self-image. Hence, prompt people about their identity, values, goals, or past behaviour before they take an action, thereby reinforcing implementation intentions.	To encourage student engagement and performance, highlight identities they want to live up to, such as their professional aspirations. For instance, this can be done by announcing expectations to the class or allowing students to select course material about which they will become the class expert.
Facilitate taking action: Make it easy		
9	Use simple, clear and intentional language: Give simplified, yet specific, information and messages and provide clear next (action) steps. Moreover, use empowering language when referring to target groups and programme staff (e.g., "participants" and "coaches" as opposed to "recipients" and "case-managers") and ideally personalize communication.	Make outreach materials for labour market programmes simple to understand and make instructions for programme participants easy and clear when communicating with them (e.g., via email).
10	Change the default: To increase the likelihood of the desirable behaviour being adopted, make it the pre-selected (automatic) choice option rather than requiring individuals to take active steps towards it.	Training providers can auto-enrol participants in job search assistance to help them overcome their tendency to procrastinate.
11	Reduce hassles: Reduce the time and effort required to adopt the desirable behaviour. This requires systematically identifying potential inconveniences and frustrations your target group may experience when engaging with the policy or programme.	Minimize the steps participants need to take to enrol in ALMPs and MSME development interventions (e.g., by reducing the need to go somewhere (far)), try to make programmes shorter and implement interventions in close physical proximity of where the target group lives and works.
12	Minimise restrictions: To minimize the burden on your target group, carefully consider whether programme requirements and conditionalities are strictly necessary.	Use simple and transparent eligibility criteria for programme participation. When funding is provided (e.g., grants to businesses), allow for broad use of funds and avoid burdensome reporting requirements.
13	Enhance the physical environment: Provide a physical environment that invites and supports positive emotions and experiences. Moreover, reduce the target group's exposure to negative environmental factors (e.g., noise, heat).	Design and equip employment offices or training centres in a way that make them more inviting and welcoming (e.g., through decoration, colours, reading materials for waiting times etc.) thereby supporting a positive attitude between the target group and the service provider.

Table 6 Toolbox of behavioural interventions

Tool	Theory	Reality
Sustain behaviour change: Help people remember and follow through		
14	Provide reminders: Remind people about important actions they need to take at a time that is likely to be helpful (i.e. when action is needed). Reminders should be provided through the users' preferred communication channel (e.g., SMS, phone call) and possibly through multiple channels.	Employment agencies can send reminders to participants to encourage following-through on job search tasks or attendance at selected training sessions, recruitment fairs, etc.
15	Simplify options and information: Limit options to the most relevant choices to avoid people feeling overwhelmed and not making a choice at all. Similarly, simplify more complex information into easily digestible messages and practical rules of thumb.	When providing skills training (technical business, soft skills), consider the mental "bandwidth" of the target group and simplify content to basic rules of thumb that can be realistically remembered and adopted. Similarly, simplify labour market information so that it can be easily understood and provide checklists to programme participants.
16	Provide clear action plan/steps:[103] Set clear goals and clearly state the next actions a person must take and when to complete them (deadlines), including any relevant instructions as needed. Break down complex goals into simpler, easier actions. Provide a simplified task list allowing people to check off tasks as they are completed. To address the gap between people's intensions and behaviour, jointly identify barriers to action and set up a specific plan to address them. Provide feedback on the progress.	When working with difficult-to-employ groups (e.g., long-term unemployed), interventions can leverage individual action plans to assess jobseekers' personal situation and develop a concrete roadmap back into employment.
17	Leverage commitments: Commitment devices can take many forms. This can include making commitments "public" to enhance social accountability, writing them down, as well as self-imposing deadlines, restrictions, or penalties.	To enhance job search effort, jobseekers can make commitments to their advisors by writing down commitments to job-seeking activities for the coming week(s) which can then be monitored. Similarly, business owners may put profits/savings into a restricted savings account to "protect" them from temptations and family demands.
18	Strengthen self-control, perseverance, and resilience: As needed, provide and reinforce personal strategies that can help with planning, discipline, resisting temptations and dealing with setbacks and negative emotions. Depending on the local context, this can be done through a variety of tools, such as short trainings, group activities, small inspirational videos, etc.	Activities to foster perseverance and resilience can be integrated into various interventions, including in higher education (to foster student success), job search (to overcome negative responses), or entrepreneurship support (to overcome business challenges).
19	Promote good habits: To sustain desirable behaviours, support changing existing habits and adoption of new ones. Automatic behaviours are acquired through repetition, and involve cues to trigger a behaviour, the actual routine behaviour, and a reward.[104]	To foster the adoption of good business practices, interventions can seek to build and reinforce practical routines that promote business performance, e.g., related to managing stocks, bookkeeping, etc.
20	Give continuous support: Recognizing that adopting and following through on many behaviours is difficult alone and interventions can leverage the power of external support (e.g., through regular follow-up, coaching, etc.). By providing encouragement, feedback and accountability, such support can help reinforce good behaviours, anticipate challenges, and help overcome obstacles.	To support job retention or business survival, programmes can leverage coaching or mentoring to assist programme graduates during their transition to work, in particular to deal with any challenges that may arise (e.g., work ethics, conflicts, etc.)

Sources Adapted from Darling et al. (2017), drawing on Aibana et al. (2020), BIT (2014), Briscese and Tan (2018), Broughton et al. (2019); Cialdini (2006); Daminger et al. (2015), Dolan et al. (2010), Nielsen and Sebald (2016), Sunstein (2014), Wu and Broughton (2019).

103 For a detailed discussion on the role of setting and achieving goals, see the work by Peter Gollwitzer and Gabriele Oettingen.

104 For a detailed discussion see for example Duhigg (2012).

For specific examples of interventions and results, see section 4.

Behavioural tools should not be looked at in isolation, but in combination with traditional interventions. Typically, the above tools are not self-standing alternative interventions, but tools to make traditional forms of support (e.g., training, subsidies, etc.) more effective. Indeed, many of the tools described above are related to changing the way information is presented or the way processes are designed, and they can be incorporated in a variety of settings and interventions. For instance, in Malawi and Uganda, behavioural insights informed the provision of information about new farming technologies, increasing the impact of the intervention by channelling information through peers rather than through standard channels, such as extension agents (tool n°4).[105] Similarly, in the Dominican Republic, a behaviourally informed business training was more effective after the content was converted into simple rules of thumb (tool n°15).[106]

Finally, practitioners should consider potential trade-offs between different behavioural interventions. In some cases, trying to address one type of behavioural bottleneck may lead to creating another type of bottleneck. In other words, some behavioural strategies may have potential side effects. For instance, while minimizing programme restrictions and conditionalities (e.g., required job search assistance) may reduce the cognitive load placed on participants, this strategy may indirectly increase the risk of procrastination (higher need for self-control). Similarly, while cash transfers are often preferable compared to in-kind transfers, they may also require stronger self-control to avoid using the money received for unintended purposes. Where no convincing evidence from prior research exists, it will often not be possible to say upfront how strong the potential "side-effects" really are, and which approach is likely more effective. Hence, testing and comparing different options is key.

Box 13 The value-added of behavioural insights to increase female labour force participation

Increasing female labour force participation (as well as women's attendance in employment programmes) will typically require a combination of strategies. "Traditional" policies include providing adequate child and elder care, promoting girls' access to education, removing legal barriers (e.g., related to property rights), and ensuring adequate labour market regulation (that avoids disincentives to hire women), among others.

Behavioural insights can complement these strategies. For example, depending on the employment barriers in the local context, behavioural tools can include interventions to enhance aspirations to work, highlighting the acceptability of women's work to family members, leveraging trusted "messengers" (e.g., female programme staff), adopting convenient schedules, strengthening self-confidence and self-efficacy, etc.

105 World Bank (2015), p.140.

106 Drexler, Fischer and Schoar (2014).

Entry points for intervention

The behavioural tools illustrated above can be applied to different parts of the employment promotion agenda in partnership with a broad range of institutions. Many common policy challenges, from the limited uptake of education or employment interventions to the lack of compliance with labour or business regulations, can (in part) be explained by behavioural bottlenecks. As discussed earlier, students, workers, jobseekers, and firms can be subject to many behavioural barriers. Policymakers and practitioners may therefore benefit from applying behavioural insights across the entire spectrum of employment promotion policies and interventions, including regulatory policies (e.g., labour law and business environment), education, labour market policies, and business services. Figure 5 provides an overview of entry points along Germany's integrated approach to employment promotion.

Within each of the above-mentioned areas one can apply a behavioural lens. This would typically involve defining the problem to be addressed, diagnosing the underlying barriers, identifying plausible solutions, and testing them (see section 5 for a detailed description of the process). For instance,

- Regulation: Policymakers may want to test how regulation can increase compliance with business registration requirements and labour standards or find new ways to mitigate hiring discrimination.

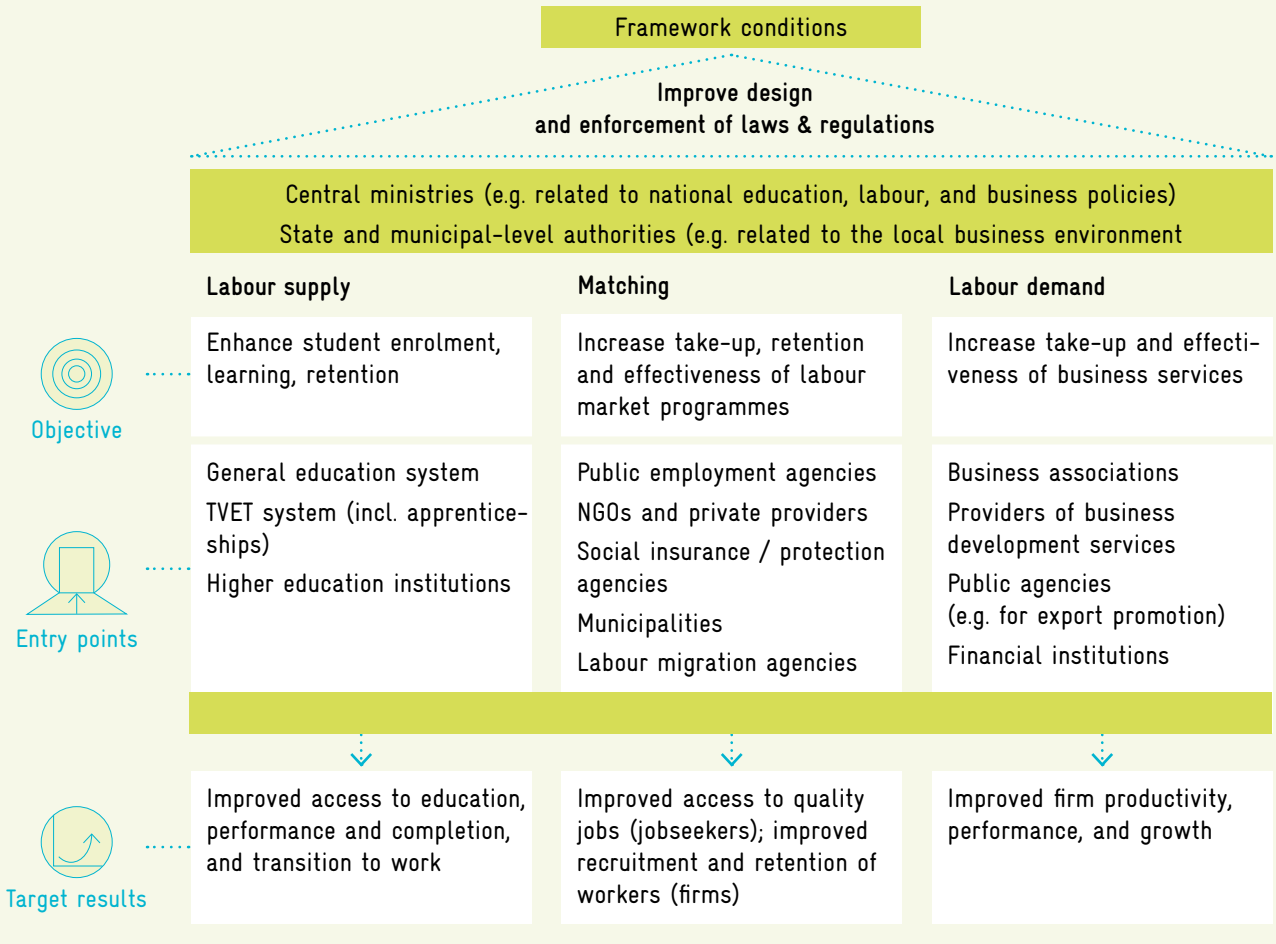
- Supply side: Technical Vocational Education and Training (TVET) institutions may want to address the poor reputation of TVET among parents and students, find new ways to encourage firms to offer apprenticeships, or reduce drop-out over the course of the studies.

- Matching: Public employment agencies may want to improve the user experience to raise their reputation, attract more young women into job trainings for male-dominated fields, or optimise their services to foster job search and job placement.

- Demand-side: Providers of business development services may want to find new strategies to increase the take-up of services or strengthen the adoption of good business practices.

In practice, policymakers and practitioners can map out the respective user journey (e.g., a secondary school student aspiring to continue towards TVET or higher education, choosing a field

Figure 5 Institutional entry points for applying behavioural insights



of study, signing up to a specific school, staying engaged and learning, completing education, and transitioning to work) in order to identify existing issues along the way and prioritize the policy problem to be solved. Table 7 provides a generic example for the user journey in the context of Active Labour Market Programmes, including common operational challenges, potential behavioural bottlenecks, and possible behavioural solutions to be considered.

Table 7 Generic user journey for Active Labour Market Programmes

Aspire to work	Enrolment in ALMP	Engagement with services provided	Job finding / placement	Job finding / placement
Common challenges				
Low interest in working (e.g., discouraged worker, homemaker) Limited understanding of available / acceptable jobs	Low take-up of services Low take-up by specific groups	Low levels of attendance for selected services Low completion rates (i.e., high drop-out) Limited learning Limited translation of knowledge into behaviour (e.g., job search)	Occupational segregation Rejection of job offers by jobseekers Rejection of jobseekers by employers Discouragement / falling back into inactivity	High drop-out / turnover rates
Potential behavioural bottlenecks				
Lack of self-confidence Inertia (of being out of work) Lack of social support Social norms Low aspirations Fixed mindset Low self-efficacy	Limited attention Lack of self-confidence Low trust (in service provider) Hassle factors	Limited attention Lack of self-control Forgetting (to attend activities) Hassle factors Lack of self-confidence or over-confidence Low trust (in trainers, counsellors) Present bias Low self-efficacy	Social norms (about acceptable work) Loss aversion (e.g., if available jobs unattractive) Unrealistic beliefs about work (e.g., focus on public sector) Low trust (by jobseekers and employers) Hiring discrimination Limited networks (hiring along kin networks) Low self-efficacy (giving up)	Low self-efficacy (dealing with frustrations) Lack of self-control Low aspirations to succeed
Selected tools to consider (examples)				
Promote self-confidence Invoke social proof / norms Growth mindset and self-efficacy interventions Simplify labour market information	Attract attention Use simple and intentional language (e.g., (re)design of outreach strategies and information materials) Leverage social proof Simplify registration process	Simplify contents Introduce reminders Reduce hassles (e.g., shorten services) Build connections (selection and training of frontline staff) Leverage action plans and commitment devices Enhance communication with participants Enhance physical environment Foster socio-emotional skills Promote good job search habits	Invoke social proof / norms Build connections between jobseekers and employers Give continuous support	Leverage commitment devices Give continuous support Strengthen self-control and perseverance

4. Applying Behavioural Science to Employment Programmes: Case Studies & Evidence

"Behaviourally-based interventions can add great value to employment policies"[107]

Overview

Behavioural science has been applied to a broad spectrum of employment promotion interventions. This includes regulatory policies, supply-side interventions (e.g., secondary and higher education), labour market matching (e.g., employment services, job training, public works), as well as demand-side interventions to increase firm performance. This section will provide a range of illustrative examples along Germany's integrated approach to employment promotion (see Table 8).

The existing evidence base suggests that behaviourally informed interventions can significantly enhance the effectiveness of employment interventions. The examples presented in this chapter show that many interventions were able to produce significant impacts. However, since many interventions are targeted just at a small part of a broader policy or programme, the majority of the evidence relates to influencing intermediate outcomes (e.g., enhancing enrolment and completion rates), with relatively less available evidence so far related to final outcomes such as job creation, employment quality, and business performance.

Table 8 Overview of case studies

#	Title	Country
Regulation		
1	Improving business responses to Occupational Safety and Health violations	USA
Supply-side		
2	Enhancing the acceptability of female labour force participation	Saudi Arabia
3	Increasing female enrolment in STEM-track higher education	France
4	Increasing enrolment in higher education through text messages and peers	USA
5	Improving attendance rates at technical and vocational training programs	Australia
Matching		
6	Enhancing job search efficiency of unemployed youth through action plans	South Africa
7	Increasing attendance at recruitment fairs	United Kingdom
8	Attracting more diverse candidates by changing how jobs are advertised	USA
9	Attracting women to IT-training	Peru, Mexico
10	Rules of thumb in financial literacy training	Dominican Republic
11	Teaching personal initiative to small businesses	Togo
12	Encouraging cash-for-work recipients to save for productive investments	Madagascar
13	Increasing the uptake of wage-subsidies	Australia
Demand-side		
14	Improving mental health of SME entrepreneurs	Pakistan
15	Improving business practices through best practices of local peers	Indonesia
16	Increasing applications to a growth voucher programme	United Kingdom
Other		
17	Improving survey response rates	United Kingdom

107 David Halpern, CEO Behavioural Insights Team, in Briscese and Tan (2018), p.3.

That said, the available examples where behavioural science was not just used to improve selected processes, but also to influence the design of the entire intervention (e.g., training on rules of thumbs vs. traditional business training), show the potential of behavioural science to improve final employment outcomes.[108]

The current evidence also offers ground for optimism in terms of scalability and replicability of successful approaches. In addition to the encouraging findings from individual interventions, international experience also suggests some promise regarding replicability and scalability.

For instance, in the United Kingdom, reforming the jobseeker-advisor relationship and introducing a goal-setting intervention was first tested in one job centre (proof of concept), then scaled to 12 job centres (full pilot and evaluation), and then scaled nationwide (see Box 14).

Box 14 Scaling up behaviourally informed job search assistance in the United Kingdom

The Job Centre Plus in Loughton, Essex, wanted to get job seekers into work faster. Field work revealed that that the relationship between the jobseeker and the counsellor was focused on compliance, which caused jobseekers to lose motivation over time. To address this issue, the intervention focused on shifting the relationship focus to finding employment and introducing "commitment packs" that encouraged job seekers and coaches to work together to agree on specific goals in the immediate future. They also introduced resilience-building exercises to combat difficulties with maintaining motivation. The set of interventions was originally tested in a small-scale evaluation in one job centre. Subsequently, the "commitment packs" were scaled up across 12 centres in Essex and evaluated through a robust evaluation, which found positive results. Based on these findings, the Department for Work and Pensions scaled up the intervention nationwide, training 25,000 work coaches through a train-the-trainer model.

Source Briscese and Tan (2018)

Regulation[109]

Case 1	Improving business responses to Occupational Safety and Health violations (USA)
Bottleneck(s)	Lack of attention, procrastination, complexity
Tool(s) used	Clear action plan, simplification, reminders
Rationale	The Occupational Safety and Health Administration (OSHA) inspects workplaces in the US for unsafe or unhealthy conditions and penalizes employers who do not comply with appropriate regulations. In 2013, more than 20 percent of citations with penalties were referred to debt collection after employers failed to resolve the citation.
Intervention	Three changes to the citation process were developed to improve employer compliance: 1) During the initial OSHA inspection, a handout would be distributed to employers explaining what to expect and their response options if they received a citation; 2) The citation cover letter would concisely explain response options and the importance of prompt action, as well as offer assistance; 3) Postcards were sent to remind employers about response options and deadlines.
Impact	The new process led to an increase in employers' responses to OSHA by 6.8 percent and a decline in referrals to debt collection by 23.9 percent.

Source Chojnacki et al. (2017)

108 See for example Drexler, Fischer, Schoar (2014), Campos et al. (2017).

109 Overall, the evidence base on applying behavioural insights to labour market regulation is still very limited compared to the other pillars of the integrated approach to employment promotion.

Supply-side

Case 2	Improving business responses to Occupational Safety and Health violations (USA)
Bottleneck(s)	Social norms, stereotypes
Tool(s) used	Social proof (descriptive norms)
Rationale	Because of the custom of guardianship, husbands typically have the final word on their wives' labour supply decisions in Saudi Arabia, and female labour force participation (FLFP) remains low. In interviews with 500 young married Saudi men, 87 percent privately supported FLFP, but three-quarters of interviewees underestimated their peers' level of support.
Intervention	If men understood the true level of societal support for FLFP, they may be more supportive of their wives finding employment. Therefore, the true level of support for FLFP was shared with a randomized subset of interviewees. These interviewees were then given a choice at the end of the experiment between an online gift card and the opportunity to sign up their wives for a job matching mobile application. Forgoing the gift card to sign up his wife for the service indicated support of his wife joining the labour force.
Impact	Among the subset of participants whose beliefs about FLFP had been corrected, preference for the job matching mobile application went up by 57 percent. Three months later, the percentage of these participants' wives who applied for a job outside the home had climbed from 5.8 percentage points to 16.2 percentage points, a 179 percent increase. An increase in employment outside the home was also observed, although the sample size was too small to be significant.

Source Bursztyn, Gonzalez and Yanagizawa-Drott (2020)

Case 3	Increasing female enrolment in STEM-track higher education (France)
Bottleneck(s)	Social norms, stereotypes, lack of role models
Tool(s) used	Social proof (role models)
Rationale	Women consistently earn around 20 percent of degrees in engineering and computer science and 40 percent of degrees in math and physical sciences, a level which has stagnated and even declined among OECD countries in the last 15 years. The gender gap in science, technology, engineering and mathematics (STEM) enrolment cannot be fully explained by either ability or discrimination, leading to a focus on educational choices made by female students. Female science teachers and professors may serve as role models that change high school girls' perceptions of science careers and encourage them to study STEM subjects in college.
Intervention	A young female scientist or professional with a science background spent one hour providing information to students on science-related careers and underrepresentation of women in science, including speaking about her own experience. The intervention covered approximately 20,000 students in the Paris region, about half of which were randomly selected to be visited by one of the 56 facilitators who participated. Facilitators spoke with students in Grades 10 and 12.
Impact	The program had no impact on Grade 10 students' educational choices but increased the probability that girls in Grade 12 enrol in STEM majors after graduating high school by approximately 10 percent.

Source Breda et al. (2020)

Case 4	Increasing enrolment in higher education through text messages and peers (USA)
Bottleneck(s)	Present bias, complexity, status quo bias, cognitive load, mental bandwidth
Tool(s) used	Reminders, continuous support (peer mentor)
Rationale	The summer after high school is an important time in students' transition to college. Among those students who declare an intention to enrol in college at graduation, only 60 to 90 percent matriculate to college in the fall. Matriculation depends on students financing their education and responding to college correspondence (e.g., registering for placement tests or college housing).
Intervention	Subsets of college-intending high school graduates in four urban school districts received one of two interventions to improve their prospects of successfully matriculating to college. In the first intervention, students received 8–10 customized text messages designed to alert them to deadlines and remind them to complete key tasks. A second intervention assigned peer mentors, who reached out to students to help them in their transition to college by providing encouragement, perspective, guidance, and counselling.
Impact	The text messages increased college matriculation rates by 4 to 7 percentages points (a 4 to 12 percent increase), with the largest effects among students residing in communities with low levels of educational attainment, students qualified for free- or reduced-price lunch, or students with less defined college plans. The peer mentor intervention increased matriculation by 4.5 percentage points (5 to 7.5 percent increase), with the largest effects for men and students with less-defined college plans.

Source Castleman and Page (2015)

Case 5	Improving attendance rates at technical and vocational training programs (Australia)
Bottleneck(s)	Flawed beliefs about education, loss aversion
Tool(s) used	Reminders, promote good habits
Rationale	The Australian government set a 65 percent completion rate target for apprentices going through training programs. Two key barriers challenged completion: a disconnect between formal study and on-the-job learning (e.g., employers are unaware what apprentices study and therefore do not give them a chance to practice their skills) and insufficient employer support (they are reluctant to invest time and training until apprentices can show their value).
Intervention	Training Services New South Wales tested whether expanding communication about technical education courses could improve class attendance. In a randomized controlled trial, one group of apprentices' employers received text messages each week for one semester which mentioned what had been covered in class and prompted the employer to either assign the apprentice a task to practice the skill on the job or to talk to their apprentice about the topic. The messages were meant to reinforce the value of formal training, remind employers of the importance of classes, and encourage connections between formal training and on-the-job training.
Impact	Students whose employers received the text messages attended a total of 15.2 percent more classes as a result of the intervention, although they did not report more frequent interactions with their employers and there was no lasting impact on contract cancellation rates.

Source Behavioural Insights Unit (2019)

Matching

Employment services

Case 6	Enhancing job search efficiency of unemployed youth through action plans (South Africa)
Bottleneck(s)	Self-control
Tool(s) used	Clear action plan (included simplification, reminders, and commitment device)
Rationale	Studies have shown significant friction in the South African labour market, and the South African Department of Labour hoped to address these inefficiencies through employment services, including job counselling and job referrals. However, job searches are largely individually driven; job search intensity depends on an individual's belief in returns to their search efforts, as well as their impatience, self-confidence, and self-control.
Intervention	The South African Department of Labour considered ways to improve job search efficiency by targeting participants' self-control. 1,097 job seekers were included in the study. The treatment group was prompted to fill out an "Action Plan," a weekly chart with detailed day-by-day entries for whether, how, and where they would search for a job. This plan helped 1) unpack complex behaviour into specific tasks, 2) promoted recall of intended behaviour, and 3) served as a commitment device. One subgroup of participants also received reminder text messages about completing specific job search goals before the end of each week. An additional subgroup notified a peer about their job search goals.
Impact	After 5 to 12 weeks, job seekers who had completed action plans increased the number of job applications submitted by about 15 percent over job seekers that had not completed action plans. Although the total number of hours spent job searching did not increase, the number of applications per hour spent searching increased by about 20 percent compared to non-participants in the program. Job seekers who made action plans were also more likely to diversify their search into formal channels. The plan-makers received 30 percent more job offers and were 26 percent more likely to be employed. Peer support and text message reminders had no significant impact on job search behaviour or outcomes.
Source Abel et al. (2019)	

Case 7	Increasing attendance at recruitment fairs (United Kingdom)
Bottleneck(s)	Attention, self-control, self-confidence
Tool(s) used	Reminder, attract attention (personalisation), messenger (reciprocity)
Rationale	Job centres often hold recruitment events in partnership with large employers who hire in bulk, making them a promising route to job placement. Typically, the only way for job seekers to hear about such events is through text messages. Jobseekers may ignore messages, decide not to attend as the events are not mandatory, not appreciate the work job centre staff have put into organizing the events, or feel too demoralized to attend.
Intervention	The UK Bedford Job Centre tested personalized text message reminders to increase attendance at job fairs. They tested different versions of a text message reminder sent to 1,224 job seekers the day before the event. ■ Version 0 (control): A simple fact-based message ■ Version 1: The control message, personalised with the job seeker's name ■ Version 2: The control message, personalised with the job seeker's name and the job advisor's name ■ Version 3: The control message, personalised with the job seeker's name, the job advisor's name, "I've booked you a place," and "Good luck".
Impact	Compared to the automated fact-based message, all types of personalized reminders increased attendance. The behaviourally informed text (version 3) that incorporated reciprocity was the most successful, increasing attendance at job fairs to 26.8% compared to 10.5% for the regular the regular fact-based message (a 2.5x increase).
Source Briscese and Tan (2018)	

Case 8	Attracting more diverse candidates by changing how jobs are advertised (USA)
Bottleneck(s)	Identity, discrimination
Tool(s) used	Activate identity, framing, attention
Rationale	Public managers face challenges in increasing the number and diversity of applicants to public service positions. Socially stigmatized groups may think they do not fit in a given organisation, which makes them more sensitive to cues about whether or not they "belong." Job advertisements signal organisations' attributes and values, making them critical to attracting new recruits. The Chattanooga Police Department in Tennessee wanted to find out which attributes and values would help attract the most diverse talent pool, as the police force was 78 percent white and 93 percent male (while the city population was 56 percent white).
Intervention	The Chattanooga Police Department sent postcards advertising recruitment to more than 10,000 individuals listed as registered voters in the county. Each postcard varied two sentences and the tagline of the picture to highlight a different component of the job. The tested messages included: ■ Challenge message: asking resident if they were "up for the challenge" ■ Serve message: asking residents if they were "ready to serve" ■ Impact Message: asking resident "what would it mean to you?" ■ Career message: asking residents if they were "looking for a long-term career" The postcards also included photos featuring diverse police officers (e.g., women, people of colour). The control group received no postcard.
Impact	Receiving a postcard with the 'serve' or 'impact' message did not lead to increased applications, while individuals receiving the 'challenge'vand 'career' messages were 3x more likely to apply than the control group. The postcards highlighting these 'personal benefits' were particularly useful in increasing applications from minority groups.
Source Linos (2017)	

Skills trainings

Case 9	Attracting women to IT-training (Peru, Mexico)
Bottleneck(s)	Identity, social norms
Tool(s) used	Framing, social proof (role models)
Rationale	A significant gender wage gap persists that can be largely explained by the different occupational choices that men and women make. Women are more likely to perceive a low return to their skills in traditionally male-dominated industries due to gender stereotyping of themselves, and so they are less likely to enter the sector. In Peru, for example, women account for only 7 percent of coders in the tech sector.
Intervention	Two interventions were trialled to change women's perception of their role and prospects in the tech sector in the hopes of recruiting applicants to a five-month "coding" bootcamp offered to women from low-income backgrounds. ■ In the first intervention, in Lima, the control group received generic information about the program, while the treatment message specifically aimed to correct misperceptions about career prospects for women in technology. The message 1) emphasized that women are successful in the sector, 2) provided a role model from the program, and 3) highlighted the network of women in the industry. ■ In the second intervention, in Mexico City, the control group received the complete treatment message from the first experiment, while treatment groups each received the initial message with one of its three components eliminated (women are successful, example program role model, or network of women) to test which message component had the greatest impact on recipients.
Impact	Overall, the treatment message correcting misperceptions about women in tech in the first experiment was highly successful, more than doubling program applications (from 7 percentage points to 15 percentage points). Women with higher unconscious gender bias were even more likely to apply after having received the treatment message. The second experiment showed that, although all subcomponents of the message were significant, the inclusion of the female role model was the most impactful. Removing the role model component led to a 38 percent fall in application rates, against a 24 percent fall when eliminating the female success component and a 19 percent fall when eliminating the female network component.
Source Del Carpio and Guadalupe (2018)	

Entrepreneurship

Case 10	Rules of thumb in financial literacy training (Dominican Republic)
Bottleneck(s)	Cognitive load, mental bandwidth, self-control
Tool(s) used	Simplification, good habits
Rationale	Financial literacy is closely associated with better financial decisions, but not all financial training programs are equally impactful. Programs face a trade-off between comprehensiveness and complexity versus accessibility. Less financially sophisticated clients may therefore benefit from simplified training programs that are more accessible, if less comprehensive.
Intervention	The impact of standard accounting training was compared to a "rules-of-thumb" based financial program across 1,193 existing clients of the microfinance institution ADOPEM in the Dominican Republic. The standard accounting program taught microentrepreneurs the basics of double-entry bookkeeping, working capital management, and investment decisions. The rules-of-thumb training instead focused on simple heuristics or routines, such as giving participants the physical rule to keep money in two separate drawers or purses to distinguish business and household income.
Impact	Participation in the rules-of-thumb training led to a 19 percent improvement in keeping accounting records, a 24 percent improvement in separating business and personal accounting, an 11 percent improvement in separating business and personal cash, a 15 percent improvement in level of savings, and an 18 percent decrease in reporting errors. The standard accounting training only had a (more muted) statistically significant impact on setting aside cash for business expenses. For clients with lower skills or poorer financial practices at the baseline, the rule-of-thumb training had an even more significant beneficial effect.

Source Drexler et al. (2014)

Case 11	Teaching personal initiative to small businesses (Togo)
Bottleneck(s)	Low self-efficacy, lack of growth mindset
Tool(s) used	Self-efficacy (personal initiative training)
Rationale	Although there is evidence linking better management and improved business practices to firm productivity, few traditional business trainings have been shown to meaningfully improve profits. However, some studies show that helping small business owners develop the behaviours associated with a pro-active entrepreneurial mindset deliver improved business outcomes.
Intervention	1500 microenterprises in Togo were selected from applicants to a government project financed by the World Bank. These firms received either 1) no treatment (control), 2) traditional business training (the Business Edge training program developed by the International Finance Corporation), or 3) personal initiative training (focused on teaching the mindset of self-starting behaviour, innovation, identifying and exploiting new opportunities, goal-setting, planning and feedback cycles, and overcoming obstacles). Training programs were implemented in three half-day sessions per week over 4 weeks and followed by a trainer visiting each business for 3 hours, once a month, for four months.
Impact	Researchers assessed the impact of the training 2 years later. Neither traditional business training nor personal initiative training had a significant impact on firm survival, and both led to similar increases in good business practices (roughly 10 percent improvements over the control). Personal initiative training, however, had double the impact on personal initiative and use of capital and labour inputs compared to traditional business training and led to a significantly larger increase in innovation activities. Sales were 17 percent higher and profits 30 percent higher among the personal initiative training group compared to the control group.

Source Campos et al. (2017)

Public works

Case 12	Encouraging cash-for-work recipients to save for productive investments (Madagascar)
Bottleneck(s)	Present bias, low aspirations
Tool(s) used	Reminders, commitment device
Rationale	Madagascar provides vulnerable but able-bodied individuals with cash support through a public works program in which participants receive regular payments for building a community's productive assets, such as reforestation or water management, during the agricultural lean season. The government sought to help cash transfer recipients use this income more productively and so introduced behavioural science interventions to encourage saving.
Intervention	Alongside the cash payments, participants received guidance on developing personal livelihoods and nudges towards savings and investment. Promoted behaviours included 1) setting goals (e.g., buying poultry, agricultural tools), 2) putting money aside by earmarking and partitioning, 3) teaching simple accounting, and 4) providing reminders of planned investments and savings at payment sites. Participants received an initial training on savings before receiving their first payments, and participants were reminded of savings alongside follow-up payments.
Impact	After one month, recipients who had received the intervention were 46 percent more likely to report saving some of their transfer. They also reported higher rates of savings of other funds not linked to the cash transfer money.
Source World Bank (2018b); ideas42 (2019)[110]	

Wage subsidies

Case 13	Increasing the uptake of wage-subsidies (Australia)
Bottleneck(s)	Lack of default option, loss aversion, hyperbolic discounting, negative framing effects, anchoring effect
Tool(s) used	Framing, reduce hassle, simplification, default option
Rationale	The Australian government provides financial incentives to employers who hire eligible job seekers. These job seekers may qualify for wage subsidies based on age (under 30 or over 50), because they have children, because they are experiencing long-term unemployment, or because they are indigenous and experiencing 6-month unemployment. Uptake of the subsidy was low, and focus groups showed that challenges stemmed from 1) administrative complexities (complicated paperwork, difficulties getting required executive approval), 2) financial incentives (some staff did not think wage subsidies were attractive), and 3) social perceptions (subsidy titles' negative framing led to perceptions of low employee quality). Businesses did not prioritize applying for wage subsidies (hyperbolic discounting), and the availability of pro-rata tables led some bosses to hire subsidized employees at fewer hours than they otherwise would have (anchoring effect).
Intervention	The Behavioural Insights Team and the Australian Department of Jobs redesigned the program to address these behavioural pitfalls, including reframing subsidies' titles, simplifying paperwork, creating a default option, and designing a user-friendly calculator for payments. The pro-rata tables were removed and email submissions were permitted to eliminate anchoring bias and reduce complexity.
Impact	In a randomized control trial of the redesigned program, uptake of subsidies increased by 22 percent, wage subsidies were signed at a faster rate (falling from 17 days on average to 11 days), and time spent administering the program decreased.
Source GoA and BIT (2018)	

110 The use of behavioural insights in similar cash transfer interventions in Kenya and Tanzania also enhanced the likelihood that people have productive goals and the incidence of productive investment.

Demand-side

Case 14	Improving mental health of SME entrepreneurs (Pakistan)
Bottleneck(s)	Poor mental health / low self-esteem
Tool(s) used	Self-esteem, social networks
Rationale	In geographies with high levels of fragility, conflict, and violence, SME entrepreneurs face chronic stress and poor mental health, which reduce quality of life and can dampen the benefits of financial and business assistance programs. Cognitive behavioural therapy (CBT) interventions can improve mental health by reducing the prevalence and intensity of depression and anxiety.
Intervention	The control group received only cash grants, while the treatment group of 118 participants received both cash grants and group CBT-based training. The CBT training focused on stress management, problem solving, behavioural activation, strengthening support networks, and self-care. The training consisted of five days of face-to-face training spread over five weeks with WhatsApp reminder messages.
Impact	CBT training led to statistically significant improvements in mental health and well-being in both the short and medium term. Intensity of anxiety and depression symptoms were 20 percent lower and prevalence of depression and anxiety symptoms were 54 percent lower among the treated group relative to the control group after 3 months.
Source Saraf, Rahman and Jamison (2019)	

Case 15	Improving business practices through best practices of local peers (Indonesia)
Bottleneck(s)	Default bias, present bias, lack of role models
Tool(s) used	Social proof (documentary), continuous support (implementation assistance)
Rationale	Business practices vary widely among local businesses, which often makes it difficult to disseminate best practices that could improve SME productivity. Identifying and sharing best practices of local peers can help overcome such limitations, although it can be difficult to encourage firms to engage with and implement new material.
Intervention	A handbook of local best practices in record-keeping, financial planning, stocking-up, marketing, and decision-making was developed based on detailed interviews with and data from successful local businesses in Jakarta. This handbook was then distributed for free to 1,040 local businesses. 261 firms did not receive a handbook, comprising the control group. Some firms received only the handbook with no further information, while three groups of firms received the handbook as well as one of three "experiential learning" treatments: ■ Documentary Group: viewed a documentary covering the handbook's material, which targeted a psychological and emotional response ■ Assistance Group: received implementation assistance in the form of two 30-minute shop visits by trained facilitators, who offered one-on-one implementation guidance and troubleshooting assistance ■ 'All' Group: Both viewed the documentary and received implementation assistance
Impact	Although only receiving the handbook had no significant impact on the adoption of business practices, adding experiential learning (either viewing the documentary or receiving implementation assistance) led to an improvement of 33 percent in relevant record-keeping practices over the control group. The Assistance Group saw profits increase by 35 percent and sales by 20.6 percent. The All Group saw profits increase by 21 percent and sales by 31.2 percent. (Increases were not statistically significant for the Documentary Group due to a low sample size).
Source Dalton et al. (2019)	

Case 16	Increasing applications to a growth voucher programme (United Kingdom)
Bottleneck(s)	Status quo bias, inattention
Tool(s) used	Attract attention (framing)
Rationale	The number of applications to the UK Department for Business, Innovation, and Skills' new Growth Vouchers Programme was lower than hoped. Marketing to raise awareness was viewed as an expensive option to increasing participation, so the taxpayer network of Her Majesty's Revenue and Customs (HRMC) was used to raise awareness.
Intervention	Behavioural science was deployed to determine what type of messaging was most effective in generating applications. Emails were sent to over 600,000 SMEs registered with HRMC on how to apply for the Growth Vouchers Programme. Although the content of the email was the same among the sub-groups tested, the theme of the opening paragraph varied: ■ Version 0 (control): Plain text, no behavioural treatment ■ Version 1: Money (offer up to £2,000) ■ Version 2: Social ("thousands of businesses are applying") ■ Version 3: Time ("only available for this financial year") ■ Version 4: Chosen ("you have been chosen to receive information…as we think you may be eligible")
Impact	All treatments had a positive impact on business interest in the Growth Voucher Programme. However, the "chosen" message had the largest impact, with almost 50 percent more applications than the control group. (The next most impactful, "time" generated only 18 percent more applications). The trial led to 9,000 additional applications for the Growth Voucher program.
Source Broughton et al. (2019)	

Other

Case 17	Improving survey response rates (United Kingdom)
Bottleneck(s)	Lack of attention, procrastination
Tool(s) used	Framing, reciprocity, commitment mechanisms, social norms, simplification
Rationale	The UK Department for Business, Innovation, and Skills conducted a telephone survey to assess the efficacy of its Growth Voucher Programme for small businesses. However, motivating businesses to complete the survey was a challenge, and the Department wanted to increase the response rate.
Intervention	The intervention measured which behavioural approach would maximize survey response rates. The 7000+ small businesses which participated in the Growth Vouchers Programme were assigned to one of five random groups, each of which heard a different introductory text to the telephone survey. ■ Version 0 (control): "business as usual" introduction ■ Version 1: Reciprocity ■ Version 2: Commitment reminder ■ Version 3: Social norms ■ Version 4: Simplification (text of the original survey introduction simplified)
Impact	Compared to a control prompt, introducing the surveys with behaviourally based frames increased response rates. The most effective prompt was the commitment reminder, which raised the response rate by 5 percent.
Source OECD (2017), p.301	

5. Integrating Behavioural Science into GIZ's Employment Programming

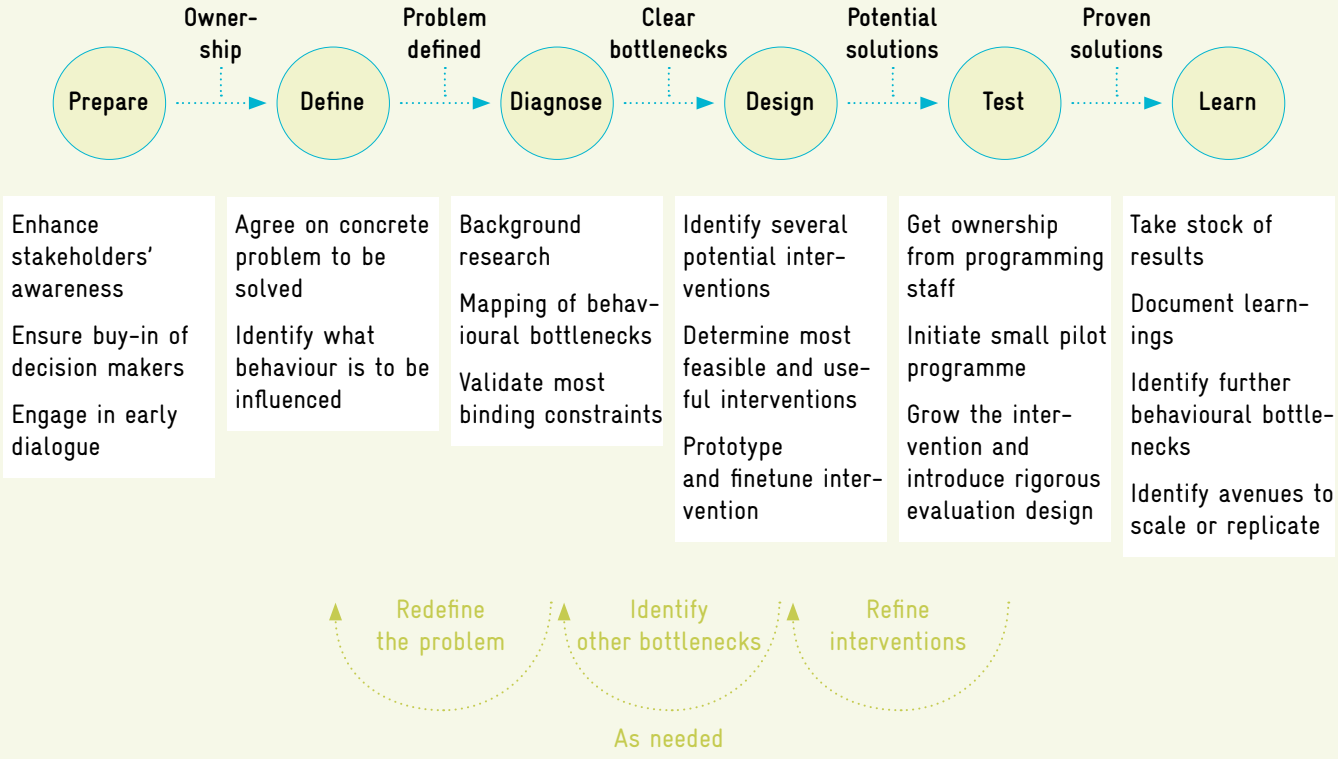
"The real failures are policy interventions in which learning from experience does not happen" [111]

The general behavioural science process[112]

There is a relatively standard process of applying behavioural science to policy interventions. While existing frameworks to apply behavioural science may use slightly different wording, in essence they share the same key steps (Figure 6).[113] Behaviourally based interventions involve an iterative process of problem definition, diagnosis of underlying barriers, intervention design, testing (incl. through rigorous impact evaluation) and adaptation. Hence, a behavioural approach starts with the behaviour to be influenced and then moves from there to the programme.[114]

This process is not specific to any policy area, though the type of intervention and context may affect its rollout. For instance, some labour market programmes may need more time to narrow down the problem to be addressed (step 2) due to the multiple dimensions of employment issues and barriers, while education programmes with more standard metrics (e.g., in terms of student performance and graduation rates) may be able to proceed more quickly through this step. Either way, programmes and implementing agencies usually do not engage in this process alone. In most cases, they partner with specialised researchers or consultants to assist them throughout the entire process.

Figure 6 Typical steps in applying behavioural insights



Source Adapted from Aibana et al. (2020)

111 World Bank (2015), p.19.

112 For a more detailed discussion, see for example BIT (2014), Datta and Mullainathan (2014), Darling et al. (2017).

113 Note that this kind of iterative process is not unique to behavioural science. See for example the concept of "problem-driven iterative adaptation" (Andrews, Pritchett and Woolcock, 2013) and "structured experiential learning" (Pritchett, Samji, Hammer, 2013).

114 Datta and Mullainathan (2014).

Step 1: Prepare[115]

Applying a behavioural perspective will be new to most stakeholders involved. Hence, one usually needs to start by building a common understanding and ownership of the process. Typical tasks include:

- Enhance key stakeholders' awareness (e.g., project team and counterparts) about behavioural science (e.g., key concepts, anticipated benefits (Box 15), how it worked elsewhere, implications for implementation).
- Ensure general buy-in of key decision makers (e.g., project manager, director in counterpart ministry or agency, funder). Moreover, build a network of internal champions and collaborators to collectively generate institutional momentum.
- Engage in early dialogue with relevant stakeholders to explore concrete policy issues or implementation challenges that can benefit from applying a behavioural lens.

Box 15 Selected benefits of applying behavioural insights

- Opportunity to be at the forefront of innovative thinking and join a community of like-minded practitioners and researchers around the world
- Better understand complex issues in terms of target group outcomes (e.g., labour force participation, job retention) and programme implementation (e.g., take-up, dropout)
- Reach more participants who could benefit from policies and programmes
- Increase the impact of policies and programmes by taking user behaviour into account, potentially serving as an inspiration to other agencies and programmes

Step 2: Define the problem

Behavioural science takes (un)desired behaviour as a starting point and moves backwards to identify potential solutions. Therefore, stakeholders need to prioritise which problem(s) they want to address. Prioritising the problem will also help narrow the scope of subsequent steps, and thus save resources.

- Agree on a concrete problem to be solved. This problem can be defined at different levels, e.g., in terms of a specific labour market outcome (e.g., low female labour force participation in a given region), specific barrier to labour market integration (e.g., young people's lack of work experience, lack of access to information), or a particular challenge related to programme implementation (e.g., low enrolment or high dropouts among young men).
- Identify exactly what behaviour is to be influenced. After choosing a concrete problem to be addressed, stakeholders need to further narrow down the issue to define as specifically as possible the behaviour that should be changed (e.g., jobseekers are not signing up to trainings offered; participants are dropping out after 2nd session; supported businesses are not adopting the encouraged marketing practices).

Understanding and describing the problem will typically require a mix of strategies, such as talking to users and frontline staff, analysing administrative data, observation, etc. Based on this information, key stakeholders can then prioritise potential problems through joint reflection and agree on the main one(s) to be addressed.

115 This step is typically not part of the overall process according to key sources but seems essential. See Zoratto, Calvo-González, and Balch (2017).

Step 3: Diagnose the behavioural bottlenecks

Once the problem to be solved is clearly defined, the next step is to identify the root(s) of the problem. While the focus of this step is to identify behavioural bottlenecks, there may also be other "traditional" barriers that influence the behaviour of interest (e.g., lack of information, financial constraints) which need to be considered. This behavioural diagnosis is therefore best used in combination with other forms of employment and labour market analysis:[116]

- Background research on how behavioural science relates to the policy problem in question. This typically involves a quick literature review, workshops with staff and counterparts, focus groups with the target group, site visits, etc. It may also involve more in-depth data collection (e.g., surveys), potentially as part of a broader target group assessment or baseline study. The selection process of beneficiaries can sometimes also be leveraged for collecting information (e.g., interviews, business plans received, etc.). Prior monitoring and evaluation (M&E) data can be insightful as well, especially when qualitative or quantitative data is available that answers "why" questions (e.g., Why did jobseekers drop out of the training? Why did firms not survive?).
- Develop a map of behavioural bottlenecks. Based on the background research, one can map out the behavioural barriers at play (see section 3 for an overview of common barriers in employment-related programmes, e.g., limited attention, hassle factors, detrimental social norms, low self-efficacy) as they relate to different parts of the decision-making process (i.e. forming intentions, taking action, and maintaining desired behaviours). Behavioural maps are usually organised along a typical "user journey", highlighting the target group's different decisions and action steps and their engagement with the intervention (and the potential barriers related to each step). Behavioural mapping can also be combined with the use of "personas", i.e., the representation of the needs, thoughts, and goals of different types of target users.
- Validate and prioritize the most binding constraints: Based on existing data and feedback by programme staff and counterparts (including frontline staff of partner organisations), the behavioural map and hypotheses about behavioural bottlenecks can be further refined. If many bottlenecks exist, one may also need to prioritize those ones that should be tackled first.

Box 16 Behavioural diagnosis, GIZ Lebanon

OGIZ's Local Development Programme for Deprived Urban Areas in North Lebanon, which included a component on employment and income creation, partnered with the World Bank's eMBeD team to conduct a behavioural diagnosis and identify entry points for intervention. The background research consisted of a desk review of policy literature on livelihood generation in North Lebanon, quantitative analysis of survey data provided by the World Bank and UNDP, as well as qualitative analysis. The information obtained from these sources was then converted into behavioural journeys led by fictitious personas. Key personas included an educated job seeker, an educated entrepreneur, an inactive low-educated mother, and a high-risk unemployed youth. See Annex 4 for an example of personas and behavioural mapping used in the project.

Source World Bank (2019)

116 For a detailed overview of different tools for labour market assessments, see GIZ and Prospera Consulting (2020).

Step 4: Design behavioural solutions

The diagnosis and prioritisation of the behavioural bottlenecks above will guide the design of possible solutions to overcome the respective barriers.

- Identify a list of several potential interventions. The key behavioural tools presented in Chapter 3 can be an initial starting point. Moreover, one should review what kind of interventions (and their associated impacts) have been used to address similar problems in different contexts to guide available options. The stakeholders involved may also generate their own ideas (e.g., through brainstorming activities).

- Determine which behavioural interventions seem most feasible and useful. Given context and available resources, and based on the impact of past interventions reviewed, stakeholders need to agree on the ideas that are most likely to be effective and can practically be implemented. For each (sub)problem to be addressed, one can ideally identify several alternative interventions (or different versions of the same intervention) that can subsequently be compared to each other. For instance, if there is consensus to send reminders to encourage people to act, one can come up with several alternative ways to frame the reminder message (e.g., using social proof, loss aversion, simplification, etc.) and then test which type of message is the most effective.

- Prototype and finetune the proposed intervention. Depending on the envisaged solution, this can include, for example, an outline of a new process, the draft content of outreach and information materials, tentative language for communicating with users, etc. If possible, try out these prototypes in a real-world setting (e.g., through user feedback) and incorporate the feedback received.

Step 5: Test your solution(s)

Once the behavioural intervention has been designed, it can be gradually implemented. This step involves an iterative process of testing and adaptation; hence, the willingness to experiment and tweak are crucial. In practice, providing the necessary support to the implementing staff as well as adequate processes for monitoring and evaluation are key.

- Get ownership from programming staff such as frontline workers and/or implementing partners, clarifying what you are trying to do and how the intervention is expected to be beneficial.

- Initiate a small pilot programme to work out implementation challenges and see the initial target group response and results on the ground. For instance, the behavioural solutions may only be introduced in a small number of sites or with selected implementing partners. At this initial stage, collecting information may primarily rely on administrative data and qualitative evidence (e.g., from user testing, focus groups) that that can be obtained quickly. If feasible, a more robust evaluation design (e.g., "nimble RCT")[117] may also be introduced (with small sample sizes). Based on the findings, the design and implementation arrangements may then be modified.

- Grow the intervention and introduce a rigorous evaluation design. When the intervention (or a small set of interventions) has been found to be psychologically sound and administratively feasible, it can be implemented with a larger number of users. At that time, a more robust evaluation design should be introduced to measure the impact of the intervention (or comparative impact of different intervention options). Typically, this would include a "counterfactual" evaluation design (usually randomised control trials) that provides causal evidence on the impact of the intervention.[118] Note that depending on the behavioural intervention to be tested, the "impact" to be measured will not necessarily always relate to final employment outcomes (e.g., employment levels, wages, working conditions) but may often be focused on outputs (e.g., participant enrolment, completion rates) or intermediate outcomes (e.g., job search behaviour, business practices).

117 "Nimble" Randomized Control Trials (RCTs) refer to rapid evaluations typically looking at operational questions (e.g., take-up) using administrative data. See Karlan (2017).

118 Counterfactual evaluation designs require comparing outcomes across people receiving the intervention (or different versions of the intervention) and a comparison group that does not receive the intervention. Applicable methods include Randomized Control Trials, Regression Discontinuity designs, Difference-in-Differences, or Matching. See for example ILO (2018), Note 5.

Step 6: Learn and adapt

Lastly, the results from the testing stage need to be translated into learnings to inform subsequent programming decisions. While programme partners should be involved throughout the process (for ownership and capacity-development purposes), their involvement in this stage is particularly important in order to integrate lessons learned within local structures and create a good foundation to further build on the work conducted.

- Take stock of the results. Did the intervention work? Which version of the intervention was most effective and why? Did the impacts vary according to different characteristics of the target group (e.g., by age, gender)?

- Document your learnings: Regardless of the impact of the intervention, it is important to write up the findings and potential implications for future work. This will help with institutional memory, foster visibility, and contribute to a body of knowledge that can be leveraged by other policymakers, practitioners, and researchers.

- Identify further behavioural bottlenecks: If the intervention did not work as intended, it may be necessary to return to the diagnosis phase to determine what may have limited its impact. Given the new data collected during the testing stage, there may be additional information available to identify the most binding bottlenecks and guide complementary or alternative solutions.

- Identify avenues to scale or replicate: If the intervention worked, one may consider scaling it up or replicating it in a similar context (e.g., with other employment programmes run by the same agency). In this case, it is important to also investigate potential constraints to scaling or replication (e.g., different target group characteristics, different implementation capacity).

This typical process of applying behavioural insights implies several changes to "traditional" programming at GIZ or other development agencies. The behavioural science process puts a very strong focus on diagnosis and iterative learning, as well as leveraging robust evaluation designs to demonstrate causal impact. This practice implies changes to the way most programmes implemented by GIZ operate, which often have limited time for diagnosis, relatively stable programme designs, and only the rare use of counterfactual evaluation designs (see Table 9).

Table 9 Traditional programming vs. behaviourally informed programming

Phase in project cycle	Traditional programmes	Programmes informed by behavioural science
Appraisal	Basic diagnosis of employment challenges and underlying factors Specification of main elements of programme design (key components and activities, results matrix)	Relevance of applying behavioural insights is generally explored during scoping mission (e.g., problem definition, step 2) The plan to apply behavioural work is specified in project proposal
Detailed diagnosis & programme design	More in-depth analysis of labour market (e.g., employment opportunities) and beneficiary needs Fleshing out of key activities and services to be provided (e.g., capacity development for Ministry, trainings for target groups) in line with project document Design relatively stable throughout programme duration	Build buy-in and refine problem definition (step 1 and 2) Additional in-depth analysis of underlying behavioural barriers in local context (step 3) Incorporation of additional design features to address underlying behavioural barriers (step 4) Acknowledgement that programme design may change over time (ongoing innovation)
Implementation	Implementation of one determined set of activities defined during appraisal and design stage Changes to design and implementation mostly when problems occur	Iterative process: Rapid prototyping of interventions; several potential changes to programme design based on initial feedback and results (step 4 and 5) Experimentation: May involve implementing several alternative activities at once (e.g., outreach strategies, types of training) to compare effectiveness (step 4 and 5)
Monitoring & Evaluation	Standard monitoring (tracking outputs and outcomes) Periodic performance and/or process evaluation (e.g., mid-term, end-of-project) Counterfactual impact evaluations only used in very few cases at GIZ	Additional monitoring of effectiveness of behavioural design tweaks (step 5) More systematic use of counterfactual impact evaluation to test behavioural intervention (when sufficiently mature) (step 5) Identify additional bottlenecks and avenues to scale/ replicate (step 6)

Common barriers to applying behavioural science[119]

Does the impact justify the effort? As discussed above, behavioural science focuses on careful diagnostic and systematic testing of potential solutions. While it has the potential to yield strong results (see section 4) sometimes the results will be modest. At the same time, applying new tools and doing things differently always creates challenges. Adopting a behavioural science approach can be confronted with a range of obstacles at the project level, institutional level, and research level (see Figure 7). Hence, many stakeholders will wonder whether the resources needed (time and money) are proportionate to the learning. In other words: "Is the effort worth it?". The answer to this question will typically depend on whether project characteristics and contextual factors are conducive to applying behavioural science (see success factors further below).

Figure 7 Common barriers in applying behavioural insights

Project-level barriers

1. Low familiarity with behavioural science by project teams
2. Bigger workload and resistance to change, i.e. limited time and attention to think about new things
3. Lack of incentives, esp. when project documents don't provide a "mandate"
4. Immature or convoluted interventions, e.g. when project is very early-stage and has many small activities
5. Lack of (administrative) data due to weak Monitoring and Evaluation
6. Resource constraints, esp. when no earmarked funding in proposal

GIZ-level barriers

1. Lack of inhouse behavioural science experts that could guide project teams
2. No systematic emphasis on problem diagnosis during appraisal and implementation
3. Limited experience with rapid prototyping and impact evaluation which are part of behavioural science process
4. Rigid results matrix, complicating iterative and adaptive programming
5. Insufficient project duration to apply full behavioural science process

Research-level barriers

1. Local experts often lacking, thus often requiring international research partners
2. Coordination and bureaucratic challenges, e.g. in terms of procurement and lack of familiarity with each others' processes
3. Limited evidence on behavioural insights in LMICs, making it difficult to prioritise behavioural barriers and interventions in the context of employment

119 This sub-section draws primarily on the key-informant interviews conducted. See Annex 1 for a list of interview partners. It also incorporates findings from Djuric et al. (2020) on lessons from GIZ projects.

Project-level barriers

- Low familiarity with behavioural science by project teams and counterparts. Behavioural science is a new tool for GIZ. Key personnel at GIZ and project partners are typically not familiar with the topic, including its process and instruments and how these can add value to policymaking and programming. First, this implies that project teams typically will not initiate work on behavioural science themselves, requiring external encouragement and support to do so. Second, the lack of familiarity with the topic can make it difficult to see the benefits ("that's obvious", "we are already doing that"), result in unrealistic expectations, and lead to concerns (e.g., related to ethics of influencing behaviour (Box 17) and the merits of spending significant resources on research as opposed to services for beneficiaries). Consequently, it can take considerable time and energy to make key project stakeholders aware of the benefits of behavioural science and "savvy in its application".[120] This is particularly the case where staff turnover is high.

- Bigger workload and resistance to change. Adopting a behavioural approach requires adopting different processes and involves additional work for the key stakeholders involved, including the project management team, frontline staff, and project partners (e.g., related to coordination, diagnosis, data collection, etc.). However, project staff and counterparts are often very busy, which leads to limited time and attention available to think about new things. In particular, when projects are struggling with basic implementation challenges (e.g., activity delays, procurement issues, etc.) they may lack the mental space to make behavioural science a priority.

- Lack of incentives. The additional workload is compounded by a common lack of incentives to doing things differently. When there is no mention of adopting a behavioural lens in project documents (e.g., project proposal, results matrix), staff may think that they do not have a mandate to work on it. Similarly, when projects are working reasonably well and meeting their targets, project managers may not have an incentive to look for new solutions and may instead perceive change as risky. This lack of incentives may also extend to the project's implementation partner.

- Insufficiently mature or convoluted interventions. In the early stage of a project, project goals and activities may not yet be very clear. This makes it more difficult to define a problem, agree on a behaviour to be influenced and narrow down the options for behavioural interventions. The same challenge can arise when there is a leadership vacuum that leads to a lack of clear direction in project strategy and activities. Moreover, when a project consists of many small interventions rather than a few bigger ones, it may be less clear which intervention(s) (and related problems) to focus on.

- Lack of data. When project or partner M&E systems are weak, one cannot (fully) rely on existing administrative data for quick and low-cost testing of behavioural intersventions, thus requiring more costly data collection. This may be particularly the case in fragile and conflict-affected contexts. Moreover, many interventions may be relatively small in terms of the number of beneficiaries served (small sample), making it difficult to detect smaller impacts, disaggregate results, and compare the impact of different intervention options (due to the lack of statistical power).

- Resource constraints. Since incorporating behavioural insights typically requires external expertise, sufficient funding needs to be available. Unless the behavioural approach has been foreseen in the project from the start (with earmarked funding), these resources may not be easily available (or require shifting budget away from other activities).

Box 17 Ethical considerations when applying behavioural science[121]

When discussing the use of behavioural insights to influence people's decision-making, there is often a concern about "manipulation". Indeed, governments and development agencies try to use behavioural science to steer people's behaviours in a certain direction without people necessarily becoming aware of it. It is therefore important to ensure that behavioural interventions are geared towards improving people's wellbeing (rather than for some illegitimate ends) while maintaining transparency and accountability. Indeed, when policies and interventions are meant to maximise people's wellbeing, using behavioural insights may even be required on ethical grounds. For instance, shaping people's choices – especially through nudging – to help them achieve their own goals or helping people revise preferences and objectives that are not in their own best interest can be considered perfectly ethical.

120 World Bank (forthcoming), p.43.

121 For a more detailed discussion see World Bank (2015), spotlight 6; and Sunstein (2015).

Institutional-level barriers (related to GIZ)

- Lack of inhouse behavioural science experts. GIZ does not currently have behavioural science experts (as a separate unit or individual staff) in its sectoral department (FMB), sector and global programmes (GloBe), or regional departments that could guide projects in applying behavioural insights to employment-related interventions.

- No systematic emphasis on problem diagnosis. The existing structure of the GIZ project cycle does not guarantee an in-depth diagnosis of employment challenges, which is an essential step in the behavioural science process. Project appraisals are not allowed to go sufficiently in-depth, and more detailed diagnosis in the early stages of project implementation depends on the perceived need by the project manager and therefore is not always carried out.

- Limited institutional experience with rapid prototyping and impact evaluation. The use of counterfactual evaluation studies is relatively rare within GIZ (the first impact evaluation results from three projects in the field of TVET and employment were published in 2019).[122] Given that systematic testing and evaluation are integral parts of the behavioural science process, limited experience with (and sometimes resistance towards) robust evaluation techniques (e.g., experimental studies) by GIZ project teams and staff in sectoral or regional departments indirectly affects the willingness and feasibility of applying the (full) behavioural science process. In addition, even when there is an interest in robust evaluation, there may also be practical challenges like those plaguing impact evaluations in general (e.g., timing issues, lack of a comparison group).

- Rigid results matrix / logical framework. The project proposal and results matrix specify the activities to be carried out and results to be achieved for the entire project duration. This can present a barrier to implement iterative and adaptive programming. But as the use of behavioural tools does not necessarily require specifying different results (but rather supports the achievement of existing indicators), behavioural approaches can also be adopted even when not explicitly mentioned in the results matrix.

- Limited project duration. Even though most GIZ projects last 3-4 years, many specific activities are only implemented over a period of 1-2 years (considering time to set up the project, conducting assessments, etc.). Such a short duration can make it challenging to systematically apply behavioural insights, especially moving beyond an initial pilot intervention and leveraging the learnings at a larger scale.

Research-level barriers

- Local experts and research organisations are often lacking. Given the lack of in-house expertise, being able to draw on external experts to perform a diagnosis, support the design, and evaluate the chosen interventions is essential. Yet, behavioural science (as well as impact evaluation) expertise may often not be available on the ground. While specialised behavioural science centres are starting to emerge in LMICs, they are still relatively limited in number and may not always have the necessary sectoral expertise. This typically makes it necessary to involve international research partners, which can be expensive[123] and who may be insufficiently familiar with the local context.

- Coordination and bureaucratic challenges with research partners. Common examples include administrative hassles (e.g., procurement)[124] , different institutional "languages", not being familiar with each other's processes, the lack of a trusting work relationship, etc. As a result, it can take a lot of time and effort until the research partner has familiarised itself with the way GIZ operates. This cost of coordination can lead to fatigue on the side of the project team.

- Limited evidence on behavioural interventions in the context of employment promotion in LMICs. A significant proportion of existing research on applying behavioural science in general, including in the context of employment, comes from "Western, Educated, Industrialised, Rich and Democratic" (WEIRD) societies.[125] The weight of different behavioural bottlenecks in the context of employment, as well as the suitability and relative impact of different behavioural interventions, is therefore still only weakly understood.

122 RWI (2019).

123 Some organisations (e.g. International Rescue Committee) are also working with local experts in human-centered-design to support the diagnostic and design stage.

124 See also Zoratto, Calvo-González, and Balch (2017)

125 See for example https://medium.com/busara-center-blog/5-years-of-behavioral-science-169bb38d7e47

Success factors[126]

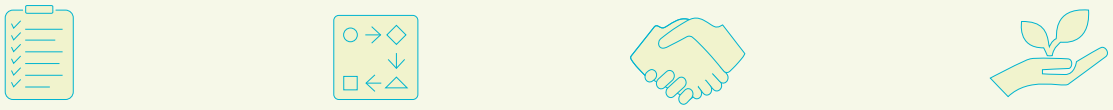
The successful integration of behavioural insights in employment promotion interventions (and beyond) requires careful consideration at several levels (see Figure 8). First, the characteristics of the project itself need to be conducive (e.g., sufficiently mature intervention, open-minded team). Second, the process of implementing the behavioural science process must be carefully managed, e.g., in terms of focusing on actionable problems and generating sufficiently quick results to keep up the momentum. Third, given the key role of a specialized external partner, the selection of that partner and division of responsibilities with the GIZ team are essential for a fruitful collaboration. Finally, a supportive ecosystem (e.g., in-house expertise) within GIZ is highly desirable to facilitate the operationalisation of behavioural insights and systematise lessons learned.

Project characteristics

- Commissioning party and higher management support has been instrumental in many GIZ interventions to motivate the use of behavioural insights. Hence, being able to leverage and/or foster political and management support appears critical (e.g., among BMZ officers at headquarters and/or in the country, GIZ regional or country director, cluster coordinator), such as by highlighting the potential of behavioural science to enhance development effectiveness during the project preparation phase. Moreover, regular check-ins with the commissioning party and/or higher management where behavioural insights' contributions to project objectives and progress can be presented may help maintain engagement.

- Sufficient project maturity (i.e., proper timing). First, project objectives and activities should be clear. This is necessary to be able to arrive at a clear problem defini-

Figure 8 Overview of success factors in applying behavioural insights



Project characteristics	Managing the process	Research partnership	Project-level barriers
1 Commissioning party and higher management support, e.g. BMZ, GIZ country/regional directors	1 Focus on concrete problems, i.e. tangible challenges the team is trying to overcome	1 Dedicated GIZ focal point who acts as a bridge between project and research team	1 Availability of in-house technical expertise, e.g. to integrate behavioural insights into planning, knowledge management, pursue learning agenda
2 Sufficiently mature project, e.g. second half of project or follow-up phase	2 Prioritise intervention to be tested, e.g. where there is doubt about most effective approach	2 Careful selection of research partner that also brings employment expertise and flexibility	2 Availability of central funding to provide incentive when project resources are limited
3 Integration in planning processes (e.g. results matrix) strengthens the mandate to work on it	3 Expectation management, being explicit about challenges and limitations	3 Clear roles and responsibilities for GIZ and research partner	
4 Open-minded project manager and team (willing to try new things)	4 Keep it simple and generate "quick wins" to build buy-in	4 Trusting working relationship, i.e. growing together as a team	
5 Strong M&E system (e.g. good administrative data) and larger samples	5 Context sensitivity, i.e. informed by local diagnosis		

126 This sub-section draws primarily on the key-informant interviews conducted. See Annex 1 for a list of interview partners. It also incorporates findings from Djuric et al. (2020) on lessons from GIZ projects.

tion and agreement on which behaviours to influence. In case of larger projects with several components and many activities, it may be useful to prioritise one component or activity of strategic importance (e.g., with largest number of beneficiaries). A strong working relationship with project counterparts (e.g., government stakeholders) is also highly desirable, as it enhances GIZ's leverage to introduce new ideas and counterparts' willingness to go the extra mile. Indeed, getting buy-in by the management and frontline staff of relevant counterparts is critical. In practice, this may imply that behavioural science can often be more easily applied in the second half of a project (especially when an extension is likely) and in project follow-up phases than in the early stages of a completely new intervention.

- Integration in planning processes. Integrating a behavioural science perspective early in the project cycle, i.e., in project appraisals and key project documents (e.g., planned activities in the results matrix), strengthens the project team's mandate to work on the topic. That said, even when behavioural science is not integrated early on, projects still have the flexibility to work on the topic since it can be used as a tool to achieve the planned results (no need to change results matrix).

- Open-minded project manager and team. Integrating behavioural insights into the project is much more likely to be successful when there is ownership by the team. Therefore, project managers and teams keen to find new ways to be more effective and willing to experiment with potential solutions (tolerance for uncertainty) are a good foundation. Team stability is also important.

- Strong M&E system. Applying behavioural science is easier and cheaper when good data (e.g., administrative data on participant enrolment, completion, performance) is readily available, as it reduces the need for new data collection. In addition, larger numbers of beneficiaries (i.e., larger sample sizes) allow for more precise and nuanced analysis (e.g., disaggregation of findings by subgroups). When data availability is limited, sufficient time and funds must be made available to collect additional information during the diagnostic phase as a basis for exploring suitable interventions.

Managing the process

- Focus on concrete problems. The value proposition for applying behavioural science is that it provides project teams with a new lens to understand people's needs and look at project operations. Hence, a focus on very tangible challenges can promote ownership by the project team and counterparts and reduce potential reservations (e.g., about "manipulating" behaviour).

- Prioritize the intervention to be tested. Given the effort required, it is important to prioritize the issues where behavioural insights should be applied and which should be tested in depth. For instance, a project team may feel sufficiently confident about incorporating a specific behavioural tool (e.g., sending reminders) into project design without needing testing and evaluation, and focus the bulk of the energy and resources on rigorously testing another behavioural tool (e.g., rule of thumb training, framing of messages) where the team feels less comfortable with the existing evidence available. The team may also prioritise those interventions for testing where the potential for scaling up and/or replication is highest.

- Expectation management. Since most stakeholders do not have prior experience with behavioural science, it is important to avoid misunderstandings and unrealistic expectations. For instance, this may require clarifying that behavioural science does not always involve a large evaluation (instead, it starts as a tool for diagnosis and design), that the full process can take time (no easy fix), that it requires close involvement by the project team (cannot just be outsourced), that results are not always measured in terms of final outcomes (but often in terms of outputs and intermediary outcomes), or that not every experiment yields strong impacts. It is also important to be clear about any potential changes to implementation, including (extra) resources required and who is going to provide those resources.

- Keep it simple and generate "quick wins". In the early stages of applying behavioural insights (when it is still new to everyone), building buy-in and excitement among team members and counterparts is key. Therefore, it is important to generate some useful findings relatively quickly (e.g., within one year) to keep and grow momentum. This may often warrant a phased approach. At first, the team may want to "play it safe" by focusing on a relatively simple problems and interventions that can be easily implemented and where the results are visible quickly (e.g., nudges to enhance programme take-up). As familiarity with the topic and process grows, the team can then move on to tackle bigger questions and challenges. Similarly, one may start with a less robust evaluation (e.g., small sample, nimble RCT) and then enhance the methodological rigor over time.

- Context sensitivity. Given the limited evidence from LMICs, it is important to diagnose the prevailing behavioural bottlenecks for the concrete target group in the local context to come up with potential behavioural solutions. While examples of interventions from high-income countries can provide inspiration, it would not be wise to simply try to replicate them.

Research partnership

- Dedicated GIZ focal point. Behavioural science cannot be simply outsourced; it requires strong engagement and steering from within the GIZ team. There needs to be a team member acting as a "bridge" between the project and the research team with the mandate and time to work on this topic. This person needs to be(come) familiar with the topic and literature and will typically be responsible for onboarding external experts vis-à-vis the project context, coordinating the research team, absorbing information and conveying it (which may involve "translation" of scientific terms) to the project team and counterparts, and so on.

- Careful selection of research partner. In addition to formal behavioural science credentials, selection criteria should also include thematic expertise (e.g., on education, ALMPs, business development services as needed) as well as the ability to conduct primary data collection in the context of low- and middle-income countries.[127] Moreover, flexibility and the researcher's willingness to adapt to the operational priorities and context are key (i.e., focus on quality research given the local constraints, rather than following an academic agenda). Indeed, the testing of a behavioural intervention cannot be run in isolation and must be integrated into existing delivery structures of GIZ. Besides specialised firms, young academics (e.g., PhD students, post-docs, assistant professors) still building their research portfolio and able to assist in a fast and flexible way can also be a valuable resource.

- Clear roles and responsibilities. The Terms of Reference (TORs) for the research partner should carefully specify the respective roles of GIZ and the research partner (e.g., related to communication with commissioning party and counterparts, data collection and analysis, etc.). Since primary data collection is typically the main cost driver, a stronger contribution by GIZ and its counterparts in this regard can make the application of behavioural science more affordable (e.g., by providing access to quality administrative data).

- Trusting working relationship. As is the case in all partnerships, there ultimately needs to be good "chemistry" between the key members of the project and research team for the collaboration to be successful. Given the initial investment to grow together as a team and overcome potential administrative challenges, it can be beneficial to have longer-term partnerships (e.g., over several project phases) if an initial collaboration has proven fruitful.

Supportive ecosystem

- Availability of in-house technical expertise. If applying behavioural science is meant to be a priority for GIZ, then there must be in-house staff combining behavioural science expertise and the relevant thematic background such as education and employment (e.g., in the sectoral and/or regional departments). Other institutions either have separate behavioural science units (e.g., World Bank) or specialised staff within their research and innovation department (e.g., International Rescue Committee). In-house expertise is critical for several reasons, including:
  - Ability to support awareness raising and capacity development within the institution;
  - Availability to integrate behavioural science perspectives into project planning processes;
  - Guiding project teams in preparing and managing partnerships with external experts (e.g., qualified firms and experts, sample TORs, etc.);
  - Quality control of main outputs by research partner (e.g., related to research and evaluation design);
  - Knowledge management function (e.g., collecting experiences from projects, generalising lessons learned, foster external visibility);
  - Ability to define and pursue a strategic learning agenda based on priority challenges and questions in sectors of interest (such as employment promotion), for example, systematically testing behavioural solutions to influence aspirations related to education and work, fostering savings in public works programmes, or enhancing the adoption of good business practices.

- Availability of central funding. When in-house behavioural science experts are also equipped with financial resources to support behavioural science interventions in the field, this can provide an additional incentive for project teams to engage (as opposed to only using project funds). Such central resources are particularly useful when seeking to conduct robust evaluations (e.g., RCTs) as well as to pursue a broader learning agenda that goes beyond what individual projects may be interested in.

127 Primary data collection is particularly challenging in conflict-affected settings, putting a premium on the research team's experience working in the target (or very similar) country, e.g. in terms of security protocols, getting clearances, "do-no-harm", environmental awareness, etc..

Box 18 Centralised research partnership on cash transfers in Africa[128]

With grant funding from the Global Innovation Fund, the World Bank and ideas42 engaged in a multi-year partnership to apply behavioural innovations to World Bank-supported cash transfer programmes. After initial cooperation in Madagascar, the partnership expanded in 2018 to cover cash transfer programmes in Kenya, Tanzania, and Ghana, with a focus on designing and testing behavioural interventions, building capacity within the World Bank and partner governments and supporting the dissemination and adoption of findings. In 2020, the partnership entered yet another phase, further expanding country coverage with additional small-scale and large-scale evaluations as well as continuing dissemination and scaling activities in existing countries.

Practical steps for GIZ staff to get started

While applying behavioural insights is still relatively new within GIZ, an increasing number of projects across sectors (emergency assistance, public finance, etc.) are accumulating experience in this field. Independently of the institutional steps taken towards a more systematic integration of behavioural science in GIZ (employment-related) interventions, project teams can follow some practical steps to strengthen the behavioural lens in their projects (see below). This does not have to be a complex endeavour and may not always require following the full behavioural science process. Indeed, many times, project teams can leverage some "low-hanging fruits" to start working on the topic, for instance by integrating a behavioural lens into project appraisals and planned labour market assessments during project implementation.

Information gathering

Regardless of where you stand in the project cycle, a first step is to familiarise yourself with the topic and explore how it could be applied in your current work.

- Familiarise yourself with behavioural science. In addition to reviewing selected literature and project examples (the bibliography of this document can serve as a starting point), one can sign up to relevant newsletters or blogs. Moreover, staff may want to attend webinars or formal trainings (including open online courses) on behavioural science. While many available resources may not necessarily be specific to the field of employment promotion, they are a good starting point to think about typical behavioural bottlenecks and types of interventions.

- Reach out to the internal community of practice. An internal community of practice that brings together staff from across sectors working on behavioural science (at GIZ headquarters and in country offices) has already emerged.[129] Learning about who else works or has worked on the topic and showcasing each other's work can be a useful starting point for teams interested in applying behavioural science themselves.

- Invite behavioural experts to give a presentation to your team. Specialised behavioural science groups, such as the World Bank's eMBeD, ideas42, the Behavioural Insights Team, and others are typically happy to give a (virtual) presentation on their work in general and experience in a specific area. Such initial engagement is also useful to understand the expert's "way of working" in anticipation of a potential future partnership.

128 ideas42 and World Bank (2020).

129 Interested GIZ colleagues are encouraged to join the existing Behavioural Insights Exchange for the Europe, Mediterranean and Central Asia region, which is also open to staff from other regions.

Project preparation phase

- Determine the potential added value of behaviour science during project appraisal (especially for follow-up phases). During the appraisal process the team can determine whether behavioural insights (see chapter 3 on common bottlenecks and approaches) could add value to understand target group needs or address operational challenges such as low enrolment or completion by certain groups. If this is the case, a more in-depth behavioural diagnostic and testing of possible solutions should be mentioned in project documents as a planned activity during implementation stage (like conducting a labour market assessment). Note that a basic understanding of target group characteristics and operational challenges may take some time to emerge, e.g., towards the middle or end of a first project phase. Hence, it may be best to schedule an initial behavioural diagnostic 1.5 or 2 years after the start of a new project, or at the beginning of a second phase (see also right timing under Project implementation phase below).

- Explore demand for structured capacity development of partners on behavioural science. Where initial experiences with the introduction of behavioural approaches have been positive, counterparts may be interested in receiving more structured support in applying behavioural insights for a range of policies and programmes. In such a case, GIZ may make such capacity development efforts an explicit component within the project, facilitating the integration of behavioural work into local structures.

Project implementation phase

- Mainstream a behavioural perspective in traditional programming. A simple way to start incorporating elements from behavioural science into projects implemented by GIZ is to add a behavioural lens to existing activities, even when the project is not informed by behavioural science otherwise. This can often be done without involving external behavioural science experts and may include:
  - Assessments: Many employment interventions carry out some type of (labour market) assessment in the early stages of the project (e.g., skills needs analysis, value chain assessment, etc.). Such assessments provide an opportunity to add questions or modules that can help identify or validate behavioural barriers.
  - Project design & implementation: When there is sufficient agreement on the prevalence of certain behavioural barriers in the local context, project design and implementation can try to incorporate some lessons from behavioural science without formally designing and testing a "behavioural intervention" at minimal or no cost. For instance, projects may seek to proactively reduce hassle factors, leverage peers and role models, use reminders, etc. if the team feels sufficiently comfortable that such tactics may be useful in the local context.
  - Monitoring and Evaluation: Traditional monitoring and evaluation processes (e.g., focus groups, tracer surveys, etc.) and impact evaluations can be harnessed to better understand the potential presence of behavioral challenges. Asking "why" questions (e.g., Why did people drop out of the training? Why did firms die? etc.) and documenting behavioural issues alongside conventional barriers helps make the case for explicitly addressing those challenges in the future. If interventions happen to already address some behavioural bottlenecks as part of implementation, the outcomes of these behaviourally-informed interventions should be clearly documented for future learning.

- Determine the right timing for systematically applying behavioural insights. Given GIZ's common project duration of three years, there are two main windows of opportunity where a systematic and more in-depth application of behavioural science may be most realistic:
  - First project phase (around mid-term): With around 1.5 years left in the project, the team has enough time to carry out the first steps of the behavioural science process (at least diagnosis and designing solutions, maybe even a small pilot). This preparatory work can then inform the application of behavioural insights in the next phase of the project.

- Follow-up phase (at the beginning): If an initial diagnostic and testing has been done in a previous phase, the project extension allows testing solutions with a critical number of beneficiaries and a robust evaluation design. Even if the behavioural process starts here with no prior work done in the previous phase (but based on a solid understanding of the project activities and challenges), there is sufficient time to carry out a typical behavioural science process from start to finish.

- Involve behavioural experts to support the process.[130] Given the relatively large degree of flexibility by GIZ project managers to determine the types of activities used to achieve project objectives, projects can engage in behavioural science regardless of whether it has been specified during project appraisal. In practice, this typically involves the contracting of behavioural experts who bring the subject matter expertise and practical experience from undertaking similar diagnostics and experiments in other countries and sectors. There are typically two main contracting options:
  - Option 1: Smaller contract to get started. In this scenario, a smaller contract is made for the initial steps of the behavioural science process (see steps 1-4 above, i.e. preparation, problem definition, diagnosis, design solutions). The testing of agreed upon interventions is then typically the subject of a second contract (a small pilot may still be part of the first contract). The advantage of this scenario is that it provides more flexibility to the GIZ team. The disadvantage is that it can lead to a higher administrative burden and delays due to additional contracting needed for the testing stage. This type of contracting may therefore be best suited when the entire process is still new to most of the stakeholders involved, when there has been no prior experience with a specific research partner (need to get to know each other), and/or when the requirements and level of effort needed for the subsequent testing stage are unclear. This option is also suitable when there is limited time left in an existing project, where the behavioural diagnostic and identifying solutions could be the basis for testing the solutions in a subsequent project phase.
  - Option 2: Bigger contract covering the entire process. In the second scenario, a contract is made for the entire process, including the testing/evaluation of potential solutions. The advantage of this option is that it only requires one contract and that it sets the basis for a long-standing partnership. Disadvantages include the difficulty to estimate and specify all the requirements and level of effort upfront (and hence the adequate contract size) as well as the potentially limited flexibility to make changes to the contract terms over time (e.g., when the partnership is not working out). This option may therefore be better suited when the process and requirements needed are well understood (e.g., based on experience with a previous behavioural intervention) and there is a positive track record of working with a specific research partner.

Box 19 Applying behavioural insights for livelihood activities in Iraq1[131]

As part of the Stabilization of Livelihoods Ninewa & Reconstruction and Rehabilitation Mosul projects in Iraq, GIZ partnered with the World Bank's eMBeD team to carry out a behavioural diagnostic and pilot behavioural interventions for beneficiaries of livelihood activities. The cooperation started approximately two years into the project cycle when there was a sufficient understanding of the local context, but still enough time left to initiate the behavioural work.

The first contract with the World Bank covered the diagnostic phase (incl. journey mappings and personas), options to embed different behavioural interventions in GIZ programming, as well as two small-scale evaluations (randomized control trials), for example to test a complementary psycho-social skills training for entrepreneurs. A second contract with the World Bank during the subsequent phase of the project covered the scale-up of the interventions and evaluations.

130 See Annex 5 for a list of selected organisations with expertise in behavioural science

131 Herberg (2020).

6. Conclusions

"Behavioral economics policies are beautiful because they are small and concrete but powerful. They remind us that when policies are rooted in actual human behavior and specific day-to-day circumstances, even governments can produce small miracles"[132]

Key messages

Promoting employment in low-and middle-income countries is no easy task, and many policies and programmes have failed to generate strong impacts. Supporting the creation of more, better, and inclusive jobs has become a priority for many governments and development partners. Yet, as the evidence base in fields like vocational and higher education, labour market policies, and private sector development has grown, it has also become clear that the impacts of employment policies and programmes are often modest. An important condition for impact is to have an accurate diagnosis of the main barriers to employment in the local context.

Behavioural science, the systematic analysis of human behaviour and decision-making, helps us look beyond conventional explanations of weak employment outcomes by putting the realities of human behaviour at the centre of analysis. Contrary to the traditional assumption of fully "rational" individuals, behavioural science highlights how people's decision-making and behaviour can be negatively affected by limited mental resources, automatic thinking and cognitive biases, social influence, and detrimental mental models. Indeed, we all know too well how it can be difficult to make good decisions and to follow through on our intentions. This understanding offers additional explanations for why people may not enrol in or may drop out of education and training programs, do not engage in sufficient job search, or do not adopt good business practices. Hence, behavioural science is key to unpacking complex issues such as unemployment, poverty, and social exclusion. Behavioural insights thus sensitize us to the little details in implementation that often go unnoticed and the missing ingredients that often distinguish success from failure. In reality, behavioural insights (e.g., the role of social norms, peers, etc.) are not completely new to policymakers and practitioners, and selected elements have been reflected in many interventions. Yet, the systematic application of behavioural insights has typically been missing.

A better understanding of people's decision-making yields a rich list of additional tools that can complement and enhance conventional employment interventions. Given individuals' "bounded rationality" and the many influences on people's behaviour, traditional interventions such as providing information, skills, or financial resources are often not enough. Behavioural science provides a rich set of principles and tools that can be integrated into employment promotion interventions to motivate good decisions, facilitate taking action, and sustain behaviour change. These tools go beyond the more commonly known "nudges" (e.g., attracting attention, default rules, reminders) and also include more intensive interventions (e.g., strengthen self-esteem, growth mindset, building habits) to revise beliefs and strengthen decision-making capacity. Importantly, the use of behavioural science principles opens many avenues for new ideas and innovate approaches to improve employment outcomes. For instance, recognising the importance of peer pressure and commitment devices, could job search assistance be more effective when creating "job search groups" rather than providing individual-level assistance?[133] The iterative and experimental approach of behavioural science, testing multiple approaches at the same time or in sequence, is particularly well suited to test new ideas and find effective interventions.

Existing evidence from across the globe suggests that behavioural insights can add great value to employment policies and interventions, though more evidence is needed. Many studies indicate that seemingly small aspects of the design and implementation of employment programmes can greatly affect the participants' decisions and behaviours within the programme and either increase or limit the programme effectiveness. As highlighted in section 4 of this paper, many behavioural interventions have been able to significantly boost intermediate and final employment outcomes. Yet, behavioural science is no silver bullet, and not all policy problems can be solved with behavioural insights. Indeed, many times the main employment constraint may be unrelated to people's behaviour, requiring other interventions (for instance, low job retention may not be due to self-control problems of the worker but simply due to poor working conditions). Moreover, results should generally be considered context specific. Whether similar impacts can be achieved elsewhere depends on many factors (including whether the same underlying behavioural barriers are at play) and needs further investigation.[134]

132 Brooks (2014).

133 Meyer (2018).

134 Overall, there is some evidence that behavioural interventions run at scale by government "nudge units" show smaller average impacts than academic studies. See DellaVigna and Linos (2020).

GIZ's employment promotion efforts are well-positioned to advance the use of behavioural insights in partner countries. Without a doubt, there are many potential applications for behavioural science in the context of technical and higher education, ALMPs, and private sector development. Given its broad portfolio in employment promotion as well as the presence of many leading behavioural science scholars in Germany, GIZ appears well-prepared to apply behavioural science more systematically and contribute to global learning in this field. Behavioural insights also have the potential to inform GIZ's capacity-building activities in partner countries. Indeed, building institutional capacity and developing systems and policies requires understanding the stakeholders involved, generating buy-in, and changing behaviour for any "technical solutions" to be successful.[135]

Main benefits and limitations

Benefits

- Understanding the target group: First and foremost, behavioural science helps promote a better understanding of people's needs and what is holding them back, allowing practitioners to systematically (rather than just intuitively) take into account the often-complicated realities of their daily lives. As many development interventions struggle with understanding their target groups (being often limited to second-hand information from desk research), the user-centred perspective of behavioural science can offer significant value-add.

- Reach and impact: Behavioural science is an iterative, evidence-based approach that follows a structured process of diagnosis, design, testing, and adaptation to validate and maximise programme effectiveness. By uncovering bottlenecks in design and implementation and systematically addressing the barriers target groups face when they access and engage with a programme, behaviourally informed interventions can increase both their coverage and impact. Indeed, behavioural science offers innovative ways to move beyond business-as-usual interventions and address details in service delivery that are often overlooked in standard policy and programme design. The iterative process with quick feedback cycles also allows for faster programming adjustments.

- Efficiency: Applying behavioural insights is typically geared towards simplifying implementation, and the tools used to enhance programming are generally very low cost. Indeed, contrary to the relatively high cost of many traditional interventions (e.g., training, financial subsidies, etc.), alternative or complementary behavioural tools (e.g., changing the way information is presented, leveraging social networks, simplifying processes) are usually cheap to implement.

- Credibility: Behavioural science emphasises the importance of local context for decision-making and behaviour and relies on participatory engagement of key stakeholders, in particular beneficiaries, to understand their realities. By focusing on people's real circumstances and decision-making, behavioural science can provide a strong foundation for building credibility and acceptance among target groups and other stakeholders.

- Scalability and replicability: The structured process of testing and learning allows for a more systematic approach to scaling and replicating interventions (based on sound evidence), with continued evaluation and learning as initiatives grow. Moreover, since behavioural science seeks to identify the mechanisms that drive decisions and behaviour, it helps explain how the underlying patterns drive results (or the lack thereof). Therefore, behavioural interventions may often be more easily transferable across contexts than other aspects of programme design and implementation.

135 Djuric et al. (2020).

Limitations & challenges

- Increased programme complexity: Applying behavioural science involves more work for project teams and partners through more in-depth diagnostics, changes to project design and implementation, and more intensive M&E – coupled with additional coordination requirements with an external research partner. Project teams therefore must consider the trade-off between the expected benefits from applying behavioural insights in a systematic way (potentially increasing programme effectiveness) and the additional complexity (and cost) they are willing to handle. This trade-off needs to be considered before engaging on the topic.

- Reliant on quality data: The ability to generate relatively quick results at limited costs hinges on the availability of quality data, which is often not available for many development interventions (due to weak M&E and challenging country contexts). As more data needs to be collected, applying behavioural science becomes more costly and time-consuming.

- Institutional rigidity: Many common practices at GIZ and other development agencies complicate the application of behavioural science. For instance, short appraisal phases leave limited room for quality diagnostics while rigid logframes are not conducive for rapid prototyping and iterative learning. Moreover, the lack of institutional experience with (and sometimes opposition towards) counterfactual evaluation designs such as RCTs, which are an integral component of the behavioural science process, can be a challenge.

- Limited evidence from LMICs: While the evidence-base on LMICs has been growing, most of the research and experience in applying behavioural work still comes from high-income countries. Hence, more work is needed to understand what adjustments are necessary to effectively apply behavioural insights in resource-constrained environments.

Way forward[136]

To reap the benefits of behavioural science in employment promotion programming, GIZ must make a conscious effort to strengthen its internal enabling environment to apply behavioural insights. While there has been growing interest and experience within GIZ in applying behavioural science (as reflected in several behaviourally-informed projects and the internal community of practice for the Europe, Mediterranean and Central Asia region), the topic remains generally unknown among staff and internal processes are not yet set up to proactively support efforts in this space. Specifically, key requirements to apply behavioural science more systematically to employment-related interventions are to a) broaden diagnostics (behavioural diagnostics beyond labour market diagnostics), in order to identify behavioural bottlenecks that need to be addressed through programming; and b) strengthen monitoring and evaluation, including impact evaluation (for rigorous testing of behavioural interventions). Taken together, these call for quite a paradigm shift for many GIZ interventions.

Strengthening the internal enabling environment for behavioural science should include the following aspects:

1. Develop GIZ staff awareness and capacity to apply behavioural insights in employment promotion contexts. As recommended by BMZ, it is important to increase the methodological know-how on behavioural science in German development cooperation. This can be achieved through a combination of tools, such as webinar series with behavioural science experts, learning fora and conferences, staff trainings through the Academy for International Cooperation (AIZ), external trainings, etc. Basic familiarity with behavioural science among staff in headquarters and in the field is key to recognising opportunities for applying behavioural insights (e.g., identifying programme challenges that could benefit from a behavioural lens, integrating behavioural science into project proposals, etc.). Expanding its capacity on behavioural insights will also enable GIZ to enrich its capacity development efforts with partner governments.

2. Strengthen the internal ecosystem to help staff integrate behavioural insights into their work. Experience from other development agencies shows that it is useful to have some centralised support for project teams, for instance through dedicated resource persons (with demonstrated behavioural science expertise) in the sectoral or regional department and some centrally available funding (e.g., research and learning grant). Such a centralised support function can be extremely useful to coordinate various efforts, advise project teams, and track the lessons and costs[137] of applying behavioural insights. Moreover, since behavioural science is closely linked to rigorous evaluation, strengthening internal capacity and cooperation with research partners in the field of (nimble) impact evaluation would be useful as well.

3. Define a learning agenda. Given its rich portfolio and presence in many countries, GIZ is well positioned to set an overarching learning agenda that reflects priority challenges and questions for employment projects implemented by GIZ which behavioural science initiatives could help answer. For instance, priority challenges may include increasing female labour force participation, increasing the attractiveness of TVET, promoting the formalisation of workers, or improving job retention of workers in industrial jobs. Such a learning agenda could then guide targeted cross-country behavioural research and programming, as opposed to individual, uncoordinated pilot initiatives. Defining and pursuing a (behavioural) learning agenda is arguably much easier with dedicated staff and funding in place (see point 2).

4. Operationalize behavioural science in the project cycle. In the short term, to create momentum, it could be useful to identify (top-down) a few projects that are well suited to apply behavioural insights (see success factors in section 5) and work closely with them to apply the full behavioural science process. This process can generate important lessons and internal champions that will be useful in further expanding the use of behavioural science across GIZ. Moreover, in parallel, efforts should be made to facilitate the (bottom-up) integration of behavioural science into standard processes (e.g., project appraisals) and capacity development of partners. Such bottom-up integration into planning processes will require stronger awareness of GIZ staff (see point 1), closer dialogue with BMZ to ensure backing by the commissioning party, as well as practical tools for GIZ staff (e.g., catalogue or checklist of guiding questions to consider the potential value added of behavioural insights during project appraisals and ongoing interventions).

136 Recommendations are based on BMZ (2018), key informant interviews, and an internal GIZ workshop.

137 Tracking the costs of behavioural work should go beyond the financial costs and also look at costs in terms of added complexity for the projects (e.g. procurement and coordination).

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Annexes

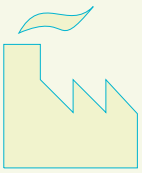
Annex 1: List of interview partners

Name	Institution
Kadri Sternberg (Jogiste)	GIZ
Susan Leichtweiss	GIZ
Natalia Herberg	GIZ
Zeina Afif	World Bank
Samantha de Martino	World Bank
Karen Tan	International Rescue Committee
James Vancel	Busara Center for Behavioral Economics
Saugato Datta	Ideas42
Jessica Jean-Francois	Ideas42
Florian Kutzner	University of Heidelberg
Mario Negre	German Development Institute (DIE)

Annex 2: Overview of key employment constraints

People

Labour market



Firms

Supply	Matching	Demand
Skills and human capital		**Business environment & conditions for self-employment**
Lack of basic skills Lack of (relevant) technical skills Lack of soft skills Lack of work experience Poor health conditions	Lack of labour market information Lack of networks for new entrants to labour market Signalling constraints Employer discrimination Restricted mobility Distorted aspirations and expectations of job seekers Inadequate labour law and regulation Potential disincentives to hire/ work as a result of inadequate regulation, social protection or taxation	**Investment climate and business environment** Economic and political instability Weak institutional environment Poor infrastructure Limited access to finance and land Unfavourable tax and regulatory environment (including trade) **Farming and self-employment** Lack of access to information, education and business skills Lack of access to financial capital Lack of access to land, physical capital, inputs Lack of access to markets/connectivity Lack of access to social capital Restrictive social/legal norms
Enabling environment for work		
Family formation and responsibilities Restrictive legal framework Culture and social norms		
Demographics and migration		**Macroeconomic conditions**
Population growth or shrinking Brain drain in migrant sending countries Increased competition for jobs in receiving countries		Lack of economic growth Low-growth elasticity of employment Unfavourable structure of the economy
		Governance and rule of law
		Low-quality institutions Conflict and insecurity

Source European Commission (2018)

Annex 3: Main categories of behaviourally informed interventions (details)

Approach 1: Choice architecture and nudging

Influencing the decision-making environment is key. As discussed earlier, people typically make automatic decision and are therefore heavily influenced by their environment: the decision-making context. Because the context is so crucial, we should be able to steer individuals' decision-making by designing the environment.[138] This concept of organizing the environment in which people make decisions has been coined "choice architecture", stressing that anyone can be a choice architect (e.g., when deciding how a registration form is designed, how options are presented to others, etc.). While this concept can also be used in ways that may not be in people's own best interest (e.g., marketing and sales strategies), the appeal of choice architecture is that it can help people make good decisions by making the world easier for them to navigate. For instance, reducing the effort required to arrive at the right decision can help people make better decisions.[139]

Choice architecture refers to the practice of influencing choice by organizing the context in which people make decisions.[140]

Steering good decisions through "nudges". A key notion related to the idea of choice architecture is the concept of "nudges" which has become very popular across the globe. For instance, many governments have created "nudge units" in recent years.[141] Nudges are nonregulatory and nonmonetary interventions that steer people in a direction that is deemed good for them while preserving their freedom of choice.[142] The idea at the core of nudging is that the biases in people's thinking that can lead people to make detrimental choices in their lives can also be used to steer them to behave in ways that are in the best interest of themselves and society. For instance, if people are prone to forget important appointments or things to do, such as paying a bill, small reminders can help.

Overview of commonly used nudges

Default rules

Default options are pre-set courses of action that take effect if nothing is specified by the decision maker (e.g., automatic enrolment in programmes). Setting defaults is an effective strategy when there is inertia or uncertainty in decision-making.

Framing

Choices can be presented in a way that highlights the positive or negative aspects of the same decision, leading to changes in their relative attractiveness. For instance, one might describe the probability that safety-belt wearers would live (positive frame) or die (negative/loss frame) if they are involved in a highway accident.

Reminders

Reminders seek to mitigate a variety of barriers to action, such as distraction from competing obligations, procrastination, inertia, and forgetfulness. The timing of reminders is key: one must make sure that people can act immediately on the information (otherwise the same underlying barriers to action may remerge).

Commitment devices

A commitment device is a voluntary arrangement that people make to formalize and facilitate their goals. It involves making a choice in the present which restricts their set of choices in the future, often as a means of controlling future impulsive behavior that would violate their long-term goals.

Simplification

Good decisions and behaviours are more likely when they are easy to make. Complexity creates misunderstandings, deters people from action (e.g., low take up of programmes), and can reduce the effectiveness of public policies and programmes. Resistance to do certain things (e.g., filling out a registration form) is often linked to their perceived difficulty or ambiguity. Hence, interventions should be convenient and easy to navigate.

Social proof

Refers to a pattern of informational influence (or descriptive norm) that emphasizes how most other people behave or how they think one should behave (e.g., 90% of families send their female children to school), thereby leading people to adapt their beliefs and behaviours.

Source https://www.behavioraleconomics.com/resources/mini-encyclopedia-of-be/; Sunstein (2014)

138 Gravert and Nobel (2018).

139 World Bank (2015).

140 Thaler and Sunstein (2008); Thaler, Sunstein, and Balz (2013).

141 See Afif et al. (2019).

142 Hertwig and Grune-Yanoff (2017), p.1.

Similarly, if people have a hard time processing information, then presenting this information in clear and simple ways, and/or listing certain options first and more prominently, can help them navigate making the decision. See Box for a list of common nudges.

A nudge is any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not.[143]

Approach 2: Strengthen people's decision-making capacity (boosting)

"Boosts" focus on strengthening people's decision-making capacity. Like nudges, boosts are nonregulatory, nonmonetary and noncoercive interventions. However, whereas nudges seek to steer people's decision-making in a particular direction, the objective of boosts is to improve people's competence to make their own choices, thereby making it easier to exercise their own agency.[144] This can include strengthening existing competences or developing new ones. Boosts can target a variety of competences relevant for decision-making, such as risk literacy, motivation, managing uncertainty, and socio-emotional skills (e.g., self-control, goal setting). In practice, this typically involves short trainings in the respective areas, for instance teaching simple decision-making heuristics (e.g., procedural routines, rules of behaviour). In comparison to nudges, therefore, boosts often require larger investments in time, effort, and motivation on the part of both the individual and the policy maker.[145] Yet, boosts should not be confused with longer education or training programmes; instead they are interventions to foster existing and new competences under conditions of limited time and resources with a specific focus on motivational and decisional competences (not providing information per se).[146]

A boost is a nonregulatory, nonmonetary and noncoercive intervention that seeks to improve people's competence to make their own choices.[147]

By promoting competences for decision-making, boosts can have a role in addressing several mechanisms of the decision-making process. For instance, they can help strengthen people's mental resources to make deliberative decisions (e.g., through increased self-control), recognize and anticipate biases from automatic thinking (e.g., mitigate present bias), as well as change mental models (e.g., mindsets and beliefs).

Examples of boosts

- Rules of thumb trainings (e.g., on helpful routines to adopt)
- Socio-emotional skills training (e.g., self-esteem, self-control, goal setting, self-efficacy, grit/perseverance, growth mindset, etc.)
- Motivational interventions (e.g., to foster aspirations)
- Attention training (e.g., mindfulness)
- Social norm interventions (e.g., group reflection processes)

143 Thaler and Sunstein (2008), p.6.

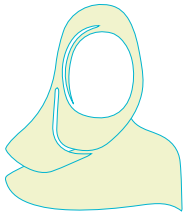
144 Hertwig and Grune-Yanoff (2017), p.2.

145 Hertwig and Grune-Yanoff (2017).

146 Ibid.

147 Ibid.

Annex 4: Example of persona and behavioural map



Haifa

Lives in Mankoubeen with her husband and 4 children.
She's a stay at home mom but her husband hasn't had a lot of work lately.
She wants to help make ends meet.
She is interested in starting a small business that sells her cooking.

"My husband keeps pressuring me to help him with money, but that's his job! It makes me so anxious and I'm exhausted raising the kids. I'm not sending off the kids to those NGO activities with all those trouble-makers from Jabal Mohsen.

I would never be able to run a business anyway. That's a man's role. But my husband is constantly stressed and insists it's easier for women to get jobs because of the Americans. The trouble is, we need to find a way to make ends meet. My husband just can't get permanent work and neither can any of the other men in our area. I suppose it's not his fault. And I shouldn't put pressure on him.

I've tried to cut spending, but what else am I to do? A group of women in the neighborhood clean houses and restaurants. This is quite demeaning work though and it's not safe. Recently though, the opportunities have improved a lot, women have started making jewelry and cooking from their own homes. My friend Naila suggested we start a cookery shop together. I'm not sure it would work out. I can't tell if the idea makes me excited or anxious."

End Goals

I want our family to be able to provide for our children's needs

I want my husband to be able to get a decent job

I want there to be less stress and chaos all the time.

I wouldn't mind starting a cookery business, I guess. I'm actually quite a good cook.

Any job would have to enable me to take care of my children. People can't think I'm a bad mother!

Experience Goals

If I have to work, I want it to be easy to sell my cooking to people without leaving the house

It might actually be interesting to learn how businesses work

To have some role models in the community selling their cooking

I don't want to have to pay out of my own pocket if it fails. I cannot afford to take a risk.

I wish life wouldn't be so stressful and that things would just calm down.

Expectations

If I actually did run this business, I could use my home economics skills

It would probably be too hard to juggle my family life and a business

My kids might think I'm neglecting them.

The other women in the neighborhood will judge me if I work. Especially, my mother-in-law.

If I get paid more than my husband, I can tell he'll get angry. He's very self conscious about this and women shouldn't get paid more.

This is just a quick fix. Soon my husband will get a proper job Inshallah.

Needs

I need a way to sell my cooking to customers. Maybe if I knew somebody who was a delivery person. I can't get around the city safely.

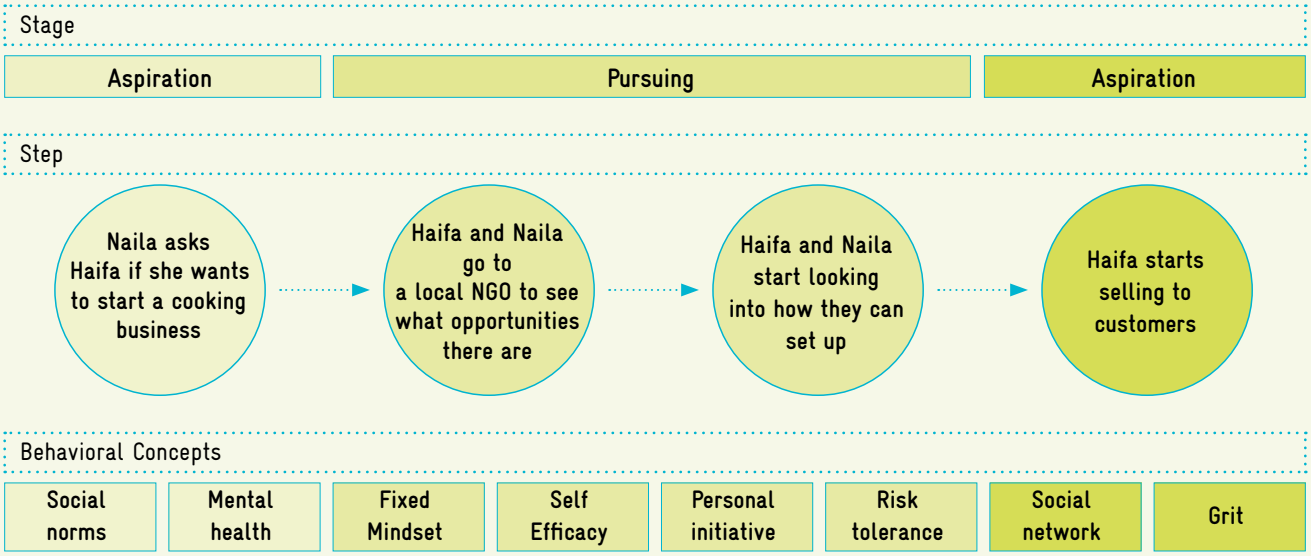
If I'm going to actually do this, I will need proper support from the NGOs

I would need a grant to do this. I've no money and I can't borrow. We're already in debt.

I guess it would be helpful to see how other women have done this in the past

If I'm going to take a training, it should be a proper one that lasts a few weeks and actually teaches me something.

Women Employment Behavioral Experience Map



Without intervention

"Naila has gotten quite liberal. People are starting to comment. She should focus on her her children."	"I am so anxious. The idea of having to start a business just stresses me even more."	"Business is a man's job. It's not for women. They shouldn't even try."	"There are many things I'm good at, but starting a business is just not one of them. I should focus on something else."	"I have no idea where to even begin in setting up this cooking business. I need to reflect on whether this is a good idea."	"We are already so in debt. This could get us in even more trouble. I'm not sure if this is even worth pursuing."	"Our cooking is good but it's impossible to sell it. Nobody has money in our neighborhood."	"The sales started off great, but have really started to slow down. This is getting riskier and riskier. I should just quit."

With intervention

"Naila is so brave. I guess women are starting to have success working. And maybe it's possible to work and raise kids."	"Maybe things would be less stressful if we had money to buy things for the house and kids."	"If we work diligently on this business, then the NGO will help us to develop the skills to succeed."	"If those women down the street were able to get people to buy their cooking, then maybe so can I! It can't be that hard."	"Naila and I need to make a list of all the things we need to do and to set up a plan for getting them done."	"If I'm not careful, I could end up taking risks that I can't manage. We need to make sure we make smart decisions."	"Firas has been so helpful. He brings the foods to our customers on a motor bike.."	"The sales have been weak for a while, but this is natural. We focus on finding new markets."

Source World Bank (2019)

Annex 5: Selected organisations with behavioural science expertise

In addition to academic researchers affiliated with universities, there are multiple research and consulting organisations with behavioural science expertise. For instance:

Based in Germany/Switzerland/Austria

- Deutsches Institut für Entwicklungspolitik (DIE)https://www.die-gdi.de/en/
- BRIQ Institute on Behaviour & Inequality
  https://www.briq-institute.org/
- decision context
  http://www.decision-context.com
- Fehr Advice
  https://fehradvice.com
- BEHAVIA
  https://behavia.de/

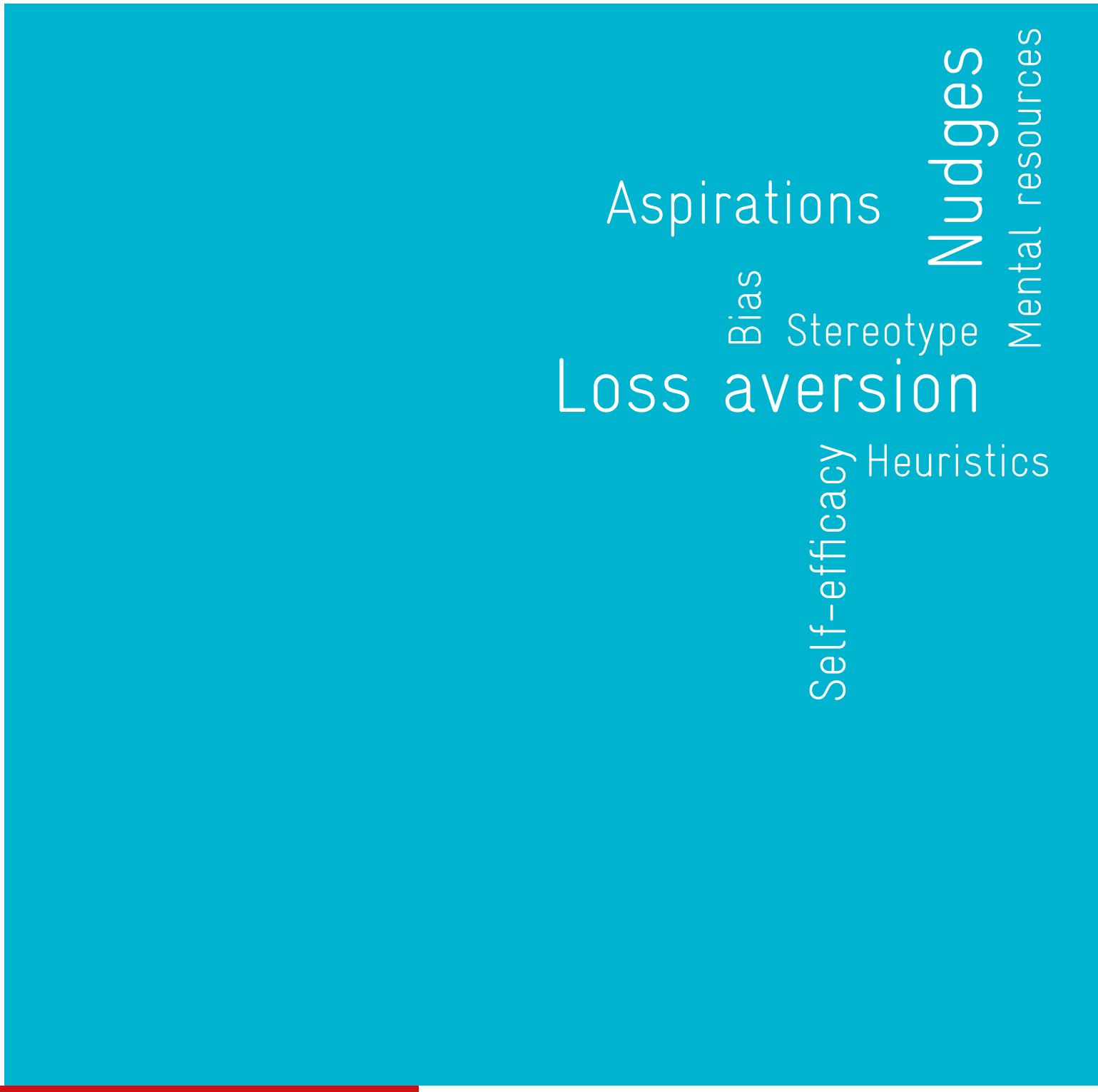
Based in OECD countries
(non-German speaking countries)

- World Bank Mind, Behavior and Development Unit (eMBeD)
  https://www.worldbank.org/en/programs/embed
- ideas42
  https://www.ideas42.org/
- Behavioural Insights Team (BIT)
  https://www.bi.team/
- Innovations for Poverty Action (IPA)
  https://www.poverty-action.org/topics/behavioral-design
- GRID Impact
  https://www.gridimpact.org/
- Impactually
  https://impactually.se/

Based in Low- and Middle-Income Countries

- Busara Center for Behavioral Economics (Kenya)
  https://www.busaracenter.org/
- Research Unit in Behavioural Economics and Neuroeconomics – RUBEN (South Africa)
  http://www.ruben.uct.ac.za/Pages/Welcome
- Nudge Lebanon (Lebanon)
  https://nudgelebanon.org/
- American University of Cairo Behavioral and Economic Decision-Making Lab (Egypt)
  https://business.aucegypt.edu/news/auc-school-business-launches-behavioral-and-economic-decision-making-bedm-lab
- Centre for Social and Behaviour Change (India)
  https://csbc.org.in/
- Heurística (Peru)
  https://www.heuristicalab.com/

A more detailed list of organisations is available on GIZ's Behavioral Insights Exchange.



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