IOTA REPORT

2023 OCTOBER

PROJECT ON COMMUNICATION AND NUDGING TECHNIQUES

BY THE SUBGROUP OF THE IOTA FORUM ON COMMUNICATION AND NUDGING TECHNIQUES

IOTA
Intra-European Organisation of Tax Administrations

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PROJECT ON COMMUNICATION AND NUDGING TECHNIQUES BY THE SUBGROUP OF THE IOTA FORUM ON COMMUNICATION

This publication is the product of the Subgroup of the IOTA Forum on Communication.

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Foreword

The **IOTA Forum on Communication** is a community of experts inside IOTA and operating as a network of member countries to discuss issues and exchange knowledge and experience in the field of communication.

This Forum meets once a year during its two-year Mandate, and it provides delegates with an opportunity to discuss a wide range of topics, problems and issues relating to the field of communication in line with the Forum mandate.

The **Project on Communication and Nudging Techniques** was launched by the Steering Group of the IOTA Forum on Communication in 2021 and in January 2022, a **Subgroup** was set up with the overall objective of identifying and describing best practices in terms of the use of 'nudging techniques' in taxpayer communications, and to understand how IOTA member tax administrations use these techniques in their respective activities. The overarching aim of this activity was to develop broad guidance and advice for communication professionals across the IOTA community in applying these theories and concepts.

The Subgroup also examined the ethical considerations when applying nudging techniques, and the behavioural models and frameworks used to embed behavioural insights in taxpayer communication strategies.

The **Report** is based on data provided by 25 IOTA member tax administrations participating in **Country Surveys** conducted between June and September 2022. Additional information was obtained by analysing external sources, e.g. OECD (Organisation for Economic Co-operation and Development) reports.

I would like to thank everyone who contributed to the preparation of this report: the participating IOTA member tax administrations, the Steering Group of the IOTA Forum on Communication that included experts from Belgium, Finland, Norway and Romania, but more particularly the nine members of the Subgroup who compiled this valuable report: Christian Rydal Kirkebæk, Denmark; Andrew Murray, Ireland; Alessandra Gambadoro, Italy; Agnė Jakubauskaitė, Lithuania; Dinda Maas, the Netherlands; Bente K. Tranberg, Norway; Nina Serdarevic, Norway; Ramon Domingo Palacios, Spain; and Nancy Brewster, United Kingdom.

I believe and hope this report will provide tax administrations with a greater understanding of IOTA members' approaches to nudging techniques and of how these techniques can be applied more widely.

Alix Perrignon de Troyes
Executive Secretary of IOTA

Chapter 1 - Introduction

Nudging has the aim of helping and supporting an individual to undertake a desired behaviour which is in line with the objectives of the signatory (in this case the tax administration) and the recipient (in this case the taxpayer.) Tax administrations seek to identify and implement methods, such as behavioural nudges, to incentivise taxpayers to comply, to ensure accurate revenue collection, for the smooth running of society and fair competition, as well as maintaining legitimacy and citizen trust. However, taxpayer behaviour is influenced by several factors that must not be ignored such as: civics, social norms, cultural differences, values, traditions, social, political, legislative contexts, to name a few. Nudging techniques have been explored by some tax administrations to influence behaviour. 'In the field of taxation, nudging has become widely popular in the last decade among policy makers who often claim that relative to the negligible direct cost of nudging (e.g., sending a letter) the potential payoffs involved can be extremely high.' (Antinyan and Asatryan (2020) p. 2; Hallsworth et al. (2017) and Bott et al. (2020)).

Although increasingly popular, there is still not enough knowledge about the overall effectiveness of choice architecture interventions and the conditions under which they facilitate behaviour change. A meta-analysis by Mertens et al., 2021 shows that across behavioural domains, interventions that target the organization and structure of choice alternatives (decision structure) consistently outperform interventions that focus on the description of alternatives (decision information) or the reinforcement of behavioural intentions (decision assistance). More specifically relevant to the tax domain, Antinyan and Asatryan (2020) show in a meta-analysis on nudging for tax compliance that interventions pointing to elements of individual tax morale are generally ineffective in affecting tax evasion. In contrast, deterrence nudges - interventions emphasizing traditional determinants of compliance such as audit probabilities and penalty rates - increase compliance.

The Project on Communication and Nudging Techniques was presented at the IOTA Forum on Communication in April 2021. The IOTA's Steering Group on Communication approved and launched the project in November 2021. The project explores how IOTA member tax administrations use nudging techniques in their taxpayer communication activities as well as how the effects of these techniques are analysed to understand the impact and the ethical considerations made in the design phase.

A subgroup of 9 Experts representing 8 IOTA member countries was established in November 2021 (See Page 3 for the list of Subgroup members).

This report summarises examples of nudging techniques used by the communication departments of IOTA member tax administrations and practitioners, suggests processes for implementing these techniques, and promotes their effective and appropriate use to enhance trust in tax administration and tax morale, and to influence taxpayer behaviour and increase tax compliance.

Definitions of concepts used throughout:

Nudging techniques – In this report, we use the term nudging techniques to refer to behavioural 'levers' used in communication products that are grounded in behavioural science theory. Typically, this is a single sentence, or the style or tone of communications which have been evidenced in the literature to affect behaviour. Thus, a nudging technique does not forbid any relevant options, change incentives, or add information which is important relative to the choice which the person being contacted did not previously possess (Thaler and Sustein, 2014). Many other techniques are used in the behavioural sciences, including within tax administrations, to change behaviour that are outside the scope of this project, thus for the purposes of this report we will only discuss the discrete application of these behavioural levers within standard administration communications.

Behavioural insights – "Behavioural insights aim at improving the welfare of citizens and consumers through policies and regulations that are formed based on empirically-tested results, derived using sound experimental methods."(OECD, 2018)

Taxpayer communication – All communication from a tax administration to current or future taxpayers; for example, direct communication (e.g., emails and letters), mass media campaigns, or online communication (e.g., the administration's website and self-service solutions).

Models and frameworks – Behavioural models and frameworks are sets of concepts grounded in behavioural theory and designed by behavioural scientists to provide logical and evidence-based approaches to behaviour change. There are a variety of frameworks that guide practitioners, many of which are applicable to tax policy.

Research methods – A range of research methods are used to evaluate the impact of behaviour change techniques and help practitioners understand other factors which may be affecting the observed behaviour.

The remaining report proceeds as follows:

Chapter 1: Outlines the methodology used to collect data, the goals of the survey, the structure of the survey and how we have managed it.

Chapter 2: Presents the main results from the survey focusing on three thematic clusters, i) applications of nudging techniques, ii) use of models, frameworks, and research methods, and iii) ethical aspects.

Chapter 3: Suggests a repository of approaches that mirror a "how-to-guide" to help practitioners choose appropriate behavioural models and frameworks.

Methods

1.1. The survey's goals

We designed a survey to analyse whether and how the tax administrations of IOTA member countries use nudging techniques in their taxpayer communication activities. Moreover, our aim was to understand the experiences of tax administrations and to develop guidance so that tax administrations and practitioners can apply more effective nudging techniques.

This data demonstrates the prevalence of the application of nudging techniques, the strengths and weaknesses of applications, the areas in which administrations would benefit from exchanging experiences with one another and further guidance on the translation from theoretical knowledge to practical application. The data collected also helps provide concrete examples and best practice alongside measured impact to demonstrate the value and practical realities of nudging within tax administrations.

Learning from the effective application of nudging techniques in taxpayer communications can lead to clear, non-invasive user-centred communication which, may in turn increase tax compliance and trust in the tax administration, therefore we believe it is a potentially impactful topic to explore with IOTA members.

1.2. Structure of the survey

We used an online survey to collect the data because it is fast and simple to use. The survey was administered using a form available on the IOTA website. The primary limitation of using an online survey was the restricted space for explaining questions and probing answers than would be available using qualitative methods, but we tried to overcome this by giving explanations and preliminary information at the beginning of the survey and including open-ended questions to allow respondents to elaborate.

Preliminary information of the survey

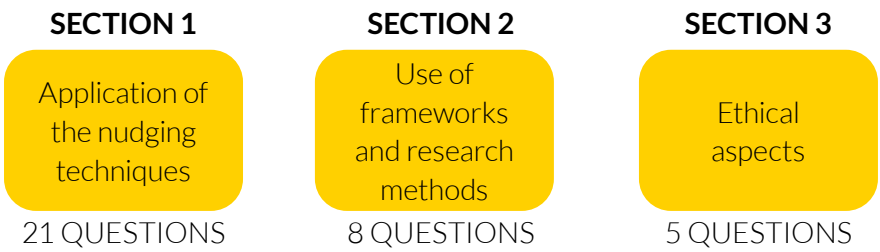
What – The contents and the purposes of the survey

When – The deadline by which the countries had to complete the survey

How – How we managed and analysed the collected data

Who – The office or expert of the national tax administration who should complete the survey (behavioural insights unit or communication department)

We divided the survey into three sections, one for each thematic cluster that we wanted to explore: application of the nudging techniques, use of frameworks and research methods, and ethical aspects.



In the survey, we collected quantitative and qualitative data and used open-ended and closed questions.

In some cases, we chose open-ended questions to give the possibility to explain responses in detail. In some open-ended questions, we offered concrete examples to help those who were completing the survey to respond: for example, in the question "Which nudging techniques does your administration generally use in taxpayer communication?" we gave in the question some concrete examples of nudging techniques: defaults, framing, commitment devices, implementation intention prompts, simplification, social proof, etc.

Some open-ended questions were articulated into further questions, each of which explores a dimension of the concrete case: for instance, the principal question is "Can you describe an example from your administration of the effective use of nudging techniques in taxpayer communication?" and from this question several specific questions: the nudging technique that was applied; the communication activity where the nudging technique was applied; the activity's target group; the activity's objective; the activity's results; learnings from the activity.

We also inserted closed questions as multiple choice questions. In this type of question, we have always added the option "Other, please specify" with a free text field.

We also included rating scale questions. For example, the question "Does your administration use nudging techniques when communicating to taxpayers?" includes for the answer a rating scale that goes from always to never.

Finally, we inserted closed questions with a Likert scale which allowed the respondent to express how much they agreed or disagreed with a particular question about various aspects of nudging techniques.

1.3 Management of the survey

The survey was prepared by the subgroup's members (Please see Figure 1). Each member of the subgroup tested the survey within their tax administration and shared the findings with the subgroup. By June 2022 the final version of the survey was ready, and IOTA administered the survey to the 45 IOTA member countries. In September 2022, the survey responses were collated and analysis began. In total, 25 member countries responded to the survey. In October 2022, we presented the preliminary key findings at the IOTA Forum Communication "Building Trust in Tax Administration" in Budapest.

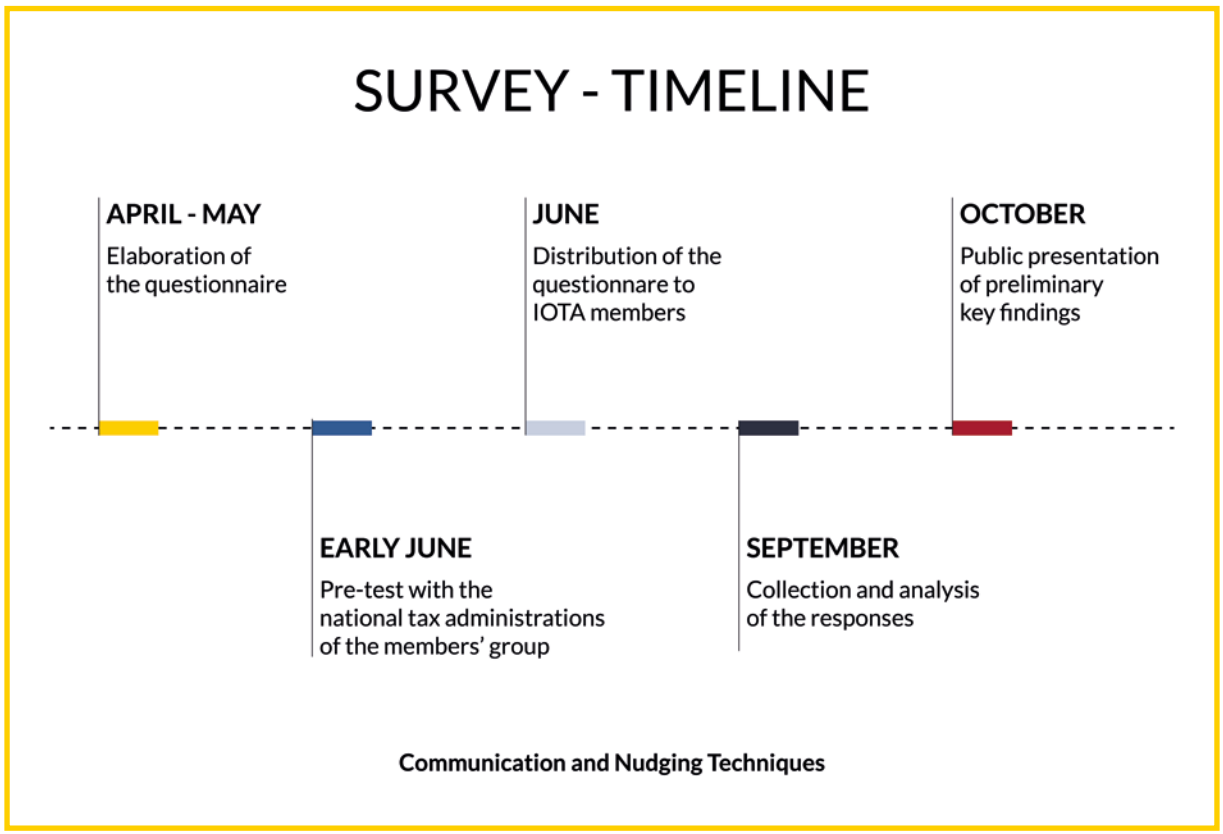


Figure 1: Survey timeline

Chapter 2 - Results

Figure 2 gives an overview of which member countries responded to the survey[1]. The following survey analysis highlights three thematic clusters probing how widespread nudging techniques are in taxpayer communications (Section 2.1), usage of models and frameworks, research methods (Section 2.2) and finally, the ethical barriers and considerations (Section 2.3). In Section 2.4 we outline examples of applying nudging in taxpayer communications based on an analysis of open-ended questions. The examples provided are not exhaustive as the main aim of the qualitative data is to add colour to the findings and present a more comprehensive understanding of the three main thematic clusters.

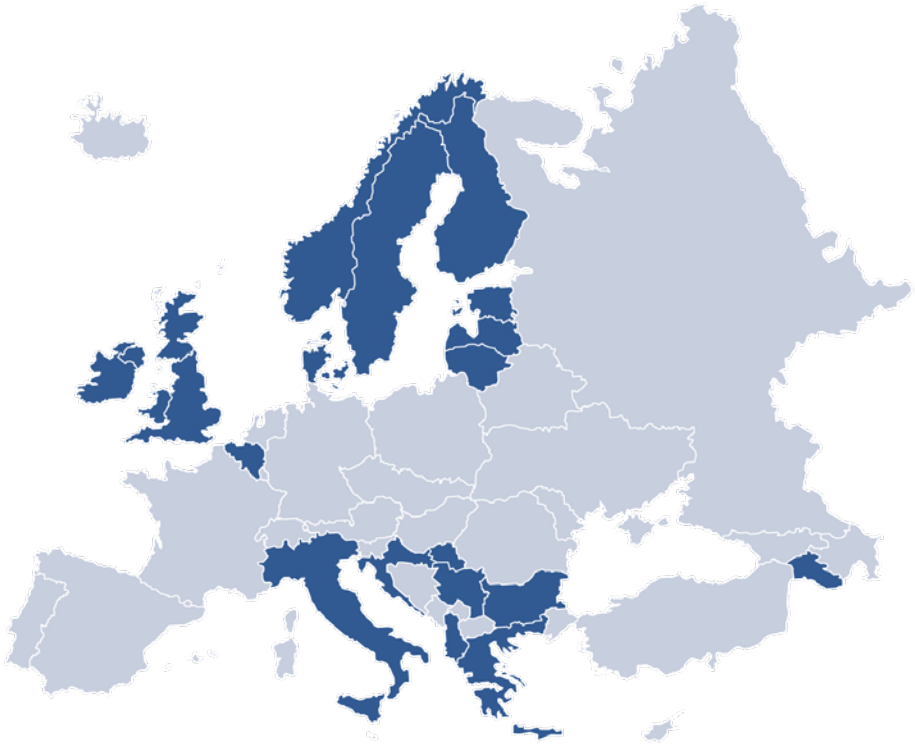


Figure 2: Overview of countries that have responded to the survey (N=25)

Albania	**Croatia**	**Greece**	**Lithuania**	**Republic of Moldova**
Armenia	**Czech Republic**	**Hungary**	**Luxembourg**	**Romania**
Austria	**Denmark**	**Ireland**	**Malta**	**Serbia**
Belgium	**Estonia**	**Italy**	**Norway**	**Sweden**
Bulgaria	**Finland**	**Latvia**	**Poland**	**United Kingdom**

Table 1: Countries that responded to the invitation to fill in the survey

[1] *25 out of 45 IOTA countries responded to the survey consisting of both closed and open-ended questions as described in Table 1. We also had a second round of data collection that invited countries who had not taken part in the survey to share their experience with successful interventions. From this call we received examples from one country.*

2.1. Nudging techniques in communication with taxpayers

Main finding 1: Most member-countries have some experience with nudging in communications with taxpayers though for many this experience is limited. The most-often technique used is simplification. The majority of tax administrations view nudging as beneficial and want to apply it more. However, many experience barriers, mostly related to a lack of knowledge and practical experience in application.

2.1.1. Usage of nudging in communication, channels, and target groups

In the sample of tax administrations that responded to the survey, most report to have some experience with using nudging techniques in taxpayer communication. Figure 3 shows that 8/25 of the tax administrations have used nudging often in taxpayer communication, 6/25 respond that they rarely use nudging while 8/25 report they very rarely or never use nudging techniques.

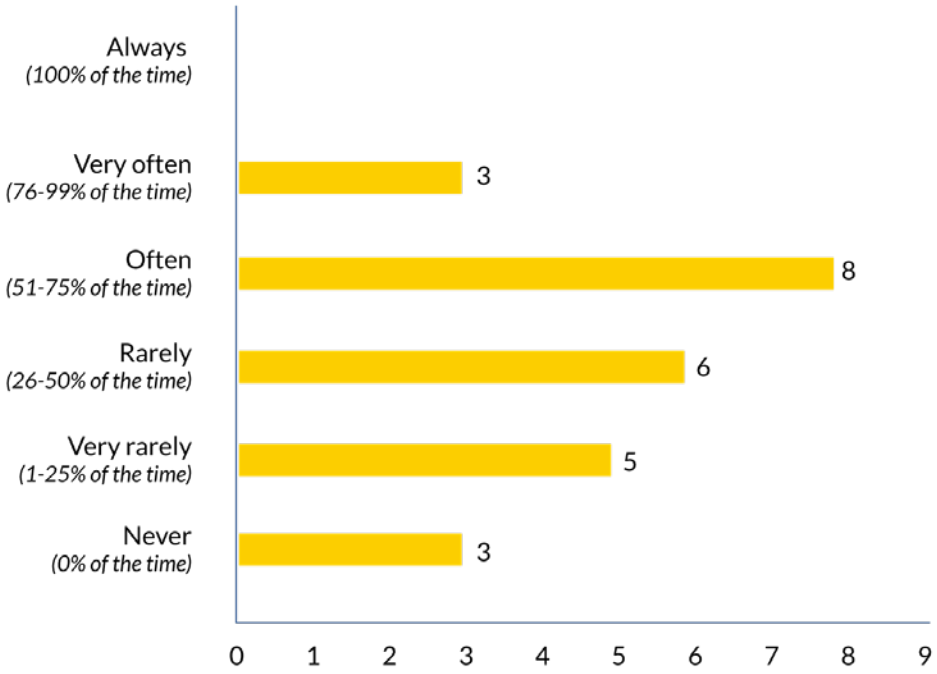


Figure 3: Usage of nudging techniques in taxpayer communication (frequency)

Note: Closed question "Does your administration use nudging techniques when communicating to taxpayers?"

When asked to elaborate in an open-ended question on which communication channels the tax administrations use for nudging, most reported a combined approach consisting of different communication channels. These can be further subdivided between indirect channels such as social media, mass media and YouTube and direct channels such as SMS, e-mail and letters. Box 1 provides some examples of answers to the open-ended questions.

Box 1: Example answers from open-ended question "For which communication channels does your administration primarily use nudging techniques?"

"We primarily use nudging techniques in our direct, written communication, i.e. in letters and emails. Sometimes, we also use nudging techniques in other contexts, e.g. in campaigns, on social media, or on our website."

"Letters, e-mail and SMS. Digital channels."

"Social Media, Mass Media, YouTube."

When asked who makes up the target audience of the nudging interventions, the majority of tax administrations responded that they use nudging techniques for all target groups, ranging from individual taxpayers to students to self-employed individuals. Some countries focus on nudging techniques targeting taxpayers suffering financial hardship. Others mentioned that they make exceptions from applying nudging techniques on target groups that they know intentionally engage in criminal activities such as tax fraud. Several countries also apply something resembling an eligibility criterion, for instance, groups who are known to not return forms on time or who struggle to keep up with deadlines. Box 2 offers examples to some of these open-ended responses.

Box 2: Examples answers from open-ended question "For which target groups does your administration primarily use nudging techniques?"

"For different target groups: for different sectors taxpayers (for example, IT, catering, construction)."

"For individuals who obtain or intend to obtain income and also for groups with fiscal risk."

"No one group primarily. Application is based on where the business priorities lie and where there is most feasibility to affect behaviour."

2.1.2. Type of nudging techniques being used in communication with taxpayers

Figure 4 explores what techniques tax administrations use when applying nudging in their communication activities. Respondents could choose from pre-defined categories such as "Implementation intention prompt", "Default", "Simplification", "Social proof" or respond in a free-text box. Note that these categories could be comprised of several behavioural levers which do not ask respondents to elaborate on when responding to this question.

We observe that many have had experience with the usage of simplification in communication with taxpayers. In addition to simplification, timely reminders, personalisation of messages and information, and introducing defaults are examples of applications mentioned. Some countries reported using framing and social heuristics, for example in referring to the desirable or undesirable behaviour of others in order to prompt desirable behaviour. Box 3 offers some examples of open-ended answers.

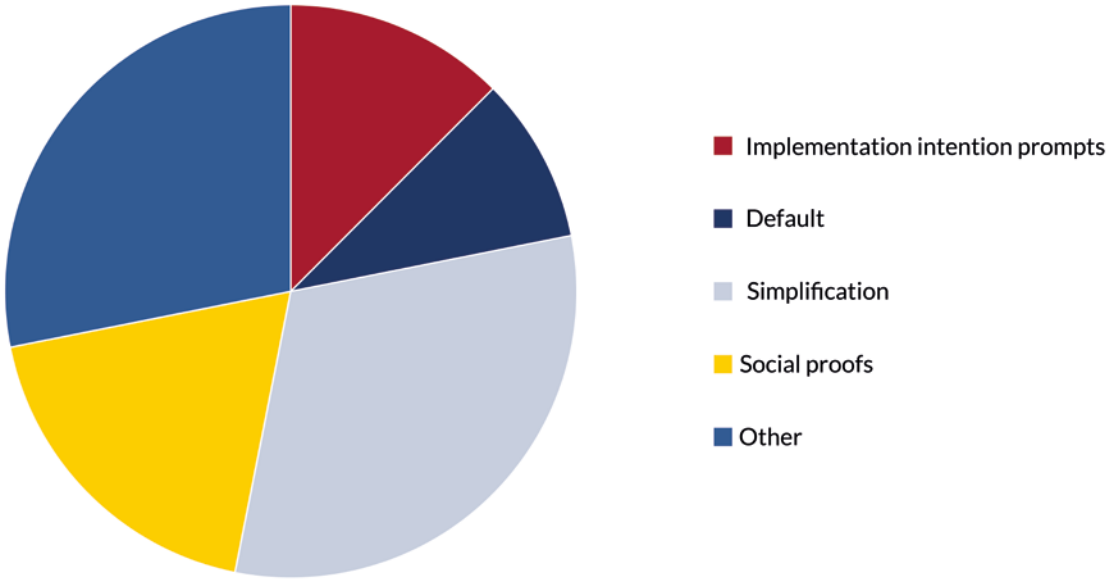


Figure 4: Usage of nudging techniques in taxpayer communication (frequency)

Note: Closed question "Which nudging techniques does your administration generally use in taxpayer communication; for example, defaults, framing, commitment devices, implementation intention prompts, simplification, social proof or others?" Within the Other category, techniques included reminders, framing, personalisation, and social norms.

Box 3: Example answers from open-ended question "Which nudging techniques have proven most useful in taxpayer communication; for example, in terms of how easy they are to apply or their effectiveness?"

"For our online-services we are using the default option e.g. user have to opt-out if they do not want to receive documents in electronic format."

"Simplification to reminder letters. Additional nudges with an explicit penalty information had a supplementary positive and significant effect on tax payment behaviour."

"Building customer confidence by offering personal services. Advertising in local newspapers, radio stations, television stations, social media and the official website."

2.1.3. Agreement that nudging is beneficial in taxpayer communication

There exists agreement among the tax administrations that nudging in taxpayer communications is beneficial. Figure 5 shows that 21 of the 22 member countries surveyed agree that nudging is beneficial.[2]

In a separate question we also asked whether countries agree that it would be beneficial to use more nudging in taxpayer communication. Seventeen of the twenty two stated that they either agree or strongly agree that using more nudging in taxpayer communication would be beneficial. Five of the twenty two questioned do not have a clear position on this issue. Thus, a majority have a positive attitude towards nudging and the increased usage of nudging in communication with taxpayers.

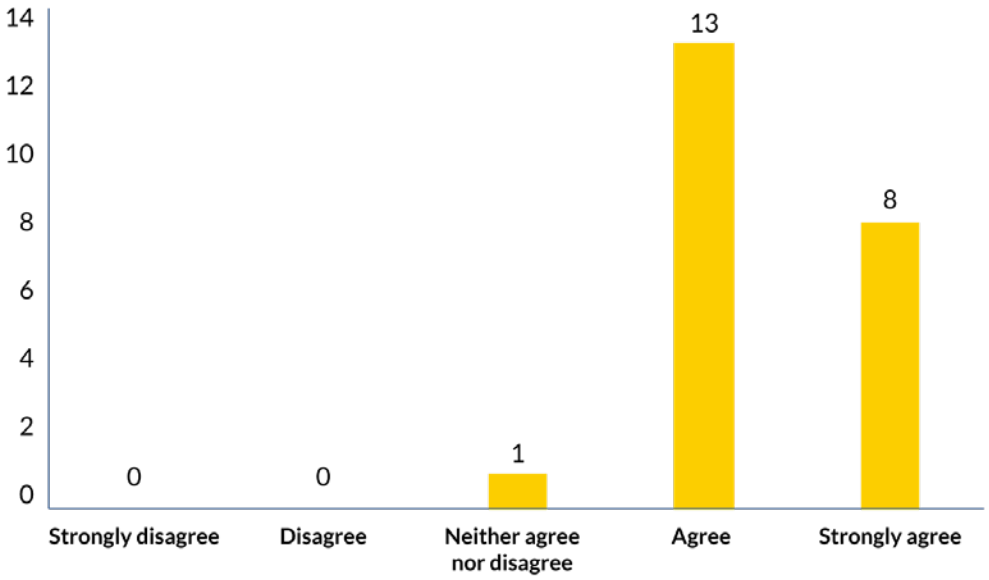


Figure 5: Level of agreement that nudging is beneficial in taxpayer communication (frequency)

Note: Closed question — "Do you agree that it is beneficial for your administration to use nudging techniques in taxpayer communications?"

We proceeded to explore an open-ended question about what it would require for the tax administration to be able to use (more) nudging techniques in taxpayer communications. Box 4 offers examples of answers to this question. Many of those asked mentioned the need for more knowledge about nudging techniques and how to apply them. Several refer to other tax administrations' best practices as a good way of increasing awareness in their own tax administration as well as provide evidence-based approaches to techniques that have already been tested by academics and external practitioners. Some countries also mentioned a need for better capabilities regarding evaluation methods which could in turn increase awareness of the relative impact of applying nudging techniques in communication.

2 We did not ask these questions to three countries that never use nudging techniques when communicating with taxpayers (according to their answer to question "Does your administration use nudging techniques when communicating to taxpayers?")

Box 4: Example answers from open-ended question "What would it require for your administration to be able to use nudging techniques in taxpayer communication?"

"Cultural change, change management, see benefits in countries already using nudging techniques."

"International best practice."

"More knowledge and experience in the practical application of nudging techniques among a wider group of the employees working with taxpayer communication."

2.1.3. Achievements using nudging in taxpayer communications

Figure 6 reports the achievements member countries have had in using nudging techniques in taxpayer communications. Most countries claim that communications have improved since introducing nudging to the design process. Several countries report positive impact on behavioural change such as on timely payments, increased compliance, and engagement with responsibilities. Finally, we also observe a reported impact on trust in the tax system where nudging techniques have been used in communications. Box 5 gives examples from some countries and their reported achievements using nudging techniques.

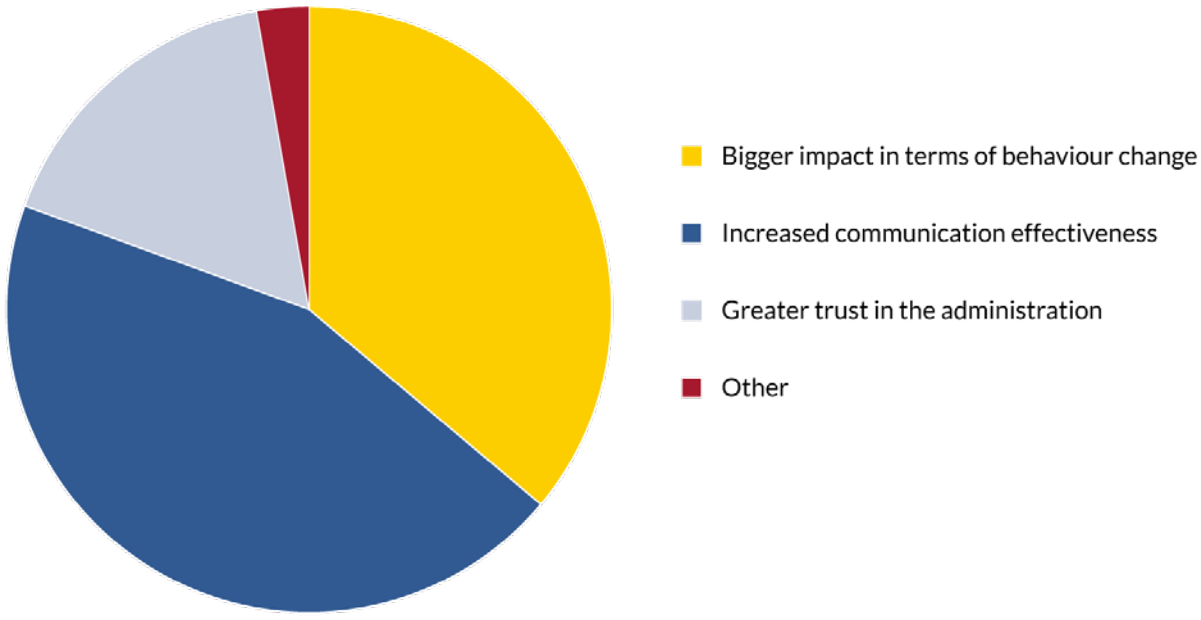


Figure 6: Reported achievements of using nudging in taxpayer communication (frequency, more than one achievement could be chosen by each tax administration when responding to the survey)

Note: Within the Other category, achievements include reduction in late payments and adoption of digitalisation.

Box 5: Example answers from open-ended question "The activity's results (achieved vs. expected)"

"The number of returns regarding the income tax of the natural persons (citizens) registered an increase compared to the previous year."

"Customers sent the sequence of messages including tailoring, social norms and time scarcity increased payment rates at the payment deadline. This most effective sequence led to an increase in full payment rates by 9% compared to the simple sequence using only tailoring."

"We see increases in self-reporting of between 8 and 64 percentage points due to the nudges examined in the randomized controlled experiment."

2.1.4. Existence and location of nudging skills and knowledge within the administration

When asked about whether there is sufficient knowledge about nudging techniques in their administration, 10/22 reported that they neither agree nor agree that there is sufficient knowledge in the tax administration while 8/22 either disagree or strongly disagree. Substantially fewer tax administrations either agreed or strongly agreed (4/22) that there is sufficient knowledge. The results are shown in Figure 7.

The survey also asked about the organisation of the skills and knowledge required to apply nudging techniques within each administration. We found that some administrations have experts in a dedicated 'nudge unit' (3/22), while others had that knowledge within a wider unit (8/22) or else had experts who were embedded in communication teams (3/22). Five of the twenty two offered other examples such as risk managers, external experts, and government entities that contribute knowledge about behavioural insights.

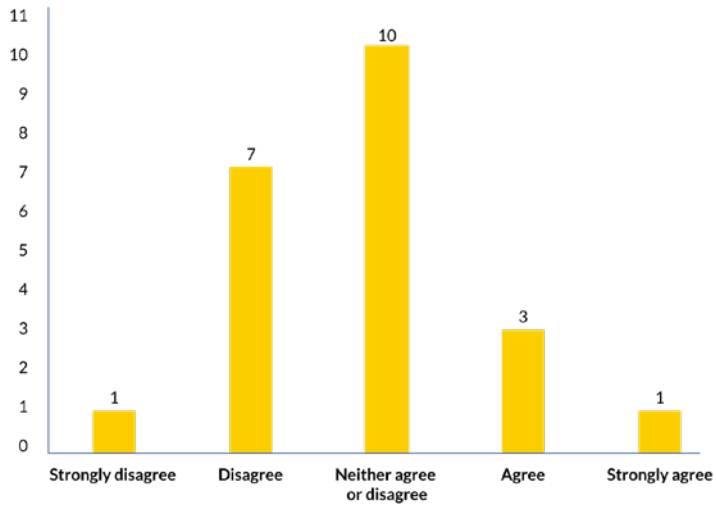


Figure 7: Level of agreement that there is sufficient knowledge about nudging techniques in the administration (frequency)

Note: Closed question — "Do you agree that there is sufficient knowledge in your administration of nudging techniques?

2.1.5. Barriers to effective use of nudging in communication with taxpayers

Nine of the twenty tax administrations who responded to the survey agreed that there are barriers to effective use of nudging in their communication with taxpayers (Figure 8), however, there are a variety of organisational and practical constraints to using nudging in taxpayer communication identified by the survey data. Technical constraints (9/16), insufficient knowledge (8/16) and insufficient experience (7/16) in practical application stand out as common barriers, followed by ethical constraints, regulatory constraints, and organisational reluctance to applying nudging.

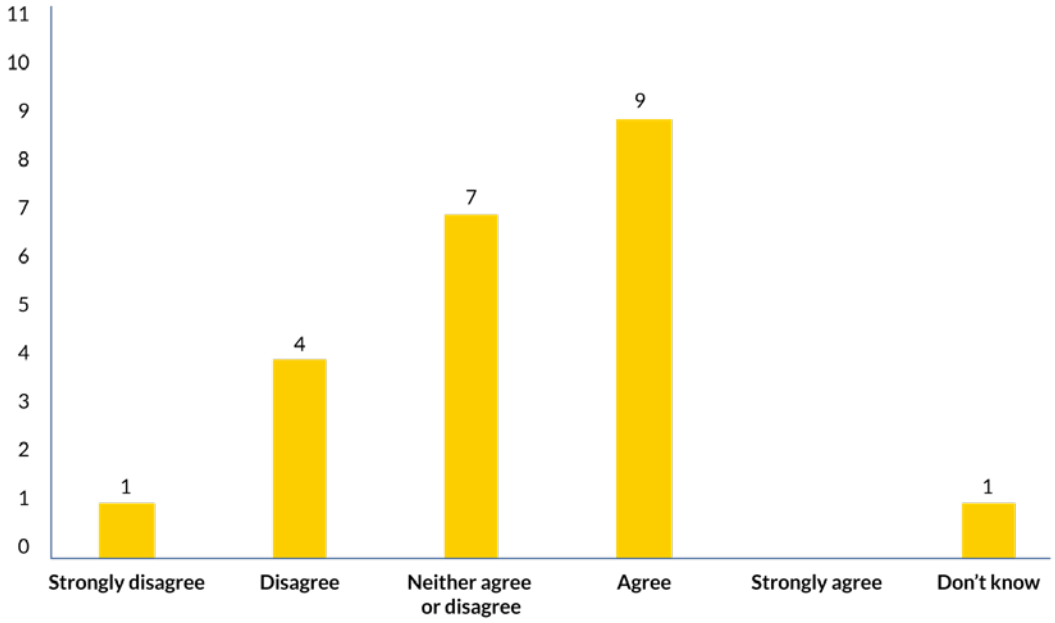


Figure 8: Level of agreement that there are barriers to effective use of nudging in communication (frequency)

Note: Closed question — "Do you agree that there are barriers to effective use of nudging techniques in your administration?"

2.2. Models, frameworks and research methods

Main finding 2: Only very few tax administrations use specific frameworks (e.g., The Behaviour Change Wheel or frameworks such as EAST, MINDSPACE or others) often. Many administrations do not use specific research methods (e.g., A/B testing, RCT and eye tracking methods) often. The main reason for this is reported to be insufficient knowledge or experience in the practical application of these tools.

This section explores which models and frameworks tax administrations use to identify the nudging techniques most suitable to use; for example, The Behaviour Change Wheel or frameworks such as EAST, MINDSPACE or others. In this section, we also explore whether the administrations use specific research methods to evaluate and optimize the use of nudging techniques; for example, randomised controlled trials, A/B testing or eye tracking methods.

2.2.1. Usage of specific frameworks to implement nudging techniques

Very few countries report that they regularly apply specific frameworks to identify the nudging techniques most suitable to use given the question at hand (Figure 9). The reason for this limited application is claimed to be insufficient experience in practical application (4/10) or insufficient knowledge about frameworks (3/10). A very low proportion of member countries responded to the question about why frameworks are not used, therefore it is hard to offer a conclusive answer as to what needs to change for adoption to increase.

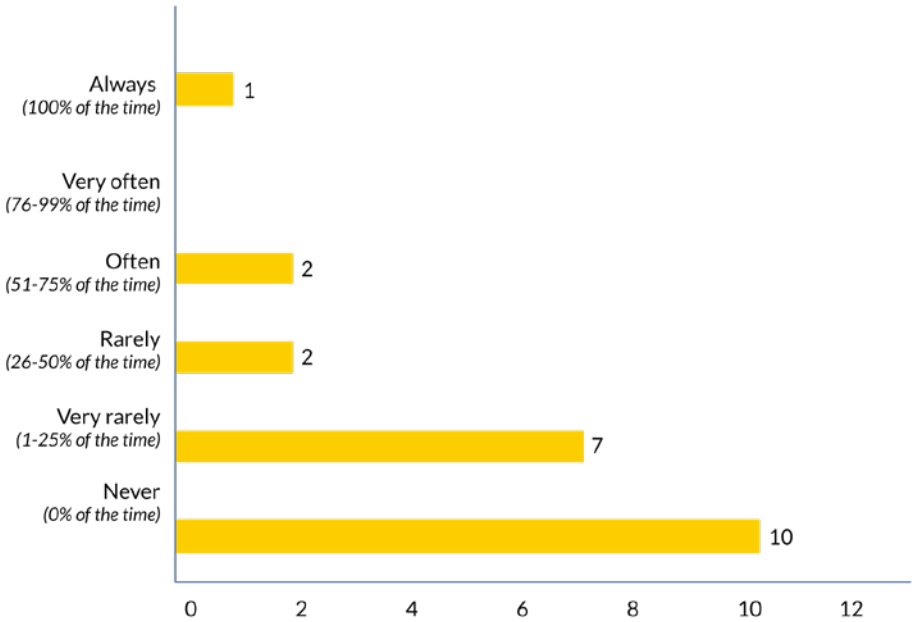


Figure 9: Usage of specific frameworks to identify most suitable nudging techniques to use (frequency)

Note: Closed question — "Does your administration use specific frameworks to identify the nudging techniques most suitable to use; for example, The Behaviour Change Wheel or frameworks such as EAST, MINDSPACE or others?"

Mirroring the results of these closed questions, the analysis of open-ended questions reveals that most tax administrations rarely use any specific frameworks. The tax administrations that do use frameworks mention primarily COM-B, EAST, MINDSPACE as well as the BASIC framework developed by the OECD. Some use elements from certain frameworks. Others report that they are not familiar with any frameworks but instead try different approaches and learn from the experience with these. Examples from open-ended answers are presented in Box 6.

Box 6: Examples from answers from open-ended question "Which frameworks does your administration generally use?"

"EAST and MINDSPACE."

"Behavioural models: COM-B, ISM, Stages of Change, ADKAR."

"We sometimes use an adapted version of the ABCD barrier analysis model in the BASIC framework published by the OECD."

2.2.2. Usage of specific research methods

The survey data shows that few countries evaluate the effectiveness of nudging in communications. Figure 10 shows that 8/22 never use research methods, 8/22 use research methods rarely or very rarely while only 6/22 report that they either often, very often or always use research methods. Countries that do use research methods mainly mention randomised controlled trials and A/B testing. Other countries reported using opinion polls to evaluate whether nudging in communication produces desirable results.

Box 7 gives additional examples of what research methods administrations use. Administrations commonly responded that different methods are chosen due to their appropriate application in the given circumstances. Alongside RCT's, behavioural measures such as click rates, web traffic and feedback from service centres are also highlighted as some measures of impact that administrations examine. Some countries mentioned working with academics or employing best practice from other tax administrations.

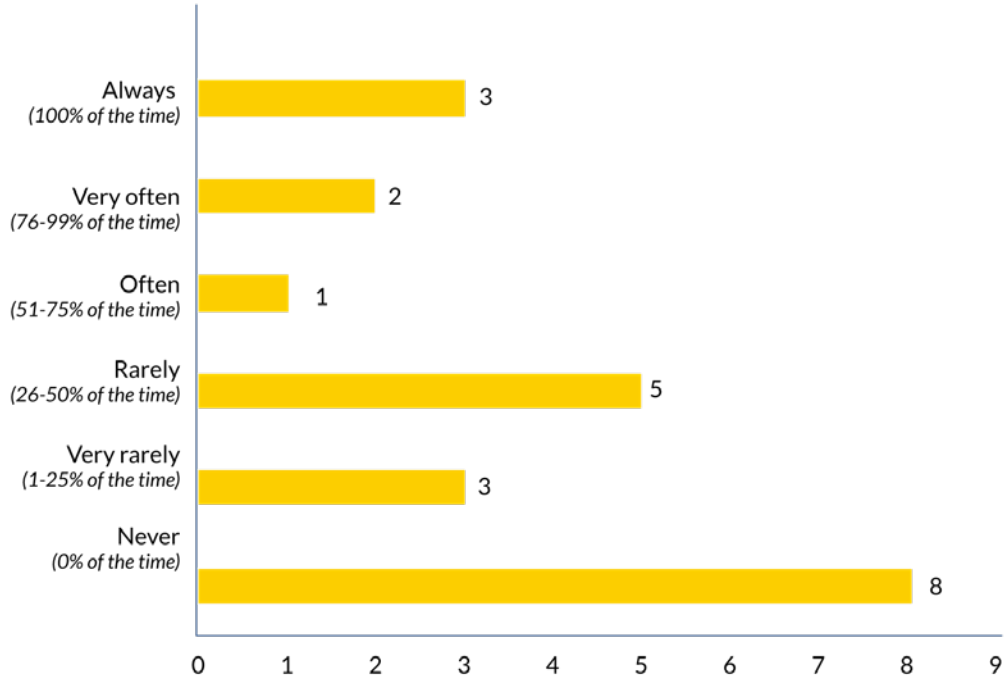


Figure 10: Usage of specific research methods to evaluate and optimize the use of nudging techniques (frequency)

Note: Closed question — "Does your administration use specific research methods to evaluate and optimize the use of nudging techniques; for example, randomised controlled trials, a/b-testing or eye tracking?"

Box 7: Examples from answers from open-ended question "Which research methods does your administration generally use?"

"Measuring the click-rates and feedback from our service centres."

"Statistical analysis, regression, analysis of variance etc."

"Randomised controlled trials, a/b-testing and eye tracking."

"RCT's for large field experiments."

2.3. Ethical aspects and constraints

Main finding 3: Many countries do consider ethical aspects when applying nudging in taxpayer communications. The most prominent concern is the risk of adverse effects on segments in the target group and the risk that all taxpayers are not treated equally. However, few take (or seem to know how to take) specific measures to ensure ethically sound nudges. Those who do, facilitate groups that mirror ethical review boards and/or consult externals such as academics or experts in the field.

Finally, we were interested in whether tax administrations consider ethical aspects and/or face ethical challenges when using nudging techniques in taxpayer communications, which dilemmas or questions the administration considers, and whether specific measures are taken to ensure ethically sound practices. Applying nudging and behavioural insights raises certain ethical concerns and challenges (Sunstein, 2014) with respect to the individuals that nudges end up affecting (i.e., equal treatment of taxpayers, adverse effects), which data is necessary to evaluate the effectiveness of nudging techniques (and thus considerations on data protection, anonymity, and storage of data) and the reputation of the tax administration.

2.3.1. Consideration of ethical aspects when nudging

Figure 11 shows that eight of the twenty two said they always consider ethical aspects when applying nudging techniques and 7/22 do so very often or often. However, we observe that 7/22 either rarely, very rarely or never consider ethical aspects when nudging. When asked which ethical dilemmas or questions the tax administrations consider, most report that the main concern is how to ensure that all taxpayers are treated equally and fairly when carrying out experiments including different versions of the communication and when segmenting taxpayers to that end. Similarly, some report that a concern is that there may be backfire effects in terms of using nudging techniques in taxpayer communication. Examples of answers to open-ended questions are presented in Box 8.

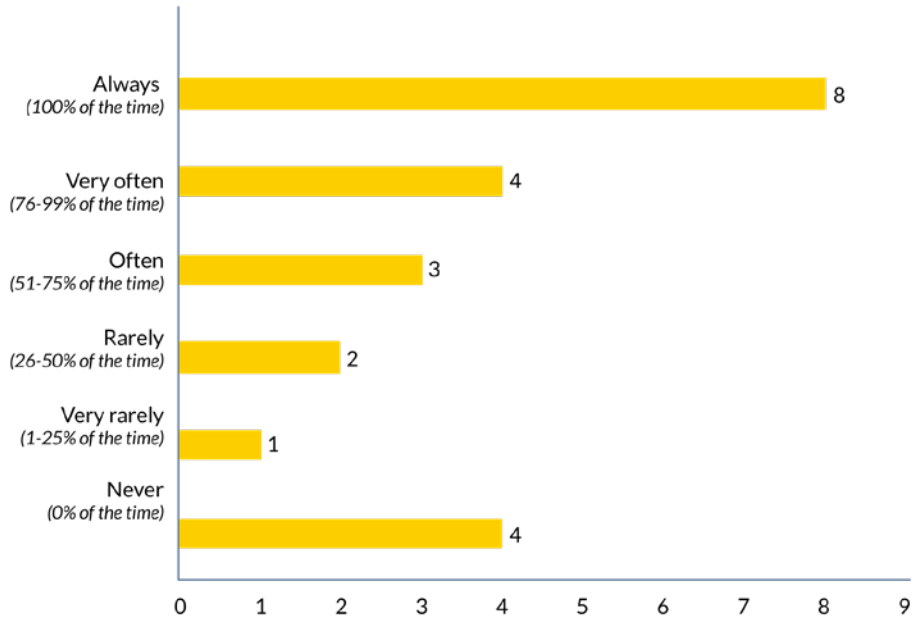


Figure 11: Consideration of ethical aspects when nudging (frequency)

Box 8: Examples from answers from open-ended question "Which ethical dilemmas or questions does your administration consider?"

"How to choose appropriate wording to nudge, but not offend taxpayers."

"Uphold the freedom of choice where available. Preferably guide rather than mandate."

"Whether an intervention is appropriate and proportionate. What potential negative impacts there might be / backfire effects. Ensure specific taxpayer groups are not unfairly targeted."

2.3.2. Ethical constraints and type of ethical risks

Seven of eighteen[3] countries report that they face no ethical constraints, 4/18 report that there are ethical constraints, but 7/18 answered that they do not know. We further probed what type of ethical constraints and risks the tax administrations faced when nudging taxpayers (Figure 12). The majority reported that they do not know, followed by risks of adverse effects on segments in the target group as the most mentioned response and the risk that all taxpayers in the target group are not treated equally. Thus, although most countries consider ethical aspects when nudging, there exists some uncertainty about what those constraints are and the relative risks the tax administration may face as a result.

In a separate question we asked whether administrations had implemented specific measures to ensure that the use of nudging is ethically sound. We find that only 3/18 report that they have introduced ethical guidelines, 9/18 report that they either have not implemented specific measures or are unsure. Six of the eighteen administrations reported having done other things such as expert ethics judgement, discussion on ethics that mimic an ethics board, or discussed concerns internally on a case-by-case basis.

Nevertheless, as we had a quite high proportion responding that they do not know whether their administration experienced any ethical risks in connection with using nudging techniques in taxpayer communication, we cannot provide a meaningful or conclusive analysis to this question.

[3] *We did not ask these questions to 4 countries that never consider ethical aspects when using nudging techniques in taxpayer communications (according to their answer to question "Does your administration consider ethical aspects when using nudging techniques in taxpayer communication?")*

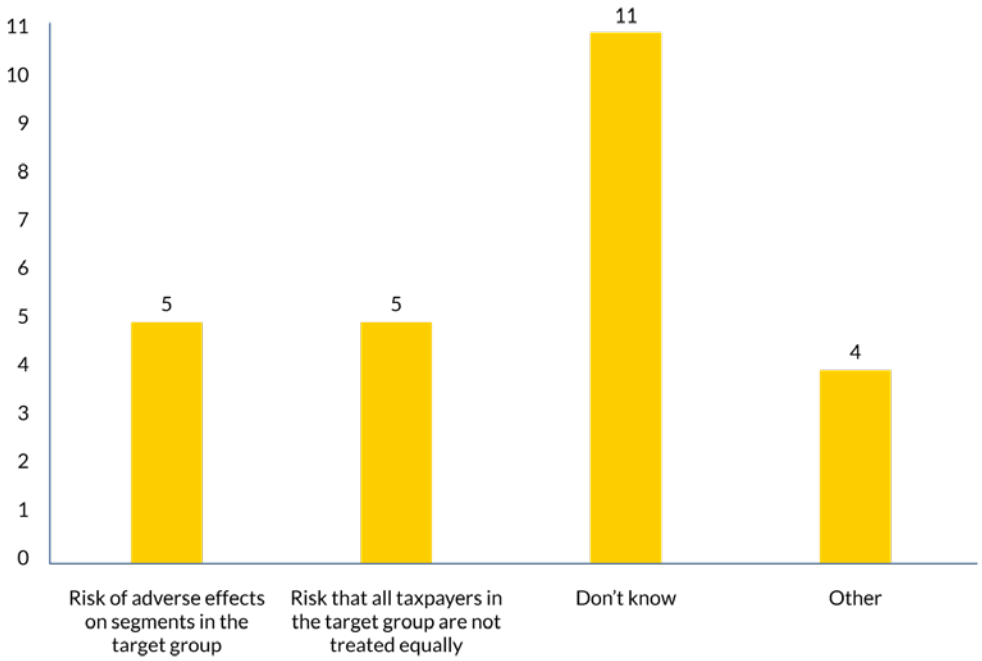


Figure 12: Type of ethical risks in connection with using nudging techniques in taxpayer communication (frequency)

Note: Closed question — "Has your administration experienced any ethical risks in connection with using nudging techniques in taxpayer communication?" Within the Other category, ethical risks include regulatory constraints.

2.4. Examples

In this section, we summarise examples of nudging practices that tax administrations have applied in addressing their priorities. We offer a concrete example of how to use and evaluate the effect of nudging in taxpayer communication. Respondents were asked to "Describe an example from your administration of effective use of nudging techniques in taxpayer communication" and were then asked further sub-questions about the communication activities' objectives, which nudging techniques were used, which communication channels were used, who was the target group, which research methods were used to evaluate effects and finally, the results and any learnings from the activity. Figure 13 offers a summary of the answers to each sub-question.

Figure 13: Summary of good practices throughout the communication nudging cycle

Most tax administrations who responded to the survey stated that the main objectives of the nudging activity were to either increase payment compliance, filing compliance or deadline compliance. Different approaches were highlighted, but three techniques stand out in the analysis of the open-ended questions: reminders, simplification of communication and digital prompts. These are applied either separately or combined, and communicated through channels such as SMS, e-mail, digital platforms, telephone campaigns and letters. The target group of these interventions are typically individual taxpayers or self-employed individuals. Randomised controlled trials (RCT) and natural field experiments are reported as the most popular methods to evaluate the effectiveness of the communication activities on the stated objectives. Typically, these reported methods involve applying and testing different nudging techniques on different groups of taxpayers. The tax administrations that have provided examples of successful application of nudging, report that compliance increased following the interventions (e.g. increased VAT returns, filing or payment by a deadline). In Box 9a and 9b, we share two example from tax administration's use of experiments to improve filing compliance and payment deadlines using behavioural insights.

Box 9a: An example on improving filing compliance and payment deadline

A tax administration wishes to increase the share of taxpayers that file their tax return on time. The tax administration ran population-wide experiments in which taxpayers were randomized into different groups: simplification, deterrence, and tax morale. Randomization was based on the last two digits of the national identity number, which are random.

Simplification included shortening the letter while retaining the action-relevant information.

Deterrence messages aimed at making the consequences of non-compliance explicit, by stating fines and tax increases and/or by mentioning potential follow-up enforcement.
Tax morale messages, on the other hand, aimed at raising compliance by increasing the desire of taxpayers to comply with social norms or to reciprocate for public goods provision.

The results show that (i) simplifying communication increases compliance, (ii) deterrence messages have an additional positive effect, (iii) invoking tax morale is not effective.

For more information about this study please see the published paper by De Neve, J. E., Imbert, C., Spinnewijn, J., Tsankova, T., & Luts, M. (2021).

Box 9b: Nudging in the tax declaration to increase self-reporting

In the spring of 2021, the Norwegian Tax Administration introduced a new interactive tax return form.

One of the functions in the new tax return form is real-time guidance as taxpayers are filing their digital tax returns through nudging.

What kind of nudges the taxpayer receives depends on specifics in their tax return. It may be, for example, that the person has filled in an amount that seems unusually high or low, that the person may be entitled to a deduction, or that there is extra information that the tax authority may need to obtain from the individual.

Results from the randomized controlled trial show that the nudges had a large effect on self-reporting by the taxpayers. More taxpayers self-reported, and the reporting was more accurate.

We see increases in self-reporting of between 8 and 64 percentage points due to the nudges examined in the randomized controlled experiment.

For more information, please see IOTA Tax Tribune vol.42 INCREASING SELF-REPORTING BY USING NUDGES IN A DIGITAL TAX RETURN by Anne-Lise Breivik, Anders Habbestad and Martin Nilsskog

2.5. Discussion

The results of the country survey show varying application of nudging in administration communications to taxpayers. Unexpectedly but of note is that none of the countries who responded use these techniques in all of their communications. However, given that many IOTA member countries use nudging techniques in their communications, it is clear that there is widespread interest in continuing and increasing their use. Importantly, 17/22 of respondents agree that there are benefits to applying these techniques more in tax administrations, suggesting support for the continued application and furthering of knowledge and skill development.

Simplification is the most widely applied behavioural lever across those countries who responded. This may reflect a learning curve that countries have experienced in developing behavioural insight techniques that many countries are just at the beginning of. Of particular interest is that 8/22 of respondents mentioned that they do not have sufficient knowledge of nudging techniques to successfully apply this in their administrations. Many respondents mention that there are barriers to using nudging techniques, though the survey does not capture what these specific barriers are. Further exploration is needed to understand this and how they can be addressed, though we hope that some of the best practice guidance outlined in this report will help bridge the gap for many.

These observations from results would indicate that the development of a maturity model reflecting the different levels of experience in applying nudging techniques for countries would be of benefit to the tax administrations in these countries. This would allow countries to acknowledge how they compare to their peers and may aid them in improving these processes to ensure that they are applying nudging techniques in a responsible and effective way.

Maturity models are a commonly applied tool, often used on a self-assessment basis, to help organisations understand their current level of capability in a particular functional, strategic, or organisational area. Maturity models, through the setting out of different levels and descriptors of maturity, are intended to provide a common understanding of the type of changes that would be likely to enable an organisation to reach a higher level of maturity over time should it so wish.

Addressing and promoting the consideration of ethical risks when applying nudging techniques could raise awareness and offer tax administrations concrete guidelines and measures to ensure ethically sound nudges. For future exploration of the ethical aspects of nudging it could be worthwhile to understand better how tax administrations reason about ethics; how they understand the concept and its dimensions. In the present survey, we did not provide a definition of ethical nudging which could make it more challenging to verify that the question of ethical dilemmas and aspects measures what we intended to measure.

The main thread that can be seen from the survey is that there appears to be areas of knowledge relating to behavioural insights that countries are unaware of. It is also important to note that the response rate is 25 out of 45 countries. It is impossible to determine reasons for non-response, but they could indicate a bias in survey response from countries more advanced in behavioural science techniques. If this is indeed the case, then there is a need to increase international awareness of the issues involved.

Chapter 3 - Best practices: Applying Behavioural Insights

The survey has revealed that nudging is used in taxpayer communication by many IOTA countries. Nevertheless, there seems to be a lack of a systematic application of behavioural insights, and knowledge of the strengths and weaknesses of different methodological approaches. This calls for more awareness about commonly applied standards and best practice as many countries appreciate the value of behavioural insights but lack the knowledge to realise this potential impact.

In the next three sections, we present a repository of approaches that mirror a "how-to-guide" to help practitioners choose appropriate behavioural models and frameworks, research methods to evaluate effects and ethical considerations ensuring ethically sound applications of behaviourally informed interventions.

3.1. Behavioural Models and Frameworks

Objective: Which methods and frameworks can tax administrations rely on in order to identify which nudging techniques are most suitable to use in specific contexts (e.g. methods for barrier and target group analysis and relevant nudge frameworks?)

This chapter outlines several models and frameworks internationally used to embed behavioural insights within taxpayer communication strategies.

Behavioural models and frameworks can help in the diagnosis phase of a project by helping to uncover barriers and drivers to a behaviour we see and in the intervention design phase by helping link problems to solutions. The use of these tools provides theoretical grounding to problems that can be solved with behavioural insights, for example using nudges in communications, and help us avoid moving directly to solution implementation before fully understanding the behavioural problem.
For each approach, an overview of the background, underlying theory and contextual use is provided, along with examples of application in practice and relevant critique. The critique for each approach is based on the judgment and experiences of the IOTA member authors of this report, some of which are also reflected in the literature.

A summary of methods and types of experimental design follow.

Models

COM-B

BACKGROUND

COM-B (Michie et al., 2011) was developed to incorporate a range of theories of behaviour and with the involvement and consensus of behavioural theorists. While it initially focussed on health behaviours, the academics who created it intended for it to be applicable to all behaviours and applicable across settings.

MODEL OUTLINE

COM-B is a psychological model for explaining human behaviour. The model hypothesises that three components (Capability, Opportunity and Motivation) cause the performance of a Behaviour and as such, the lack of any one of these can cause the failure of a behaviour to occur.

Capability – an individual's physical and psychological capacity to engage in the behaviour.
Opportunity – the environmental and social factors that provide the opportunity for the behaviour to occur.
Motivation – the reflective or automatic cognitive processes that prompt behaviour.

BEST PRACTICE IN TAXPAYER COMMUNICATIONS

COM-B can help users understand the barriers and drivers behind a behavioural challenge.

CRITIQUE OF COM-B

Benefits:
- Good for considering a specific behaviour in a specific context
- Intuitive and requires no prior qualification or understanding of core behavioural science theory
- Effective and practical tool for workshopping with large groups
- Simple way to move from behavioural diagnosis to solution design

Critiques:
- Not as effective for understanding broader behavioural problems
- Not effective for considering organisational level problems

ISM

BACKGROUND

The ISM model (Scottish Government, 2013) encourages broader consideration of the various contexts in which a behaviour is observed in order to direct solution creation.

MODEL OUTLINE

The model is based on theory and evidence that suggests that three different contexts – Individual, Social and Material – influence behaviour.

Individual context – individual factors that affect choices and behaviours. These include values, beliefs, attitudes, costs & benefits, emotion, agency, skills, and habit.
Social context – external social/environment factors. E.g., opinion leaders, institutions, norms, roles & identity, tastes, meanings, networks & relationships.
Material context – external factors that make up the broader (non-social) environment. These could be rules & regulations, technologies, infrastructure, objects or time & schedules.

BEST PRACTICE IN TAXPAYER COMMUNICATIONS

As a practical tool, the model works particularly well when used in a workshop setting with contributions from a large group with varied expertise. Known and assumed barriers can then be mapped against elements outlined in the model under the three contexts. Known barriers might be those identified from existing research and assumed barriers can be those identified from a general understanding of human behaviour. Once mapping is complete, the priority factors and existing interventions can be considered. This will aid identification of the opportunity areas and will allow the development of solutions to influence behaviour change.

CRITIQUE OF ISM

Benefits:

- Effective for looking at broad challenges where multiple behaviours may be at play.
- Useful when looking at segments of a population to aid application of the tool.
- Requires no prior behavioural science knowledge to apply.
- Effective and practical for workshops with large groups.

Critiques:

- Requires a good amount of existing insight on the problem and/or population.
- Not effective for considering organisational level problems.

ADKAR Model of Change

BACKGROUND

The ADKAR model (Hiatt, 2003) of change is an outcome-oriented change management method which stipulates that organisational change requires individual change.

MODEL OUTLINE

The 'ADKAR' model identifies five sequential outcomes an individual needs to achieve for change to be successful:

Awareness – Individuals must be made aware of the need for change – including motivation.
Desire – Individuals must have the desire to participate and fully support the change.
Knowledge – By gathering knowledge about the process of change, the goal of the change will become clear for individuals.
Ability – Change is accepted due to the identification and removal of barriers and the ability to learn new skills to adapt.
Reinforcement – Reinforcement to sustain changes provides clarity to individuals that the new behaviour is permanent.

BEST PRACTICE IN TAXPAYER COMMUNICATIONS

As the model is outcome-oriented, the recommended approach for using ADKAR is to set clear milestones to be reached sequentially throughout each of the five outcomes.

CRITIQUE OF ISM

Benefits:

- Practical, simple and sequential approach to change management.
- Maps how individuals' behavioural change likely feeds into incremental business changes throughout the policy cycle.

Critiques:

- ADKAR focuses on individuals' internal aspects of change – this does not account for the influence of factors external to individuals such as material resources or the behaviour of others (e.g. social norms, resources) which can affect outcomes.

ORGANISER Framework

BACKGROUND

ORGANISER (UK Government, 2016) is a behavioural approach to influencing organisational behaviour change.

FRAMEWORK OUTLINE

'ORGANISER' is a mnemonic for nine 'common themes' which capture factors that influence organisational behaviour and decision-making. These common themes fall into three groups: external factors, internal factors, and decision-making processes within an organisation.

GROUP	THEME	DESCRIPTION / INFLUENCE
External	Operating environment	e.g. laws, regulations, taxes, and other influences
	Relationships	network of relationships, e.g., suppliers, customers.
	Advantage & reputation	comparative or competitive advantage.
Internal	Aims	organisational aims, goals or purpose.
	Norms & culture	Culture, rules, ethical framework, identity.
	Internal structures	e.g. leadership, teams, distribution of power.
Decision-making processes	Strategic processes	positive or negative implications.
	Estimation	time and resource constraints.
	Relying on trusted sources	the provision of information, insight and judgement.

BEST PRACTICE IN TAXPAYER COMMUNICATIONS

The approach is designed to be applied at any stage of the policy cycle, for example:

- Initial policy development to reveal gaps or inconsistencies in the evidence base.
- Help identify weak spots in proposed policy.
- Refine engagement of communication processes or help explain under-performance.
- Design better or more holistic methods of evaluating policy effectiveness.

CRITIQUE OF ORGANISER

Benefits:

- Offers a novel approach explicitly applied to organisational behaviour change.
- User guide provides very thorough and detailed guidance. Offers prompt questions and 'suggestions for action' for each theme.

Critiques:

- Less empirical evidence of its use in practice compared with other frameworks.
- Potentially downplays the influences of individual's behaviour on outcomes.

BASIC

BACKGROUND

BASIC (OECD, 2019) is a toolkit for policymakers, providing behavioural tools, methods and ethical guidelines to implement behavioural science theories and practices into the various stages of a public policy cycle.

TOOLKIT OUTLINE

'BASIC' is a practical guide to applying behavioural insights to policy challenges against a five-step process to help identify, scope and address a behavioural challenge:

-**B**ehaviours. This section provides tools and considerations to help the user understand the behaviours driving the policy issue under concern.
-**A**nalysis. Helps the user examine what the psychological and cognitive factors are that are causing the targeted behaviours via the **'ABCD'** framework – see below*.
-**S**trategies. Provides tools to define strategies to reduce behavioural barriers.
-**I**nterventions. Considerations in intervention design and outlines evaluation methods to understand the success of the intervention.
-**C**hange. Prompts consideration of long-term implications of the chosen intervention by raising further considerations for the policy change.

At each stage in the framework ethical considerations are raised. This is to prompt the user of the tool to consider potential risks and identify mitigation strategies.

* 'ABCD' is a framework to help policy makers focus on four key drivers of behavioural problems: **A**ttention, **B**elief formation, **C**hoice and **D**etermination.

BEST PRACTICE IN TAXPAYER COMMUNICATIONS

The BASIC toolkit provides a thorough overview of a proposed five-stage process to applying behavioural insights to a policy challenge, intended for an audience without a behavioural science background.

CRITIQUE OF BASIC

Benefits:

- Simple way to apply behavioural science for a non-technical audience.
- Puts ethical considerations front and centre of behavioural projects to help mitigate identifiable risks.
- Considers long-term monitoring of behaviour change, which other behavioural insight documents often neglect.

Critiques:

- BASIC is a toolkit which mirrors a standard approach to project management or internal processes and does not provide a novel behavioural angle.
- The Intervention phase discusses RCTs and quasi-experimental designs to evaluating interventions, though qualitative research is missing and other methods of evaluation where experimental and quasi methods are not feasible.

'MINDSPACE' & 'EAST'

BACKGROUND

MINDSPACE (Behavioural Insights Team, 2010) and EAST (2012) are two prominent frameworks developed by the Behavioural Insights Team (BIT, UK).

MINDSPACE (2010)

Framework Outline: MINDSPACE is a mnemonic framework which outlines nine robust influences on behaviour to be considered when addressing policy challenges.

CRITIQUE OF MINDSPACE

Benefits:

- Provides an accessible summary of the decision-making academic literature for policymakers without a background in behavioural insights.

Critiques:

- It is less practical for non-behavioural practitioners who may have difficulty translating insights known about the target population into behavioural interventions.
- Overlooks reflective system of behaviour and wider potential drivers of behaviour.
- MINDSPACE has been critiqued for not being a comprehensive framework – with a lack of clarity as to how the framework was developed and why certain elements that influence behaviour were included whilst others were not.

EAST (2012)

Framework Outline: The framework outlines four key (though non-exhaustive) principles for designing behavioural changes, proposing that interventions are designed in ways which make the target behaviour Easy, Attractive, Social and Timely (EAST).

Easy	Make the desired behaviour simple to do.
Attractive	Make the desired behaviour salient or desirable.
Social	Capitalise on the social motivators of behaviours.
Timely	Consider when targets may be most receptive.

CRITIQUE OF EAST

Benefits:

- Engages policymakers and practitioners effectively in intervention design.
- Approach is framed more practically about how to use behavioural principles.

Critiques:

- Not comprehensive. More complex frameworks and typologies exist.
- EAST is supposed to be used in tandem with MINDSPACE, however – in practice – many practitioners consider its principles in isolation which limits its efficacy and utility.

BEST PRACTICE IN TAXPAYER COMMUNICATION

As practical tools which are easy to follow, the frameworks work particularly well within solutions-generating workshops with stakeholders.

3.2. Research methods

Objective: This chapter outlines research methods together with specific approaches used to evaluate the effects of behavioural interventions, such as nudging, or other interventions on outcomes of interest. For tax administrations to be able to draw robust and valid conclusions about questions such as "what nudging techniques work best under these specific circumstances?", it is key to be mindful of the research methods being used to evaluate the effects of behavioural interventions.

For each method, an overview of the background, underlying theory and contextual use is provided, along with relevant critique.

An overview of relevant definitions and a summary of three research methods follows. Figure 1 offers a decision tree to help communication professionals and practitioners distinguish between different research methods. Please note that there are many research methods that we do not cover in this chapter which may be of interest when evaluating nudging techniques and/or other interventions (e.g., Booth et al., (2003); Bond.org.uk (2016); Gertler et al., (2016)). We have, however, included the research methods that we deem to be most useful for communication professionals.

Relevant definitions

Randomization: The process by which participants in experiments are assigned by chance to separate groups that are given different treatments or interventions.
Control group: The comparison group or groups that are not given a treatment or an intervention.
Treatment group: The group or groups that are given a treatment or an intervention.
Dependent outcome variable: The variable one is attempting to affect with a behavioural intervention. For instance, tax payment or on-time tax reporting.
Independent variable: The variable you control, manipulate, or vary in a study to explore its effects on a dependent outcome variable. For instance, simplification of communication, default option or personalisation.
External validity: The extent to which you can generalize the findings of a study to other situations, people, settings, and measures.
Internal validity: The degree of confidence that the causal relationship you are testing is not influenced by other factors or variables.

EXPERIMENTAL RESEARCH DESIGN

BACKGROUND

An experimental research design is one of the most accurate forms of research design which facilitates causal interpretations about the relationship between an outcome variable (e.g., compliance) and a behavioural intervention (e.g., default option). [4]

METHOD OUTLINE

Randomised control trial (RCT): Taxpayers are randomly assigned to a treatment group that is affected by an intervention or a control group. A measure of the behaviour of interest is taken from the population before the intervention. Then after the intervention, behaviour is measured again from both groups. This design is often used in A/B testing wherein two or more versions of a webpage or interface are shown to different users at the same time to examine which version has the greatest impact.

An example of a RCT could be the randomisation of a young taxpayer group into a treatment group that receives a simplified letter or a control group that does not receive this letter. We can then compare the behaviour of both those who received the letter and those who did not, before and after the letter was sent.

[4] *In order to assess the methodological quality of a research method one can use the Maryland Scientific Methods scale (SMS). Please see here for further reading: The Maryland Scientific Methods Scale (SMS) - What Works Growth.*

Post-test only control group: Taxpayers are randomly assigned to a treatment group that is affected by an intervention and a control group. After this, the behaviour of taxpayers in the treatment group and control group is measured. Compared to a RCT design presented above, there is no measurement of behaviour before the intervention making this a weaker design as it is not a measure of behavioural change over time.

For example, the communication professional randomises a group of young taxpayers into a treatment group that receives a simplified letter and a control group that does not receive this letter. The communication professional then compares the behaviour of both those who received the letter and those who did not, after the letter was sent.

CRITIQUES OF EXPERIMENTAL RESEARCH DESIGNS

Benefits:

- Allow for precise control of extraneous and independent variables. This allows a cause-and-effect relationship to be established between the variables of interest.
- The presence of a control group allows one to compare the effectiveness of an intervention against what would have happened had no intervention taken place.
- Randomisation is important because it ensures that the treatment group and control group are comparable. Any differences between the treatment group and control group are due only to chance.

Critiques:

- Randomisation and the presence of a control group can challenge a requirement of equal treatment of taxpayers.
- If experimental studies take place in strictly controlled and laboratory-like conditions, this may affect the external validity of results.
- Randomisation is not always possible operationally (e.g. time, capacity and resources) therefore using this methodology may not be possible.

QUASI-EXPERIMENTAL RESEARCH DESIGN

BACKGROUND

A quasi-experimental research design resembles an experiment whereby some taxpayers are exposed to an intervention whereas others are not. Still, a quasi-experiment lacks a key feature to qualify as a true experiment: randomisation and often a comparative group.

METHOD OUTLINE

There are a variety of quasi-experimental research designs. The appropriate design usually depends on the question the tax administration seeks to answer, and the communication channel and target group at hand.

Difference-in-differences: Compares the changes in behaviour of taxpayers over time between those who were affected by an intervention and those who were not. The key assumption to detect causal effects of the intervention is that the two groups of taxpayers had the same average behaviour up to, and until, the intervention took place.

For example, one compares the behaviour of young taxpayers that received a training program to a comparable group of those who did not – both the time before and after the program.

Natural experiments: In both laboratory and field experiments, the communication professional can normally control which groups the taxpayers are assigned to. In a natural experiment, an external event or situation ("nature") results in the random-like assignment of taxpayers to a control group and a treatment group.

For example, the Covid-19 pandemic was an unexpected natural event that may have randomly affected the behaviour of some taxpayers more than others. This random variation in exposure to the Covid-19 pandemic could thus serve as a natural experiment.

Matching: Statistical technique to create an artificial comparison group that matches the intervention group on all known relevant factors (those which affect both participation and outcomes).

For example, the communication professional may have conducted a social media campaign that some taxpayers have observed while others have not. As it is not random who was exposed to the campaign, the communication professional can use rich data on taxpayers' characteristics of those who saw the campaign and those who did not see it and control all known relevant factors.

One-group Pretest-posttest: One non-random group of taxpayers is observed before and once after being exposed to a behavioural intervention. There is no comparison group.

For example, the communication professional observes the behaviour of a group of self-employed individuals before and after they have taken a course about how to report taxes.

METHOD OUTLINE

Benefits:

- This type of research design is often used in field settings where random assignment is harder to achieve, for example, due to ethical reasons.
- Can be cost-effective due to the easy process of comparing two groups of taxpayers that one has easy access to.
- Can be useful for exploratory research and piloting to test the feasibility of a behavioural intervention for further study.

Critique:

- Without randomisation it can be difficult to verify that all confounding variables have been accounted for, suggesting low internal validity.
- The use of existing data that has already been collected for other purposes can be inaccurate or difficult to access.
- The lack of randomisation means that the groups of taxpayers may be different at the baseline, meaning that one may be comparing the behaviour of different groups to begin with.

CUSTOMER RESEARCH

BACKGROUND

Customer research consists of multiple non-experimental research designs that allows us to find out if there is an association between two variables of interest or to describe a population of interest. These variables can represent, for example, taxpayer attitudes, demographic traits of the taxpayer and compliance.

METHOD OUTLINE

There are many different approaches one can use in customer research.

In the social and behavioural sciences, the most common data collection methods for this type of research include surveys, interviews and focus groups and secondary data.

Surveys: In survey research, we can design surveys to measure variables of interest. A survey consists of a list of questions (like the IOTA survey on nudging practices) aimed for extracting specific attitudes and awareness from a particular group of people. The survey can be completed in paper format, delivered over the phone, or conducted online.

Interviews and focus groups: Can be used to elicit views of individuals involved in an intervention or for in-depth insight about specific attitudes toward a topic of interest. These views supplement quantitative data by providing verbatim detail to support analysis.

Secondary data and descriptive methods: Instead of collecting original data through a survey or other methods, one can use data that has already been collected by the tax administration for a different purpose, such as official records, polls, or previous studies.

CRITIQUE OF CUSTOMER RESEARCH

Benefits:

- Customer research can provide insights into complex real-world relationships, helping tax administrations develop theories and research questions to be tested at a later point, though it is important to appreciate the appropriate use of the methods outlined.
- Customer research can provide important initial indications or additional support for theories about causal relationships between variables of interest.

Critiques:

- One cannot draw conclusions about causation and directional effect between, for example, a behavioural intervention and its effects on compliance, as either all taxpayers are affected by the behavioural intervention and/or it is not random who receives the intervention.
- Surveys and focus groups provide self-reported data from taxpayers, which is not always a good indication of behavioural outcomes. We must caveat the outputs from these methods to avoid drawing conclusions based on what people say they will do, rather than what they actually do.

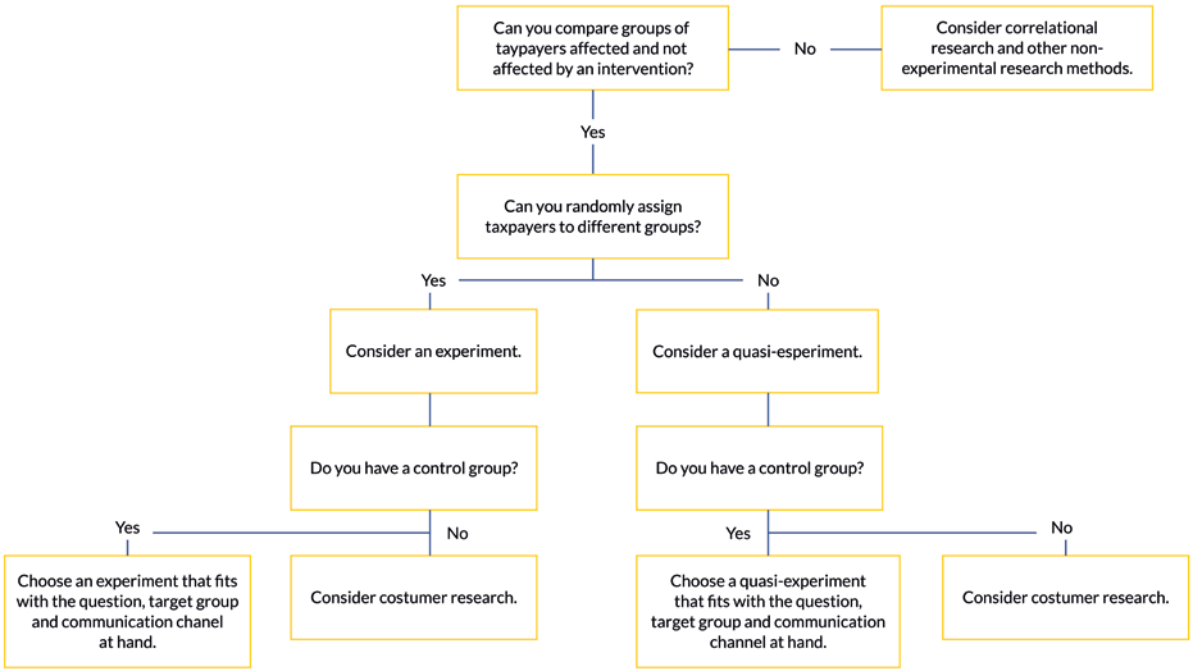


Figure 14: Things to consider when choosing a research method

This figure is intended to assist with a high-level methodology choice, though many factors should feed into a final decision. For further detail and advice on methodologies and considerations can be found, for example, in the UK's HM Treasury Magenta Book (HM Treasury, 2011).

3.3. Ethical considerations when applying nudging techniques

Objective: This chapter outlines seven ethical questions that can be considered before applying nudging techniques to taxpayer communications to make sure that attempts to influence taxpayer behaviour are ethically sound. In addition, it points to four ways to ensure that such ethical questions are dealt with in a consistent way throughout the tax administration.

When attempting to influence taxpayers' choices and behaviours, one should always make sure that this happens in an ethically sound way, in order to minimise the risk that such attempts become manipulative or have harmful effects at either a population or individual level.

This attention to the ethical perspective is particularly important when applying nudging techniques because they often work by leveraging people's cognitive biases and influencing their automatic decision-making processes.

Indeed, there has been – and still is – much debate in both academia and the public sphere about whether nudging is ethically sound or not. One stance in this debate is that, because of the way it works, nudging is inherently non-transparent and manipulative. While another stance is that we are always being influenced by factors that we are not consciously aware of, and that we should therefore focus on the intention behind these factors and whether it aligns with the common good.

If one were to follow this line of thought, it could seem that interventions that aim to influence taxpayers to pay the right amount of tax on time are always ethically sound. However, even though an intervention aims for the public good, it can still have adverse effects on groups or individuals. For instance, the use of descriptive social norms to increase a desired behaviour may have a boomerang effect for those whose past behaviour was better than the norm (as seen in field experiments on energy use, for example).

It seems clear that this should also be taken into consideration when evaluating interventions ethically. That being said, the purpose of this chapter is not to make an argument in favour of one side or the other in this debate or delve into the philosophical discussions around the ethics of nudging.

Rather, the perspective here is practical. It is based on the fact that tax administrations do use nudging techniques as a tool to influence taxpayer behaviour, and so the aim of the chapter is to provide some guidelines on how to use this tool in an appropriate way.

A COMMON SET OF ETHICAL CONSIDERATIONS

Having in place a common set of ethical considerations can ensure that all relevant aspects of an intervention are considered, not only those that appear most salient to the individual tax administration employee in the specific situation.

Therefore, the first part of this chapter consists of seven ethical questions that can be considered before applying nudging techniques to influence taxpayer behaviour.

These considerations are based on existing ethical frameworks in governments and professional bodies as well as the experience of the members of the IOTA Subgroup on Communication and Nudging Techniques (Please see e.g., Hansen et al., (2013); Schmidt et al., (2020); Sunstein (2014), OECD;(2022) for further reading).

1. **Is it legitimate for government to influence this?** This is not a question of the legitimacy of nudging as such; rather, it is about observing the limits of legitimate government interventions. Not all behaviours fall within the legitimate confines of the business of government. Therefore, make sure to refrain from targeting a behaviour that cannot be considered to be in the public interest or aligned with government priorities. In the end, this is a political question that must be answered on a case by case basis; however, if your intervention aims to increase tax law compliance, without causing harm to the individual targeted it should generally live up to this criterion.

2. **Is the intervention in the long-term interest of citizens?** Make sure to consider whether the change in behaviour that you are trying to achieve is aligned with the values and long-term interest of the citizens being influenced. If it is not, it may still be legitimate, though, if it serves the public interest or prevents harm to others. Additionally, consider whether it could be relevant to conduct surveys among citizens, for example, to understand citizens' values and perceptions.

Furthermore, monitor potential side effects. You have a responsibility for developing plans for monitoring the effects of the interventions, to minimize potential side effects and to protect citizens from any disproportionate harmful consequences, short-term and long-term.

3. Is everybody in the target group affected equally? You should consider the potential ethical issues that may arise if some citizens in the target group are being affected differently than others. This could be because of inherent individual or group differences, or because different groups receive different treatments; for example, if you are running a randomised controlled trial.

This may require compensating or offsetting differential effects between groups. It is not always possible to deploy an experimental design that ensures this. In such cases, you should consider whether post-intervention measures for compensating or offsetting such effects are available.

This does not mean that it is always unethical if everybody in the target group is not affected equally. Sometimes this can be appropriate; for example, if it is necessary to run an experiment that can point to the best intervention, which you can then use for the whole target group going forward, provided the experiment does not result in any harmful consequences for anyone.

4. Is the intervention transparent to the target group? Consider whether the intervention's nature and purpose are clear to citizens, and ensure citizens are not being held responsible for consequences they did not consciously select. If you communicate explicitly to citizens about the desired behaviour, it will be transparent what you would like them to do and depending on the nudging techniques you use they may also be able to see how you are trying to influence them.

An example of a transparent nudging technique is salience; for example, highlighting certain information, and an example of a non-transparent nudging technique is framing; for example, framing a desired behaviour as the avoidance of a loss. However, just because a nudging technique is non-transparent, it is not necessarily unethical.

Moreover, remember to report what works and what does not. Colleagues, other government bodies and other relevant stakeholders should learn from your efforts. Importantly, this includes reporting null results and unexpected effects to avoid exposing citizens to interventions that have already been shown to fail.

5. Is the intervention avoidable for the target group? You should consider whether to offer citizens a way out. Ideally, citizens should be able to avoid the intervention; however, if they cannot, for example because the intervention is non-transparent, there should be easy pathways to object to or complain about the communication that the nudging technique is applied to.

6. Is the intervention empowering for the target group? If the intervention is co-designed with the target group or empowers citizens to make choices that are in their own long-term interest as well as in the public interest, this is a good indicator that it is ethically sound. On the other hand, if the intervention limits or ignores the autonomy of citizens, then you should pay special attention to the ethical dimension of the intervention.

When sampling, remember to consider the diversity of your group if relevant, particularly marginalised, underrepresented or vulnerable subgroups to gain an understanding of if and how your intervention

affects groups differently. A way to do this can be segmentation of the target group based on the tax administration's data.

7. **Is data handled in a secure and ethically sound way?** Use of nudging techniques often involves extensive analysis and experimentation and therefore data collection that goes beyond what is standard. Consequently, you should pay special attention to the way data is collected, used, and stored, and you should make sure that only necessary data is collected and analysed, and that this is done securely and with respect for confidentiality and privacy; for example, by not collecting or connecting potentially identifying data.

In addition, if studying behaviour up close; for example, if doing qualitative research or lab experiments, consider how to ensure consent, to clearly communicate the purpose of the experiment, and to ensure that participants are voluntarily participating in it.

WAYS TO ENSURE CONSISTENCY WHEN DEALING WITH ETICHAL QUESTIONS

Having in place an overall, common set of ethical considerations still leaves much up to the individual tax administration employee to decide whether a specific attempt at influencing taxpayer behaviour is ethically sound or not.

Therefore, the above considerations are not necessarily enough to ensure perfect ethical standards when applying nudging techniques throughout the tax administration.

Because of this, the second part of this chapter is a brief description of 4 ways to support tax administration employees in dealing with ethical questions in a consistent way.

1. **Establish an ethical framework for the individual tax administration.** The above considerations are overall pointers in terms of what to consider before using nudging techniques. Ideally, they should be adapted and supplemented according to the specific context of the individual tax administration, resulting in an ethical framework that also describes how such considerations fit with the existing processes and workflows; for example, at which phase in a project to consider the various ethical questions, whom to escalate to in case of ethical issues that cannot be resolved etc.

2. **Offer training sessions on ethics to relevant employees.** In addition to developing an ethical framework, relevant employees should also be made aware of it and learn when and how to use it appropriately. Training sessions could help to accomplish this, for example, training sessions for newly hired employees in relevant roles.

3. **Set up an ethical review board in the tax administration.** In many academic institutions there are ethical review boards whose task it is to ensure that the research being carried out is ethically sound. A similar body can also be established in the tax administration, either with the function to review experiments and interventions that leverage nudging techniques before they are carried out or with the function to be a final point of escalation in case of ethical issues that cannot be resolved by the tax administration employees or their managers.

4. **Set up a mechanism for receiving feedback from citizens.** As mentioned above, it can be valuable for tax administrations to get insights into what citizens think of their own values and interests – as well as how citizens think that the tax administration and its communication practices align with their expectations and preferences. This can be achieved by, for example, conducting regular surveys and/or qualitative interviews among representatives of relevant target groups. Tax administration employees can then factor in the insights gained when planning various initiatives.

Figure 15 below can help to systematise how to think about ethics when applying nudging techniques. The questions in the chart are intended to help the user consider key ethical questions. There are various ways to adapt a nudge to ensure that the application is ethical and while these questions should support that goal, they are not comprehensive to every behaviour and every context. For further reading on ethical nudging see Schmidt & Engelen, 2020).

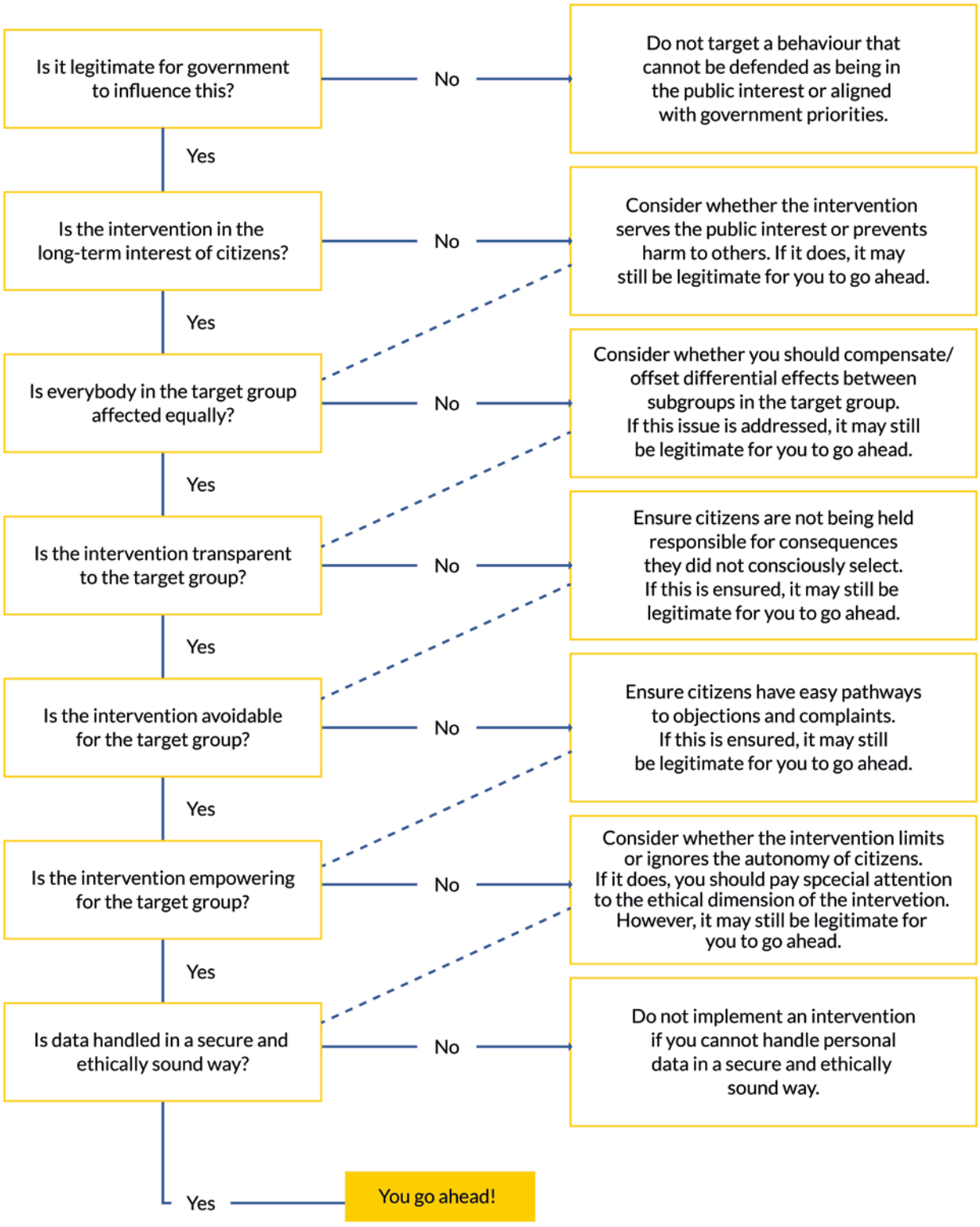


Figure 15: Consider this before applying nudging techniques

Conclusions

The overall objective of this report was to identify and describe best practices in terms of the use of nudging techniques in taxpayer communication, as well as understanding how IOTA member tax administrations use these techniques in their taxpayer communications.

In addition to mapping the prevalence of the usage of nudging techniques in taxpayer communication, we have offered methods commonly employed in behavioural insights literature on how to identify a suitable behavioural intervention for a particular policy issue as well as to gain an understanding of different research methods to enable the measurement of the effectiveness of these interventions to affect the desired behaviour. Finally, we have outlined some common ethical issues observed in the survey responses of IOTA countries and offered concrete suggestions on how to tackle these grounded in the existing approaches in the literature.

Together, the report offers communication professionals and practitioners a nuanced overview of common challenges and concrete suggestions that guide them through key aspects of the behavioural methodology that can help in the development and design of own behavioural interventions in the tax domain.

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