Institutionalisation of Behavioural Insights in Public Policy

Svitlana Khadzhyradieva, Tetiana Hrechko
National Academy for Public Administration under the President of Ukraine
03057 Kyiv, Ezhena Potierst. 20, Ukraine

Vainius Smalskys
Mykolas Romeris University
Valakupių g. 5, LT-10101 Vilnius, Lietuva

Abstract. Over the last decade, the development of cognitive and behavioural sciences has determined the diffusion of the concept and methodology of behavioural insights into social sciences, including the governance sphere. Behavioural teams worldwide participate in developing and implementing the strategies at various levels of governance organisation. The aim of this study is to investigate the institutionalisation process of behavioural insights into public policy. The study has identified the agentive determinants of the institutionalisation efficiency that include: the competence level of public servants, their motivation level, resistance to change and the nature of feedback. It is argued that the approval level of using behavioural insights by civil servants is a prerequisite for their intrinsic motivation, which has a positive effect on the efficiency of institutionalisation of behavioural insights in public policy. The survey has revealed the most approved directions for using behavioural techniques in public policy in Ukraine.

Raktažodžiai: viešoji politika, elgesio modeliai, motyvacija, įgūdžiai, valdymas, strategijų žemėlapiai

Keywords: public policy, behavioural insights, nudge, motivation, competences, authority, strategic maps

Introduction

Over ten years since the fundamental work of Thaler and Sunstein was released (Thaler, Sunstein, 2008), nudge technologies were put into governance practice, behavioural teams were created worldwide, experiments are being conducted, and the results are being actively published. The theory and methodology of choice architecture have entered the institutionalisation process, and without a behavioural component, modern governance is no longer possible both at the level of strategic goal-setting and at the level of implementing plans and programs (Khoury, Abouchakra, 2015).

Behavioural and cognitive technologies were included in the governance terminology under the name “behavioural insights”. Behavioural insights (BI) is an approach to policymaking that builds on lessons derived from the behavioural and social sciences, including decision making, psychology, cognitive science, neuroscience, organisational and group behaviour (OECD, 2017). Since 2013, OECD has been at the forefront of supporting public institutions to apply BI. Currently, there are over 200 institutions around the world policymakers using BI to improving public policy.

The technologies of behavioural science are defined as an essential governance element in the era of the formation of Industry 4.0, which is noted in the documents of the World Economic Forum (WEF, 2019). The IEF experts state the link between the formation of Industry 4.0 and the increased management flexibility at the level of individual states. At the same time, behavioural sciences are included in the set of components that ensures a similar qualitative transformation.
Behavioural sciences provide an effective toolkit to form an adequate response of social systems to global challenges. According to Mind, Behaviour, and Development Unit (eMBeD), the World Bank’s behavioural science team in the Poverty and Equity Global Practice, behaviourally informed policy:

- emphasizes the importance of context for decision making and behaviour – a behaviourally informed diagnosis takes account of social, psychological, economic influences;
- addresses details in bureaucracies, technologies, and service delivery that are sometimes overlooked in standard policy design but that dramatically affect development policies and initiatives, especially in a low-income context;
- helps policymakers themselves avoid some of the decision traps and biases that affect all individuals, sparking the use of innovative, low-cost solutions (eMBeD, 2018a).

However, in each individual case, the institutionalisation process in behavioural teams/elements has its specifics which are determined by the willingness of the authorities and public servants to use the existing toolkit to improve the efficiency of achieving the goals. Applying BI in governance practice has its own specifics. The main reasons include:

- the conceptual system is not clear enough, because not all concepts and terms of behavioural practices have well-established definitions, some of them are characterized by multiplicity of constructions and interpretations;
- the methodological toolkit of BI, as well as notions of its efficiency, are in the process of formation;
- for non-professionals there is a complexity in applying BI, which hinders the implementation of these technologies into a widespread practice of governance;
- at the moment, applying BI is more art than science, although it is based on the modern advances in cognitive and behavioural sciences;
- a deterrent for the large-scale implementation of BI is the insufficient compliance of the proposed methodological toolkit with the established planning and design practices in the public policy.

However, despite the highlighted problems, several reasons determine the need to institutionalise behavioural insights in public policy. There are at least three reasons for the applicability of the toolkit of behavioural sciences in the development of public policy and its implementation.

1. The introduction of behavioural insights into the governance practice will promote the development of a holistic, systemic vision in forming and implementing public policy. Applying behavioural insights is aimed at changing the structure of a social system according to a specified criterion. Therefore, in order only to formulate the task in these terms, it is necessary to have an idea of the whole and its favourable trend. This is particularly important at the stage of rethinking of ‘New public management’ (NPM) (Dooren, Hoffmann, 2018; Hood, Dixon, 2015). Thus, Dooren and Hoffmann state that New Public Management reforms in Europe, as elsewhere, heavily rely on performance indicators and targets. Rather than a system of accountability, performance management should prompt learning and dialogue. Performance management as a learning system may well be the next idea whose time has come”. In this context, the introduction of BI will significantly increase the understanding of optimal results and efficiency.

2. With applying behavioural insights, there is an opportunity to improve efficiency in achieving specific tasks. Several studies (Benartzi et al., 2017; Güntner et al., 2019) have proven that applying behavioural insights increases the efficiency of solving problems in healthcare, education, resource-saving, tax collection.

3. The introduction of behavioural insights into the governance practice makes it possible to exercise control for the benefit of citizens, to apply behavioural insights by the corporate economy (Güntner et al., 2019). The ongoing development of cognitive and behavioural sciences gives rise to new effective tools for moderating the behaviour of individuals and groups, which are quickly
absorbed by the corporate economy. In such conditions, the lag of the public sector can create conditions for imbalance of interests.

The ways to institutionalise behavioural insights in public policy are variable and are subject to careful consideration. So this study aims to investigate the institutionalisation process of behavioural insights in public policy. The objectives of this study are: 1) to analyze the specifics of behavioural insights (on the nudges example) in public policy; 2) to define institutionalization dilemmas and to suggest options for its implementation; 3) to identify the determinants of the institutionalization efficiency, which depend precisely on the officials’ contribution; 4) to investigate the public servants’ approval level of applying the nudge toolkit into the governance practice in Ukraine.

**Theoretical framework**

**Classification.** Behavioural teams worldwide use a nudge complex as a basic methodological toolkit. According to Thaler and Sunstein, nudging is any aspect of the decision-making process that encourages people to change their behaviour in a certain way, without introducing any restrictions on choices. Nudging is not a ban. For example, placing fruit at the eye level is considered nudging; and banning junk food is not (Thaler, Sunstein, 2008).

At the moment, there are various classifications of types of nudges that have both a universal basis and a specific one, given by the goals of individual researchers (Table 1).

**Table 1. Types of nudges.**

<table>
<thead>
<tr>
<th>Author</th>
<th>Classification criterion</th>
<th>Types of nudges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunstein (2014)</td>
<td>Simple list – 10 nudges</td>
<td>1) default rules, 2) simplification, 3) uses of social norms, 4) increases in ease and convenience, 5) disclosure, 6) warnings, graphic or otherwise, 7) pre-commitment strategies, 8) reminders, 9) eliciting implementation intentions, 10) informing people of the nature and consequences of their own past choices</td>
</tr>
<tr>
<td>Thaler, Sunstein (2008)</td>
<td>Brain system</td>
<td>Oriented on System 1-nudge and on System 2-nudge: involves a distinction between two kinds of thinking, one that is intuitive and automatic (System 1), and another that is reflective and rational (System 2)</td>
</tr>
<tr>
<td>Hagman, et al. (2015)</td>
<td>Focusing on private or social welfare</td>
<td>Pro-Social Nudges, Pro-Self Nudges. Pro-social nudges focus on discouraging rational profit-maximizing behaviour while pro-self nudges encourage it.</td>
</tr>
<tr>
<td>Sunstein, Reisch &amp; Rauber (2017)</td>
<td>Level of intrusion</td>
<td>1) governmental information campaigns; 2) mandatory information disclosure requirements imposed by governments; 3) mandatory default rules imposed by governments; 4) mandatory subliminal advertising (“Non-nudge”); 5) mandatory choice architecture.</td>
</tr>
<tr>
<td>Mongin &amp; Cozic (2018)</td>
<td>By properties of nudge interventions</td>
<td>1) redirect individual choices by only slightly altering choice conditions (nudge 1); 2) use rationality failures instrumentally (nudge 2); alleviate the unfavourable effects of these failures (nudge 3).</td>
</tr>
</tbody>
</table>

**Source: authors**

Nudging uses several imperfections and behavioural specifics of an individual as a decision-maker. In the case of the government, such use is supposed to have noble purposes. At the same time, the goals themselves may differ in the appropriacy of applying specific methods of management influence.

The MINDSPACE framework provides a quick overview of some of the most robust and powerful tools that can and have been used to influence behaviour.
1. “Safer Communities”. Challenges include: preventing crime, reducing anti-social behaviour, preventing degradation of surroundings

2. “The Good Society”. Challenges include: promoting environmental behaviours, increasing voting, encouraging responsible parenting

3. “Healthy and Prosperous Lives”. Challenges include: stopping smoking, reducing obesity, promoting responsible personal finances, encouraging take-up of education and training

Combining a) the goal of the behaviour change, b) the citizens who are affected, and c) the perceived legitimacy of government action creates a flexible framework that covers the major areas of government policy (The Behavioural Insights Team, 2010).

The less acceptable the government’s traditional role is in the spheres of society’s life, the more organic applying nudge methods is there.

It is important to note that a number of tools of choice architecture exist objectively and function regardless of the degree of awareness of this impact by both citizens and public servants. This applies particularly to the urban environment as a space that determines one or another choice. A recent study in Canada tracked a detailed correspondence between the organisation of the urban environment and the citizens’ morbidity. The researchers found that “provincial and urban-rural differences exist for contextual determinants of health. Cardiovascular risk varies across communities in Canada. Community-level differences in contextual factors may influence risk factor development (Souza et al. 2018)”. Thus, the use of nudge methods (in particular, choice architecture methods) at the local government level creates the potential for improving the citizens’ living standards as one of the most frequently mentioned goals of strategic development of local territorial entities.

Specifics of nudges in public policy. Applying nudge methods in public policy has specific characteristics that have to be clarified in the framework of this study. It is important to note that nudge methods as such do not affiliate to definite political or value system. They are universal by nature. Certain methods can be used for the achievement of various goals by different political groups.

In the research of C. Sunstein, where political preferences segmented the study group in USA, types of nudges were identified that received a higher level of support from Conservatives than from Democrats. For example, federally required labels on products that come from countries that have recently harboured terrorists, as in “This product comes from a nation that was recently found to harbour terrorists.” This approach attracted 54% approval – 56% from Democrats, 58% from Republicans, and 49% from independents (Sunstein, 2016). Different levels of support apply to both popular and unpopular types of nudges.

The share of support by Conservatives was higher for one of the unpopular default rules. A state law assumes that people are Christian, for purposes of the census, unless they explicitly state otherwise. Such a default rule could also be seen as an attempt to push religious affiliations in preferred directions (and it would similarly be unconstitutional). Here there was widespread disapproval (21% overall approval; 22% of Democrats, 27% of Republicans, and 17% of independents) (Sunstein, 2016).

Sunstein states that those who disapprove of abortion will be especially likely to support nudges that are designed to discourage abortion; those who do not disapprove of abortion will be unlikely to support such nudges. Imagine an anti-abortion nudge in the form of a law requiring pregnant women seeking abortions to be presented with a fetal heartbeat or a sonogram. (Some American states do impose such anti-abortion nudges.) We can predict, with a high degree of confidence, that Democrats would show lower approval ratings than Republicans. My own study, on Amazon’s Mechanical Turk, finds precisely that: About 28% of Democrats approve, compared to 70% of Republicans.

(Sunstein, 2016)

This fact proves that nudging as a tool can be integrated into any political program and used to achieve various goals.
The fact that democratic cabinets initially implemented the introduction of nudge methods in the USA and the UK is an evidence of their higher sensitivity to new tools, to the achievements of behavioural and cognitive sciences, but does not determine the complex of nudge methods as an exclusively libertarian imperative.

Nudging is a qualitatively different way to achieve management goals, which is different from prohibitive methods and methods of direct incentive inherent in classical behaviourism. This method is based on the rethinking of the nature of a managed object. In terms of modern science, a subject is defined as “boundedly rational” during the cognitive revolution. The limited memory capacity of an individual, the dynamic level of their efforts, the altruistic strategies undertaken by them substantially correct the understanding of the causes of individual and mass behaviour.

The nudge methods are used in various management contexts to achieve a wide range of goals. There are two basic options for applying nudge methods in public policy: direct and indirect.

The direct methods are optimally implemented at the local government level. Particularly this approach applies to the choice architecture methods when local authorities themselves organise the urban space taking into account strategic goals and objectives.

At the central and regional levels, nudge methods are implemented not directly but indirectly. It often requires involving additional subjects of the nudging process. Thus, the government influences the subjects that are expected to apply one or another nudge method. For example, supermarkets, media, energy companies, etc. For the various options for limiting, prescribing or stimulating impacts are offered.

The indirect way of introducing nudge methods has its own specifics:

- the same nudge method can be placed in a different management context (Fig. 1);
- the management goal sets the management context where a suitable, in an expert’s opinion, nudge method is integrated.

![Fig. 1. Nudging in management context](source: authors)

To date, in the process of nudge research in the works of various specialists have been identified as universal trends that characterise the support of certain types of nudges:

- the lower approval of the System 1-nudges (Sunstein, 2016; Sunstein, 2018);
- the relatively low level of support for nudge methods concerning personal finances (Sunstein, Reisch, 2016);
the lower nudges approval by male gender representatives (Sunstein, Reisch, Rauber, 2018; Loibl et al., 2018).

At the same time, abovementioned studies show a relatively high level of nudge approval in general. However, the use of behavioural insights has not been investigated in the context of their approval by civil servants as an element of public policy formation.

**Efficiency of BI institutionalization.** Implementation of BI in governance practice requires a search of an institutionalisation way adequate to national conditions. Institutionalisation is a process that in this case assumes:

- choice of organisational forms of generating and accumulation of knowledge on behavioural insights, as well as the methods of their application in public policy;
- providing access and training for behavioural insight professionals to existing knowledge and effective practices;
- specification of the functions of behavioural insight specialists and their place in the organisational structure;
- formation of norms and rules of specialists in BI functioning;
- choice of ways to monitor compliance of BI with standards and options for responding to their violations.

The critical issue of institutionalisation is the specification of the functions of behavioural insights specialists and their place in the organisational structure, as it sets all other parameters of institutionalisation.

The World Bank specialists (eMBeD, 2018b) highlight two ways of institutionalisation: a structured approach and an organic and people-driven approach. Sometimes, both approaches may coexist in the same country context. What we mean by a *structured approach* is when a unit or team is formally established within a governmental entity and is recognized in its organisational structure. The organic and *people-driven approach* takes place when individuals within the government implement behaviourally informed intervention with or without the support of external partners (eMBeD, 2018b). In fact, these institutionalisation options deal with the existing authority of the BI specialists. The authority can be linear and functional, or they can be advisory, which is a weaker version of institutionalisation of the technologies under consideration. Cass Sunstein also mentioned two ways to institutionalise BI having highlighted the dilemma “specialisation vs authority”.

We could imagine a system in which an understanding of nudges is used by *current officials and institutions, including leaders at the highest levels*. For example, the relevant research could be enlisted by those involved in promoting competitiveness, environmental protection, public safety, consumer protection, and economic growth – or in reducing private and public corruption and combating poverty, infectious diseases, and obesity. Focusing on concrete problems rather than abstract theories, officials with well-established positions might be expected to use that research, at least on occasion.

An entirely different approach would be to create a new institution – such as a *behavioural insights team* or a “*nudge unit*” of some sort (as in the United Kingdom, the United States, and increasingly many nations). Such an institution could be organized in different ways, and it could have many various forms and sizes. On a minimalist model, it would have a small group of knowledgeable people (say, five), bringing relevant findings to bear and perhaps engaging in, or spurring, research on their own. On a more ambitious model, the team could be larger (say, thirty or more), engaging in a wide range of relevant research. A behavioural insights team could be created as a formal part of government (the preferred model, to ensure real impact) or could have a purely advisory role. (Sunstein, 2014). According to Sunstein, the two approaches might prove complementary.

In view of the two abovementioned dilemmas, identified by the World Bank specialists and C. Sunstein, it is possible to get an institutionalization matrix (Fig. 2) formed by two axes:
competence level (key – peripheral) and nature of authority (linear and functional – on one side, and advisory – on the other side).

Fig. 2. Institutionalisation matrix

Source: authors

The institutional matrix illustrates the approach to solving the key point of institutionalisation: “specification of the functions of behavioural insight specialists and their place in the organisational structure”. The matrix offers four options for the functioning of specialists on BI with key or peripheral competencies integrated into the organisational structure based on linear and functional or advisory authorities:

1. Behavioural advisors (sociologists, psychologists, marketers) who apply behavioural insights in public policy. Specialists of allied professions who are competent to develop and introduce behavioural insights and exercise advisory authority. Initially, this group of specialists was initiated, the professionals of the second group were formed precisely from the specialists of allied professions that respond to newly emerging concepts and toolkit.

2. Professional advisors: behavioural insights units at departments, universities, research institutes, public organisations. These are highly qualified specialists with advisory authority in the public policy development and implementation processes.

The representatives of 1 and 2 quadrants are mainly research groups whose goal is to innovate, develop and test the most effective BI tools.

3. Officials using behavioural insights ad hoc in various spheres of activity. Early simulators represent this group. Its representatives have full authority, and their functions include the development and implementation of development strategies at different governance levels. At the same time, they are not specialists in behavioural sciences, but they can form peripheral competencies of applying behavioural insights in their activities.

4. Officials with a basic specialisation in BI at the central, regional, municipal levels. They have both a high level of competence and authority.

The participants in the first two quadrants of the matrix ensure the beginning of the launching of behavioural insights into the practice of public policy forming. These are consultants who can provide services to both the private and the public sector organisations; they can also form independent teams. At the same time, the sustainable integration of the toolkit of behavioural sciences into the governance practice depends on the participants of the third and fourth quadrants – officials with full authority and necessary competences. The ability to organise effective communication between innovative teams of developers of behavioural tools and practitioners whose goal is to ensure
the effective achievement of strategic goals is a significant efficiency factor of institutionalisation of behavioural insights in public policy. From the point of view of the diffusion rate of the existing knowledge into the governance practice, more effective model combines the centre (or centres) of accumulation, generation and testing of nudge methodologies and competent officials who can integrate the existing methods into plans and goal achievement programs at each management level. In this case, it is appropriate to consider the complex of nudge methods as a behavioural component of implementing plans and programs.

The importance of information interchange between development teams and practitioners is mentioned in the paper (Benartzi et al., 2017): nudge units and other organisations enlisting nudges should share data and knowledge (e.g., through a central repository) and coordinate efforts to maximise their learning from one another. Tracking failures are as essential for knowledge creation as tracking successes. At the same time, the competences of public servants (sector 4) will form the basis for implementing behavioural tools and ensure a more sustainable level of institutionalisation. Thus, in order to obtain the lasting result of the application of behavioural insights in public policy, it is necessary to ensure that the participants of 3 and 4 quadrants of the institutionalization matrix are active, that is the officials whose functions include developing and implementing development strategies in various life spheres at all levels of governance and local government organization.

*Fig. 3. The determinants of the agentive efficiency of institutionalisation of behavioural insights into the governance practice.*

*Source: authors*

In the framework of this study, it is necessary to consider the *efficiency of institutionalisation* of behavioural insights in public policy. This characteristic of BI implementation in governance practice includes a relation between results achieved and resources used. As a result of the institutionalisation process, it is proposed to consider: 1) the speed of the implementation of norms, rules, introduction of appropriate procedures, training of BI specialists and their integration into the structure of public administration, and 2) the qualitative characteristics of the functioning of the
formed institution. The formal part of the institutionalisation process can be carried out “from the top” (to adopt laws, develop a methodology, prepare specialists of a given qualification and take them into account in the staffing table). And the informal part concerns the readiness of personnel to introduce BI into the governance practice and to do it qualitatively. Hence it will require a high level of involvement of public servants. Therefore, it is appropriate to identify the determinants of the institutionalisation efficiency of behavioural insights into the governance practice, which depend precisely on the officials’ contribution. Let us call this efficiency an agentive one (Fig. 3).

The following determinants of agentive efficiency can be highlighted:

Resistance to change. Any innovative actions are necessarily accompanied by resistance to change. In order to minimise its impact, it is advisable to ensure the ease and availability of information transfer from BI developing teams to practitioners. This is feasible when behavioural insights are integrated into the existing practices of developing and implementing strategic plans and programs, such as strategic maps and logic models (Kaplan, Norton, 1996; Cole, Parston, 2006; Marr, Creelman, 2011);

Feedback. The nature of the feedback from applying behavioural toolkit can trigger both intensifying and decaying feedback. With evident efficiency of the used toolkit, a need is formed for the further development of this direction of public policy implementation;

Competence of civil servants. The higher the competence level is, the higher the potential efficiency of the institutionalisation of behavioural tools is. The required competency level can be ensured by public servants’ advanced training (activating quadrant 3 of the institutionalisation matrix) and by introducing a separate specialisation of civil servants (forming quadrant 4);

Motivation of civil servants. The factor of motivating civil servants to the application of the toolkit of behavioural sciences has particular importance. Experts identify both extrinsic and intrinsic motivation. With that, the value of intrinsic motivation is assessed as more significant than the application of external stimuli (Ryan, Deci, 2000; Georgellis, Iossa, Tabvuma, 2010).

In the commercial sector, the motivation to apply nudge methods is determined by their efficiency in achieving commercial goals. The application of the nudge methods in the public sector will require officials’ motivation to goal achievement. Formally, each governance level forms development strategies whose efficiency can be increased by integrating the behavioural component into implementation plans. On the other hand, the willingness of officials to apply the existing nudge methods will depend both on the connection of reward with the goals being achieved (extrinsic motivation) and on personal approval of implementing the complex of nudge methods (intrinsic motivation). Crewson (1997) finds that public sector employees rank intrinsic rewards higher than extrinsic rewards, whereas the opposite is true for private-sector employees.

In light of this, the potential success of implementing nudge methods will require their approval by public servants as a prerequisite for forming intrinsic motivation.

In reality, both spheres of society’s life and types of nudges which have an insufficient approval level can exist. In this case, the resistance to change can generally have an impact on the efficiency of institutionalisation.

Thus, a significant determinant of the agentive efficiency of institutionalising behavioural insights into the governance practice is the public servants’ approval level of applying this toolkit. The approval level can be evaluated with specialised surveys.

Research design

Sampling. In the course of the study, we surveyed 726 public servants who are postgraduate students of the National Academy of Public Administration under the President of Ukraine (Table 2).

<table>
<thead>
<tr>
<th>Sample size</th>
<th>726</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>235,000 public servants</td>
</tr>
</tbody>
</table>
These are both the officials, undergoing advanced training, and those who are acquiring the second education in governance. For the panel, we selected a group adequate to the general population by gender, age, management level and macro-region. The sample was formed on the basis of a database of current and former students of the National Academy for Public Administration under the President of Ukraine who at the same time are public servants.

The study was conducted using an anonymous electronic questionnaire. The questionnaire was made with the aim of the Internet service Tilda, which allows accumulating the respondents’ answers in the form of applications. It is possible to access the questionnaire with various types of devices: PC, tablet, smartphone.


The questionnaire includes a verification question (attention check), which allows to identify invalid cases. These were six questionnaires, which were replaced by respondents with identical characteristics from the database. As a result, the sample was 726 valid cases.

The questionnaire is presented outside a particular context, like an opinion poll of public servants on the applicability of certain behavioural tools.

The sample descriptions are presented in Table 3.

### Table 3. Selection criteria for representative samples.

<table>
<thead>
<tr>
<th>Representativeness according to</th>
<th>Sample, % (equals to population, %)</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28 %</td>
<td>203</td>
</tr>
<tr>
<td>Female</td>
<td>72 %</td>
<td>523</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-30</td>
<td>9 %</td>
<td>64</td>
</tr>
<tr>
<td>31-40</td>
<td>30 %</td>
<td>218</td>
</tr>
<tr>
<td>41-50</td>
<td>30 %</td>
<td>218</td>
</tr>
<tr>
<td>51-65</td>
<td>29 %</td>
<td>211</td>
</tr>
<tr>
<td>66+</td>
<td>2 %</td>
<td>15</td>
</tr>
<tr>
<td>Management level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>35 %</td>
<td>254</td>
</tr>
<tr>
<td>Regional</td>
<td>27 %</td>
<td>196</td>
</tr>
<tr>
<td>Local</td>
<td>38 %</td>
<td>276</td>
</tr>
<tr>
<td>Macro region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center</td>
<td>39 %</td>
<td>283</td>
</tr>
<tr>
<td>West</td>
<td>23 %</td>
<td>167</td>
</tr>
<tr>
<td>East</td>
<td>21 %</td>
<td>153</td>
</tr>
<tr>
<td>South</td>
<td>17 %</td>
<td>123</td>
</tr>
</tbody>
</table>

*Source: authors*

**Survey instrument.** The questionnaire used in the study consists of two parts. The first part is a variety of nudge types in several spheres of life: health, education, ecology and resource-saving, and finance. The survey includes three groups of nudge types: informing, default rules and choice architecture (Table 4).

Questions the first part of the questionnaire are as follows:

“In order to enhance the efficiency of achieving strategic objectives: improving the quality of life, achieving sustainable development, and ensuring life safety, is it appropriate to apply such types of managerial influence?”
1. The government obliges educational institutions to conduct an information campaign about the dangers of diseases relevant to the students of a given age before holidays using visual materials (video, pictures).
- appropriate
- inappropriate”.

All 12 questions of the first part of the questionnaire are closed dichotomous.

Table 4. Nudge types in various spheres of society’s life, Nudge spheres (1st part of the questionnaire)

<table>
<thead>
<tr>
<th>Code</th>
<th>Nudge sphere</th>
<th>1 Informatıon</th>
<th>2 Default rules</th>
<th>3 Choice architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Healthcare</td>
<td>The government obliges educational institutions to conduct an information campaign about the dangers of diseases relevant to the students of a given age before holidays.</td>
<td>Default SMS subscription for relevant medical advice for pensioners, disabled people, risk groups. If one wishes, they can unsubscribe.</td>
<td>To detect diseases early, the government obliges healthcare facilities to place outdoor advertisements for services in the places where they are delivered. For instance, “Here you can have a rapid test to detect disease X”.</td>
</tr>
<tr>
<td>Ed</td>
<td>Education</td>
<td>The government pursues an informational explanatory policy for prospective students about current needs in professions by placing billboards during the university admissions process</td>
<td>Educational institutions subscribe parents to an SMS newsletter about their children’s performance by default.</td>
<td>To increase the share of entrepreneurs in the composition of economically active population, the government launches TV projects – TV shows, reality shows, programs about success stories of small business owners.</td>
</tr>
<tr>
<td>Ec</td>
<td>Ecology and resource-saving</td>
<td>To save energy resources, the average amount of household electricity consumption within a given territory (city, region) is specified in payment documents for electricity. It is assumed that those households where consumption is higher will tend to decrease it to the average as a social norm.</td>
<td>Charity by default. A charitable payment to the park improvement fund is set by default for the citizens on the local community level when they are paying utility bills. One can withdraw from the option.</td>
<td>Using bright multi-coloured containers for waste sorting for its further processing.</td>
</tr>
<tr>
<td>F</td>
<td>Finance</td>
<td>The government conducts an information campaign connected with the costs structure of households in rich and developing countries, stimulating a decrease in the share of impulse and status purchases and an increase in the share of costs for education and healthcare</td>
<td>The government encourages the banking policy of automatic fixed deductions from salary or pension (for example, utility payments, loan deductions). At the same time, a bank customer can withdraw from this option.</td>
<td>Placing containers in the checkout area of supermarkets to raise funds for the current goals of the community with their prior promotion. For example, “to provide warming centres for those who found themselves in the street in cold months.”</td>
</tr>
</tbody>
</table>

Source: authors

Drawing on the findings of the previous studies (Sunstein, Reisch, 2016; Sunstein, Reisch, & Rauber, 2018) which note the universal patterns of approval of certain nudge types, we can formulate the following hypotheses for the first part of the questionnaire:

H1a: the approval level of nudges in finance in general and the nudges related to personal finances is lower than in other spheres of society’s life;
H1b: the approval level of default rules is lower than the other nudge types.

Approval level means here the percentage of public servants who considers the usage of offered nudges appropriate.

The second part of the questionnaire involves identifying the selected managerial impact, depending on the management goal. For three types of goals related to safety, quality of life and ecology and resource-saving, three types of impacts are suggested, classified by severity level: ban, mandate and encouragement (Table 5).

Table 5. Types of managerial impact depending on the management goal. (2nd part of the questionnaire)

<table>
<thead>
<tr>
<th>Code</th>
<th>Nudge type</th>
<th>Characteristic of impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Security goals</td>
</tr>
<tr>
<td>S1</td>
<td>Ban / mandate</td>
<td>In order to reduce street night crime</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. To prohibit the sale of alcoholic beverages after 21:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. To oblige TV channels and cinemas to show social advertising about the harm from alcoholism</td>
</tr>
<tr>
<td>S2</td>
<td>Mandate / encouragement</td>
<td>In order to reduce the level of domestic violence against children</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. In order to encourage the use of non-violent upbringing methods, the government conducts an information campaign (TV shows, social advertising, magazines), explaining the negative consequences of such approach.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The phrase which is read by a civil registrar upon the marriage; conclusion is included in the civil code: “Parents must establish their authority without resort to physical or mental abuse.”</td>
</tr>
<tr>
<td>S3</td>
<td>Ban / encouragement</td>
<td>To achieve safe driving in public transport (fixed-route taxis)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. The government encourages social advertising: stickers that remind passengers of their right to a safe ride and the opportunity to reprove the driver if he is driving carelessly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The government introduced a norm of driver’s license revocation for a short period when the driver’s recklessness on the road was recorded.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Goals related to quality of life</td>
</tr>
<tr>
<td>Q1</td>
<td>Ban / mandate</td>
<td>In order to encourage altruistic behaviour during the Christmas and New Year holidays (from 19.12 to 8.01)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. By law, the government obliges radio and television media to broadcast a certain percentage of “pro-social lyrics” (for example, 50 % for radio and 30 % for television).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. During the Christmas and New Year holidays, the government prohibits broadcasting musical and video works related to wars, violence, triggering negative emotions.</td>
</tr>
<tr>
<td>Q2</td>
<td>Mandate / encouragement</td>
<td>In order to reduce the percentage of smokers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Government obliges to place warning labels on cigarette packs (text warnings, large print)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The government encourages cinemas and television media to show anti-smoking advertisements.</td>
</tr>
<tr>
<td>Q3</td>
<td>Ban / encouragement</td>
<td>In order to reduce the percentage of people with obesity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. The government prohibits the sale of sweets in the checkout area of supermarkets.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The government encourages supermarkets (for example, with tax reliefs) not to place sweets in the checkout area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ecology and resource-saving goals</td>
</tr>
<tr>
<td>E1</td>
<td>Ban / mandate</td>
<td>In order to save electricity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. The government obliges public organisations to use energy-saving lamps for lighting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. It is prohibited to use ordinary incandescent lamps in public organisations; corresponding fines and administrative penalties are stipulated for non-compliance.</td>
</tr>
<tr>
<td>E2</td>
<td>Mandate / encouragement</td>
<td>In order to reduce costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Starting from grade 5, the option “digital textbook by default” is set. And digital textbooks are used instead of paper ones.</td>
</tr>
</tbody>
</table>
Questions of the second part of the questionnaire are as follows:

“Choose a more appropriate, in your opinion, type of managerial impact (government regulation) to achieve the following goals:
In order to reduce street night crime:
1. To prohibit the sale of alcoholic beverages after 21.00.
2. To oblige TV channels and cinemas to show social advertising about the harm from alcoholism”.

All nine questions of the second part of the questionnaire are closed bivariate. The respondent is asked to choose one of the options for solving problems grouped by management objectives. These management objectives are common in the strategic plans and programs of national, regional or local development.

For all types of management impact, it is true that the higher the level of danger, the more radical the measures applied. It can be assumed that the same principle holds for behavioural insights.

So, the hypothesis for the second part of the questionnaire can be formulated as follows:

$H_2$: the approval level of bun methods for security goals achievement is higher than for the achievement of goals related to quality of life and ecology and resource-saving.

The additional question of the questionnaire was related to determining the level of nudge technologies application in the governance practice at present. The question is multiple-choice, closed. The nominal scales used to analyze and process the questionnaire data allow for a quantitative assessment of the approval of certain types of nudges.

**Findings**

The following data were obtained from the study (Table 6).

In the spheres of nudge technology application, the approval level is distributed as follows: healthcare, education, ecology and resource-saving, finance. This distribution confirms the hypothesis $H1a$. All other conditions being equal, the application of nudge methods related to financial expenses receives a lower approval level. In this case, the result is sustainable even regardless of the amount of financial expenses.

Table 6. The approval level of nudges by public servants of Ukraine differentiated by type and spheres of application, % from valid cases.

<table>
<thead>
<tr>
<th>Code</th>
<th>Nudge sphere</th>
<th>Informing</th>
<th>Default rules</th>
<th>Choice architecture</th>
<th>Average approval level by spheres</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Healthcare</td>
<td>83</td>
<td>66</td>
<td>91</td>
<td>81</td>
</tr>
<tr>
<td>Ed</td>
<td>Education</td>
<td>75</td>
<td>75</td>
<td>77</td>
<td>76</td>
</tr>
<tr>
<td>Ec</td>
<td>Ecology and resource-saving</td>
<td>64</td>
<td>42</td>
<td>92</td>
<td>64</td>
</tr>
<tr>
<td>F</td>
<td>Finance</td>
<td>60</td>
<td>55</td>
<td>58</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Average approval level by types</td>
<td>70</td>
<td>60</td>
<td>79</td>
<td></td>
</tr>
</tbody>
</table>

*Source: authors*
As for the nudge types, the approval level is distributed as follows: choice architecture tools (79 %), informing (70 %), default rules (60 %) (Fig. 4). This fact confirms the hypothesis $H1b$ that the default rules traditionally receive a lower approval level from citizens than other nudge methods. This trend is also valid for public servants.

![Fig. 4. The approval level of various nudge types by civil servants in several spheres of society’s life, % from valid cases. Source: authors](image)

The results of the second part of the questionnaire are presented in Table 7.

**Table 7. Preferred type of managerial impact depending on the management goal, % from valid cases.**

<table>
<thead>
<tr>
<th>Impact type</th>
<th>Safety</th>
<th>Quality of life</th>
<th>Ecology &amp; resource-saving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$S1$</td>
<td>$S2$</td>
<td>$S3$</td>
</tr>
<tr>
<td>Ban</td>
<td>73 %</td>
<td>85 %</td>
<td>45 %</td>
</tr>
<tr>
<td>Mandate</td>
<td>27 %</td>
<td>23 %</td>
<td>55 %</td>
</tr>
<tr>
<td>Encouragement</td>
<td>77 %</td>
<td>15 %</td>
<td>43 %</td>
</tr>
</tbody>
</table>

*Source: authors*

As it is seen from Table 7, to achieve safety goals, direct regulatory measures (like a direct ban) are defined as more appropriate. In order to achieve the goals of quality of life, prescriptive and incentive methods are preferred. In order to achieve the goals of environmental protection and resource-saving, public servants preferred a stimulating context instead of prescriptions and bans.

Thus, it can be argued that there is a relationship between management goals and preferred regulatory context for the application of behavioural insights. The higher the level of danger and potential threats is, the more public servants tend to have recourse to direct prohibitive measures. The findings confirm the hypothesis $H2$ that the approval level of bun methods for security goals achievement is higher than for achievement the goals related to quality of life and ecology and resource-saving.
The question about the application of behavioural insights in the governance practice was answered as follows: 45% of public servants do not use behavioural toolkit, 52% use it partly, and for 4% of civil servants the behavioural toolkit is a compulsory component of strategic plans and programs.

The study confirmed the previously revealed pattern that, all other conditions being equal, women tend to demonstrate a higher approval level for applying nudges than men. In this case, the gender viewpoint of the sample gave the most significant gap in the approval level than other types of classifications (12%).

The conducted study revealed an additional effect, which can be called the “pull-in effect”. 28% of surveyed public servants asked for additional materials to find out more about the practice of applying behavioural insights.

**Discussion**

The conducted survey of public servants of Ukraine allows for the conclusion that a sufficiently high approval level of nudge methods may become a prerequisite for forming intrinsic motivation to their application. At the same time, the current competence level of public servants of Ukraine in BI application is low (only 4% of respondents include BI in plans and programs), which positions them in the 3rd quadrant of the institutionalisation matrix.

In the process of research, there were confirmed the trends identified in previous multinational studies, concerning:

- the lower approval of the default rules than other nudge methods, which is hypothetically due to their greater appeal to System 1 (Sunstein, 2016; Sunstein, 2018);
- the relatively low level of support for those nudge methods that relate to personal finances (Sunstein, Reisch, 2016);
- the gender factor is influencing the degree of approval. In particular, the male gender is associated with a lower likelihood of nudge approval. (Sunstein, Reisch, Rauber, 2018; Loibl et al., 2018).

These trends must persist among public servants, while they have been identified for all citizens of different countries. And if citizens evaluate nudges in terms of applying these methods to them personally, then public servants do it in the context of achieving regulatory goals.

The study revealed that only 4% of public servants include BI in plans and programs. At the same time, 52% apply them ad hoc. In order to make the toolkit of behavioural sciences commonly used in the governance sphere, it is advisable to integrate the set of nudge methods into strategic planning tools.

In the last, The Behavioural Economics Guide 2018, A Practical Framework for Behavioural Science in Strategy, called D.R.I.V.E, was suggested. The application of the proposed set of technologies requires high specialisation in the issue and, in fact, in a research activity. The presented set of measures is suitable for specialists of the first and second quadrants of the institutionalisation matrix (see Fig. 2).

Besides, the Behavioural Insights Toolkit & Ethical Guidelines has been developed by the OECD in partnership with Dr Pelle Guldborg Hansen of Roskilde University, Denmark. (OECD, 2018). This set of measures is also focused mainly on the specialists with a high competence level in developing and applying behavioural insights. Thus, the functions of generating, developing and testing the efficiency of BI in the governance sphere are more inherent in the participants of the 1 and 2 quadrants of the institutionalization matrix, and the functions of the representatives of 3 and 4 quadrants are to select those techniques and methods from the existing base that are more consistent with the goals of the strategic development of the managed objects.

At the same time, the real integration of behavioural toolkit into the process of strategic goal-setting and implementation requires turnkey solutions for urgent problems that can be element-by-element built into the process of achieving strategic goals in the governance sphere.
For this purpose, it is proposed to form the ways of integrating BI into such strategic planning tools as strategic maps and logic models (Kaplan, Norton, 1996; Cole, Parston, 2006; Marr, Creelman, 2011). Cole and Parston state that the reason to create a strategy map or logic model is to identify and clarify what goes into a program, what are the outputs in terms of products or services produced and what outcomes are supposed to be the final result. Such maps and models should, by definition, be tailored to define the specific steps followed by a particular program (Cole, Parston, 2006). Integration of BI into the practice of public administration is optimally carried out at the stage of development of plans and programs that implement strategic goals. Ideally, when developing plans to achieve each of the strategic goals and forming programs for the implementation of these plans, it is advisable to take into account the behavioural component. It is necessary to analyse whether the goals can be achieved more effectively through behavioural tools, or whether they can be used as supportive interventions.

To sum up, it can be noted that the process of institutionalisation of behavioural insights in public policy in Ukraine is in the initial stage. At the same time, the study showed a high level of involvement of civil servants (28% of respondents asked for additional information on the prospects for the BI use) and a relatively high level of support for behavioural tools (on average, about 70%). Such approval level of using behavioural insights by public servants is a prerequisite for their intrinsic motivation, which has a positive effect on the efficiency of institutionalisation of behavioural insights in public policy in Ukraine.

Conclusions

1. Implementation of BI in practice of a public administration requires a search of an institutionalisation way adequate to national conditions. Institutionalization is a process that in this case assumes: choice of organizational forms of generating and accumulation of knowledge on behavioural insights, as well as the methods of their application in public policy; providing access and training for behavioral insight professionals to existing knowledge and effective practices; specification of the functions of behavioral insight specialists and their place in the organizational structure; formation of norms and rules of specialists in BI functioning; choice of ways to monitor compliance of BI with standards and options for responding to their violations.

2. The efficiency of institutionalisation of behavioural insights in public policy is the characteristic of BI implementation in governance practice which includes a relation between results achieved and resources used. The efficiency of institutionalisation of behavioural insights depends on a number of factors, among which the approval level of applying behavioural tools by public servants is essential, which indirectly determines their intrinsic motivation at introducing these technologies into the practice of developing and implementing public policy.

3. In Ukraine, among public servants, there is considerable support for the set of nudge tools, which suggests loyalty during their large-scale implementation:
   - the support level of applying nudge technologies varies depending on the nudge type and its scope. Among the nudge types, the tools of the choice architecture and informing are predictably the leaders, among the spheres of life – health and education. These are areas where the involvement of the government with directive regulatory tools is considered undesirable. The lowest approval level of nudge tools is found in finance. Regardless of the amount of money, the percentage of disapproval of this approach is quite high;
   - applying the nudge tools is assessed as appropriate depending on the goal has been achieved in a given sphere of life. Security goals require more stringent regulatory methods. And the goals related to quality of life, ecology and resource-saving are willingly regulated using behavioural methods;
   - a high potential for implementation has been found for applying the choice architecture tools, which is especially important for the local government level;
the conducted study revealed a pull-in effect driven by the potential of public servants’ intrinsic motivation. 28% of respondents requested additional information on the use of nudge methods in the work of public authorities.

4. As a way to implement the nudge complex into the work of the public authorities, it was proposed to use strategic maps and logic models that link up “strategy – plans, programs – behavioural component”.

References

Svitlana Khadzhyradieva, Tetiana Hrechko, Vainius Smalskys

Elgesio modeliai institucinio proceso metu viešojoje politikoje

Santrauka

Per pastarąjį dešimtmetį kognityvinio elgesio tyrimai atskleidė elgesio sampratų, tyrimo metodų vietą visame socialinių mokslų kontekste ir reikšmingą naudą analizuojant valdymo bei vadovavimo procesus. Elgesio tyrėjai dalyvauja kuriant ir taikant elgesio modelius bei strategijas valstybiniam sektoriui. Šis straipsnis siekia įskaičiuoti elgesio modeliai institucinių procesų metu viešojoje politikoje. Autoriai identifikavo kriterijus, kurie išgauna efektyvų ir produktyvų institucinių komunikacijų, Šiems kriterijams priklauso valstybės tarnautojų įgūdžių ir patirties lygis, jų motyvacijos lygis, priešinimasis pokyčiams bei atsiliepimų pobūdis. Ankstesni tyrimai parodė, kad taikant elgesio modelius valstybės tarnautojų kasdienėje veikloje ženkliai išaugo vizijos bei įgūdžių motyvacija, kuri teigiamai užtikrina kokybišką institucijos veiklą. Šio tyrimo metu paaškėjo institucijos, kurioms šio modelio taikymas turėjo didžiausią teigiamą įtaką.

Svitlana Khadzhyradieva – PhD (viešasis valdymas), Ukrainos nacionalinės akademijos Viešojo administravimo ir valstybės tarnybos katedros vedėja. email: sententia.hsk@gmail.com

Tetiana Hrechko – PhD (viešasis administravimas), Ukrainos nacionalinės akademijos asoc. profesorė. email: grechkotatyana@gmail.com

Vainius Smalskys – Mykolo Romerio universiteto Politikos ir vadybos fakulteto Viešojo administravimo instituto direktorius, socialinių mokslų daktaras, profesorius. email: vainius@mruni.eu

Svitlana Khadzhyradieva – Doctor of Science in Public Administration, Chairman of Department of Public Administration and Public Service, National Academy of Public Administration under the President of Ukraine, Ukraine. email: sententia.hsk@gmail.com

Tetiana Hrechko – PhD in Public Administration, Associate Professor, National Academy of Public Administration Office of the President of Ukraine, Associate Professor at the Department of Public Administration and Public Service, National Academy for Public Administration under the President of Ukraine, Ukraine. email: grechkotatyana@gmail.com

Vainius Smalskys – Doctor of Social Science, Mykolas Romeris University, Faculty of Politics and Management, Director of Institute of Public Administration, Professor. email: vainius@mruni.eu