

Rationality and Behavioral Economics in Public and Private Decision Making: Evidence from India's Health Campaigns and Apple Inc.

Aaria Adhvaryu

Obero International School, Mumbai, India

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ABSTRACT

Traditional economic theory assumes that individuals make rational decisions to maximize utility; however real-world decision-making is frequently influenced by psychological, social and contextual factors. This study aims to examine how rationality, behavioral economics, incentives, technology and sustainability shape decision making in both the public and private sectors by drawing upon the concepts of bounded rationality, heuristics, choice architecture and nudge theory. Using a comparative case-study methodology based primarily on secondary qualitative evidence alongside descriptive quantitative data, the study examines India's Pulse Polio and Covid-19 vaccination campaigns alongside the firm Apple Inc. to compare how behavioral principles are applied to achieve distinct objectives, including improving public welfare and enhancing consumer engagement and business performance. The analysis demonstrates that rationality alone does not adequately explain observed patterns of decision making. Behavioral interventions such as nudges, social norms and incentives may have influenced individual choices while preserving freedom of choice, technology and sustainability further strengthened the effectiveness of these interventions by improving accessibility, long-term engagement and organisational outcomes. The study concludes that rationality and behavioral economics are complementary approaches to understanding decision making across the public and private sectors.

Keywords: rationality, behavioral economics, choice architecture, nudge theory, decision-making, public policy

1. Introduction

The concept of rationality is central to classical and neoclassical economics; most theories of that time were centered around the basic idea of humans making rational choices which assumed that they always maximised utility. The models that were made under these assumptions emphasised on consumers having complete knowledge of the market. These rational individuals would

carefully weigh cost and benefit involved before making an informed choice. These models propagated consistency and maximising utility of consumers and producers while making a choice.

When these theories were put to test in the real world economists like Herbert Simon challenged the above theory and suggested “the relevance of procedural rationality in understanding the thought process of decision makers”

Once these theories dropped their assumptions they often failed to capture the complexity and viability of real world human behavior. It is in response to this that research started moving towards behavioral economics which attempted to synchronize the theories with real world situations. [1], [2], [3].

This branch of economics incorporated psychology, neuroscience as well as sociology to understand the reasons why rational decision makers moved away from the concept of rationality as was propagated by classical and neoclassical economists. [8]

Behavioral economics is an interdisciplinary science that emphasises on irrational human behavior in normal economic activities [2]. Traditional economics always assumed that individuals maximise utility as they had access to the full information on the products available. However in reality people relied on heuristics which led to biases. It was found that very often emotions won over logic and thus led to changing decisions by the individual. People were found to be influenced by society, biases and were typically risk averse. [6]

Among behavioral economics an important aspect is ‘nudge theory’ and ‘choice architecture’. Both of these have an immense potential in influencing people's decision making and thus encouraging socially desirable choices by the public (Thaler and Sunstein 2008). According to them, ‘nudges’ alter people's choices in a predictable way without changing their economic incentives. Choice architecture according to them is organising the manner in which people make decisions [4].

Thus behavioral economics has become a strategic tool across industries. Right from product design to policy reform. It has now become the basis on which organisations predict behavior change, reducing friction and at the same time increasing emotional orientation [6]. Behavioral economics, artificial intelligence and entrepreneurship have become an extremely important institution in understanding both individual and collective behavior primarily through entrepreneurial decision making [1].

An increasingly important dimension of behavioral economics is its relevance to sustainability and long term decision making in public and private sectors. Traditional economics assumes that

individuals rationally evaluate present costs against future benefits; however research shows that individuals often undervalue future benefits due to time discounting which can reduce adoption of health protective and environmentally beneficial behaviors even when long-term gains are substantial [5]. This highlights the importance of behavioral insights in designing policies and strategies that promote sustainable decision making.

More broadly, non rational factors influence choices of decision makers and entrepreneurs. There are still some real world situations which are based on simplified models which assume the earlier classical and neoclassical theories that state ‘one size fits all assumptions’. If these models are used for uniform pay for performance schemes that overlook individuals motivational differences and in leadership training programs which do not account for variations in risk tolerance which is measurable nor does it take into account intrinsic motivations [7], [9].

The use of this branch has impacted fields like finance, marketing and public policy. Behavioral economics involves an in depth understanding of human behavior and it brings analytical clarity to traditional areas which were earlier explained descriptively. This would be a comprehensive perspective from the point of view of both the buyer and the seller [9]. Researchers in bringing in psychology in the form of behavioral economics can better understand economic issues and find at the same time ideal solutions by taking into account all aspects of decision making [10]. Care needs to be taken of factors such as time discounting and psychological hesitation which may result in underinvestment of programs and reduced benefits [11].

2. Background

Traditional economic models assume that individuals make decisions by evaluating all of the information available to them and selecting an alternative option that maximizes utility while minimizing costs. Consumers are therefore expected to possess stable preferences, complete information and the cognitive ability to consistently make optimal choices. Under these assumptions, market outcomes are considered efficient because individuals act in their own best interests through local and informed decision making. However observations of real world consumer behavior have repeatedly demonstrated that individuals often deviate from these theoretical assumptions particularly when decisions involve uncertainty, limited information or external social influence.

A significant development in economic thought was Herbert Simon's concept of *bounded rationality*, which challenged the assumption that individuals always optimise their decisions. Simon argued that decision-makers operate under constraints of limited information, time and cognitive capacity and therefore tend to be satisfied, selecting alternatives that are satisfactory rather than perfectly optimal.

Behavioral economics then emerged as a response to these limitations by incorporating insights from psychology into economic analysis. Rather than assuming that individuals are perfectly rational, behavioral economics recognizes that decision making is frequently influenced by cognitive biases, emotions, habits and heuristics. According to Thaler (2016) behavioral economics should not be viewed as a replacement for traditional economics but as an extension that introduces more realistic assumptions regarding human behavior. He argues that economic models become more accurate when they recognise that individuals do not always behave as perfectly rational decision makers but instead make choices influenced by psychological and contextual factors.

Similarly Samson explains that individuals often rely on mental shortcuts or heuristics to simplify complex decisions. While these heuristics reduce the cognitive effort required to process information they may also produce systematic biases that influence economic choices. Consequently decisions are not determined solely by objective costs and benefits but are also affected by the manner in which information is presented and interpreted. This interdisciplinary approach has enabled economics to better explain consumer behavior in situations where traditional rational choice models fail to predict actual outcomes.

One of the most significant contributions of behavioral economics is the concept of *choice architecture*, introduced by Thaler and Sunstein. Choice architecture refers to the organisation of the environment in which one makes a decision, while a nudge is a subtle intervention that encourages desirable behavior without retracting freedom of choice or significantly altering economic incentives. Unlike regulations or financial incentives, nudges preserve individual autonomy while making beneficial decisions easier to adopt. Over the past two decades governments have increasingly applied nudging in areas such as public health, taxation and environmental policy, while private firms have incorporated similar behavioral principles into marketing, pricing and product design to influence consumer decision making.

The concepts of rationality, behavioral economics and nudging provide the theoretical foundation of this study. They offer a framework for understanding how governments and private firms influence decision making beyond purely economic incentives, Building upon these concepts the following sections examine how these factors were applied in India's Pulse Polio and Covid-19 health campaigns and compare these approaches with Apple's consumer strategy to evaluate their impact on social welfare and firm performance.

3. Research Gap and Methodology

This paper attempts to understand the manner in which behavioral economics has been used in public sector health campaigns and how the private firm Apple Inc. has used both behavioral

science and AI technology to influence the definition of rationality among its consumers. It examines how consumers are made to understand that they are making rational choices but these choices are being influenced by theories like 'nudges' and other 'psychological influences'.

The methodology adopted would be a comparative case-study methodology using primarily secondary qualitative evidence alongside descriptive quantitative data. The data used for both sets of policies would be from authentic sources to indicate the influence of behavioral economics on validation of public policy programs as well as increase in revenue and sales for the private firm Apple inc.

4. Analysis

In recent years more than the classical version of rationality of consumers and producers it is behavioral economics which has taken centre space in directing consumption and production in certain spheres. Nudge economics is one of the most commonly used theories within behavioral economics which is being actively promoted by both public and private sectors in a country.

In India for example the government's pulse polio program is the foremost success in using Nudge policies to achieve social health objectives.

4.1 Pulse Polio Program

Public policies use behavioral science to increase its citizens' policy choices with respect to highway safety, healthcare, environmental, consumer protection, tax policy, poverty and retirement [12]. The nudges that have been implemented assume a certain freedom of choice for the people but in a subtle way directs them on a focused path. An important factor in public nudge policies is the lack of use of material incentives. [12]

In India as in other countries social norms are the main drivers of people's behavior. To change this mindset the government often uses social and religious means to play a dominant role. Most citizens tend to indicate a sense of inertia. For them the nudge theory is used to overcome this state of rest and push them towards the desired outcome. For them to be on this path, results in periodic reinforcement and reminders that help in achieving the optimum path. [13]

The nudge theory used by most countries have the following features;

There is no force on the people to follow a particular behavior, There is freedom of choice and There are no economic incentives provided. These nudges are not in the form of taxes, fines, subsidies, bans, or mandates (Thaler and Sunstein). They are tools that help individuals to make favorable decisions. Effective availability of health and social services exist but this does not

necessarily mean that the citizens are partaking in them. It is the nudge theory which helps in the final usage of these services. It is this theory that dissipates challenges that might occur in the system in the form of barriers in using these services. [14]

This theory is also known as ‘*choice architecture*’ which means that the context has been organised by which people take decisions (Thaler and Sunstein 2008). These theories can be adopted within the prevailing system (of incentives and subsidies) rather than replacing them. [15] This theory changes the choice environment in a manner that individuals making a rational choice use the best one that promotes their welfare and which is also the best for society as a whole. [16]

To achieve success through choice architecture and the nudge theory the methods used are; SMS reminders, symbolic social rewards and using influential individuals as ambassadors. All these three methods were used in India in eradicating polio among infants and India became polio free in 2014 (WHO 2014). The slogan used for this eradication was by Amitabh Bachchan on all social media platforms including print and television persuading young mothers to administer the polio vaccine for their children.

India rolled out the Pulse Polio Immunization Programme on 2 October 1994. 60% of global polio cases were in India [20]. In December 1995 the Pulse Polio Immunization program became a mantra for the Indian population to completely eradicate. The fervor of the program brought in its wake, a large number of volunteers that included students, teachers, religious leaders, medical practitioners, community leaders, housewives, and celebrities with the sole aim of saving the children from this terrible disease. It became a mission for everyone in the country and the aim was to defeat this disease that could be prevented by having “Do boond zindagi ke”. It became such a popular slogan, that irrespective of caste and income levels all mothers made it a point to take their children to the nearest centre where these drops were being administered. The other slogan in this campaign that caught the fascination of the public was “Polio Raviwar”. This whole campaign indicated the manner in which the government showed their intent in eradicating this disease. They managed this by setting up centres at very close proximity to residential areas both in the urban and rural areas. In case the mother was not able to bring her children to the centre there were volunteers who went from home to home and administered the drops to the children. The government was sensitive enough to open the centres on Sundays such that working mothers would have the time to get to these centres. This campaign continued in an unabated fashion till the year 2014 when finally the ‘WHO’ on 27th march 2014 declared India as polio free.

The problems that were addressed in the beginning of the campaign was the lack of awareness amongst the people, that this *communicable disease could be prevented* and second *acceptance*

by all that these polio drops would actually prevent their children from contracting the disease. The main problem that the health workers faced was the resistance by families in allowing these drops to be administered. For the government to break this barrier they used the help of religious leaders, local community health workers, teachers, students and respected influencers.

The reach of the program was so prominent that on the particular day that the drops were to be administered, booths were set up at bus stands and railway stations. The result of this planning and organisation led to India becoming polio free after two decades.

4.2 Covid-19 Case Study

The Covid-19 pandemic presented India with a unique public health challenge. Unlike Pulse Polio, where the primary objective was to vaccinate children against the disease, the covid-19 crisis required rapid behavioral change across the population of more than 1.3 billion people. The government therefore combined principles of behavioral economics with regulatory policies to encourage vaccination, mask usage, social distancing and other preventive measures. [23]

Behavioral economics played a central role in influencing public decision making during the pandemic. The government launched continuous communication campaigns through television, radio, newspapers, social media and phone alerts, using these means to repeatedly remind citizens about the importance of vaccination and following health protocols. Trusted celebrities, healthcare professionals and political leaders reinforced these messages, helping to reduce vaccine hesitancy and build up public confidence. These repeated reminders acted as *behavioral nudges* by encouraging voluntary compliance without relying only on monetary incentives. [23]

India's response to Covid-19 used a combination of behavioral nudges with stronger regulatory measures. Vaccines were provided free of cost at all government run centres to eliminate financial barriers while access to certain public spaces, travel and other services increasingly depended on vaccination status in many other states. This combination of *positive encouragement and policy restrictions increased the perceived benefit* of vaccination while simultaneously raising the costs of remaining unvaccinated, thereby influencing individual decision making in favour of public welfare. [23]

Managing a crisis of this scale also required more than just traditional public health messaging. Researchers analyzing official government communications through artificial intelligence and machine learning techniques found that India's response consistently emphasized themes of *collective responsibility, national unity and public participation*. Official Press Information Bureau releases frequently appealed to solidarity, civic responsibility and cooperation rather than relying exclusively on enforcement. By framing compliance as a national duty, the government

encouraged citizens to perceive preventive behaviors as contributing to the collective good rather than only protecting themselves [24]

The communication strategy extended across multiple platforms. Regular SMS reminders, publication of risk maps, repeated statements from doctors and professionals and frequent public addresses by the Prime Minister kept citizens informed throughout the pandemic. Appeals for contributions to the PM-CARES fund and campaigns encouraging wearing masks, social distancing and vaccination further strengthened the feeling of collective action. Together these measures gradually established preventive health behaviors as accepted social norms, highlighting how behavioral economics can shape public decision making during times of crisis. [24]

Technology also became an important instrument in influencing behavior. The Indian government introduced the **Aarogya Setu** mobile application which used bluetooth and location based technology to notify users if they had come into contact with an infected individual. The application also included a self evaluation feature allowing users to evaluate their own symptoms and seek medical assistance. By providing personalized risk information and increasing awareness of potential exposure the application encourages individuals to adopt safer behaviors while assisting authorities in monitoring the spread of the virus. [26]

Behavioral economics can also be used to explain why simple environmental changes were effective during the pandemic. Physical distancing markers in public places, hand sanitizer stations at every entrance, reminders to wash hands for at least twenty seconds were put up, and widespread mask usage acted as subtle nudges that influenced behavior without restricting individual freedom of choice. As more people adopted these practices, they gradually became social norms, encouraging others to follow through social influence. [25]

Despite the success of these interventions, behavioral economists argue that nudges alone cannot completely solve public health crises. Individuals are often influenced by optimism bias, believing that they are less likely than others to become infected. Research suggests that especially younger people tend to underestimate their personal risk making it necessary for the government to introduce regulations, mandatory public health measures and continuous communication. [25] Consequently, India's COVID-19 response demonstrated that *behavioral economics is most effective when integrated with other aspects such as technological innovation, strong institutions and evidence-based public policy rather than being used as a single standalone strategy.* [26]

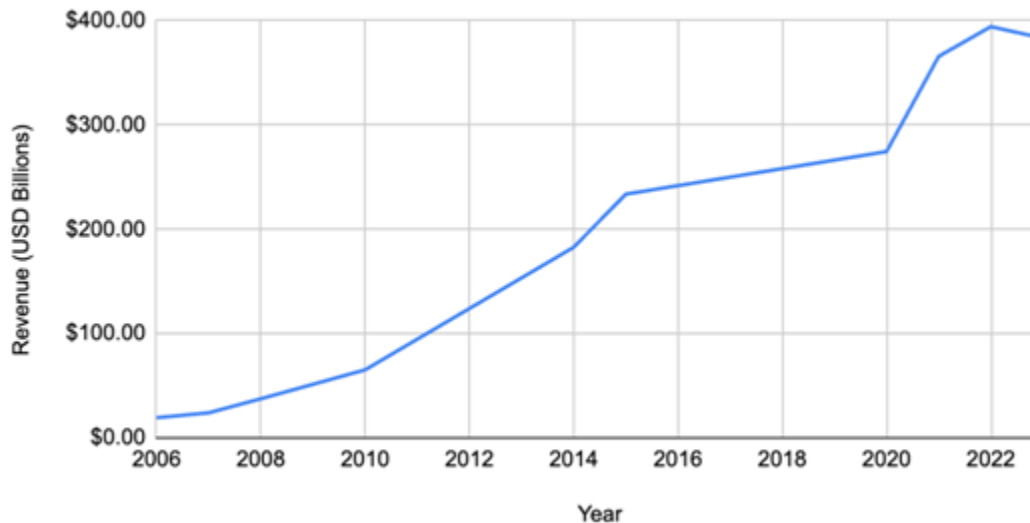
4.3 Apple Inc Case Study

Table 1: Apple Inc. Product Innovations and Revenue, 2006–2023

Year	Product/Innovation	Revenue (USD Billions)
2006	iPod	\$19.32
2007	First iPhone launched	\$24.01
2008	App Store introduced	\$37.49
2010	iPad launched	\$65.23
2014	Apple Pay; iPhone 6	\$182.80
2015	Apple Watch launched	\$233.72
2020	Apple Silicon (M1), services expansion	\$274.52
2021	Ecosystem and services growth	\$365.82
2022	iPhone 14 lineup	\$394.33
2023	iPhone 15; services remain a major revenue driver	\$383.29

Source: Apple Annual Reports (2006–2023)

Figure 1: Apples Annual Revenue Following Major Product launches (2006-2023)



Apple inc. annual revenue growth following major product launches.

Source: Apple Annual Reports (2006–2023).

Apple Inc. is one of the world's most successful technology companies and provides an example of how rational consumer decision making can coexist with behavioral economics. The producers are emphasising the superior quality of their products and this they attempt to do through various advertisements as well as word of mouth. When this is done consumers start perceiving that when they purchase Apple products they do so because of its superior qualities, innovation, security and long term reliability. The company employs behavioral strategies that influence purchasing decisions beyond traditional rational choice. Through product design, pricing strategies, ecosystem integration, artificial intelligence and sustainability initiatives, Apple has created one of the *strongest consumer loyalty networks in the global technology industry*. [27][28]

From the perspective of classical economics, consumers purchase Apple products because they are maximizing utility. Although Apple products are generally priced higher than competing alternatives, consumers perceive *greater long term value* through the product durability, regular software updates, strong privacy protection, reliable customer service and its high resale value. The integration between a variety of devices such as the iPhone, MacBook, Apple Watch, AirPods and iPad further increases consumer utility by allowing users to share information effortlessly across multiple devices. Consequently consumers often *justify the premium price as a rational investment decision that provides greater productivity and convenience over time*. [27]

However behavioral economics concepts suggest that consumer decisions are influenced by psychological biases in addition to rational calculations. Apple carefully designs its products and marketing strategies using principles of *choice architecture*. The company's minimalist retail stores, clean website interface design and simplified product range reduces cognitive overload allowing consumers to compare only a limited number of alternatives. By reducing complexity in the purchasing process as well as the elementary format of usage of its products helps, Apple Inc. in increasing the likelihood that consumers will complete their purchase while reinforcing that they have independently made the best decision for themselves. [29]

Another principle used by Apple is 'status quo bias'. Once consumers purchase their first Apple product they become increasingly integrated and dependent into the 'Apple Ecosystem' through services such as iCloud, iMessage, FaceTime, Apple Music and the App Store. Over time, consumers become so accustomed and dependent on the operating system and the seamless interaction between devices that though alternative brands may offer similar or even superior hardware specifications, many consumers continue to purchase Apple products because switching would require learning a new operating system, transferring personal data and sacrificing compatibility across devices. This reluctance to change reflects status quo bias and significantly increases 'consumer retention', while also giving Apple a *stronger consumer loyalty base*. [30]

Research suggests that individuals experience the pain of losses more strongly than the satisfaction of equivalent gains. This is highlighted by the concept of loss aversion. Existing Apple users often perceive that leaving the ecosystem would result in losing certain features only available to Apple devices such as AirDrop, iMessage, FaceTime, synchronised photographs, application purchases and cloud storage. *These perceived losses would outweigh the potential benefits of switching to competing brands encouraging consumers to remain loyal even when competing products are less expensive*. [31]

Technology and artificial intelligence have further enhanced Apple's ability to influence consumer behavior. Machine learning algorithms personalize recommendations across Apple Music, the App Store, and Apple TV, while AI-powered features like Siri, predictive text, health monitoring, and battery optimization improve the overall user experience. These personalized services boost consumer satisfaction, encourage repeated engagement with Apple's ecosystem, and strengthen long-term customer loyalty. Rather than directly persuading consumers to buy more products, artificial intelligence gradually *increases the convenience and efficiency of using Apple devices, making future purchases seem increasingly rational for the consumer*. [27]

Sustainability has become a key component of Apple's business strategy and consumer decision-making. Apple has invested heavily in recycled materials, renewable energy, carbon-neutral

operations, and trade-in programs that encourage customers to exchange older devices when purchasing newer models. These initiatives appeal to environmentally conscious consumers while reinforcing Apple's premium brand image. From a behavioral economics perspective, *sustainability acts as a positive behavioral nudge*, allowing consumers to feel that buying Apple products contributes to environmental responsibility without sacrificing quality or performance. [32]

Apple's continued financial success therefore cannot be explained solely through the assumption of rational consumer behavior. Although consumers receive genuine functional benefits from Apple's products, purchasing decisions are simultaneously shaped by behavioral biases. By combining these behavioral principles with technological innovation and sustainability initiatives, Apple has successfully increased customer loyalty, repeat purchases and consumers' willingness to pay premium prices. This demonstrates that behavioral economics complements rationality in explaining consumer behavior within modern private sector firms.

4.4 Rationality vs Behavioral Economics vs Incentives

The three case studies presented in this paper demonstrate that rationality, behavioral economics and incentives are not mutually exclusive approaches to decision making, instead they are complementary mechanisms that operate simultaneously in both public and private sectors. While classical economists assume that individuals make decisions by objectively evaluating costs and benefits to maximise utility, the evidence from the pulse polio campaign, the covid-19 vaccination programme and Apple Inc. suggests that real-world decisions are shaped on psychological biases, economics, social norms and institutional interventions. Consequently, understanding modern economic behavior requires integrating all three perspectives rather than relying solely on the traditional assumption of perfect rationality [2][4][6]

The effectiveness of rationality largely depends on individuals possessing complete information and the ability to evaluate long term costs and benefits objectively. In the case of Apple Inc., consumers may rationally justify purchasing premium priced products because of their durability, technological innovation, security, software support and ecosystem integration. These tangible benefits increase customer utility and provide an economic explanation for Apple's sustained market success. Similarly during both the Pulse Polio and Covid-19 vaccination campaigns, governments provided scientific information regarding vaccine safety and effectiveness with the expectation that citizens would make informed decisions that maximised both Indians and societal welfare. However the persistence of vaccine hesitancy demonstrated that information alone was insufficient to produce the desired behavioral outcomes. [2][6][27]

Behavioral economics provides a stronger explanation for these deviations from rational choice. Both public health campaigns successfully reduced resistance to vaccination by influencing the context in which decisions were made rather than altering the decisions themselves. The Pulse Polio campaign relied on celebrity endorsements, Religious leaders, community volunteers, easily accessible vaccination booths and repeated public messaging to create positive social norms surrounding childhood immunisation. Likewise, the Covid-19 vaccination programme utilised continuous SMS reminders, digital communication, public awareness campaigns and appeals to collective responsibility to encourage voluntary compliance before introducing stronger policy measures. These interventions addressed cognitive biases such as inertia, present bias and social conformity, demonstrating that individuals frequently respond more effectively to behavioral cues than to factual information alone. [12][13][20][23][24]

The private sector employs similar behavioral principals to achieve commercial objectives. Apple's marketing strategy illustrates how consumer decisions can be influenced through carefully designed choice architecture, status quo bias and loss aversions. Although consumers perceive their purchasing decisions as rational, psychological factors strengthen consumer loyalty, increase switching costs and reinforce willingness to pay premium prices. Unlike government campaigns that seek to improve social welfare, Apple applies behavioral economics to maximise consumer retention, strengthen brand equity and increase long term profitability. This demonstrates that the same behavioral principles can produce separate outcomes depending upon a company's organisational objectives.

Incentives represent the third mechanism influencing economics decision making and operate differently across the three case studies. The Pulse Polio programme achieved widespread participation with minimal reliance on financial incentives, indicating that behavioral interventions alone can sometimes generate significant social benefits. In contrast the covid-19 vaccination programme combined behavioral nudges with institution incentives, including free vaccination, digital certification and restrictions on access to public spaces for unvaccinated individuals. These measures altered both perceived costs and benefits associated with vaccination, thereby reinforcing behavioral incentives rather than explicit financial rewards. Trade-in programmes, ecosystem integration and subscription services and premium after sales support increase the perceived value of remaining within the Apple ecosystem, encouraging repeat purchases and long term customer retention. [20][23][27][32]

The comparison of these case studies indicates that the relative importance of rationality, behavioral economics and incentives varies according to the context in which decisions are made. Rationality provides an important theoretical foundation by explaining how Indians evaluate utility and make economic choices under ideal conditions. Behavioral economics extended this framework by recognising that cognitive biases, emotions and social influences

systematically affect decision making. Incentives further reinforce behavioral change by modifying the economic costs and benefits associated with different choices. Rather than functioning as competing theories these approaches interact to explain both public policy outcomes and private sector performance. Their combined application enables the government to improve social welfare while allowing firms to strengthen consumer engagement and achieve sustained financial growth. [4][10][27]

5. Limitations of the Study

This study is subject to some limitations. The research is based primarily on secondary data including academic literature, government reports and company publications. Although these sources provide reliable information, the absence of extensive primary research limits the ability to directly examine individual perceptions and behavioral responses. While primary methods such as surveys or interviews could have provided additional insights, they were beyond the scope of this study due to time and resource constraints. Human decision making is influenced by a wide range of psychological, social, cultural and economic factors. Consequently, it is difficult to determine the extent to which observed behavior can be attributed solely to rational decision making or to behavioral interventions. The interaction between rationality and psychological influences is complex making it challenging to isolate the impact of individual behavioral concepts within the selected case studies.

Finally, the research focuses on three case studies; India's Pulse Polio campaign, the covid-19 vaccination programme and Apple Inc. While these cases provide meaningful comparisons between the public and private sectors, the findings may not be fully generalisable to other countries, industries or policy contexts.

6. Conclusion and the Way Ahead

The study concludes that decision making in both public and private sectors is shaped not only by rationality alone but also by the interaction of rational evaluation, behavioural influences, incentives, technology and sustainability, with the relative importance of each factor varying according to institutional objectives and decision-making contexts of the different sectors.

The findings of this study demonstrate that choice architecture, nudge theory, bounded rationality and other behavioral principles have significantly enhanced the effectiveness of decision making strategies, particularly within the public sector. The pulse polio campaign illustrates how carefully designed behavioral interventions, including community engagement, celebrity endorsements and daily accessible vaccination centres, successfully encouraged voluntary participation and contributed to the eradication of polio in India. Similarly the covid-19 vaccination programme demonstrated that combining behavioral insight with incentives,

technology and effective communication can improve public participation during periods of uncertainty and crisis.

Within the private sector rational decision making continues to play an important role in influencing consumer behavior. Consumers increasingly evaluate products based on factors such as quality, price, functionality and long term value before making purchasing decisions. At the same time behavioral principles continue to shape these decisions through branding, social proof and ecosystem integration, as demonstrated by Apple Inc. The widespread availability of digital information, online reviews and social media has increased market transparency, enabling consumers to compare alternatives more easily while encouraging firms to maintain product quality and competitive pricing consequently behavioral strategies today are more likely to complement informed consumer decision making rather than replace it.

Looking ahead, the growing use of artificial intelligence, digital platforms and data analytics is expected to further expand the application of behavioral economics in both the public and private sectors. Governments can utilise these tools to design more targeted and effective public policies, while businesses can develop increasingly personalized products and services that better respond to consumer needs. However as behavioral interventions become more sophisticated it will be equally important to ensure that they are implemented responsibly, transparently and in ways that preserve consumer autonomy and public trust.

Overall this study highlights that the integration of rationality, behavioral economics, incentives, technology and sustainability provides a more comprehensive framework for understanding modern economic decision making rather than functioning as competing concepts, these approaches complement one another and enable governments and businesses to achieve more effective, sustainable and socially beneficial outcomes.

AI Use Declaration: Generative AI (ChatGPT, OpenAI) was used to assist with grammar and language refinement; however, all final content, sources, and information were reviewed and verified by the author.

References

[1] Saura, J. R., & Buzinskiene, R. (2025). Behavioral economics, artificial intelligence and entrepreneurship: an updated framework for management. *International Entrepreneurship and Management Journal*, 21(1). DOI: 10.1007/s11365-025-01076-7. Available at: <https://doi.org/10.1007/s11365-025-01076-7>

- [2] Chen, Y. (2024). An overview of behavioral economics. *Academic Journal of Business & Management*, 6(3). DOI: 10.25236/ajbm.2024.060306. Available at: <https://doi.org/10.25236/ajbm.2024.060306>
- [3] Schiliro, D. (2018). Economic decisions and Simon's notion of bounded rationality. *International Business Research*, 11(7), 64. DOI: 10.5539/ibr.v11n7p64. Available at: <https://doi.org/10.5539/ibr.v11n7p64>
- [4] Victor, V., Nair, A. M., & Meyer, D. F. (2023). Nudges and choice architecture in public policy: A bibliometric analysis. *Journal of Behavioral and Experimental Economics*, 104, 102020. DOI: 10.1016/j.socec.2023.102020. Available at: <https://doi.org/10.1016/j.socec.2023.102020>
- [5] Atmadja, S. S., Sills, E. O., Pattanayak, S. K., Yang, J., & Patil, S. (2017). Explaining environmental health behaviors: evidence from rural India on the influence of discount rates. *Environment and Development Economics*, 22(3), 229–248. DOI: 10.1017/S1355770X17000018. Available at: <https://doi.org/10.1017/s1355770x17000018>
- [6] Thaler, R. H. (2016). Behavioral economics: Past, present, and future. *American Economic Review*, 106(7), 1577–1600. DOI: 10.1257/aer.106.7.1577. Available at: <https://doi.org/10.1257/aer.106.7.1577>
- [7] Cerasoli, C. P., Nicklin, J. M., & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychological Bulletin*, 140(4), 980–1008. DOI: 10.1037/a0035661. Available at: <https://doi.org/10.1037/a0035661>
- [8] Santos, A. J. (2025). The role of behavioral insights in economic decision making education. *Academic Journal of Science, Technology and Education*, 1(5), 39–42. Available at: <https://integrumpublication.org/index.php/ajste/article/view/57>
- [9] Espín, A. M., Pe'er, E., & Mills, S. (2026). Behavioral economics in people management: A critical and integrative review. *Behavioral Sciences*, 16(1), 65. DOI: 10.3390/bs16010065. Available at: <https://doi.org/10.3390/bs16010065>
- [10] Singal, V. (2024). Behavioral economics and consumer choice: Understanding decision-making processes. Available at: <https://eelet.org.uk/index.php/journal/article/view/1797> Accessed 21 September 2026.
- [11] Kuroki, M., & Sasaki, S. (2025). When incentives and nudges meet: Promoting budget allocations for undervalued policies. *arXiv*. Available at: <https://arxiv.org/abs/2505.08323>. Accessed 21 September 2026.

- [12] Goyens, M., Hausman, D. M., Reisch, L. A., Sunstein, C. R., Troussard, X., & Van Bavel, R. (2018). Nudging in public policy: application, opportunities and challenges. *Intereconomics*, 53(1). Available at: <https://www.intereconomics.eu/contents/year/2018/number/1/article/nudging-in-public-policy-application-opportunities-and-challenges.html>
- [13] Government of India, Ministry of Finance. (2019). Policy for homo sapiens, not homo economicus: leveraging the behavioural economics of "Nudge." *Economic Survey 2018–19*, Volume 1, Chapter 2. Available at: https://www.indiabudget.gov.in/budget2019-20/economicsurvey/doc/vol1chapter/echap02_vol1.pdf
- [14] Murayama, H., Takagi, Y., Tsuda, H., & Kato, Y. (2023). Applying nudge to public health policy: Practical examples and tips for designing nudge interventions. *International Journal of Environmental Research and Public Health*, 20(5), 3962. DOI: 10.3390/ijerph20053962. Available at: <https://doi.org/10.3390/ijerph20053962>
- [15] Banerjee, S., & John, P. (2021). Nudge plus: Incorporating reflection into behavioral public policy. *Behavioural Public Policy*, 8(1), 69–84. DOI: 10.1017/bpp.2021.6. Available at: <https://doi.org/10.1017/bpp.2021.6>
- [16] Sunstein, C. R. (2014). *Why nudge? The politics of libertarian paternalism*. New Haven, CT: Yale University Press.
- [17] Banerjee, B., Chandrasekhar, A. G., Dalpath, S., Duflo, E., Floretta, J., Jackson, M. O., Kannan, H., Loza, F., Sankar, A., Schrimpf, A., & Shrestha, M. (2025). Selecting the most effective nudge: Evidence from a large-scale experiment on immunization. *Econometrica*, 93(4), 1183–1223. Available at: <https://www.econometricsociety.org/publications/econometrica/2025/07/01/Selecting-the-Most-Effective-Nudge-Evidence-from-a-Large-Scale-Experiment-on-Immunization/>
- [18] Choudhary, M., Solomon, R., Awale, J., Dey, R., Singh, J. P., & Weiss, W. (2021). Significance of a social mobilization intervention for engaging communities in polio vaccination campaigns: Evidence from CORE Group Polio Project, Uttar Pradesh, India. *Journal of Global Health*, 11, 07011. DOI: 10.7189/jogh.11.07011. Available at: <https://doi.org/10.7189/jogh.11.07011>
- [19] Bonu, S., Rani, M., & Baker, T. D. (2003). The impact of the national polio immunization campaign on levels and equity in immunization coverage: evidence from rural North India. *Social Science & Medicine*, 57(10), 1807–1819. DOI: 10.1016/S0277-9536(03)00056-X. Available at: [https://doi.org/10.1016/S0277-9536\(03\)00056-X](https://doi.org/10.1016/S0277-9536(03)00056-X)

- [20] World Health Organization. (2021). India: A push to vaccinate every child, everywhere, ended polio in India. Available at: <https://www.who.int/india/news-room/feature-stories/detail/a-push-to-vaccinate-every-child-everywhere-ended-polio-in-india>
- [21] Gautam, S. K. (2017). Mass media and Pulse Polio awareness campaign. *International Journal of Reviews and Research in Social Sciences*, 5(1).
- [22] Joseph, N. (2011). A study of the knowledge and attitude towards pulse polio immunization in semi urban areas of South India. *Australasian Medical Journal*, 4(2), 81–86. DOI: 10.4066/amj.2011.532. Available at: <https://doi.org/10.4066/amj.2011.532>
- [23] Hume, S., John, P., Sanders, M., & Stockdale, E. (2021). Nudge in the time of coronavirus: Compliance to behavioural messages during crisis. *Journal of Behavioral Public Administration*, 4(2). DOI: 10.30636/jbpa.42.238. Available at: <https://doi.org/10.30636/jbpa.42.238>
- [24] Sanders, J. G., Tosi, A., Obradovic, S., Miligi, I., & Delaney, L. (2021). Lessons from the UK's lockdown: Discourse on behavioural science in times of COVID-19. *Frontiers in Psychology*, 12, 647348. DOI: 10.3389/fpsyg.2021.647348. Available at: <https://doi.org/10.3389/fpsyg.2021.647348>
- [25] Dudas, L., & Szántó, R. (2021). Nudging in the time of coronavirus? Comparing public support for soft and hard preventive measures, highlighting the role of risk perception and experience. *PLOS ONE*, 16(8), e0256241. DOI: 10.1371/journal.pone.0256241. Available at: <https://doi.org/10.1371/journal.pone.0256241>
- [26] Debnath, R., & Bardhan, R. (2020). India nudges to contain COVID-19 pandemic: A reactive public policy analysis using machine-learning based topic modelling. *PLOS ONE*, 15(9), e0238972. DOI: 10.1371/journal.pone.0238972. Available at: <https://doi.org/10.1371/journal.pone.0238972>
- [27] Apple Inc. (n.d.). SEC filings. Available at <https://investor.apple.com/sec-filings/default.aspx>
- [28] Congiu, L., & Moscati, I. (2022). A review of nudges: Definitions, justifications, effectiveness. *Journal of Economic Surveys*, 36(1), 188–213. DOI: 10.1111/joes.12453. Available at: <https://doi.org/10.1111/joes.12453>
- [29] Kamenica, E. (2012). Behavioral economics and psychology of incentives. *Annual Review of Economics*, 4(1), 427–452. DOI: 10.1146/annurev-economics-080511-110909. Available at: <https://doi.org/10.1146/annurev-economics-080511-110909>

[30] Chen, R. (2025). Interactive of status quo bias and sunk costs from behavioral economics perspective. *Highlights in Business, Economics and Management*, 58, 150–155.

[31] Ericson, K. M. M., & Fuster, A. (2014). The endowment effect. *Annual Review of Economics*, 6(1), 555–579. DOI: 10.1146/annurev-economics-080213-041320. Available at: <https://doi.org/10.1146/annurev-economics-080213-041320>

[32] Apple. (n.d.). Environment. Available at: <https://www.apple.com/environment/>

[33] Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New Haven, CT: Yale University Press.