

Nudge Marketing in E-Commerce Businesses

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Abstract: *Nudge Marketing is a strategy which is used by many companies and organization to influence a customer's decision indirectly without him knowing by providing the person with suggestions and reinforcements. In simple words, Nudge Marketing is planting of an idea in a person's mind in order to encourage the customer to behave in a particular way without direct persuasion. Nudge Marketing is used in different sectors in different ways to persuade a customer's decisions in the companies favour. Nudging helps the e-commerce sector in influencing a customer to buy a product. A fast growing sector like e-commerce needs to attract customers and therefore nudging forms an integral part of an e-commerce company to attract customers.*

Keywords: Nudge Marketing, Urgency, Behavioural Psychology

1. Introduction

Nudge Marketing is a strategy which is used by many companies and organization to influence a customer's decision indirectly without him knowing by providing the person with suggestions and reinforcements. In simple words, Nudge Marketing is planting of an idea in a person's mind in order to encourage the customer to behave in a particular way without direct persuasion. Nudge Marketing is used in different sectors in different ways to persuade a customer's decisions in the companies favour. Nudging helps the e-commerce sector in influencing a customer to buy a product. A fast growing sector like e-commerce needs to attract customers and therefore nudging forms an integral part of an e-commerce company to attract customers.

Nudging creates a sense of urgency in a customer's mind, and he has little time to contemplate on his decision. According to behavioural psychology, the longer a customer is given time to think, the less likely will it be for a company to sell the product it wants to be sold. The longer a person procrastinates, the harder will it be for a company to influence the customer's decision/choice making capability. Thus, nudging in e-commerce creates a sense of urgency which makes the customer to think quickly and act accordingly. For example, while buying a product on an e-commerce website, the part of the product which says "only 2 items left in stock", is a strategy used by the company to create urgency in the user's mind and influence his behaviour.

Nudge marketing is a strong tool for a company to increase its conversion rate, however, it has been glorified so much, that its "darker side" hasn't been given much attention. Marketers have ignored some basic adverse effects of using nudges. For a firm, it is imperative to take these fatalities into consideration to ensure that nudging doesn't backfire. Nudges, if incorrectly implemented without fully understanding them can prove to be the anti-Christ of marketing, and result in serious damage to the positive image the firm has built in the consumers' minds. This can happen due to various reasons, the 3 most significant amongst them being:

Nudges can be condescending. First, nudge marketing relies on a one-dimensional mental model of consumer behavior. In reality, the consumer's mind is a complex and

multi-dimensional entity, and that's how it should be treated.

Nudging completely ignores this fact and instead uses mental models that downplay the consumers' ambitions and skills, and give them a mediocre footing. Since nudges are designed to encourage a specific behaviour, what they essentially say to consumers is: "You are impressionable and lack the will power, and therefore need to be pushed in a particular direction to ensure you take a correct decision." For example, in a big commodities store, the green signal arrows subconsciously tell the consumer that without these arrows, he will miss out on something he might have needed.

In conjunction with behavioral economics (the birth of nudging), the field of motivational psychology has also made huge advances over the past 10 years in interpreting how to influence and equip customers to make the right decisions. As opposed to nudge marketing, motivational psychology is aimed to strengthen the consumers' will power and help them make better decisions themselves. Eg: Research in motivational psychology has led to the conclusion that forming targets and then laying out a plan to achieve them helps customers perform healthy behaviours like financial wisdom — the same behaviours that nudging is intended to promote.

Even when they "work," they may not achieve the ultimate goal. Nudges are extremely shallow in the sense that they promote very specific behaviours, and don't help in achieving the broader goals that would actually benefit consumers.

Nudging is an extremely non-consumer centric phenomenon. Nudging only influences behaviour until the consumer has bought the product. Once a sale has taken place, nudges do nothing to promote healthy behaviour and help consumers achieve their long-term goals.

To achieve such outcomes, we require a mesh of healthy behaviours that are enforced over a long time frame. This is a relatively difficult but more impactful approach to influence consumer behaviour, not just in the short term but in the long term.

They're really, really hard to get "just right." The one thing that is most important with nudging it is extremely

tough to hit the sweet spot, just like preparing a perfect slice of steak. However, it is imperative to the success of nudging that we get them just right. If they are below a certain threshold (too weak) then they will fizzle out and won't have an impact on consumer behaviour. Even if they do, the impact will be extremely insignificant and won't help the consumers to achieve their long-term goals.

On the opposite side of the spectrum, if a nudge is too strong, it can backfire and result in annoyed, malcontented and displeased customers. This is because over the years, our minds have become subconsciously wired to be rebellious and question every single thing. When we feel that our freedom to choose is being curbed, we often do the exact opposite of what we are being told to do.

Another major problem is that due to expansion of the internet and increase in media coverage, consumers have a fair idea of the working of nudges and how they are used to influence their decision making capacity. This has consumers becoming resistant to the effect of nudges.

When using nudging, it is crucial to keep both the pros and cons of this technique in mind. When used in parallel with motivational psychology, nudging can be an extremely effective tool to promote positive behaviour and simultaneously eliminate the hazards of consumer erosion.

The basis of a good marketing plan is when consumers are able to relate to you. This can only happen if marketers approach their strategy with the cognizance that they and the consumers are at an equal footing. Nudging negates this because nudges essentially imply that the marketers have a greater understanding and knowledge than the customers. This creates a disparity, which can only be resolved if consumers are viewed as equals, which is best done through the usage of motivational psychology. Hence marketers need to add motivational tools to their arsenal and use them along with well-designed nudges.

2. Literature Review

Digital nudging is basically delicately pushing individuals towards the correct way by making the 'right decision' appealing without restricting their opportunities. The decision making process of humans is manipulated by presenting them different and choices which are more appealing. This could also be phrased as "what is picked frequently relies on how the option is displayed" (Johnson et al. 2012, p. 488) or "choice architecture that alters people's behavior in a predictable way" (Thaler and Sunstein 2008, p. 6). According to Thaler and Sunstein 2008, nudging is not only a way of increasing the profit, but if not used judiciously keeping the limits in consideration it can convert into a method snatching away the right to choose and right to forget from its clients. Also, if nudging is done in immoral ways then it can lead to loss of the brand equity of the company, or even gloomy exposure, or bankruptcy due to some legal action, etc. This is why, the nudge unit should be mindful of its ethical entanglement (Sunstein 2015).

3. Problem Definition

The existing research on this topic has been essentially conducted in offline marketing. But, according to the behavioural economists humans behave in a reasonable way, which cannot be true as the main reason of success of the nudge marketing is the irrational behaviour of the human mind. The research nowadays is conducted being thoughtful of psychological implications (Simon, 1955) and cognitive limitations, their biases and heuristics in decision making process (Tversky and Kahneman, 1974). Also, the decision making process shouldn't be made very complicated as it can have negative impacts and increase the mental efforts of the clients (Evans, 2006).

4. Research Objective

Digital nudging will significantly affect future data frameworks research and practice, especially for design arranged data frameworks. As UIs will dependably control individuals in specific ways (contingent upon how data is displayed), data frameworks creators must comprehend the social impacts of interface structure components with the goal that digital nudging does not occur aimlessly and unintended impacts don't happen. This research is probably going to develop into a vital region which inquires about the social impacts of interface-structure. Also, research on digital nudging is still in its beginning periods, development of the hypothetical instruments that underlie digital nudging is required, just like the improvement of hypothetically based design recommendations to advise research about on convincing innovation (Fogg 2003), especially the design of enticing frameworks (Oinas-Kukkonen and Harjumaa 2009) like conduct change emotionally supportive networks (Oinas-Kukkonen 2010).

Due to the digitalised lifestyle, digital nudging will also develop in other sectors soon and then we can use digital devices in enhancing the decision making process.

5. Research Methodology

In order to explain the effects of digital nudges, we observe the results of some experiments done in the area of reward-based crowd funding. The people in focus (commonly known as backers) who were asked to contribute their money were given some rewards in return. The experiment was conducted based on four psychological effects, which are explained below-

a) Decoy Effect

This effect is based on a very common psychological behaviour of humans which we fail to notice. It increases an option's attractiveness by presenting an unattractive option along with the option of interest, thereby attracting the viewer's choice to the desired option. A study was conducted to see how many backers contributed based on the rewards.

b) Scarcity Effect

The principle of scarcity, discovered by scientists Worchel, Lee, and Adewole in 1975, carried out a research on 200 female undergraduates, to rate the value and attractiveness of abundant cookies and cookies that were less in quantity. The result of this research was that the scarce cookies were found out to be more attractive by the survey group, even though they were the same cookies in both lots. This is the general psychological behaviour of human beings, whenever they find things whose supply is less, they have a natural tendency to get attracted towards it.

c) Middle option Bias

When customers are presented with three or more options which are ordered sequentially, their mind works in such a way that they tend to choose an option which is middle way in the presented options. In context with reward-based crowd funding, it was studied by presenting them first presenting them with options to donate

- 1) \$5, \$10, \$15
- 2) \$10, \$15, \$20
- 3) \$15, \$20, \$25

and then observed on what will be the percentage of customer donations in each presented option.

d) Urgency Effect

If we give a person more time to think, he will get they will either procrastinate or get distracted. They are also presented with a lot of other choices. This will delay their decision making process and they will lose interest in your choice. According to behavioural psychology, urgency acts as one of the major triggers that motivated people to act fast. This quality of human beings is used as a major nudging strategy in online shopping websites.

The process of making a Nudge in Digital Space

Earlier, nudging was mostly contextualized to the offline spaces. The growth of online systems has presented marketers with a host of opportunities to implement nudging in an efficient and convenient manner. As an example Web-Tech allows monitoring of consumer behavior patterns and has helped marketers to generate a psychological map, which is used to customize the nudges being delivered to different consumers. Geolocation apps provide live location which can be used as a factor to obtain the desired effect from the nudge by customizing it accordingly.

Online systems give a huge set of advantages in terms of nudge delivery, which can be utilized by digital marketers. There is a predefined cycle (see the diagram given below) associated with nudging — defines the goal, understand the users, design the nudge, and test the nudge. Going ahead, we will be elaborating each sequential step in detail.

Step 1: Define the goal

Before designing the nudge, it is critical to be clear about the specific goal the organization aims to achieve. In the case of e-commerce, the primary goal is to boost the sales of the products in their inventory. The goal of a nudge is what decides how the nudge will finally be designed. It also regulates the amount of freedom that will be given to customers and the choices that will be made available to them. For example, magazine subscriptions offer a binary choice - yes/no. This is a discrete choice. On the other hand, if an NGO asks people to donate money for a social cause, it is a continuous choice as the amount of money to be donated is decided by the customer - the customer has much greater freedom in the case of continuous choices. The marketer deciding the type of choice must take into account ethical and moral issues associated with nudging, i.e. the nudges that are being provided mustn't stimulate consumers into making deleterious choices, as this can be disastrous for the firm's reputation. Hence the design of nudges is primarily driven by 2 factors - the goals of the firm and the ethical/moral issues surrounding nudging.

Step 2: Understand the users

It is important to understand the values and lifestyles followed by the consumers, as the VALS is what deeply influences people's decision making at a very subconscious level. VALS helps people make decisions as they automatically reduce the number of choices available to the person, which puts the person at relative ease. VALS also lead to cognitive biases in consumers when they are confronted with choices that demand exhaustive discussion. Furthermore, there is a huge spectrum of mental and emotional parameters that subconsciously drive resolution of cognitive dissonance in consumers (eg: middle-option bias, decoy effect, scarcity effect, anchoring effect etc.). Comprehending these mental effects is essential to design the nudges in a manner that promotes the firm's targets instead of backfiring on them.

Step 3: Design the nudge

Now, the marketer needs to see how exactly to design the nudge to help achieve the organization's goals. There are various frameworks that are available for marketers to design their nudges. The design of the nudge is determined by the type of choice, VALS and the mental and emotional effects that affect consumer decisions.

It is possible to achieve the same effect through a number of different nudge implementations. Nudging on an online space is relatively convenient, cheaper and efficient as compared to offline nudging. This is because the nudges can be customized from user to user by simply tweaking it according to the consumer's preferences and behavioral patterns, apart from basic attributes like income, gender, age etc. The behavioral patterns are usually obtained in real-time by using data analytics.

Step 4: Test the nudge

Online spaces are extremely convenient, not only because they allow better and more effective design of the nudges, but also because they allow the effects of the nudges to be tested in real-time. Marketers can develop different types of nudges and implement them simultaneously to see their relative effectiveness. These tests are done via various online trials, such as A/B Testing and split testing. Testing the effectiveness of the nudge is extremely critical, because it helps the marketer to ascertain that the nudge is working as it was intended to and not causing any detrimental effects. It also helps to see whether the nudge is helping the firm achieves its desired goals in the specific context or not. Nudges that are highly effective in one situation might be disastrous in the other, and therefore ensuring that they are properly contextualized to the given scenario.

Technology has allowed the process of taking feedback from consumers a hassle free process and this feedback can be used to improve further nudging. However, marketers need to be wary of doing so, because the feedback is a conscious phenomenon whereas nudging is highly subconscious, and a gap between the two can lead to a huge digression in the effect of the nudge.

6. Result and Discussion

We need to realize that nudge marketing and web psychology are connected fundamentally. Some aspects of psychology (as described earlier), when taken in the e-commerce context, can be very useful to understand the need for nudging.

First we will observe the people to study the decoy effect. Initially, they were provided with two options- they contribute \$10 and they will be rewarded with an e-book in return and second, they contribute \$20 and get an e-book and a hardcover book in return. Here most backers chose to give \$10. Now, another option was introduced, where on contributing \$20 they will get only a hardcover book. When they had this third option also in mind, most backers opted for the second option now, i.e. donating \$20 and receiving an e-book and a hardcover book. This clearly shows that when a more unattractive option was presented to them, they chose the desired option, which is “comparatively more attractive” option. This creates a great nudging effect in the field of e-commerce and is known as decoy nudging.



Figure 1: The decoy effect in reward-based crowd funding; when an unattractive decoy was introduced, the proportion of backers opting for desired option increases

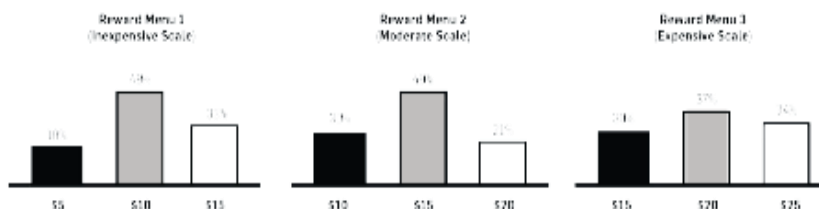


Figure 2: The middle-option bias in reward-based crowd funding; even when the investment scale is increased, backers tended to select the middle option.

While studying middle option bias in context of crowd funding, researchers showed that backers can be nudged into choosing the pledge which is presented in the middle to them. As shown in the figure above, in all cases, irrespective of how high the middle pledge is, maximum proportion of backers chose the middle pledge.

In e-commerce, these attributes of human beings can be used as a major reason to highlight the need for nudging. We can broadly classify it into 5 categories.

a) Highlights the product demand

Customers can be notified that the product in which they are interested is in popular demand and may not be available if they delay in buying that product. Also, there are many people who buy the product only because it is in high demand. The popularity of the product on a website page can be translated by adding pop-up message informing the visitor about how many people are viewing the product at that particular time.

b) Build an audience that is highly engaged

Well constructed nudge marketing notifications attracts customers' attention and encourage them to buy their products. If website add notifications to their pages, customers will know that they need to hurry up and it further speedens their buying process.

c) Increases the conversion rate

Scarcity and urgency principles motivate customers to make their decisions faster and hence buy the product, which in turn influences websites' conversion rate.

d) Can partially replace e-marketing

If the websites have added notifications, they can relax on sending personalized messages via email or sms to customers, most of which anyway goes to spam. Also as per many reports, the open rate of marketing is very low. Hence these personalized notifications brings many more views and purchases.

e) A way to reach the customers on different platforms

Via notifications, these websites can reach the people on both desktop and mobiles and nudge marketing notifications work across both of these appliances.

Now how do these nudge marketing notifications work?

If we go to any e-commerce website and search for a product, we can see notifications like "limited stock", "only a few left" or "only 1 left in stock". It plays very useful to highlight scarcity in e-commerce websites. Specially in booking websites, we will often see the bestsellers have a mark, which shows how many times the room/apartment has been booked or reserved in say, the last 24 hours.

Drag-and-drop SmartPlugin is also an intelligent algorithm based on consumer behaviour psychology. After some simple settings, a pop-up notification appears subtly at a suitable time and displays the most Nudge Marketing messages to our customers, nudging them to buy more. With the help of analysis of customer data and behaviour of our website, these notifications can be personalized according to choice of the customer. It will also cater to the urgency effect created for the customers. All these notifications are personal, time-sensitive and relevant.

Although both scarcity and urgency play as very powerful tools, we can lose customers' trust if we go beyond a limit in these concepts. Even using the same notifications for a long period of time will challenge the website's authenticity.

7. Conclusions

We can clearly observe a wide range of innovations in regular day to day existence, an ever increasing number of buys just as life choices are made on screen. In digital world, clients usually take part in quick and robotized basic leadership making them inclined to settling on lacking decisions. In the paper, we exhibited digital nudging as a successful apparatus to control the choices of the clients by actualizing deliberately planned UI structure components. No or very little thought is given on the psychological component of nudging. So we have taken this as the ruling research gap for the paper and recognized various psychological effects with respect to digital nudging.

Studies show that nudging have an adverse effect on the behavior of consumers on an average, or maybe for small subgroups. Taking further the analysis and measuring the welfare impact that nudges have. The benefits and harms of nudging are likely of interest to the policy makers. For example, the harsh/regressive policies, which have hard effects on low-income earners, are quite unpopular amongst the policy makers. With the help of modern technology, it is easier to personalize nudges for diversified people. Modern technologies offer a variety of options like web contracts, apps to document the distributional effects that nudges have. This gave way to the default options which are set according to consumer behavior.

While using nudging three principles should be kept in mind:

- Nudging should never be misleading and always be transparent.
- There should be an easy provision for customers for opting out of a nudge.
- Nudging should always be used for the welfare of those who are being nudged and there should be some reason to make this believe.

Critical Evaluation: Effectiveness of Behaviour Nudges.

1. Governments may be encouraged by behavioural economics to think only of their own good in the policies by attempting nudging of behaviour.
2. Behavioural economics runs too hard on the people's tendency to be gullible to fallacies and their biased psychologies, which gives the impression that the consumer may be dumb.
3. Consumers which might be thinking the practical way/following the rules of thumb would be behaving rationally.
4. Although nudging can only influence the consumer behaviour, it cannot affect the psychological problems of a person such as alcoholism.

5. Taxes, regulations and subsidies are as effective as nudges as they are the conventional policy interventions and price is important for the determination of choices in markets.

The main objective of this paper is to support researchers and experts to join it into their work utilizing the bits of knowledge into basic decision making processes and ways to deal with modifying it. Also, we intend to identify distinguished psychological effects and praiseworthy nudges upgrade the comprehension of psychological heuristics and decision making and inclinations at play.

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