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Behavioral Insights for Vision 2030 and beyond

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Abstract

Over the past decade, Behavioral Insights (BI) have proven to be a powerful tool for enhancing policy effectiveness worldwide. In Saudi Arabia, an active BI community has leveraged these insights across various policy sectors. This paper explores how Vision 2030 – one of the world’s most ambitious behavioral change programs – can further benefit from the systematic use of Behavioral Insights in policy design and evaluation, with a particular focus on education programs and human capability development.

The paper offers a structured approach to test and scale behavioral interventions for policymakers by providing an overview of the most common types of experiments used for evaluating policy interventions and examining their relevance for different policy objectives. By presenting best-practice case studies from the Kingdom and highlighting key developments, such as the establishment of BI units and networks, this paper underscores the significant progress in adopting Behavioral Insights and their impact on public policy in recent years. Looking ahead, the paper discusses seven strategic topics and challenges likely to shape the future of behavioral public policy in Saudi Arabia. As the Kingdom progresses toward Vision 2030 and beyond, Behavioral Insights will remain integral to its national, social, and economic transformation – positioning Saudi Arabia as a leader in evidence-based public policy.

Keywords: Vision 2030, Behavioral Insights, Behavioral Public Policy, Behavioral Interventions, Evidence-based Public Policy, Policy Design, Evaluation, Capability Development.

1- Introduction

This paper explores the evolving role of Behavioral Insights (BI) in shaping public policy in Saudi Arabia within the framework of Vision 2030. Behavioral Insights can be broadly defined as the empirically tested concepts, frameworks, and knowledge that have been inferred from the systematic study of human behavior in a variety of contexts (Ruggeri 2019: 60). These include “decision process[es] and outcomes within and between individuals, groups, and social systems” (OECD 2018). Behavioral Public Policy (BPP) harnesses these insights to better align policies with real-world behaviors and natural tendencies, thereby aiding policymaking and policy effectiveness (Sanchayan and John 2025).

Over the past few years, BI have emerged from a niche approach to public policy in the Kingdom of Saudi Arabia to a widely used tool for improving policy effectiveness across many policy domains. Since the publication of the 2020 white paper on “Behavioral Insights for Saudi Vision 2030” (Behavia 2020), which introduced key BI concepts and their potential applications in the Kingdom, the BI landscape in the Kingdom has transformed significantly. Today, more than 2.7 million people have participated in dozens of policy trials, helping to advance a people-centered view towards policy design and evaluation. The Behavioral Insights scene in the Kingdom has grown to become one of the most vibrant and active communities in the region with more than 100 members, some of whom are currently working on establishing a formal professional association. Several dedicated Behavioral Insights Units (BIU) have been formed that regularly conduct applied research and trials to learn what works best to help address some of the most challenging policy issues.

This paper takes a closer look at these developments. Following a brief overview of the global rise of BI in policymaking, section 2 discusses the critical role of behavioral public policy in achieving Vision 2030 – one of

the most ambitious behavioral change programs in the world. Section 3 focuses on education and training as core sectors of Vision 2030. Section 4 presents a structured approach to test-and-scale behavioral interventions and discusses what experimental approaches have to offer to policymakers. This section concludes with a selection of case studies from the Kingdom. Section 5 introduces selected public BI units, networks and recent community developments in the Kingdom. Looking ahead, section 6 discusses seven topics that are likely to shape the evolution of behavioral public policy in the Kingdom in the next years.

2- Global rise of Behavioral Insights

In the past decade, policymakers around the globe have increasingly drawn on Behavioral Insights as an essential resource (Hallsworth 2023). This term describes the deeper insights into the cognitive, emotional, and social factors driving human behavior that fields like psychology, sociology, and behavioral economics have provided. The application of Behavioral Insights in policymaking, also referred to as Behavioral Public Policy (BPP), has proven crucial for designing more effective policies. At the same time, traditional policy approaches – based on the assumption of perfectly rational citizens and policy-makers - have shown their limitations (Della Vigna 2009; Ruggeri 2019; Ruggeri 2021).⁽¹⁾

For example, the 2008 financial crisis underscored the need for a better understanding of real-world decision-making, fueling the rise of behavioral economics. Concepts such as “nudging”, popularized by figures like Cass Sunstein and Richard Thaler, have shown how minimally invasive interventions can effectively influence public behavior (Thaler and Sunstein 2009). This has led governments worldwide to establish Behavioral Insights Units that leverage these insights across various policy areas, from improving tax compliance (e.g., Antinyan and Asatryan 2024; Kettle et al. 2016; de Neve et al. 2021), sustainable behaviors (e.g., Carlsson et al. 2021; Ölander and Thøgersen 2014), healthier lifestyles (e.g., Werner et al. 2023; WHO 2022; van der Meiden et al. 2019), or labor market activation (e.g., Gee 2018; Abraham et al. 2024) to complex policy issues like AI regulation (European

(1) For instance, as consumers, people often display time-inconsistent preferences, e.g., they postpone unpleasant tasks to the future and overconsume pleasant items now. As decision-makers, people are regularly susceptible to biases in how they perceive and respond to risks, e.g., they underestimate their own health risks but overestimate the chances of winning the lottery. In social contexts, people have typically only limited insight into group dynamics, e.g., they criticize others who value social status but highly value social status themselves, thereby nurturing the importance of social status. Policy approaches that do not account for these and similar tendencies by assuming perfectly rational decisionmakers as policy recipients fall at risk of becoming ineffective and potentially counterproductive.

Commission 2022). Correspondingly, the number of dedicated entities that apply behavioral insights has grown worldwide from about 200 in 2018 to more than 630 in 2024 (Naru 2024).

The rise of behavioral insights as a new tool in the policy-makers toolbox that complements traditional policy levers such as bans or taxes has been supported by the widespread utilization of experimental trials which allowed contrasting the impact of a policy intervention against the status quo situation. Advances in technology, particularly data analytics and AI, have additionally helped to design more targeted interventions, addressing challenges with greater accuracy. As such, as we will see in the next section, Saudi Arabia's Vision 2030 and its associated programs have massive potential to harness and benefit from behavioral insights in achieving and expediting the realization of the Saudi Vision's objectives.

3- Behavioral public policy in Saudi Arabia

Since 2016, Saudi Arabia has witnessed significant advancements in public policy, particularly in the context of its Vision 2030 framework (Kingdom of Saudi Arabia 2024). Vision 2030 is the cornerstone of Saudi Arabia's long-term development strategy. It encompasses a roadmap to realize a range of objectives under the three themes 1) a vibrant society, 2) a thriving economy and 3) an ambitious nation (Kingdom of Saudi Arabia 2016, 2020). The Vision is cascaded into six overarching objectives (Level 1), 27 branch objectives (Level 2) and 96 strategic objectives (Level 3). It is implemented through a dynamic, multi-sectoral, and inter-agency approach that is complemented by dedicated programs overseeing the progress in realizing the Vision's objectives.

- ***Vision 2030: One of the world's largest behavioral change programs***

When reviewing its objectives, it becomes evident that Vision 2030 is likely to be one of the world's largest behavioral change programs. 54%

of its strategic objectives (52 out of 96) have high behavioral relevance, meaning that the realization of these objectives largely depends on stimulating desired behaviors among selected target groups (see table 1). As such, it is of fundamental importance for the success of Vision 2030 that policymakers apply a behavioral approach towards the design, implementation, and evaluation of programs and regulations under Vision 2030. To support these efforts, several dedicated Behavioral Insights Units (BIU) have been established over the past five years. Located at different government entities, these units regularly conduct experiments to learn what works best in addressing behavioral challenges in their respective domains (e.g., Alhajji et al. 2023, Turk et al. 2022). Together, the Saudi BIUs conducted dozens of experiments, involving more than 2.7 million people in the Kingdom.

TABLE 1. Behavioral Change Objectives in Vision 2030.

Vision 2030 theme	Level 1 objective	Level 2 objective	Level 3 objective	Behavioral relevance
A Vibrant Society	Strengthen Islamic values & national identity	1.1 Foster Islamic values	1.1.1 Foster values of moderation & tolerance	High
			1.1.2 Foster values of excellence & discipline	High
			1.1.3 Foster values of equity & transparency	High
			1.1.4 Foster values of determination & perseverance	High
	1	1.2 Serve more Umrah visitors better	1.2.1 Facilitate hosting more Umrah visitors and provide an easier access to the holy mosques	Low
			1.2.2 Improve quality of services provided to Hajj & Umrah visitors	Low
			1.2.3 Enrich the spiritual and cultural experience of Hajj & Umrah visitors	High
			1.3.1 Instill national values and strengthen the sense of national belonging	High
			1.3.2 Conserve & promote Islamic, Arab & National heritage of the Kingdom	High
	2	2.1 Improve healthcare service	1.3.3 Uphold the Arabic language	High
			2.1.1 Ease the access to healthcare services	Low
			2.1.2 Improve value of healthcare services	Low
			2.1.3 Strengthen prevention against health threats	High
2	2.2 Offer a fulfilling & healthy life	2.2.1 Increase public participation in sports and athletic activities	High	
		2.2.2 Reach regional & global excellence in selected professional sports	High	
		2.3.1 Improve quality of services provided in Saudi cities	Low	
		2.3.2 Improve the urban landscape in Saudi cities	High	
		2.3.3 Enhance the nation's immunity towards drug abuse	High	
		2.3.4 Enhance traffic safety	High	

Vision 2030 theme	Level 1 objective	Level 2 objective	Level 3 objective	Behavioral relevance	
A Vibrant Society		2.4 Ensure environmental sustainability	2.4.1	Reduce all types of pollution (e.g. air, sound, water, soil)	High
			2.4.2	Safeguard the environment from natural threats	High
			2.4.3	Protect & rehabilitate natural landscapes	High
	Offer a fulfilling & healthy life	2.5 Promote Culture and Entertainment	2.5.1	Develop & diversify entertainment opportunities to meet population's needs	High
			2.5.2	Grow Saudi contribution to arts & culture	High
	2.6 Create an empowering environment for Saudis		2.6.1	Enhance family involvement in preparing for their children's future	High
			2.6.2	Enable suitable home ownership among Saudi families	High
			2.6.3	Develop positive attitude, resilience and hard-work culture among our children	High
			2.6.4	Empower citizens through the welfare system	High
			2.6.5	Improve effectiveness and efficiency of welfare system	Low
A Thriving Economy	Grow & diversify the Economy	3.1 Grow contribution of the Private Sector to the economy	3.1.1	Enhance ease of doing business	Low
			3.1.2	Unlock state-owned assets for the Private Sector	Low
			3.1.3	Privatize selected government services	Low
			3.1.4	Ensure the formation of an advanced capital market	Low
			3.1.5	Enable financial institutions to support private sector growth	Low
			3.1.6	Attract foreign direct investment	Low
			3.1.7	Create special zones & rehabilitate economic cities	Low
	3.2 Maximize value captured from the energy sector		3.2.1	Increase localization of Oil & Gas sector	Low
			3.2.2	Increase gas production & distribution capacity	Low
			3.2.3	Develop Oil & Gas-adjacent industries	Low
		3.2.4	Grow contribution of renewables to national energy mix	Low	
		3.2.5	Enhance competitiveness of the energy market	Low	

Vision 2030 theme	Level 1 objective	Level 2 objective	Level 3 objective	Behavioral relevance	
A Thriving Economy	Grow & diversify the Economy	3.3 Unlock potential of non-oil sectors	3.3.1	Grow and capture maximum value from the mining sector	Low
			3.3.2	Develop the digital economy	High
			3.3.3	Localize promising manufacturing industries	Low
			3.3.4	Localize military industry	Low
			3.3.5	Enable the development of the retail sector	Low
			3.3.6	Enable the development of the tourism sector	High
			3.3.7	Increase localization of non-oil sectors	Low
	3.4 Grow the Public Investment Fund's assets and role as a growth engine	3.4.1	Grow assets of the Public Investment Fund	Low	
		3.4.2	Unlock new sectors through the Public Investment Fund	Low	
		3.4.3	Localize edge technology & knowledge through the Public Investment Fund	Low	
	3.5 Position KSA as a global logistic hub	3.4.4	Build strategic economic partnerships through the Public Investment Fund	Low	
		3.5.1	Create and improve performance of logistic hubs	Low	
		3.5.2	Improve local, regional and int'l connectivity of trade & transport networks	Low	
		3.6.1	Push forward the GCC integration agenda	Low	
3.6 Further integrate Saudi Economy regionally & globally	3.6.2	Develop economic ties with the region beyond GCC	Low		
	3.6.3	Develop economic ties with global partners	Low		
3.7 Grow non-oil exports	3.7.1	Support national champions consolidate their leadership globally	Low		
	3.7.2	Develop promising local companies into regional and global leaders	Low		

Vision 2030 theme	Level 1 objective	Level 2 objective	Level 3 objective	Behavioral relevance
A Thriving Economy		4.1 Develop Human Capital in line with labor market needs	4.1.1 Build a life-long learning journey	High
			4.1.2 Improve equity of access to education (esp. in rural areas)	High
			4.1.3 Improve fundamental learning outcomes	High
			4.1.4 Improve ranking of educational institutions (e.g. Universities)	High
			4.1.5 Develop our brightest minds in priority fields	High
			4.1.6 Ensure alignment of educational outputs with labor market needs	High
			4.1.7 Expand vocational training to provide for labor market needs	High
	Increase employment	4.2 Ensuring equal access to job opportunities	4.2.1 Improve readiness of youth to enter the labor market	High
			4.2.2 Increase women participation in the labor market	High
			4.2.3 Enable integration of people with disabilities in the labor market	High
		4.3 Enable job creation through SMEs and Micro-enterprises	4.3.1 Nurture and support the innovation & entrepreneurship culture	High
			4.3.2 Grow SME contribution to the economy	Low
			4.3.3 Grow productive families' contribution to the economy	High
			4.4 Attract relevant foreign talents for the economy	4.4.1 Improve living conditions for expats
	4.4.2 Improve working conditions for expats	High		
	4.4.3 Source relevant foreign talent effectively	High		

Vision 2030 theme	Level 1 objective	Level 2 objective	Level 3 objective	Behavioral relevance	
An Ambitious Nation	5	Enhance government effectiveness	5.1 Balance public budget	5.1.1 Enhance effectiveness of financial planning & efficiency of government spending	Low
				5.1.2 Maximize revenues from Gov. state-owned assets	Low
				5.1.3 Maximize revenues collected from service fees	Low
				5.1.4 Increase revenues from fees without introducing taxes on income or wealth on citizens	Low
				5.1.5 Maximize revenues generated from oil production	Low
	5	Enhance government effectiveness	5.2 Improve performance of government apparatus	5.2.1 Design a leaner and more effective government structure	Low
				5.2.2 Enhance performance of government entities	Low
				5.2.3 Improve productivity of government employees	High
				5.2.4 Develop the e-Government	High
				5.2.5 Improve quality of services provided to citizens	High
	5	Enhance government effectiveness	5.3 Engage effectively with citizens	5.3.1 Enhance transparency across government roles	High
				5.3.2 Strengthen communication channels with citizens & business community	High
				5.3.3 Ensure responsiveness of government entities to stakeholders' feedback	High
				5.4 Protect vital resources of the nation	High
				5.4.1 Ensure development & food security	High
6	Enable social responsibility	6.1 Enable citizen responsibility	5.4.2 Ensure sustainable use of water resources	High	
			6.1.1 Promote & enable financial planning	High	
			6.1.2 Encourage volunteering	High	
			6.2 Enable social contribution of businesses	Low	
			6.2.1 Enhance businesses' focus on their social responsibilities	Low	
6	Enable social responsibility	6.2 Enable social contribution of businesses	6.2.2 Enhance businesses' focus on the sustainability of the economy	Low	
			6.3 Enable larger impact of non-profit sector	High	
			6.3.1 Support growth of non-profit sector	High	
6	Enable social responsibility	6.3 Enable larger impact of non-profit sector	6.3.2 Empower non-profit organization to create a deeper impact	High	
			6.3.2 Empower non-profit organization to create a deeper impact	High	

- ***Deep dive: Education and lifelong learning under Vision 2030***

Vision 2030 emphasizes the importance of education and skill development across various levels, including K-12 education, tertiary education, and technical and vocational training. This involves significant investment in educational programs necessitating efficient program design, implementation, and robust evaluation systems focused on learning outcomes. Aligned with Vision 2030, the Human Capability Development Program (HCDP) is dedicated to enhancing the skills of Saudi citizens through continuous lifelong learning with a focus on matching educational outcomes to the needs of the labor market (HCDP 2023).

In its latest report, HCDP identified a set of strategic challenges and imperatives for the whole education and training sector (HCDP 2024). 67% of HCDP's strategic imperatives (16 out of 24) have high behavioral relevance, meaning that the realization of these goals largely depends on people's awareness, support, and/or behaviors (see table 2).

TABLE 2. HCDP Strategic imperatives adopted from HCDP (2024, Figure 11-13, pp. 35, 39, 41)

Area of challenges	HCDP strategic imperative	Behavioral relevance
K-12 Education	Increase pre-primary early enrollment	High
	Restructure the K-12 pathways to provide more options and flexibility	Low
	Push for a balance in the curriculum towards more STEM and introduce innovative and practical learning methods to further strengthen values and the sense of national belonging among students and provide them with language enrichment	High
	Adopt an inclusive approach to serve all gifted students and students with disabilities	High
	Increase the quality and accountability of teachers and school leaders	High
	Increase quality and accountability of the system	Low
	Involve parents in student learning to contribute to improve outcomes	High
	Provide guidance to students to improve career decision-making	High
	Apply codes of conduct to reduce school tardiness and absenteeism	High
	Decrease bullying rate among students	High
Higher education and TVTC	Make tertiary education offerings better aligned to the labor market	Low
	Increase enrollment in vocational education	High
	Increase focus on practical experience in higher education	Low
	Increase focus on entrepreneurship and employability skills	Low
	Leverage working professionals to bring relevant work experience into the classroom	Low
	Elevate focus on quality control and accountability of leaders of universities and vocational institutes	High
	Increase the involvement of the private sector to make education and R&D more relevant	Low
	Provide guidance and incentives to students to improve career decision-making	High
	Encourage students through guidance to invest their free time and provide appropriate activities	High
	Ensure availability of a wide range of upskilling/reskilling programs	Low
Lifelong learning	Move towards recognition for skills, independent of the learning source	High
	Promote involvement in entrepreneurial and lifelong learning activities	High
	Engage employers and communities to support capability development	High
	Provide guidance to professionals and non-active population to improve career decision-making	High

Considering these imperatives, human capability development in Saudi Arabia belongs to the policy areas of Vision 2030 that have the largest need, but, at the same time, also largest potential for behavioral policy interventions. For instance, programs in the US have successfully used BI to motivate secondary school students to take advanced courses and stimulate uptake of public sector jobs (Sparks 2017; Coffman et al. 2017). In Finland, a behavioral intervention helped to update wrong beliefs of high school students about low-return degrees (Kerr et al. 2020). In the UK, behavioral insights were successfully utilized to stimulate university applications and reduce dropouts (Sanders et al. 2017; OECD 2017). In Denmark, to name another example, a behavioral intervention encouraging a growth mindset among parents improved children's skills and exam scores (Anderson & Nielson 2016). Over the last years, BI have been developed, used, and adopted in multiple contexts and countries to help improve education outcomes including early childhood education. These successful examples provided the empirical evidence needed for the adoption of Behavioral Insights for education policies in the Kingdom (Field 2009; Hill et al. 2010; Jukes et al. 2014; Hastings et al. 2015; OECD 2017; List et al., 2018; O'Reilly et al. 2017; Damgaard & Nielson 2018).

Saudi Arabia's revamp of the education system can profit immensely from harnessing a people-centered, evidence-based approach towards program design, implementation, and evaluation. BI can guide the way towards such approach, equipping the respective entities with the means to base their programs and policies on solid evidence. On this subject, Damian Green MP, First Secretary of State and Minister for the Cabinet Office, UK, said in 2017 that, "[r]egulators and governments need to understand how [their target groups] behave if they are to deliver effective interventions. [...] It's hard to pass a law to make a disillusioned young person pay attention in class." (BIT 2017).

4- BI for better policymaking

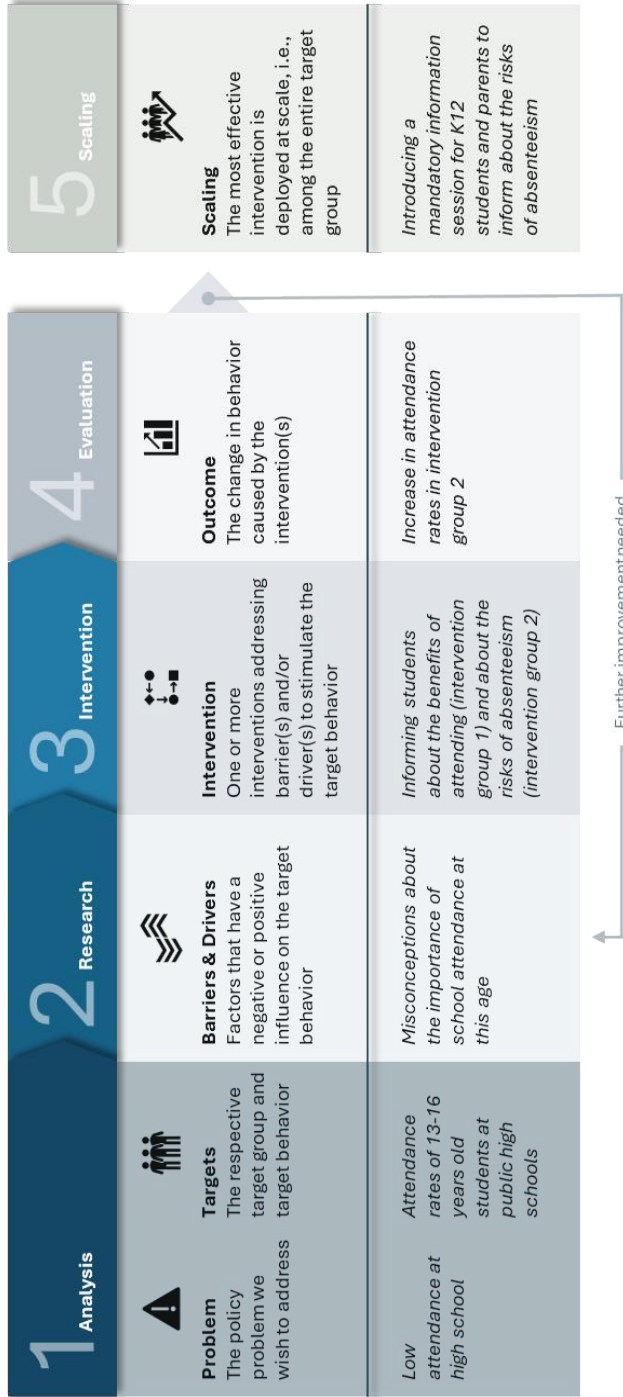
- *A structured approach to behavioral policy interventions*

Behavioral policy interventions can be designed and implemented through different processes (e.g., OECD 2019; Behaviour Works 2021; MoH 2022).⁽²⁾ While there is no right or wrong and the key components are consistent in all structured approaches, we illustrate the basic idea using the recently published WHO Toolkit (WHO, 2024).

The general WHO approach organizes the process in four phases (see figure 1 below): Analysis, Research, Intervention, and Evaluation. In the first phase, the policy context is examined and the specific policy problem as well as the target group and its desired behavior are determined. In the second phase, existing insights and evidence are reviewed to identify barriers and drivers that influence the target behavior. At this stage, desk reviews, surveys, interviews, focus groups, or analyses of naturally occurring data can be conducted to gain a deeper understanding of the underlying behavioral factors that are at play. During the intervention phase, corresponding strategies are developed to tackle the identified barriers and leverage drivers. This phase also involves setting clear process targets, such as how many people will be reached by the trial and whether multiple interventions should be tested to determine which one maximizes the impact. In the fourth phase, the impact of the policy intervention is determined. In case multiple interventions competed against each other, the best performing intervention is identified. Policymakers can then decide based on solid evidence gathered within the specific context whether the intervention should be scaled up or whether it needs further improvement to reach the targets.

(2) In this paper, we refer to behavioral interventions, trials, pre-tests and experiments interchangeably. As operational definition, we refer to an intervention as a deliberate act of a (semi-)governmental entity that seeks to influence a target group's attitude, knowledge, skills, intentions, or behaviors in comparison to a baseline situation.

FIGURE 1. Structured approach for developing, testing, and scaling behavioral policy interventions (adapted from WHO 2024: 18)



- ***Experimentation in policy evaluation***

The use of experimentation to evaluate policymaking is a powerful tool that allows policymakers to base their decisions on robust and reliable evidence rather than assumptions. Whether the focus is on improving public health, educational outcomes, labor market behaviors, or cultural participation, experiments put newly designed policies to stress tests, revealing what works and why. Policy experiments are conducted *ex ante*, i.e., before a specific policy or program is implemented at scale (Gravert 2024). Experiments provide empirical testbeds that allow investigating the expected impact, costs, and potentially also the spillovers of policies or programs under controlled and in relatively safe conditions. According to the WHO, experimental methods in policy evaluation offer five distinct advantages for policymakers (WHO 2024: 3-5):

1. **Detecting (ineffective) policy interventions:** The main purpose of experimental policy evaluations is to determine the effectiveness of a new policy. Even if governments allocate a considerable amount of money to well-intentioned programs, policy interventions can still be completely ineffective. For example, UK governments released 14 different obesity strategies between 1992 and 2020 without being able to reduce the obesity prevalence by a single percentage point (van Tulleken and White 2021). In addition, experimental methods allow policymakers to let different policies compete in trials. This way, policymakers can identify the most effective policy under several promising policy innovations.
2. **Saving money:** In order to save public budgets, policymakers should avoid scaling ineffective policies. At the same time, evidence in favor of interventions helps to create business cases for more investment, especially for highly effective approaches that are relatively expensive

or time-consuming. Some types of experiments even allow calculating Social>Returns-on-Investment (S-RoI), linking impact and costs for each of the tested interventions.

3. **Avoiding potential harm:** Policy interventions are usually designed to increase the well-being of citizens. Nonetheless, policies can also backfire and create more harm than good or have unintended side-effects (WHO 2024). Pre-testing interventions under the controlled conditions of an experiment helps contain potential harm and prevents contamination of other parts of the target group.
4. **Adapting to the cultural context:** Not every intervention that worked elsewhere, is automatically a good fit for the Saudi context. Policy experiments can stress-test the effectiveness of international best practice and provide domestic evidence on what works and what does not.
5. **Instilling an evidence-based culture:** Beyond these direct advantages, experiments often provide deep insights into people's behaviors and reasoning including surprising Aha-moments for the respective teams and policymakers. In this regard, experimentation fosters a people-centered and strictly evidence-oriented evaluation of policies within organizations.

- *Overview of common types of experiments*

To harness the benefits of policy experiments, it is necessary to select the best suited experiment for the respective policy area and objectives. This section explains which criteria should be considered when choosing an experiment, offering a roadmap for evidence-based policy development.

In general, the choice of an experiment should be driven by the specific goals and the context in which they are implemented. Field experiments, as

the first type of experiment under consideration, are particularly relevant when policymakers need to test interventions in real-world environments. They are suited for addressing tangible, localized challenges. By observing behaviors in natural settings, field experiments offer insights that can be directly translated into practical interventions (John 2017).

Online experiments, the second type of experiments, are useful when the policy intervention focuses on digital behavior, communication strategies, or public engagement through online platforms. They usually have wider reach and lower implementation costs than field experiments.

Survey experiments, the third type under consideration, are well-suited to examine perceptions, attitudes, or intended behaviors. They are often employed in the early stages of the policymaking process to assess public opinion, test different policy parameters, or predict how various segments of the population would react to newly developed interventions (Martini & Olmastroni 2021). Decisions in these experiments are hypothetical, meaning that there are no real consequences. At the same time, these experiments bear zero risk for negative spillovers or backlashes in case a policy is ill-designed.⁽³⁾

(3) Recent research shows that policymakers tend to overestimate the lack of public appreciation for policy experiments among citizens (Dur et al. 2024). To the contrary, the authors show that citizens have a genuine preference for experimentation versus immediate implementation and no implementation at all.

TABLE 3. Overview of common types of experiments in policy evaluation

	Field Experiment	Online Experiment	Survey Experiment
Approach	<ul style="list-style-type: none"> > People decide and act in their natural real-world environments and are unaware of their participation in an experiment 	<ul style="list-style-type: none"> > People decide and act in their natural online environments and are unaware of their participation in an experiment 	<ul style="list-style-type: none"> > People respond to questions in a survey or perform small tasks and are aware of their participation in an experiment
Objectives	<ul style="list-style-type: none"> > Aim at testing interventions in a specific real-world setting such as sending SMS reminders to increase attendance rates or disseminating different information packages to parents to encourage a growth mindset 	<ul style="list-style-type: none"> > Aim at testing interventions in specific online contexts such as different communication approaches in social media or different webpage or app information to increase disease awareness 	<ul style="list-style-type: none"> > Aim at pre-testing policies in a safe and controlled environment such as different arguments to increase support for environmental protection or different pricing mechanisms for government services
Experimental design	<ul style="list-style-type: none"> > Treatments are deployed on a subsample of the target population in a Randomized Control Trial (RCT) 	<ul style="list-style-type: none"> > Treatments are basically different online contents (e.g., posts, webpages, app screens) that are deployed randomly 	<ul style="list-style-type: none"> > Treatments are integrated in selected question items or scenario descriptions that are randomized across groups

	Field Experiment	Online Experiment	Survey Experiment	
Suitability criteria	1. Validity	<ul style="list-style-type: none"> > High levels of external validity > Low levels of experimental control 	<ul style="list-style-type: none"> > High levels of external validity > Low-moderate levels of experimental control 	<ul style="list-style-type: none"> > Low levels of external validity > High levels of experimental control
	2. Sample	<ul style="list-style-type: none"> > Requires large samples to measure effects 	<ul style="list-style-type: none"> > Requires large samples to measure effects 	<ul style="list-style-type: none"> > Requires moderate samples to measure effects
	3. Coverage	<ul style="list-style-type: none"> > Usually only conducted at selected sites as one-shot proof-of-concept 	<ul style="list-style-type: none"> > Usually conducted with the entire sample available, i.e., country-wide 	<ul style="list-style-type: none"> > Usually conducted country-wide
	4. Ethics	<ul style="list-style-type: none"> > Debriefing of subjects is not possible > Not suitable for sensitive or high-risk topics 	<ul style="list-style-type: none"> > Debriefing of subjects is not possible > Not suitable for sensitive or high-risk topics 	<ul style="list-style-type: none"> > Debriefing of subjects is possible > Suitable for sensitive or high-risk topics
	5. Resources	<ul style="list-style-type: none"> > Requires significant preparation time > High expenditures for logistics, materials, and data collection 	<ul style="list-style-type: none"> > Requires moderate preparation time > Low expenditures once software functionalities are available > High dependence on IT/account owner 	<ul style="list-style-type: none"> > Requires moderate preparation time > Low expenditures if participants can be recruited through own pools
Relevance	<ul style="list-style-type: none"> > High showcase potential if the intervention works effectively 	<ul style="list-style-type: none"> > Often used repeatedly to incrementally improve online content 	<ul style="list-style-type: none"> > Standard in many government entities to pre-test new policies and regulation 	

Each of these methods has its own strengths and weaknesses and several factors need to be weighed off when choosing one of them. In what follows, we will briefly explain the five suitability criteria outlined in the table above.

- 1. Validity:** The validity of an experiment is composed of two factors: external validity and experimental control, i.e., the degree of internal validity. Experimental control is high if we can be sure that the intervention is directly responsible, i.e., causing the change in the target behavior measured (Williams 2020). For instance, if an experiment aims to test the effectiveness of a new education method but only measures students' satisfaction, the validity of the experiment with respect to learning outcomes would be low. External validity, on the other hand, is high if the effects can be expected to occur in similar situations. Unfortunately, it is very complicated to maximize both factors. In field and online experiments, findings are considered transferable to other real-world settings. On the other hand, other factors, such as the high responsiveness of one segment of the target population, could drive the findings in field experiments and thereby lowering experimental control. For survey experiments, this is reversed. The research team can control the materials to which participants are exposed – but in a real-world situation, individuals might show an entirely different behavior.
- 2. Sample size:** The sample size, i.e., the number of participants in an experiment, is another important factor and directly linked to validity. The larger the sample size, the more likely one is to detect smaller effects caused by an intervention. This is particularly important when considering modestly invasive interventions like nudges which are usually only deployed once. Field experiments typically demand larger samples to detect meaningful changes because real-world settings are

subject to noise and harder to control. Online and survey experiments, on the other hand, may be able to function effectively with smaller or more moderate sample sizes, but they also benefit from larger pools of participants whenever available.

3. **Coverage:** Coverage refers to how limited the intervention is with respect to its reach. Field experiments are typically limited to a single interaction with the target audience in a specific geographic location or occasion. Online or survey experiments, however, could be rolled out at a national level due to their lower logistical constraints. Online experiments that target registered website or app users can further be administered repeatedly, meaning successively over a period of time.
4. **Ethics:** Ethical considerations also play a pivotal role in designing policy experiments. In field and online experiments participants are, by default, unaware that they are part of an experiment. In cases where sensitive topics are involved, such as public health or social welfare, the lack of consent or debriefing can raise ethical concerns. For example, applying medical or financial interventions only to parts of the target group is usually considered unethical, as the intervention is aimed to affect their well-being. In such cases, alternative methods can be employed to treat the entire target group sequentially in clusters. Ethics checks form part of Institutional Review Board (IRB) approvals which researchers affiliated with academic institutions need to acquire before being admitted to publish experimental data. A simple online review process is provided by the German Association for Experimental Economic Research under <https://gfew.de/en-ethik>. But the Decision Support Center (DSC) as well as other Behavioral Insights Units in the Kingdom have already compiled their own and oftentimes stricter ethics checklists.

5. Resources: The duration, scale, and complexity of an experiment determine the resources required. Field experiments often require substantial financial and human resources for preparation, execution and monitoring. Online experiments and survey experiments tend to be more resource-efficient once the infrastructure is in place and provided that the data collection complies with data privacy and data governance regulation. A/B testing and survey experiments can usually be automated and scaled quickly at a relatively low cost.

In what follows, we present a selection of case studies on how Behavioral Insights and experimentation helped decision-makers in the Kingdom to increase the effectiveness of their interventions.

- ***Case Study 1 – Increasing attendance at well-baby screenings***

- 1. Objective**

Evaluate the effectiveness of opt-out scheduling in boosting attendance at well-baby screenings.

- 2. Implementing entity**

Health Nudge Unit at the Ministry of Health

- 3. Experiment type**

Field experiment

- 4. Experimental conditions**

250 parents were randomly assigned to two groups:

- 1. Control:** Parents in the control group did not receive auto-scheduled appointments.

- 2. Intervention:** Parents in the intervention group received auto-scheduled appointments based on their baby's birthdate.

- 5. Target behavior**

Attended rates at well-baby screenings.

- 6. Results**

The intervention group had 20% attended well-baby screenings versus 2.4% in the control group. The result of the Fisher's Exact test indicates that this increase of 733.3% in the well-baby clinic attendance leads to a significant difference between the two groups ($p < 0.001$; see figure 2).

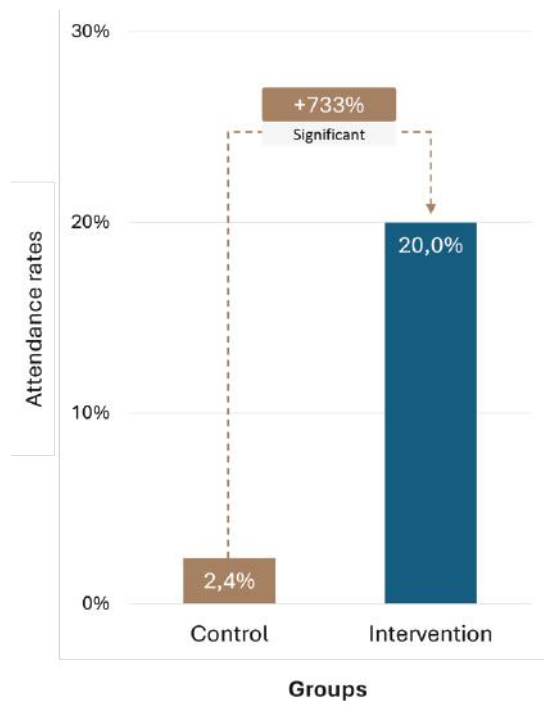


FIGURE 2. Attendance rates for well-baby screening by condition.

- *Case Study 2 – Increasing bookings for well-baby screenings*

1. **Objective**

Determine the effectiveness of framed text messages in increasing bookings for well-baby screenings.

2. **Implementing entity**

Health Nudge Unit at the Ministry of Health

3. **Experiment type**

Field experiment

4. **Experimental conditions**

378 parents were randomly assigned to four groups:

1. **Control:** Parents in the control group did not receive any text message.

2. **Loss aversion message:** Parents in this group received the following text message: “Your child has completed his third year, and due to the importance of discovering diseases and disabilities at this age through the 3-year screening, book an appointment now at the well-baby clinic through the Mawid app: [link]”

3. **Social norms message:** Parents in this group received the following text message: “Many children have benefited from the availability of the 3-year screening in healthcare centers. Your child can also benefit from this screening. Book an appointment now at the well-baby clinic through Mawid app: [link]”

4. **Authority message:** Parents in this group received the following text message: “According to the instructions of the Ministry of Health, It’s time for your 3-year-old screening. Book an appointment now at the well-baby clinic through Mawid app: [link]”

5. Target behavior

Booked well-baby screenings.

6. Results

2.0% of the control group booked well-baby screenings versus 5.0% in the loss aversion and the social norms condition. The largest increase was caused by the authority message: Parents who received the authority message booked significantly more appointments in comparison to the control group ($p = 0.017$; see figure 3).

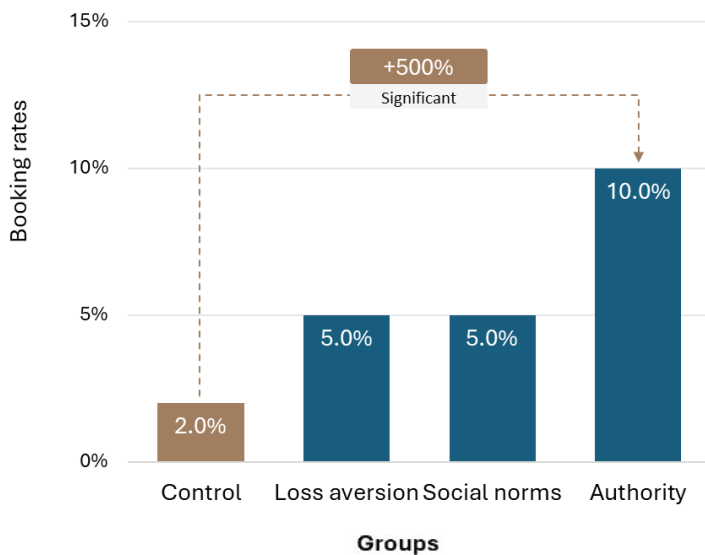


FIGURE 3. Booking rates for well-baby screenings by condition.

- *Case Study 3 – Increasing compliance with municipal regulations*

1. **Objective**

Encourage store owners to change store signages in compliance with municipal regulations.

2. **Implementing entity**

Behavioral Intervention Unit at the Ministry of Municipalities and Housing

3. **Experiment type**

Field experiment

4. **Experimental conditions**

Sixty-six violating stores received hand-delivered letters and were given 30 days to change their signages. The letters applied the following behavioral concepts:

1. **Social Norms:** Highlighting that most stores in the area complied with signage regulations.

2. **Public recognition:** Mentioning that store owners that comply will be invited to an honoring ceremony.

3. **Hassle reduction:** Providing the regulations document and a list of contractors, along with a discount and easy payment plan.

4. **Loss aversion:** Comparing the higher cost of receiving fines with the cost of changing the signage.

5. **Personalization:** Addressing directly to the store owner.

6. **Messenger effect:** Signed by the mayor.

5. Target behavior

Changed store signages.

6. Results

Within one month, 97% of the sample changed their store signages (64 out of 66) in compliance with municipal regulations (see figure 4).

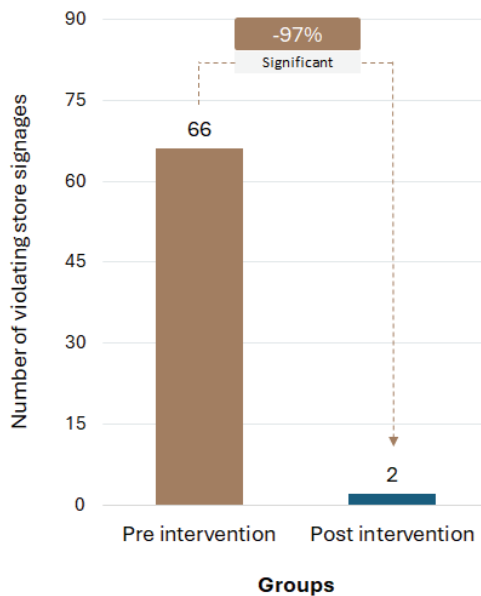


FIGURE 4. *Change of store signage compliance from pre to post intervention assessment.*

- **Case Study 4 – Increasing the willingness to apply for standard jobs**

- 1. Objective**

Determine if minimally invasive nudge tactics can be utilized to increase the willingness to apply for a typical job posted among different segments of job seekers.

- 2. Implementing entity**

Behavioral Science Department at the Human Resources Development Fund (HRDF)

- 3. Experiment type**

Survey experiment

- 4. Experimental conditions**

31,530 job seekers participated in an HRDF survey and were randomly assigned to six groups. Each group was shown a realistic yet hypothetical announcement for a standard job on HRDF's job matching platform Jadarat. Afterwards, all participants were asked to indicate their willingness to apply for the job.

- 1. Control:** Job seekers in this group were shown the standard job post without any additional nudge tactic.

- 2. Social Proof:** Job seekers in this group were shown the standard job post that was enriched by a note stating: "34 people applied for this job".

- 3. Match alert:** Job seekers in this group were shown the standard job post that was enriched by a note stating: "Match Alert: people who have similar qualification as yours apply for this job".

- 4. HR tip:** Job seekers in this group were shown the standard job post that was enriched by a note stating: "HR tip: Apply even if you are not meeting all qualifications".

5. Countdown: Job seekers in this group were shown the standard job post that was enriched by a countdown stating: “Less than seven days left are for this job announcement”.

6. Soft Skills: Job seekers in this group were shown the standard job post that contained more details on the required soft skills such as presentations skills, teamwork, and leadership.

5. Target behavior

Increase job seekers’ willingness to apply for jobs.

6. Results

In the following we report statistically significant differences only: The HR Tip increased the willingness to apply of all job seekers by 1.66% compared to the control condition ($p < 0.05$). With respect to different segments, the social proof increased the willingness to apply for the job by 2.14% among job seekers with previous work experience ($p < 0.05$). The match alert increased the willingness to apply among male job seekers and younger job seekers by 2.02% and 1.56%, respectively ($p < 0.05$ for each comparison). The soft skills, however, lowered the willingness to apply among females by 1.15% ($p < 0.05$). Please refer to figure 5 for a detailed overview.






	All	Male only	Female only	No experience	With experience	25 years or below	Above 25 years
 Social proof	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> +2.14%	<input type="radio"/>	<input type="radio"/>
 Match alert	<input type="radio"/>	<input checked="" type="radio"/> +2.02%	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> +1.56%	<input type="radio"/>
 HR tip	<input checked="" type="radio"/> +1.66%	<input checked="" type="radio"/> +2.93%	<input checked="" type="radio"/> +1.35%	<input checked="" type="radio"/> +1.51%	<input checked="" type="radio"/> +1.68%	<input checked="" type="radio"/> +2.05%	<input checked="" type="radio"/> +1.66%
 Countdown	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
 Soft skills	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> -1.15%	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

FIGURE 5. *Changes in the willingness to apply of different segments of HRDF job seekers relative to the control condition.*

5- Overview of Behavioral Insights Units and networks in the Kingdom

Saudi Arabia has institutionalized Behavioral Insights across multiple sectors, establishing dedicated units to leverage evidence-based approaches for improving public policy and program delivery. These units are integral to achieving Vision 2030, using behavioral science and experimental methods to optimize the design and delivery of policy and programs in variety of sectors.

- ***Health Nudge Unit at the Ministry of Health (MoH)***

Established in 2018 within the Ministry of Health, the Health Nudge applies behavioral insights to encourage people to make healthier choices and to improve the effectiveness of public health programs.

With the growing prevalence of non-communicable diseases (NCDs), such as diabetes, cardiovascular diseases, and obesity, the unit focuses on interventions that encourage early screenings and preventive health behaviors. By employing strategies like default options, social norms, visual cues, and gamification, the Unit promotes adherence to health guidelines. For example, automatic scheduling for well-baby clinic appointments and public health campaigns emphasizing community vaccination rates are designed to simplify decision-making and increase compliance.

During the COVID-19 pandemic, the unit worked closely with various governmental bodies to promote preventive behaviors as vaccination through public messaging and strategically placed reminders, contributing to the success of Saudi Arabia's public health strategy.

- ***Behavioral Science Department at the Human Resources Development Fund (HRDF)***

The HRDF Behavioral Science Department was established in 2022 with a strategic goal of proactively providing solutions to challenges in the Saudi

Labor Market. The department's objective is to prompt the Saudi workforce in the private sector by leveraging Behavioral Insights to improve the decision-making and behaviors of Saudi jobseekers and employers through positive reinforcement and indirect suggestions to foster skill development and reduce unemployment. Through trial interventions under controlled conditions, these solutions generate evidence-based insights and recommendations that assist in driving sustainable progress in the Saudi labor market.

- ***Behavioral Insights Unit at the Ministry of Culture (MoC)***

The Behavioral Insights Unit (BIU) at the Ministry of Culture was formally established in 2023. It seeks to stimulate cultural demand and supply across Saudi Arabia. Based on findings from nationwide surveys measuring cultural engagement, the unit conducts behavioral experiments on various channels like social media, emails, or fieldwork to determine the most effective methods for stimulating cultural demand and supply. Its strategic objectives include generating policy recommendations, building partnerships with national and international organizations, and promoting the dissemination of cultural behavioral insights that can drive large-scale cultural change. The unit is also focused on developing the team's capabilities through specialized training to empower it to lead the implementation of behavioral insights in the cultural sector.

- ***The Behavioral Intervention Unit at the Ministry of Municipalities and Housing (MoMaH)***

The Behavioral Intervention Unit at the Ministry of Municipalities and Housing (MoMaH) was created to tackle behavioral challenges in urban and rural living standards. Following the 2021 merger of the Ministry of Housing with the Ministry of Municipal and Rural Affairs, this unit emerged to address issues like visual pollution, waste management, recycling, and public engagement with digital platforms. Additionally, it focuses on promoting

business compliance, sustainability issues, and enhancing public perception of the Ministry's initiatives.

The unit acts as a hub for coordinating behavioral projects across the Kingdom's 17 municipalities. This decentralized approach not only fosters local trust but also underscores the value of behavioral science as a practical tool in achieving the Ministry's goals. Through incremental changes, the unit seeks to build rapport with local municipalities, demonstrate the benefits of its work, and embed behavioral insights into the Ministry's practices. By shaping policies that are responsive to human behavior, MoMaH's Behavioral Intervention Unit is set to play a critical role in achieving Vision 2030's goals of building sustainable, high-quality living environments for citizens and residents alike.

- ***Riyadh Behavioral Insights Center at the Ministry of Human Resources and Social Development (MHRSD)***

The Riyadh Behavioral Insights Center (RBIC), established under the Ministry of Human Resources and Social Development, is the first of its kind globally dedicated to addressing labor market challenges through the application of behavioral insights. The center's primary mission is to enhance policy outcomes by applying evidence-based solutions to labor and employment policies. This includes implementing behavioral solutions (i.e., interventions), managing the G20 Behavioral Insights Knowledge Exchange Network (G20 BI Network, see below), and fostering an evidence-driven ecosystem for Saudi Arabia's labor market.

The RBIC has played a crucial role in embedding behavioral insights within the policymaking processes of Saudi Arabia. By focusing on key issues such as employment, social protection, and target segments, the center has conducted numerous behavioral experiments and developed practical recommendations

for policymakers. For example, trials aimed at improving the take-up rates of a job seriousness assessment provided valuable insights into how small behavioral nudges can improve employment outcomes. These interventions not only inform local policy but also contribute to the global conversation on the potential of behavioral insights in labor market reforms.

- ***G20 Behavioral Insights Knowledge Exchange Network (G20 BI Network)***

In 2020, under the G20 2020 Saudi Arabian Presidency and the G20 Riyadh Summit, the G20 Labour and Employment Ministers announced the creation of the G20 Behavioral Insights Knowledge Exchange Network (hereafter, G20 BI Network),⁽⁴⁾ with Saudi Arabia as formal chair and the RBIC acting as its facilitator (G20 Information Centre 2021).

The G20 BI Network acts as a knowledge hub for the application of behavioral insights to the labor market and as a virtual community of practice for G20 labor policymakers (G20 Information Centre 2021).⁽⁵⁾ By encouraging cross-country collaboration, the network promotes the development and the sharing of behavioral approaches. This collaboration encourages member countries to adopt and adapt behavioral solutions to address labor and employment challenges, making the network a pivotal resource for policymakers globally.

To date, four G20 BI Knowledge Exchange Network meetings have been held, engaging more than 130 participants and 17 countries, along with additional meetings including roundtable of experts and knowledge sharing sessions. Additional efforts include engaging with leading global entities such as the Busara Center for Behavioral Economics, and the Jameel Poverty

(4) The G20 BI Network is one of two networks under the G20's Employment Working Group, with the other being the G20 Occupational Safety and Health Network (G20 OSH Network).

(5) The platform has been established at MHRSD's website, and is currently being populated with reports.

Action Lab, to form strategic partnerships with the G20 BI Network. In the coming years, the RBIC aims to further strengthen the capacity of the G20 BI Network through an expanded digital platform, and impactful initiatives benefitting G20 Member Countries and the world.

- ***Saudi Behavioral Insights Association***

One major initiative emerging from the behavioral ecosystem in the Kingdom is the establishment of the Saudi Behavioral Insights Association (SBIA), led by the RBIC and a cohort of other BI leaders, reflecting growth and maturity of the Saudi BI industry. Upon its formation, the SBIA will serve as the professional association where practitioners and enthusiasts of the field converge to exchange ideas that bring Behavioral Insights to the forefront of evidence-based decision-making, driving positive impact and meaningful progress on a national scale. For that, SBIA is raising awareness on the value of BI, advocating for its uptake by policymakers, providing capacity building, knowledge exchange, and related services, while promoting research and collaboration across the behavioral science community. The SBIA's activities will include organizing networking events, capacity-building workshops, and knowledge-sharing sessions designed to raise awareness and elevate the potential impact of behavioral science in informing public policies and services.

The SBIA is already working on its roster of networking and capacity building events for 2025, with an eye to fostering meaningful connections and professional development across all members.

6- Future evolvments of Behavioral Insights in Saudi Arabia

As Saudi Arabia continues to integrate Behavioral Insights (BI) into its policymaking processes for Vision 2030 and the upcoming Vision 2040, the future of BI in the Kingdom looks very promising. The growing demand for effective, evidence-based policies makes the next phase of BI development both inevitable and necessary. In this regard, we expect the following seven topics and challenges to shape the discussions and directions in the next years.

1. Continue doing good and talking about it

Although the first units have been established in the Kingdom, Behavioral Insights and experimentation are still new instruments inside the policymaker's toolbox. As such, it remains an important objective of every Behavioral Insights Unit in the next years to *do good and talk about it*. This means they need to continue presenting strong value propositions to their leadership and invest in their in-house marketing (Gill, 2024). Without a unique standalone contribution, units are likely to be merged with other, more established departments such as Innovation, Organizational Excellence, or Citizen Experience.

2. Reduce the science-policy gap

One of the key areas for improvement on the national but also the global level is to strengthen alignment between policymakers, Behavioral Insights experts, and academic researchers. While Behavioral Insights have made significant strides in addressing key policy challenges around the world, there is still a gap in fully integrating BI into the policymaking cycle and utilizing science to identify challenges and root causes.

Behavioral Insights experts and researchers are often cautious in making policy recommendations due to uncertainties in outcomes, while policymakers often struggle to apply the insights in a practical, large-scale manner.

For BI to reach its full potential, both sides should recalibrate their approaches. Experts and researchers need to develop more practical and scalable recommendations, while policymakers should try to incorporate behavioral perspectives and solutions to strengthen policy design and impact.

3. Develop scalable interventions: larger, deeper, richer

Many BI projects in the Kingdom currently start as small pilots, often focusing on specific issues within controlled environments. While these pilots provide valuable insights, their impact is limited if not scaled. Saudi Arabia is poised to take the next step by expanding proven interventions into policymaking on a national level.

We will also need to move into larger and deeper interventions: Larger in the sense that larger samples of the population, especially outside the three main regions, need to be targeted. Deeper in the sense that we need to move beyond the simple one-time nudges but also observe behavioral change over time, i.e., after repeated exposure to treatments and/or bundles of treatments, and in different areas to determine possible spill-overs.

In addition, Behavioral Insights have much more to offer than nudges. In the years to come, we should start harnessing the entire toolbox including boosts, sludge reduction, behaviorally optimized incentive setting, predictive modelling, etc.

4. Collaborative interventions

Larger and deeper interventions will require more intensive collaboration between relevant entities and authorities which can pose new challenges to the internal structures and processes.

HRDF and MoC have already successfully conducted joint experiments on which can be built. HRDF, MoH, RBIC, MEP, and MoE are also collaborating

on the basis of bilateral partnerships addressing policy issues of joint interest. RBIC and HRDF are currently exploring models of structured governance systems for managing large-scale collaborative projects, from technical teams to leadership oversight. This ensures alignment across stakeholders and prioritization of resources. The goal is to create a framework that enables BI to be applied effectively across various ministries and sectors, driving meaningful policy changes at the national level.

5. Standardization and big wins

With the growing institutionalization and knowledge accumulation within Behavioral Insights Units and other knowledge hubs, it is likely that behavioral interventions, or, more generally, the services and products provided by Behavioral Insights Units, will become more mainstreamed and standardized over the next years.

Over time, teams will start developing their own bespoke methods and tools that allow addressing local, national and regional topics more effectively through a unique Saudi behavioral lens. As part of this process, we are likely to observe a decline in replications of interventions that worked elsewhere. In turn, we can expect this trend to produce the first “big wins” for BI in the Kingdom, i.e., high-impact policy interventions that were primarily informed by Behavioral Insights made in the Saudi context.

6. Talent development

In line with its growing popularity around the globe, there has been a massive rise in Saudi talents graduating abroad in Behavioral Insights and related sciences. This was largely due to the lack of educational opportunities in the Kingdom.

In the next years, however, we expect more universities and institutions to develop specialized programs and courses in the field of BI, aligning with

the Vision's objectives. The first courses and seminars on Behavioral Insights and related research projects are already offered by some local universities. The Health Nudge Unit as well as the Decision Support Center also work with selected universities and government agencies to provide training and workshops to young talents and mid-career professionals.

7. Long-term sector development

It is difficult to present a long-term outlook for BI as a sector in the Kingdom. Ultimately, its fate as a niche or one of the most important policy instruments for Vision 2030 will depend on how deeply Behavioral Insights will be embedded into policy design at all levels of government, i.e., not only for dedicated nudging experiments but also during normal policy formulation, implementation, and evaluation.

The European Commission was confronted with a similar challenge in the past and succeeded in activating behavioral public policy over the past years, i.e., integrating BI to its policy-making (Baggio et al. 2021). The BI community in the Kingdom can investigate the experience and specific practices that helped BI rise to authority in the European Commission. The RBIC can play a crucial role in reviewing these approaches and developing governance models and capacity-building programs to facilitate this development.

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