

## Review

# Long Run Effects of Nudging on Preference Formation in India

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**Abstract:**

Nudging is now a well-established policy instrument in behavioural economics, capable of influencing consumer choices without removing options or radically altering financial incentives. Applications and considerations of nudges have been explored in the fields of sanitation, health, financial inclusion, energy consumption, tax evasion, gender equality, and public service delivery in India. Whilst the majority of nudge studies have focused on effects on people's immediate behaviours, it has been less common to study whether nudges lead to long-term changes in their preferences, habits, values, and social norms. This paper attempts to investigate the change in preferences over time in India due to nudges. It suggests that numbers may have effects on preferences when repeated, visible to others, culturally appropriate and supported by institutions. The nudges could facilitate not only personal change, but over time influence what people consider to be "normal," "desirable," "respectable," or "morally acceptable." In India, nudges can affect individuals' choices and can also eventually lead to changes in what is considered "normal," "desirable," "respectable", or "morally acceptable" in the context of family, caste, religion, and community norms and state programs. The paper identifies some potential hazards, among these: superficial compliance, external triggers, manipulation, and non-uniform effects on social groups. It concludes that nudging in India can help in the long-term formation of preferences; however, this is not without the involvement of a wider education, drivers, infrastructure, trust, and social support system that facilitates the desired behaviour.

**Keywords:** Nudging, wider education, drivers, infrastructure, trust, and social support system

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**1. Introduction**

Nudging is making people "choose" what is desirable for them to choose, while at the same time allowing them to choose. The idea was put forward by Richard Thaler and his peer Cass Sunstein, who claim to be able to guide them to become more conscious and act better and better by manipulating defaults, reminders, framing, social norms and convenience without forcing them and without offering large incentives. An example of this is a default savings plan: when people are not enrolled in a savings plan, they usually

aren't. One example of this is an automatic savings plan, where a person might want to opt out, but they're more likely to do so when the default is different.

In India, nudging is especially significant because there are a lot of behavioural issues in the context of public policies. So, constructing toilets is no guarantee that they will actually be used. Simply opening bank accounts doesn't ensure that individuals will save regularly. Providing health information doesn't always improve diet, vaccination or hygiene.

Similarly, changes in electric power costs may not be enough to decrease energy consumption. The scenarios illustrate the effect of habits, social norms, cultural values, mistrust of institutions, convenience and identities on people's decisions.

The Government of India is interested in behavioural economics. The concepts and ideas of social norms, default options and repeated reinforcement were featured in the 2018-2019 economic survey on employing behavioural tools for public policy. It also related behavioural insights to initiatives like the Swachh Bharat Mission and Beti Bachao Beti Padhao. NITI Aayog joined with Bill and Melinda Gates Foundation and the Centre for Social and Behaviour Change to form the Behavioural Insights Unit of India in 2019.

This paper asks a key question: Can nudges in India modulate long-term preferences as well as short-term behaviour?

The question matters because lasting development depends not only on one-off events but also on the persevering change of preferences. The policy impact of a nudge is much less if the nudge only elicits a single response, such as washing hands, saving once or using a toilet. If a nudging can alter a person's innate preference for cleanliness, saving, health, gender equality, or energy conservation, however, then nudging can be a powerful instrument in social change.

## 2. Conceptual Background

### 2.1 Meaning of Nudging

A nudge is a change in the way that choices are articulated, but it does not eliminate the choices. It does not force people to act in a specific manner, but simply makes it easier, more noticeable, more accepted or more accessible to them.

Examples include:

1. Remind about immunisations or loan repayments.
2. Comparing the amount of electricity consumed with that of others in the community.
3. Incentive to place healthy foods in a cafeteria.
4. Making the default contribution option to savings.
5. Motivation to use the toilet with public pledges.

Communicating messages demonstrating that most community members perform a desired behaviour.

Nudges are founded on the premise that people don't always reason. Shortcuts, habits, feelings, social comparison, identity and convenience are relied upon by the large majority of people.

### 2.2 Preference Formation

By preference, it generally denotes the likes and dislikes, priorities and values an individual has. In standard economic theory, preferences are assumed to be fixed. Behavioural economics and sociology, however, indicate that preferences can change over time as a result of experience, repetition, as well as social norms and institutions, family, culture, media and policy.

For instance, someone may use digital payments for their cashback programs or as a means to enjoy convenience. After lowering the customer's fear of online transactions, if used repeatedly over time, it can create comfort and trust and make digital payment their preferred way of transacting. In the same way, segregation can be imposed as a requirement by the municipality, but the house may also start segregating because it has decided to be cleaner and care about the environment.

So the process of preference formation is somewhat long-term. If people are constantly made aware of an action or a meaning through nudges, these nudges can make a difference in this process.

### 3. Literature Review

Previous studies have found mixed impacts for nudges on long-term outcomes. Nudges sometimes are permanent, sometimes they reduce as soon as the nudges stop. Beshears and Kosowsky note that there could be delayed impacts if the nudges result in "behaviours and long-lived investments, like buying a new energy-saving appliance or changing the physical infrastructure."

Research on energy nudges reveals that some nudges have longer-lasting impacts. A study that reviewed data from 38 natural field experiments revealed continued savings in energy use following treatment. This implies that the extent of technology adoption and habit formation can be a factor to take into consideration, which is to be expected as it suggests that nudge theory can sometimes shift behaviours and preferences for good.

Others will argue that nudges may not always have a great impact, though. There are fears that "nudges" can result in conformity, rather than changing

attitudes. The effects of nudging can also vary by context, type of nudge, social group and policy field. Meta-level uses of the nudging concept draw the reader's attention to problems with publication bias and also insufficient average effects.

The research results on sanitation in India are important. Research on open defecation highlights the social norm and preferences as a social problem alongside the infrastructure problem. Beliefs on purity, cleanliness and behavioural norms with respect to sanitation may prevent toilets from being adopted at the household level, even if they have them in rural India, where open defecation dominates, even if households have a toilet. A World Bank paper showed that having the villagers relocate, with many using latrines or many having negative perspectives about open defecating, contributed to increasing their chances of using the latrines.

It suggests that preferences across communities in India have an extensive influence. Therefore, nudge interventions that alter perceived norms might also affect the process of preference formation at a societal level.

#### 4. India as a Special Context for Nudging

India is a country of diversity, with each state, language, religion, caste, income and education differing from one another, and rural versus urban areas being very different. This variety is helpful, but it can also pose difficulties when it comes to nudging. What is effective for urban Mumbai can't be considered the same for rural Bihar. One can send out a message emphasising concern for physical health, and another which emphasises concern for family honour, religious purity, or community pride. Hence, certain cultural biases are essential for long-term nudging to lead to preferences in India.

In India, there are also strong social networks. Behaviour is influenced by families, neighbours, caste groups, religious communities, self-help groups, and local leaders. In this kind of society, nudges with social norms can have an influence. When the people in the group think that the behaviour is "what people like us do," they will begin to take part in the behaviour and then incorporate it into their preferences.

In sanitation, for instance, changing dispositional attitudes from "toilet construction" to "toilet usage"

involves modifying beliefs about dignity, purity, safety, women and privacy, and community respect. Financial inclusion – from having a bank account to saving regularly requires trust, habit, confidence and perceived usefulness. Adopting energy-saving behaviour from 'saving electricity because of a reminder' to 'valuing efficient consumption' must be a continuous process that needs feedback and social reinforcement.

### 5. Mechanisms Through Which Nudges Shape Long-Run Preferences

#### 5.1 Habit Formation

The most straightforward form of nudges is through the formation of habits. A repeated nudge, which is given over and over, can lead a behaviour to become automatic. Some reminders, like using the toilet, washing hands with soap and water, saving money or paying bills on time, will be like pressure being put on you at first. After a few repetitions, however, the behaviour can become routine.

This is why habit formation is important in India, as many development problems are associated with daily habits. Behaviours such as hygiene, segregation of trash, savings, attendance at school, nutrition, and food energy are repeated actions. Nudge theory doesn't work with one push; rather, it works through a sequence of nudges.

#### 5.2 Social Norm Internalisation

In India, there are numerous options based on what others think they are allowed to do and what they do. Educating about positive social norms can shift the perception of positive expectations. So over time, these may become incorporated into the ways people behave.

If the same campaign keeps finding that the vast majority of households in a village are using toilets, it might be enough to make them a symbol of dignity and modernity. Gendered ideas of family pride and community progress can start to impact how people think about girls' education: it becomes a normal and desirable choice.

This is important because preferences are more than just personal. Are constructivist in nature.

#### 5.3 Identity Based Nudging

Nudges can impact how a person presents themselves. Icons such as "responsible citizens save water" or "good parents vaccinate their children", or "modern households use clean energy" have been

written so that they will relate behaviour to identity. People can develop their identity as well as their behaviours over time.

In India, this is very effective as decisions are taken with India in mind, roles in the family, community lived-in and lived-for, religion, region, caste and class aspirations, national pride. Emphasis was also placed on the connection between cleanliness and a national mission in conversations led by campaigns like Swachh Bharat. Behavioural economics can be used to build aspirational targets for social change, the Economic Survey reported.

#### **5.4 Learning by Doing**

An action may not be popular because people have yet to benefit from it. Nudges have the potential to move someone towards trying a behaviour for the first time. Once they are aware of the good, they might change their tastes.

A household may not have faith in digital remittances, for instance. They may be the first to give something a try after they see others using it, because it is easy to use or is offered as cash back. As soon as they get a taste of this speed and convenience, they could become true devotees of digital payments.

Likewise, others may not want to put in the effort to adopt LPG cooking, formal savings, health insurance or waste segregation at first. After repeated uses, they can come to the realisation of their internal preferences instead of their nudges.

#### **5.5 Infrastructure and Durable Investments**

Some nudges may result in irreversible changes to the environment. For example, the placement of a “nudge” to purchase an energy-efficient appliance could lead to energy savings over time, despite a person's later motivation level. But research on energy nudges suggests long-term nudges may occur when nudges lead to technology adoption or an energy habit.

For Toilets, LPG connections, Bank Accounts, Solar Pumps, Digital Payment, and Water conservation devices, this concept is important for India. A nudge can take the form of an external prompting, but if it is successful in terms of the persistence of adoption, it may become a future preference and decision.

### **6. Indian Policy Areas Where Nudges May Shape Preferences**

#### **6.1 Sanitation and Swachh Bharat Mission**

So, one outstanding case of nudging and changing behaviours in India is sanitation. The Swachh Bharat Mission integrated various aspects of infrastructure development with mass communication, political deployment, social manipulation, community mobilisation, and a diagnosis of the issue. The Economic Survey cited this as a way in which behavioural insights are being put to use in public policy.

The biggest question in the extended mind was whether a shift of preference in using the toilets and promoting cleanliness times, or would people simply conform in this respect because of government restrictions or social pressure. There is also evidence to back up both sides of the argument. There is some evidence that social norms have strong effects on latrine use. But, it has been pointed out that a behavioural change without toilets is being ignored.

This suggests that nudge interventions in sanitation are likely to be most effective if they reframe the way in which toilets are used. Attaching toilets to dignity, to safety, to purity, to family status, modern living is more likely to shape interests over a long period of time.

#### **6.2 Financial Inclusion and Financial Savings**

India has made sincere efforts to increase financial inclusion by opening bank accounts, digital payments, direct bank transfers, and mobile financial services. Some nudges that are tried in this area would be reminders, default saving options, shortened forms, trust-inducing language, and social proof.

The long-term effect will depend on how many individuals go from ownership of an account to utilising financial behaviours. A scheme of the government can motivate an individual to open a bank account, but formalised financial services are reliable, useful and routine only if a preference is developed.

Nudges can help this through by making saving easier, reducing obstacles and making the benefits of saving obvious. However, when incomes are volatile or when banks are not trusted, nudges might not be enough to get preferences consistent.

#### **6.3 Health, Nutrition, and Vaccination**

Information, trust, roles and values of local minds are important determinants of health behaviours in India.

Nudges can encourage vaccination, hospital births, handwashing, nutrition and preventive health care.

For instance, reminders can boost attendance at health appointments. Messages about social norms may be effective in normalising vaccination. Handwashing can be encouraged by using visual cues. But, over the longer-term experience of the health system, positive experiences are needed and established, to ensure preference development. Nudges could lead to immediate responses and a lack of long-term trust if the public health service is inconsistent.

#### **6.4 Energy and Water Conservation**

There are good opportunities for nudge in energy and water savings where feelings are often impacted by feedback, comparisons and reminders. The studies conducted elsewhere indicate that energy nudges have long-term effects, either by changing their habits or implementing technology. India research around urban water conservation revealed that water and energy saving can be achieved by behavioural nudges using simple and inexpensive processes.

In India, nudges could create preferences for conservation if they are connected to the idea of conserving for lower bills, responsible citizenship, local water scarcity, and/or future benefits to children. However, subsidies for water and electricity or irregular water/electricity supply may dampen the effectiveness of price signals and nudges.

#### **6.5 Gender Norms and Education**

Nudges can also influence preferences regarding gender. Positive visibility of successful women, women's commitment to supporting girls' education in their community and presenting daughters as assets will progress to a gradual shift in attitudes. But the preference for a gender is strongly rooted in family structure, marriage markets, safety and a variety of economic opportunities.

Nudges thus have the potential to contribute to gender norms shifts, but not to substitute for legal security, education, employment and security measures.

### **7. Proposed Research Methodology**

Nudging seeks to investigate the long-run consequences of its implementation for preference formation in the context of India; a mixed-methods research design would be useful.

#### **7.1 Research Design**

The study may be conducted in the field by laboratory method, following a time series approach in selected states in India. Random allocation to nudge treatments: villages/urban wards can be randomly allocated to different nudge interventions. The study should follow the subjects for at least 18–36 months, as measuring the process of preference formation in a short time is ineffective.

#### **7.2 Sample**

The sample could encompass rural and urban households in certain states like Maharashtra, Uttar Pradesh, Tamil Nadu, Karnataka and Bihar. It is these states that offer variation in income, culture, governance capacity and social norms.

#### **7.3 Intervention Types**

It is possible for the study to compare four types of nudges:

1. Reminder-based nudges.
2. Social norm nudges.
3. Identity-based nudges.
4. Default/ Convenience nudging.

For instance, in sanitation-related interventions, the reminder message could be targeted to one group, the social norm message to a second group, while another group gets messages about dignity-based identity, and a fourth group has easier access or prioritised scheduling of the toilet maintenance.

#### **7.4 Measuring Preference Formation**

The extent of preference formation cannot be assessed, only from behaviour. The study should be able to be measured in:

1. Actual behaviour.
2. Stated preferences.
3. Willingness to pay.
4. Private attitudes.
5. Perceived social norms.
6. Identity association.
7. Response to nudges after they are taken away.
8. Crossover to other behaviours.

For example: In sanitation, researchers could explore questions about handwashing, like the following: Do people use toilets? Do people prefer to use toilets? Do they think others use toilets? Do they feel shamed or proud when sanitation is discussed? Do they maintain using toilets after messages cease?

#### **7.5 Qualitative Component**

As Indian preferences are cultural, it is essential to conduct interviews and focus groups. Quantitative

data gives indications of change in behaviour, but qualitative data can provide explanations. Researchers should consult with women, the elderly, youth, decision makers, front-line workers, teachers and government officials.

## 8. Discussion

The consequences with regard to nudging in India would be expected to differ in the long-run. The following four conditions need to be in place to ensure that nudges leave long-lasting preferences.

Firstly, the push has to be repeated. Deep preferences are unlikely to change with a single exposure. Repetition can help make behaviour familiar and automatic.

Secondly, the nudge requires a social reinforcement. Everything is subject to acceptance in the community in India. A behaviour that is the norm of the family, neighbourhood, leaders, and institutions is more likely to become a stable preference.

Thirdly, the nudge needs to reflect the cultural context. If the message uses behaviour as it is found in the Western world, it does not work, unless it takes into account Indian social realities. For instance, messages about sanitation have to take account of purity beliefs and caste practices, gender safety and local ideas of dignity.

Fourth, it will need infrastructure support to be effective. If toilets are not well constructed, people can't like them when they are in a dirty state. They can't prefer electronic payments in case the networks go down. If clinics are not reliable, they are not able to opt for public health services.

This isn't a magic bullet answer to nudging. It is best utilised in conjunction with service quality, education, incentives, infrastructure and trust.

## 9. Possible problems and issues

There are ethical concerns with nudging since it is an indirect influencing of people's decisions. This is a relevant concern in India because of disparities between people with regard to information and literacy, income levels and castes, as well as gender.

There may be the danger of manipulation. Some nudges can decrease autonomy when people are led without being told what they're doing. The other risk that comes with this is inequality of effect. It should be noted that there may be a difference in meaning and/or reaction between the more and the less

educated subgroups. A third risk is blaming the person as the cause of structural issues. Nudging people to save water is unfair when water is wasted by large industries or when mismanagement of water occurs in towns and cities.

Also, there is the danger of the superficial nature of compliance. Unless a person is monitored, no change in behaviour will occur. When the nudge is removed, behaviour can go back to pre-nudge standards. This is particularly the case if nudges are not associated with "real" change in preferences.

The nudges should, therefore, be transparent, tested, culturally competent and evaluated over the long-term.

## 10. Policy Implications

Nudging should be used to form preferences in India, as this would become a longer-term approach than merely a tool for changing behaviour.

First, the long-term behavioural evaluation should be part of government programmes. It is important to monitor changes in attitudes and preferences that occur at 1 year, 2 years, and 3 years.

Secondly, nudges must be targeted. There is a need for behavioural design on a state-specific and community-specific basis in India.

Third, trusted messengers should be preferred for the nudges. Teachers at the local level, youth influencers and ASHA workers, along with panchayat and religious leaders and women groups, can make nudges more convincing and credible.

Four, nudges should be accompanied by infrastructure. If behavioural messages lack service quality, they may result in frustration.

Finally, there must be a concern with spillover effects, however, which must be monitored by the policymaker. The sanitation nudge can also have an impact on preferences for cleanliness, health and dignity. An energy nudge is likely to impact environmental identity. It is not so much the direct effects that matter as the indirect effects on long-term development.

## 11. Conclusion

The impact of "nudge" is not automatic but potential and long-term in terms of the development of preference formation in India. A nudge is successful when it has led to habits, changed social norms, reinforced identity, enabled 'learning by doing' and

resulted in institutional change or changes to infrastructure or routines.

Preferences are deeply entrenched in community, family, caste, religious beliefs, gender norms, aspirations and state policy, which is a unique feature of India. This implies that nudges in India have to be contextually and socially relevant. The highest quality nudges aren't just design tricks – they are part of a behavioural ecosystem that encourages desirable behaviour that is easy, normal, respected and meaningful.

What is needed for nudging in India is for people to shift from asking themselves what nudging did to them today, to asking what nudging did to them tomorrow by changing their values.

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