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To what extent are behavioural insights a relevant factor while designing a policy or a marketing plan to ultimately address market failure?

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Abstract

This paper highlights the importance of implementing a wide range of behavioural insights while designing corrections, in the form of policies and marketing campaigns, for market failures. In doing so, the paper reiterates and thoroughly analyses various theories derived from the existing literature on market failure and behavioural insights. Finally, the paper discusses existing campaigns and policies implemented by governments to tackle externalities and evaluates these campaigns as to why or why they didn't lead to the intended results. It comes to an informed verdict stating behavioural insights are, to a great extent, a relevant factor to consider while designing policies and campaigns to correct market failures.

Introduction

Are we the reason we are paying taxes?

In a perfectly functioning free market, a market failure occurs when there is an inefficient distribution of goods and services. When markets fail, consumers tend to make decisions that would maximize their utility without considering the greater good of society or the environment (Chappelow, 2020).

A significant cause for market failure in modern society is *externalities*. Positive externalities benefit society, but those benefits are not accounted for in the price of a good in the market. Since the price is higher than it should be, the good is under-consumed and consequently underproduced (Bækkeskov, 2018). These goods are also called merit goods. Negative externalities on the other hand are harmful to society. Once again, the same is not reflected in the price of the good and the cost of the good is lower than it should be. Due to this, contrary to merit goods, the good is over-consumed and overproduced to maximize revenue (Bækkeskov, 2018). These are also called de-merit goods. A market failure in a free market can be addressed in various ways but the most common and arguably effective is government intervention through the implementation of policies facilitating subsidization or taxation as well as funding public advertising campaigns.

Behavioural insights is an inductive approach to policymaking that combines insights from psychology, cognitive science, and social science with empirically tested results to discover how humans actually make choices. Behavioural economics combines elements of economics and psychology to understand how and why people behave the way they do and make the choices they do in the real world (Witynski, 2021). As we explored earlier, the primary cause for market failure is the choice a consumer makes to maximize his/her utility without considering the greater good of society. This research paper will, therefore, explore if a clever usage of behavioural insights while designing policies and marketing campaigns can change a consumer's decision-making process to prevent market failures. In doing so, the aim is to answer the research question "**To what extent are behavioural insights a relevant factor while designing a policy or a marketing plan to ultimately address market failure?"**

Literature review - market failure

The concept of Market failure was initially developed in the mid-20th century as a part of a larger school of Keynesian welfare. Relevant contributors to developing this theory included Arthur C. Pigou, Francis Bator, William Baumol, and Paul A. Samuelson (Bækkeskov, 2018). The study initially revolved around the functionality of the free-market system and if it led to the best outcome for society. In standard economics, it is believed that when consumers and producers respond to price signals in the market, the outcome will be the best for society as a whole, known as Pareto optimality. However, the economists who studied market failure were concerned about situations where this was not the case, and they tried to explain why this can happen (Bækkeskov, 2018). A timeline of economic beliefs about market failures throughout history can be described as follows:

Neoclassical economists are known for believing in markets correcting themselves over time and a market failure is a rare occurrence. This is also why they are against one of the modern day's most common solutions to market failure, government intervention (to be explored further later) (Kenton, 2021).

Keynesian economists, on the other hand, believe the complete opposite, they believe frequent government interventions are the only feasible solution to correct market failure and stabilize the economy Clarke (2020).

Institutional economists focus on the role of institutions, such as property rights and contract enforcement, in preventing market failures (Tragakes, 2020). They agree with the premise proposed by Keynesian economists because they believe government intervention is necessary to enforce these policies (Tragakes, 2020).

Behavioural economists argue that consumer action and irrational behaviour are also really important factors that lead to market failure. They suggest government policies that nudge people towards making decisions better for society as a whole rather than those of a selfish nature can correct market failures.

As is evident, behavioural economics is going to be a central perspective going forward with this paper because of how strongly it relates to the research question we are trying to address, including both government policies and marketing.

While there was a plethora of different opinions on 'what is' market failure, the causes were standard across the field of economics. Some of the common and widely discussed causes included asymmetric information, externalities and the production of merit and demerit goods.

Asymmetric information refers to a situation in the market when either the consumer or the producer has more information than the other during a transaction. An example of the consumer having more information is when dealing with a rare piece of art, while an example of a producer having more information is a car salesman (Tragakes, 2020). Economists believe this is a large cause of market failure because it leads to both adverse selection and moral hazard. Adverse selection occurs when one party to a transaction has more information than the other party, and the party with less information is unable to distinguish between high-quality and low-quality products or services. This can often lead to high-quality products being undersupplied and causing market inefficiency. While moral hazard occurs when one party has the incentive to take risks that the other party is not aware of (Tragakes, 2020).

Production of merit and demerit goods was briefly mentioned in the introduction, however, there is so much more to this cause. Economists believe that the production of merit and demerit goods can lead to market failure because these goods do not reflect the true social costs and benefits associated with their production and consumption. Merit goods, such as education and healthcare, provide significant benefits to society but may not be adequately provided by the market due to their positive externalities (Ezy Education, 2022). The market may under-produce these goods, leading to a market failure where the supply and demand do not meet the social optimum (also known as an equilibrium point). On the other hand, demerit goods like alcohol, and drugs, have significant negative externalities associated with their production and consumption. The market may over-produce these goods, leading to market failure where the social costs of production and consumption outweigh the private benefits (BYJUS, 2023). This can also happen because these goods tend to be addictive in nature making them inelastic, which generates abnormal profits for producers.

One of the most common solutions to market failures, especially effective for the production of merit and demerit goods is *government intervention*. Typically, this is done by the government subsidizing merit goods, incentivizing producers to enter the market and produce them or taxing demerit goods, trying to reduce rates of production. However, when the good is addictive in nature the consumers bear the tax which does not help the purpose, but governments put the tax towards other merit goods balancing it out (Tragakes, 2020).

Similar to any economic concept, over an extensive period of time a lot of economic schools had different opinions on the effectiveness of government intervention. Some of the popular and revolutionary ones over the past few centuries are elaborated on below:

> ***Classical economics*** - Classical economists believe that markets are self-correcting and efficient, and that government intervention is generally not necessary. They argue that government intervention can create inefficiencies and distortions in the market.
>
> ***Keynesian economics*** - Keynesian economists believe that government intervention can be necessary to stabilize the economy, particularly during times of recession or high unemployment. They argue that in these situations, governments should use fiscal and monetary policy to create demand and encourage investment, even if that means taking losses in the short term (Pettinger, 2019).
>
> ***Monetarist*** - Monetarists believe that the government's role in the economy should be limited to maintaining a stable monetary policy (MOMOH, 2021) and that excessive government intervention can lead to inflation and other economic problems. They argue that the government should focus on controlling the money supply and maintaining stable prices, and that this will promote economic stability (LIOUDIS, 2022).

Another viable and not often implemented solution to correct market failure is *clever marketing and policies.* As we explored earlier, market failures occur due to poor decision-making typically by consumers. This means it can also be solved by using behavioural insights to nudge people's behaviour through marketing and policies (Azcuenaga, 2013).

An overview of behavioural insights

As previously defined, behavioural insights is an inductive approach to policymaking that combines insights from psychology, cognitive science, and social science with empirically tested results to discover how humans actually make choices.

How do the various subject areas provide insight into human behaviour? When focusing on the social sciences, knowledge of economics or behavioural economics, particularly, can help with understanding human behaviour to a great extent. One of the key insights of behavioural economics is that people do not always make rational decisions. Instead, they are influenced by a range of factors, including emotions, social norms, cognitive biases, and other contextual factors (Tragakes, 2020). An example of the same can be people choosing the default option on a survey. Simply because it saves time and energy. On the other hand, when we analyse Psychology, the main aim of the subject area is to essentially explain human behaviour. This is facilitated greatly by the development and application of several models and theories. One example of such a theory is the Nudge theory. Put simply by Richard Thaler - “any aspect of the choice architecture that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates" (Van Khanh and Tham, 2019). While he goes into greater detail in his book, this information is enough for us to make a vague connection as to how this can be useful in this context. It is common to mistake a nudge for a legislation or penalty (Van Khanh and Tham, 2019). A nudge is typically a sentence phrased differently, or a different colour is used that has proven to be more appealing. Simply put, it is still giving the consumer the opportunity to make a choice instead of eliminating one option with a penalty, this is also called manipulating behaviour (Van Khanh and Tham, 2019).

So, where can behavioural insights be applied most effectively? Behavioural insights seek to understand the varying influences on human behaviour and use them to design policies, interventions, and communications that encourage desirable behaviours or change problematic behaviours (Kenton, 2020). Some examples of the usage of behavioural insights in real life can be seen through the actions of multinational companies like Google and Uber

Google used behavioural insights to design a program to encourage its employees to save more for retirement. They found that by defaulting employees into the program, rather than requiring them to opt in, participation rates increased significantly. They also offered employees personalized messages and reminders to help them stay on track with their savings goals (Benartzi, 2017).

Uber used behavioural insights to encourage its drivers to take more trips during peak hours. They introduced a feature that showed drivers how much extra they could earn by completing just a few more trips during peak hours, which increased the number of drivers on the road during those times (SCHEIBER, 2017).

Similar to policy development, one could argue behavioural insights are equally if not more important during marketing campaigns conducted by companies. Since the primary objective of most companies is to maximize profit these insights are usually used to facilitate the same (Tragakes, 2020). As explored earlier, behavioural insights allow us to further understand human behaviour and in the context of economics why people make the decisions they make. This can be used by companies to increase revenue using the following tactics. The first of these tactics is *scarcity* - people are more likely to buy a good or service if it is rare. The rarer an item is, the higher value it holds in the market (Birkett, 2021). Producers also have to be careful however with how they implement this because if you try and make a product rare before building a well-known business it could backfire (Tragakes, 2020). Another commonly used tactic is *loss aversion* - people are attracted by the thought of not losing without realizing they might not be winning either. Producers can implement this by highlighting potential losses/downsides of not purchasing a product (LIBERTO, 2022).

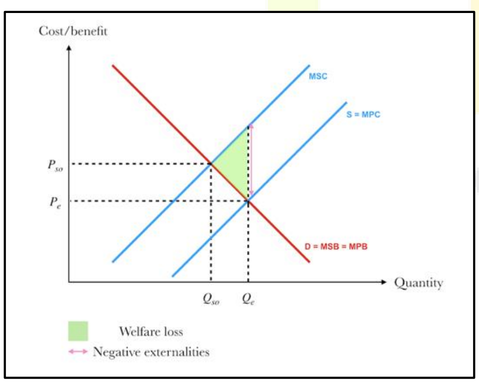
In fact, we evidence examples of companies implementing strategies informed by behavioural insights on a daily basis. Many companies in the service industries, such as hotels, for instance, use the sales of other customers to prove their service as highly desirable. This is called *social proof*. Some other examples of the same are celebrity and user testimonials which proves the product to be highly effective (Bernazzani, 2021). Another real-life example is called *anchoring* - where people rely heavily on the first piece of information they receive even if the information received later is more accurate or relevant (Tragakes, 2020). This is often used by almost all companies by implementing discounts, the original price acts as an anchor and then the discounted price seems appealing even if the discounted price is still more expensive than competitive products in the market (Bernazzani, 2021).

In conclusion, the purpose of behavioural insights is to help organizations and policymakers design solutions that are more aligned with human behaviour. There is also an alternative use for companies to market their products effectively and generate revenue.

The use of behavioural insights to overcome market failure

As previously discussed, there are various causes for a market failure in a free market, the most common and visible in real life however being externalities. As we already know, externalities can be negative or positive. Both of these categories are divided into further subcategories - negative externalities of production and consumption and positive externalities of production and consumption. The most common existing research suggests that most corrections to externalities will pertain to government intervention, this can be through the implementation of policies or large-scale advertising campaigns. It is also important to note that any measures implemented by a government might not work in the intended manner. Whilst it is difficult to pin the occurrence of the aforementioned down to one specific reason, a valid hypothesis could be that there are not enough behavioural insights (something we already deemed useful in this context) being integrated into the policies or advertising/marketing forms of intervention being enforced. This means if the government took into consideration what humans are likely or not likely to respond to, these market failures could be corrected more efficiently.

For instance, if we take *negative externalities of production* as an example, this will refer to any externalities being created during the production stage. When these externalities are negative it implies the social cost is exceeding the



private cost (as can be seen in the diagram on the left where MSC>MPC), this is most commonly seen with companies using factories for production and those factories contributing massively to air pollution which impacts all humans (Tragakes, 2020). In this case, the government would try to intervene using a policy such as the implementation of taxation, for example. The intended effect of the taxation would be that it would increase the private cost leading to producers reducing their harmful activity and subsequently eliminating any welfare loss. However, behavioural insights suggest to us that these private entities have incredibly high-profit margins and thus, the taxes will not really have much of an impact. Furthermore, much of the population may try and avoid the payment of taxes altogether. This would evidently signify a failure in policy implementation. Therefore, if behavioural insights were used correctly and the *Fiscal Psychology Theory* by Hasseldine dan

Bebbington, 1991 was taken into consideration, the government might have realized the implementation of taxation would just lead to companies trying to find loopholes and potential legal battles in the future (Damayanti et al., 2015), steering the government into implementing a more effective solution and saving them a great deal of money and time.

We could also take the *negative externalities of consumption* as another example to further prove the point made. Negative externalities of consumption are any externalities caused by the consumption of a good or service where the marginal private benefit is greater than the marginal social benefit. This is most commonly seen in real life when talking about cigarettes - while consuming cigarettes does negatively impact the consumer it also negatively impacts the rest of society through passive smoking (Tragakes, 2020). If the government were to once again intervene in this scenario taxation would not be an effective method due to the addictive nature of the good so the government would have to rely on advertising the negative effects of cigarettes. An example of the same is when the Indian government launched a campaign called “What damage will this cigarette do”. When analysing the advert through the lens of behavioural insights, the reason for its failure can be seen in the very name itself - anyone who is part of the target audience for this campaign would most likely not read further because a part of them knows what they are doing is wrong and they may be reluctant to find out more. As per behavioural insights knowledge, for an effective campaign,

a graphic would be required which with one glance would impact and maybe scare the viewer away from a cigarette. Integrating a celebrity to deliver a powerful social message, for instance, can prove successful because when the audience is receiving a message from someone they idolize, it is psychologically more likely to make an impact on them. The aforementioned was evidenced in a previously launched campaign wherein Rahul Dravid was featured encouraging the audience to quit smoking with a tagline stating, “If you want to play a long innings” (as can be seen in the image on the left). Since cricket is one of the most popular sports in the country where this ad was published, i.e., India, the choice of celebrity and language was deemed super effective as it resonated greatly with the viewers (NetIndian, 2015).

Finally, let's take a positive externality to make sure the same applies in that scenario as well. If we take *positive externalities of consumption*, this will mean the consumption of a good or service benefits society. So, marginal social benefit would be greater than marginal private benefit. The most common example in relation to this is education. While getting educated brings various obvious private benefits it also helps future employers to hire employees who already possess a certain skill set which helps society. A campaign example in relation to the same can be the ‘Beti

Bachao, Beti Padhao’ campaign which is essentially promoting educating female children. This has been one of the most successful campaigns with this agenda. The reason for the success of the campaign could be the fact that it did not emphasize benefits but instead effectively used the tactic of *loss aversion* discussed earlier where it highlighted the potential losses of not educating female children at the same level as male children (Pari, 2022). This was not only done through detailed speeches and brochures but indirectly and subtly through the title as well, implying that lack of education can lead to the child's life being ruined. This being conveyed through the title was smart because even if people didn't do any further research the message was still conveyed.

Conclusion

In the field of economics, market failure is a very popular topic. It occurs when the free market fails due to a lack of allocative efficiency and it is at this point where government intervention is needed. This intervention usually takes place in the form of policy development or the implementation of large-scale advertising campaigns. However, it is important to note that these solutions don't always bring the intended results - this could potentially be due to the lack of integration of behavioural insights in the development and implementation stages. Hence, this paper aimed to analyse how effective behavioural insights are while designing policies and marketing campaigns to fix market failures.

This paper covered a wide range of behavioural insights theories - Nudge theory, loss aversion, and anchoring being some of the more important ones. These concepts were further connected to economics to develop an understanding of how they can be used to help people make better decisions from an economic perspective. The aforementioned was done by thoroughly analysing some real-life examples of policies and marketing campaigns developed and implemented by governments to understand how effective they have been or could have been if they were to take into consideration findings from behavioural insights.

On the whole, it can be deduced that behavioural insights, to be more specific the insights discussed in this paper can be used by governments to have more control over people's responses. This, if used correctly, can be greatly beneficial for the advancement of society because, through the ideas discussed in this paper, we can come to a verdict that behavioural insights, to a great extent, are an important factor while designing policies and advertising campaigns for the betterment of society.

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