Shri Vile Parle Kelavani Mandal's
MITHIBAI COLLEGE OF ARTS, CHAUHAN INSTITUTE OF SCIENCE &
AMRUTBEN JIVANLAL COLLEGE OF COMMERCE AND ECONOMICS (AUTONOMOUS)
NAAC Reaccredited 'A' Grade, CGPA:3.57 (February 2016)
Granted under RUSA for Enhancing Quality & Excellence in select Autonomous Colleges
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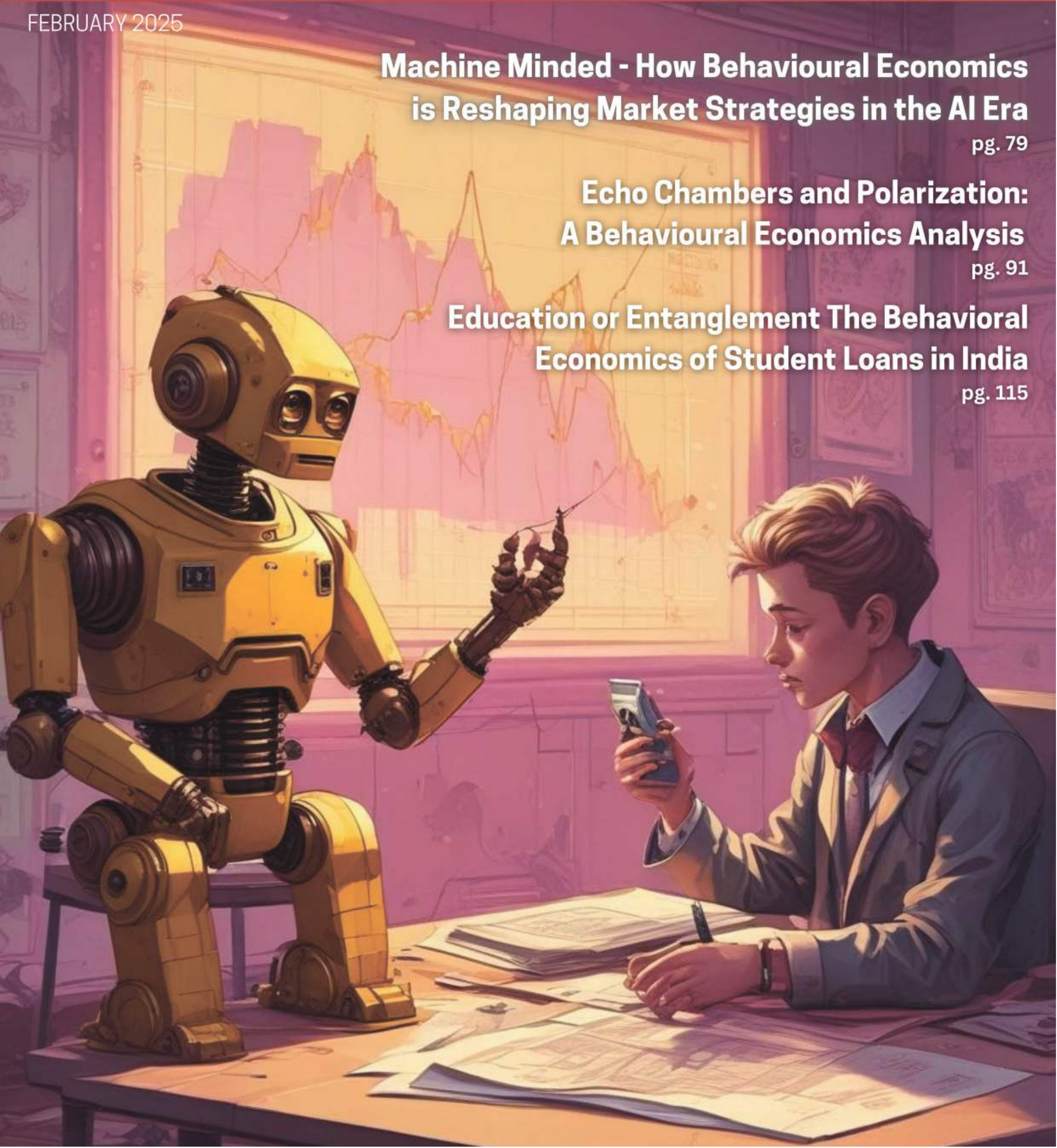
Best College (2016-17), University Of Mumbai

TET | THE ECONOMIC TRANSCRIPT

FEBRUARY 2025



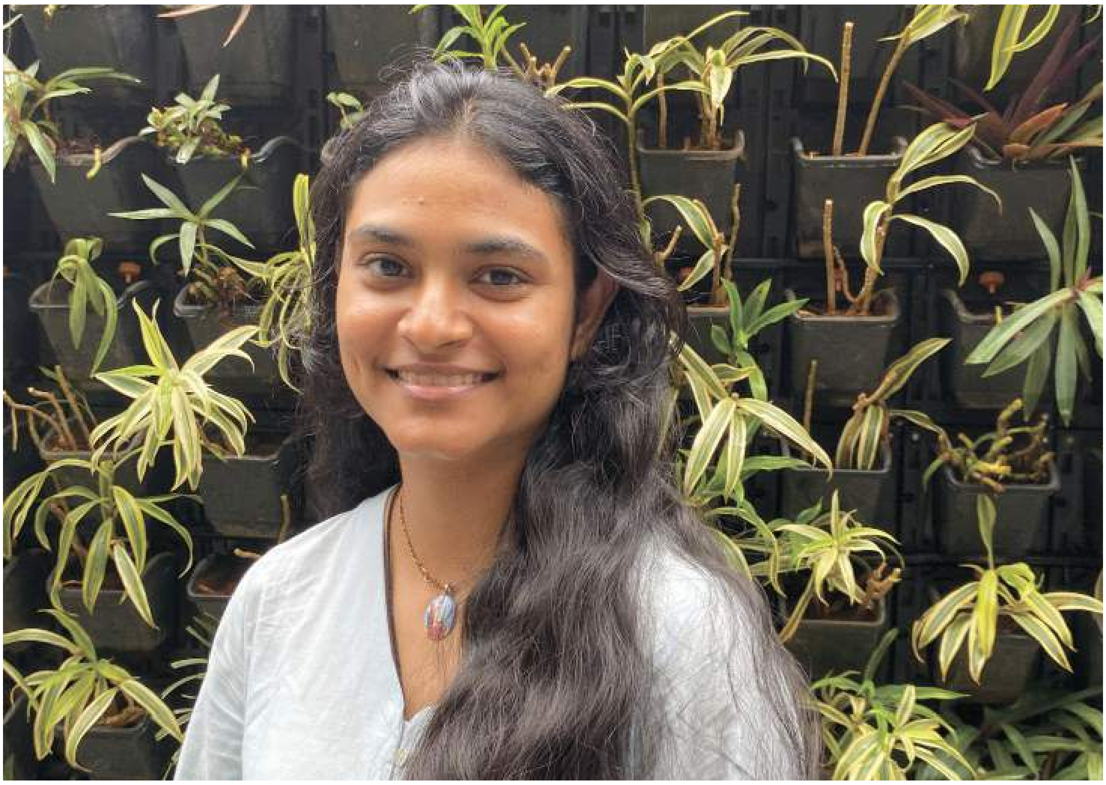
ABOUT SVKM AND MITHIBAI

Shri Vile Parle Kelavani Mandal is a Public Charitable Trust which spans over cities such as Mumbai, Bangalore, Hyderabad, Chandigarh, Ahmedabad, Indore, Shripur and Dhule. From its humble beginnings in 1934, when it took over the Rashtriya Shala, a school established in 1921 in the wake of the National movement, the Mandal today has grown into a big educational complex imparting high-level education to more than 35,000 students in institutes such as Mithibai College, N.M. College of Commerce and Economics, NMIMS (deemed to be University), D.J Sanghvi College of Engineering, Bhagubhai Mafatlal Polytechnic to name a few. It also provides education in the fields of Pharmacy, Law and Architecture.

SVKM's Mithibai College of Arts, Chauhan Institute of Science and Amrutben Jivanlal College of Commerce and Economics is legendary for its highly talented and promising students since its inception in 1961. Located in the heart of Mumbai, in Vile Parle (West), Mithibai College, with the strength of 11,093 students stand as tall as one of the largest colleges in india. The college has 31 departments of which 15 are postgraduate departments with 7 of them conducting PhD programmes.

Mithibai college was awarded NAAC 'A' grade with 3.57 CGPA. UGC has awarded the college Autonomy without onsite visit, from the academic year 2018-19 for the period of 10 years. Mithibai College focuses on excellence and education with a human touch which has attracted the attention of noted statesmen, academicians and scientists from different parts at National and International levels. The colleges provide ample opportunity for career advancement and extra- curricular achievement. Mithibai College has a state-of-the-art campus with student friendly infrastructural advancements, having proximity of other seven SVKM institutes.

EDITOR'S NOTE



Shamonnita Banerjee **Editor-In-Chief** 2024-25

Dear Reader,

It surprises me how fast time flies by. It feels bittersweet and surreal, like just yesterday I was sitting down to draft my very first editor's note for The Economic Transcript's inaugural issue and here I am, sitting to type my last one. My journey has been filled with ups and downs, but I am truly grateful that I got a chance to be a part of this wonderful team.

It has become a bit of a tradition to try something different for the final issue and this month's theme draws it's inspiration from age old school of thought of ***Behavioral Economics.***

Psychology of Savings: Why Asians Prioritize Savings over Spendings delves into some of the most basic economic concepts of consumption and savings and the role culture plays in it. On similar lines, ***The UPI Revolution: How Digital Payments Are Reshaping Spending Habits in India*** examines the role of cashless transactions in spending.

Our cover article ***Machine Minded - How Behavioural Economics is Reshaping Market Strategies in the AI Era*** deflects from the past and looks at modern times and how the ever-changing technological world is shaping our behaviour patterns.

Paris Agreement: How It Is in Danger delves into the crumbling foundations of the UNFCC's Paris Agreement and ways to keep it afloat.

DefSat2025: India's Space Odyssey looks at the highlights of the DefSat conference and discusses the ethics of space exploration and harnessing that power for mankind's advancement.

As I look back at my year, I realize none of what I've accomplished would be possible without my team of Managing Editors, HoDs, Writers, Editors, the graphics team and most importantly, dear reader, you. To all those who've been here from the start to those who've joined along the way, here's to you and to many more years of success.

I hope you enjoy reading this edition as much as we enjoyed creating it.

Signing off for the last time.

Shamonnita Banerjee
Editor in Chief

Dhanush Iyer
Managing Editor (Admin)

Shivi Badaya
Managing Editor (Technicals)

Mahi Bhandari
Managing Editor (Content)

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ASIA

ECONOMIC COOPERATION BETWEEN JAPAN AND SOUTH KOREA: A PATH TO STABILITY

*Written by **Samiya Qureshi** and Edited by **Neelambika Kumari Devi***

Japan and South Korea have a complicated historical relationship that is characterized by long-standing grudges from Japan's colonial occupation over Korea from 1910 to 1945. Although both countries are strategic allies of the United States and important economic actors in the Asia-Pacific area, their bilateral cooperation has sometimes been hampered by political disputes. In order to address long-standing difficulties and promote geopolitical and economic stability, recent reconciliation negotiations have attempted to heal the rift. If these talks are successful, they might lead to huge economic gains and improve regional security. But there are still many obstacles in the way of long-term reconciliation, such as conflicting national interests, legal issues, and internal dissent.

The enduring tensions between South Korea and Japan requires an awareness of their historical background. With unsolved issues over forced labor, comfort women, and territorial disputes over the Dokdo/Takeshima islets, Korea was permanently impacted by the Japanese colonial era. The 1965 Treaty on Basic ties, which included Japanese economic support but fell short of fully addressing historical injustices, was an attempt at normalization of post-war ties. Diplomatic interactions in the next decades were erratic, with periods of collaboration eclipsed by disagreements over historical remembrance, the recognition of war crimes, and reparations for victims of conflict (Kim, 2020). Agreements like the 2015 comfort women settlement failed to find a sustainable resolution because of popular unhappiness in South Korea, making the topic of comfort women—Korean women forced into sexual servitude by the Japanese military—particularly sensitive (Park, 2019). The inability to achieve long-term reconciliation is demonstrated by the recurring escalation of these historical grudges into diplomatic impasses and trade barriers.

Notwithstanding these conflicts, a rapprochement between South Korea and Japan offers both countries substantial economic prospects. Two of the biggest economies in the world, South Korea and Japan have closely related businesses, especially in the semiconductor, automotive, and technology sectors. In the past, trade between the two countries has been strong, with Japanese companies providing vital parts to South Korean tech behemoths like Samsung and SK Hynix. However, the economic vulnerabilities brought on by strained diplomatic relations have been illustrated by trade conflicts, such as Japan's 2019 export limits on essential semiconductor materials (Lee, 2021). Trade obstacles may be lifted as a result of a successful reconciliation, increasing supply chain effectiveness and cutting expenses for large industries.

Furthermore, stronger economic ties may encourage more foreign direct investment (FDI) and cooperation in developing fields like biotechnology, green technology, and artificial intelligence. Both countries might maintain their competitive advantages in the global market if joint ventures and research collaborations were encouraged by a solid economic alliance. Furthermore, closer economic ties would improve regional

trade agreements like the Regional Comprehensive Economic Partnership (RCEP) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), further integrating South Korea and Japan into the global economy (Smith, 2022). Both countries may establish themselves as major actors in the Asia-Pacific area, draw in more investment, and promote economic resilience by utilizing their own economic strengths.

Reconciliation would have significant effects on regional stability and geopolitics in addition to economic advantages. Growing tensions between the US and China are influencing regional dynamics, making the Asia-Pacific area a focal point of global geopolitical conflict. As important U.S. allies, Japan and South Korea are vital to preserving stability and thwarting North Korean threats. A strained relationship between these two countries reduces their capacity to work together to handle regional concerns, such as China's growing influence and North Korea's nuclear aspirations, and weakens trilateral security cooperation with the United States (Harris, 2023). Japan and South Korea may improve security cooperation, exchange intelligence, and create coordinated defence plans by fortifying their diplomatic connections, which would help create a more stable regional security environment.

Additionally, a reestablished alliance between South Korea and Japan might act as a check on China's increasing military and economic ambition. Through programs like the Belt and Road Initiative (BRI) and territorial claims in the South China Sea, China has progressively attempted to increase its influence in the Indo-Pacific. Stronger ties between Japan and South Korea, supported by the United States, may uphold democratic principles and regional economic stability while halting

China's monopolization of trade routes and technological supremacy. Furthermore, a more united stance in diplomatic negotiations and economic sanctions may result from reconciliation, which might also lead to better coordinated measures to confront North Korea's disruptive acts (Tanaka, 2023). In addition to thwarting possible threats, fortifying this alliance would advance a rules-based international order in the area.

Notwithstanding these possible advantages, there are still many obstacles in the way of Japan-South Korea reconciliation's long-term success. Given how deeply ingrained nationalist feelings and old grievances are in the public awareness, domestic political opposition in both countries presents a significant challenge. While conservative forces in Japan oppose reexamining wartime culpability, political officials in South Korea face popular backlash if they are seen as surrendering on historical justice (Moon, 2021). When political leadership changes, these internal conflicts frequently result in reversals of reconciliation attempts and make it difficult to maintain diplomatic agreements.

Reconciliation attempts are made more difficult by legal challenges, especially when it comes to demands for compensation after the war. Japanese corporations have been ordered to pay compensation to victims of forced labor by South Korean court verdicts in recent years. Japan has fiercely challenged these rulings, pointing to previous agreements that were meant to resolve such claims. Long-term reconciliation is difficult since diplomatic relations are still strained by the absence of a mutually agreeable legal framework to resolve these historical concerns (Chung, 2022).

Furthermore, tensions remain due to unresolved territorial issues, including the Dokdo/Takeshima problem, which impede diplomatic progress and feed nationalist rhetoric. Balancing relations with other powers, especially the US and China, is another major difficulty. As part of its larger Indo-Pacific strategy, the United States firmly favours the reconciliation of South Korea and Japan; nevertheless, both countries must manage their economic reliance on China. Particularly, South Korea has strong trading relations with China and runs the risk of economic reprisal if it is thought to be too close to the United States and Japan (Lee, 2022). It takes deliberate diplomatic wrangling and calculated policy choices to maintain these geopolitical forces while promoting bilateral reconciliation.

In conclusion, there is a great deal of promise for regional stability, economic expansion, and improved security cooperation through the reconciliation negotiations between South Korea and Japan. Both countries may open up new avenues for investment, trade, and technical advancement by resolving past grievances and promoting economic cooperation. Additionally, by strengthening trilateral collaboration with the United States and fending off geopolitical challenges from North Korea and China, reconciliation improves regional security. However, overcoming major obstacles like internal opposition, legal issues, and geopolitical difficulties is necessary to achieve sustainable reconciliation. Reconciliation initiatives must be supported by reciprocal compromises, sustained diplomatic efforts, and strategic partnerships with outside parties in order to result in long-term stability and prosperity in the Asia-Pacific area.

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THE PSYCHOLOGY OF SAVING: WHY ASIANS PRIORITIZE SAVINGS OVER SPENDING

*Written by **Dhruvi Solanki** and Edited by **Pooja Saxena***

In a constantly changing scenario, consumerism is gently sweeping over the world economies; money-saving practice, old though it may be, holds good even to this day, especially in many Asian cultures. Saving money is construed across several countries such as Japan, China, and South Korea, including India, as not merely a financial consideration, but rather a way of life whose underpinning rests in heavy psychological, cultural, and historical affirmation. The notion of saving being absolutely paramount over spending is often so entangled in the backdrop of humanity that it shapes individual behavior and threads into the larger winds of economic events at the national level.

Cultural Considerations: Undergirding Saving

Saving is one of the foremost observances of the Asian culture and value system passed on from generation to generation. Countries like Japan and China associate saving with concepts of wisdom, responsibility, and the welfare of the family. In the Chinese tradition, the word "Jiànkāng" suggests physical or spiritual well-being, including economic well-being. The accumulation of wealth is viewed as not only a personal goal but also a means of securing the peace and well-being of generations to come. Thus, saving essentially becomes a way to maintain harmony within the family by providing for one's children and taking care of old parents.

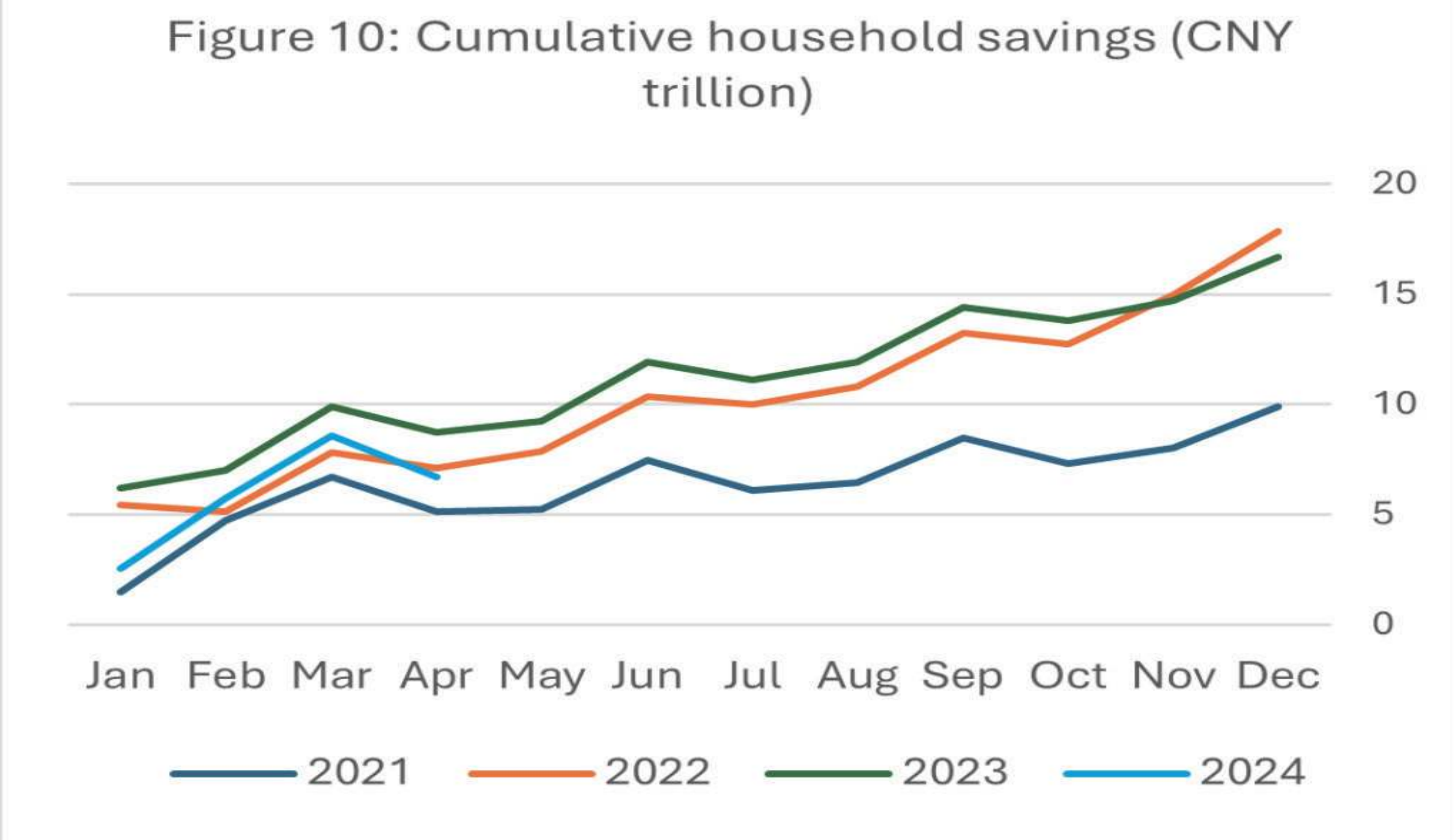
An analogous trend in Japan links saving to concepts such as “gaman”, whose basic translation is endurance or perseverance. “Gaman” tells the individual that, if faced with hardship, he should avoid indulgence and remain focused on long-term objectives, even if it means giving up immediate gratifications. Thus, this cultural practice makes saving an act of discipline, self-restraint, and moral strength. These cultural tendencies have remained with the people, thereby causing very high savings rates compared to those in Western countries.

Economic Uncertainty and Security

Economic conditions in many Asian countries have historically shaped the mindset toward saving. For example, Japan’s tenure during the “Lost Decade” (1991-2001) marked economic stagnation, while rapid change transformed China into a global economic powerhouse. These events became catalysts for savings being put on the front burner. In Japan, those who found themselves during the times of economic uncertainty developed habits of saving as a means of protection against any future potential distress. The memory of the collapse of Japan’s asset price bubble and subsequent recession being ingrained into people’s minds meant that the realistic possibility, if not outright belief, that saving was safer and more reliable than spending gained even greater credence in people’s minds.

Saving: Psychological Reasons

Financial decision-making psychology also sheds light on why saving is more appreciated in Asian culture. Delayed gratification, popularized by psychologist Walter Mischel in his famous ‘marshmallow test’, helps us in understanding the Asian way of saving. Delaying gratification is a conscious ability to refuse temptation for an immediate reward in favor of larger future rewards. In Asian cul-



tures, with their emphasis on long-term inclusivity, individuals are encouraged to forsake immediate gratification for larger, future gains.

Also, studies on loss aversion—another important psychological concept—suggest that people are more motivated by the desire to avoid losses than by potential gains. The fear of losing face (or reputation) within their society and the insecurity that comes with it is intrinsic motivation for saving in many Asian cultures. This fear is sometimes compounded by social pressures to maintain financial parity throughout life but especially when raising a family. Avoiding financial instability, such as not having enough savings for emergencies, is seen as both personal and familial failure and only fortifies the process of saving.

Social Pressure and Peer Influence

In Asian cultures, social coercion and the influences of expectations, especially those from the family, are often cited as important reasons for the formation of an individual's saving habits. This is typified in Japan by a method known as "kakeibo", which involves the meticulous keeping of household budgets and recording of expenditures. It demonstrates how society truly values the art of money management. In addition to saving for themselves, people save so as not to become a financial burden on the family. A sense of debt to others drives their saving action irrespective of how tempting purchases may be.

In China, saving for buying property is another strong motivator. Pressure to own residential property weighs heavily among young adults. With property prices increasing and the social sensing that success is owning a home, people might prioritise spending on leisure and focus more on saving for down payments and securing future ventures of property. This has spurred saving behaviors greatly among younger people who are willing to forgo instant pleasures for their plans down the road.

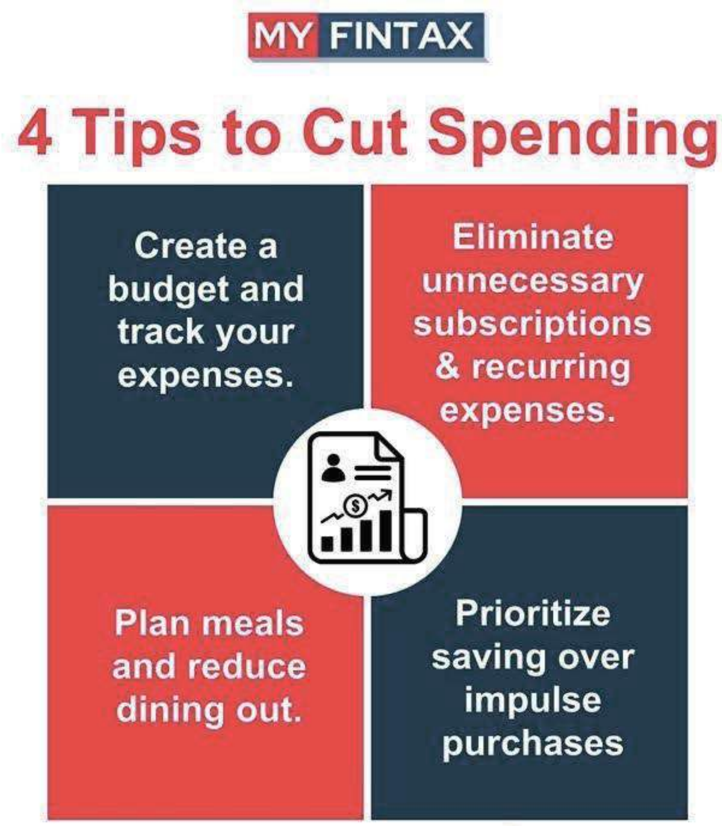
Technological Influence on Saving Behavior

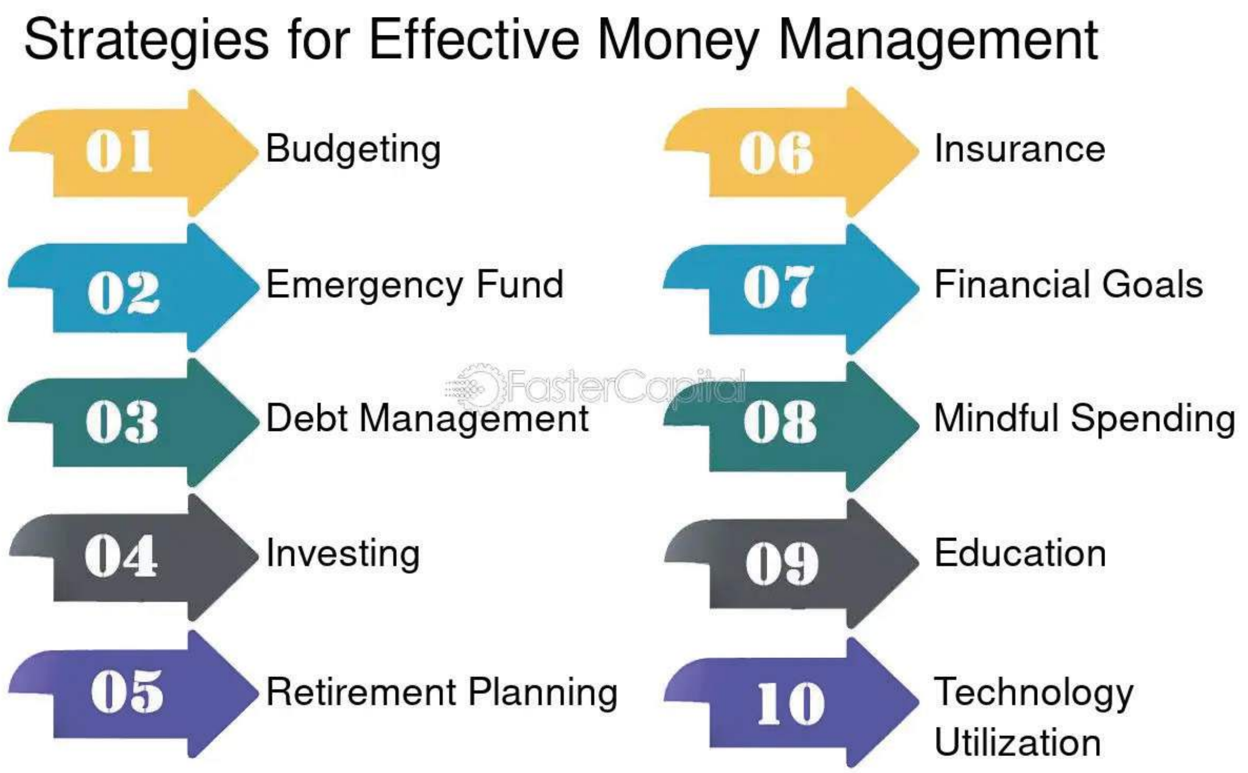
Interestingly, the advent of digital finance has a rather paradoxical implication on the region's saving behavior. To the good of the layman, on the one hand, fintech innovations such as mobile payment apps and digital investment platforms have helped people shop around to save and multiply their money, with some platforms facilitating apps that hold saving programs at higher interest rates. On the other hand, e-commerce and ad-tech have opened up spending to the average consumer like never before. This duality creates a tension in many people's minds regarding saving in a time when spending is essentially painless.

Despite these challenges, the studies show that many Asians still have a greater tendency to save than they should to spend, even in this day and age of consumerism. In places like South Korea, the youth often resort to micro-investment apps to save tiny amounts regularly, promoting the idea that small steps toward financial security can be beneficial in the long run.

Recent Trends and Global Shifts

The global economic scene is changing, and Asian saving behaviors are changing accordingly. The COVID-19 pandemic was, for instance, an agent of sweeping





consumption changes and savings habit changes. An HSBC survey conducted in 2020 found that nearly 45% of people in Asia reported having increased their savings during the pandemic, with economic uncertainties brought on by the crisis being an important driver. The pandemic heightened awareness about the need for an emergency fund, waking up many across the continent to monetary reserves in response to the uncertainty created by the health crisis.

In addition, as the Millennials enter the arena, subtle shifts in financial behavior have accentuated the differences in the populations of Asia. Whereas the older sections of the population still advocate saving, younger people of countries such as India and China are progressively seeking a balance between saving and spending. However, the wish for financial stability is still present, with quite a few opting to secure their futures first before treating themselves.

Conclusion

The psychology of saving in Asian cultures unfolds through an elaborate interplay of cultural values, economic situations, psychological drivers, and social pressures. More than mere practice, saving money has acted as a habit entrenched in the sense of securing the future for self, another family member, and society at large. While consumerism is gaining admirers, the modern economic situation continues to radically place a stigma on saving practices in some Asian countries, whereby an understanding of the psychological and cultural forces operating within Asia may better motivate the study of economic behavior around the globe.

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CHIPPING CHALLENGES: INDIA'S ROAD TO SELF-RELIANT SEMICONDUCTOR INDUSTRY

Written by ***Venkatesan Sai Taruniand*** *Edited by* ***Shruti Shiraguppi***

Have you ever made any decision to buy an iPhone, laptop, or any electronic device based on the random-access memory (RAM) and storage capacity? Starting from almost 4 GB of storage capacity, the applications, data, and information are stored in this component of the electronic device. Memory chips, RAM, ROM chips, and microcontrollers are all types of semiconductor chips. These small semiconductor chips are the cells for the functioning of the electronic devices. The common materials used for semiconductor manufacturing include silicon, lithium, germanium, and other critical minerals. Internet of Things, 5G technology, smartphones, iPhones, artificial intelligence, and robotics have transformed the 21st century into a digital age. Globally, the manufacturing, testing, and packaging processes of semiconductor chips are largely concentrated in semiconductor giants such as China, Taiwan, South Korea, Japan, and the United States. In alignment with the vision of Atma Nirbhar Bharat, India aims to empower local manufacturing of semiconductor chips through the establishment of fabrication units, industry, and international partnerships, incentivizing and skilling, to achieve self-sufficiency and self-reliance by reducing imports of semiconductor chips.

Why does India need to focus on semiconductor?

India's expansive activities in the semiconductor sector have spurred the latest investments, employment generation, international collaborations, and fiscal initiatives to advance semiconductor manufacturing and processing. With respect to employment generation, India's Chips to StartUp (C2S) initiative, collaborating with 400 educational institutions, training 85,000 skilled workers in semiconductor manufacturing processes, and from the investment side, booming collaborative funding between semiconductor-rich nations and domestic electronics companies have culminated in a focus on semiconductors (Bhaisora, 2024). Moreover, India aims to significantly cut off import-intensive strategies for semiconductor chips and electronic devices to cater to the vision of Atma Nirbhar Bharat. As a result, India aims to build an in-house semiconductor ecosystem ranging from procurement of raw materials, manufacturing, testing, and applications, packaging and strives for an export-led strategy. In addition to the increase of semiconductor consumption by 16 per cent by 2026, India positions to reduce dependency on global supply chains, ease geopolitical and trade relations, foster domestic suppliers and producers, and cater to the development of a skilled workforce in the semiconductor sector (Bhaisora, 2024).

Driving Semiconductor Ecosystem in India: Key Initiatives

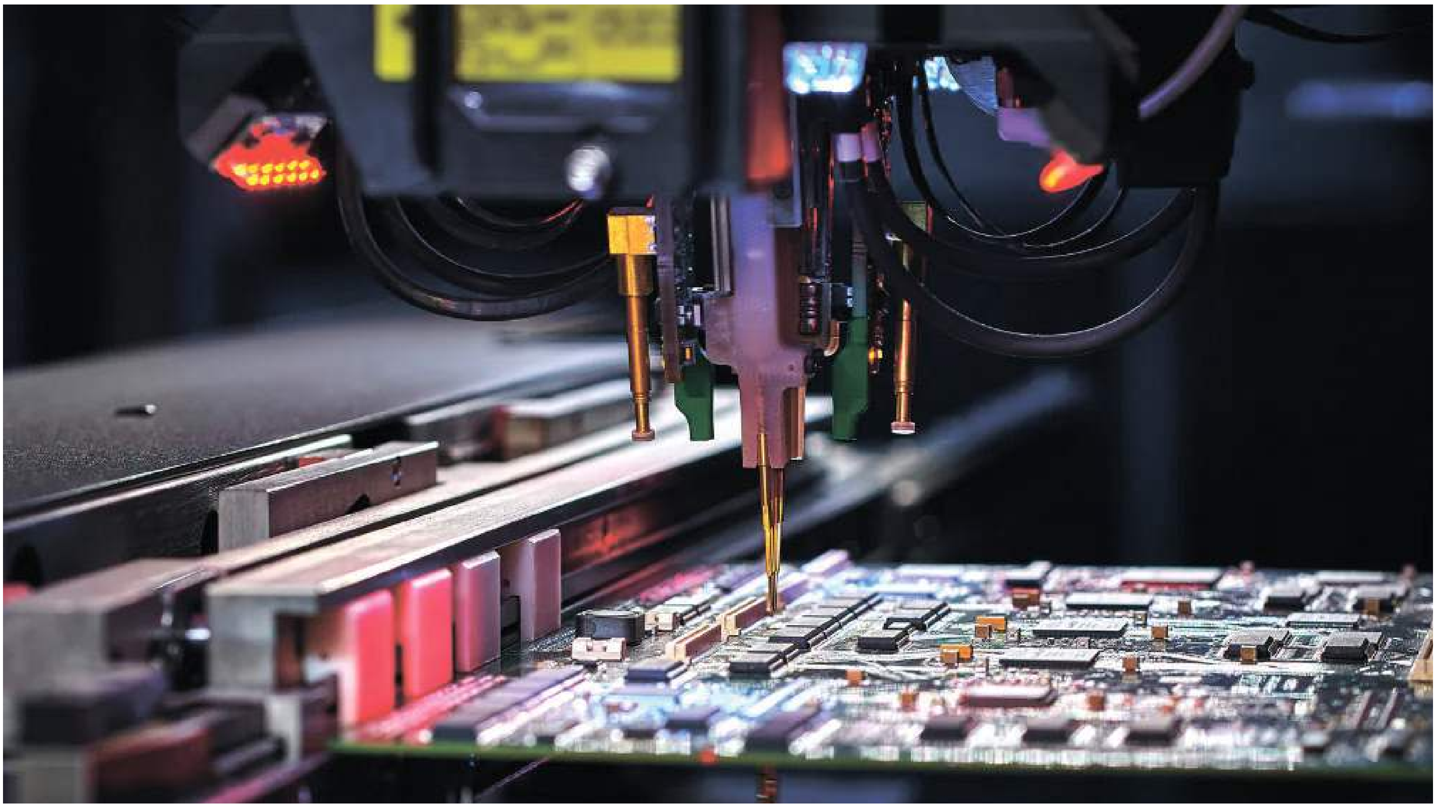
In the words of the Indian Prime Minister, "When the chips are down, you can

bet on India." (Ministry of Electronics and Information Technology, n.d.). In the same spirit, the Digital India Corporation carved out a specific and separate unit named the India Semiconductor Mission (ISM) with a vision to transform India into a global hotspot for electronic manufacturing and semiconductor products with the collaboration of industry experts, international collaborations, and related ministries (Ministry of Electronics and Information Technology, n.d.). The objectives of the ISM include: i) policy-making and strategizing the establishment of semiconductor manufacturing units and infrastructure, ii) integrating and creating a local supply chain of semiconductor manufacturing companies, including pre-products, by-products, and necessary instruments, iii) boosting semiconductor-focused startups and entrepreneurship, iv) securing indigenous semiconductor design ideas through robust intellectual property rights procedures, and v) fostering partnerships and collaborations with local and international industry experts, companies, and subject matter experts in the semiconductor industry (Ministry of Electronics and Information Technology, n.d.).

The ISM undertook a financial, institutional, and collaborative approach to make India a semiconductor hub, evident from the provision of incentives for diversified aspects of semiconductor manufacturing, the establishment of semiconductor fabrication units, and industry partnerships with Taiwan, China, US, and local electronics companies. In financial aspects, the mission supports almost 50 per cent of incentivization for 6 years for the manufacturing, investment, and domestic electronic companies under four different categories of criteria, such as the establishment of semiconductor fabrication units, semiconductor display manufacturing infrastructure, and semiconductor wafer fabrication units in India (IBEF, 2024).

Currently, India has set up about five semiconductor plants through public-private partnerships in Gujarat, Assam, and Maharashtra. With almost four units concentrated in Gujarat, one in Assam and one waiting for approval in Maharashtra, the ISM has partnered with international semiconductor industry experts for a domestic boost. In Sanand, Gujarat alone, three semiconductor manufacturing hubs were approved. Micron Technology invested about USD 2.75 billion for assembly, testing, marking, and packaging functions of semiconductor fabrication (Suraksha P., 2024). An international tri-partnership involving Indian, Japanese, and Thailand companies, CG Power, Renesas Electronics Corporation, and Stars Microelectronics worth INR 7,600 crore for the manufacturing of micro-controllers (Suraksha P., 2024). A more recent addition is the Kaynes Semicon worth INR 3,307 crore, with an ability to produce 200 million semiconductor chips per year, established for the semiconductor wafer fabrication process (Suraksha P., 2024).

With Dholera, Gujarat, as the next semiconductor hotspot, Tata Electronics Private Limited and Powerchip Semiconductor Manufacturing Corp. Invested INR 91,000 crore for the processing of memory chips (Suraksha P., 2024). Finally, Tata Semiconductor Assembly and Test Private Limited invested about INR 27,000 crore for the semiconductor chip packaging technologies in Assam (Suraksha P., 2024). Additionally, ISM provides product-linked and design-linked incentives covering about 50 per cent of the



total expenditure in the manufacturing (IBEF, 2024). With significant international partnerships, fiscal support, a robust application process, India aims for a global semiconductor destination in the upcoming years.

Understanding complications in semiconductor manufacturing in India

Multiple challenges significantly affect India's emerging semiconductor ecosystem, ranging from disrupted supply chains, skill crises, scarcity of partnerships for funding, entry-level concerns, and local consumer mindsets. First, India requires strong infrastructural capabilities catering to each step of the semiconductor manufacturing process, including processing, testing, and packaging. This involves the establishment of machine equipment, semiconductor plants, human resources, chip manufacturing machines, and raw materials for specific components. Despite a 56 per cent increase in the funding in the Union Budget 2025 for setting up testing, applications, and packaging infrastructure, India lacks in-house supply chain networks within the country for an efficient manufacturing process, posing risks in case of a raw material crisis, transportation issues, plant management, and process control (Agarwal, 2025).

Second, India lacks prospective and effective semiconductor-related partnerships, investments, and funding. Despite the ties between several Indian semiconductor plant units and Taiwanese, Chinese companies for semiconductor production, they are insufficient for long-term production. According to the Hindustan Times, the Union Budget 2025 doubled the allocations for the establishment of semiconductor fabrication units, from approximately INR 12,000 crores to about INR 2,500 crores (Agarwal, 2025). Third, local semiconductor companies prefer semiconductor chips, raw materials, and products at a cheaper rate, demonstrating higher chances of replacement, choosing alternative options such as international imports (Business Standard, 2024).

In addition to disrupted global supply chains, distorted global relations, import-export partnerships, tariffs, and import-intensive raw materials act as a roadblock for enhancing global collaborations (WTW, 2023). For instance, India significantly relies on China for critical minerals, the United States (US) for technological and innovation partnerships, and on Taiwan, for semiconductor-related expert knowledge and process efficiency. Therefore, India's international collaborations, treaties, trade-related concerns, relationships with the countries affect the industry advancements. Adverse relationships in the form of trade tariffs, bans, sanctions, power coalitions, and sovereignty issues impact semiconductor- related partnerships.

Finally, India is a global hub for engineers, specifically in computer science, electronics, mechanics, and chemical fields (Nataraj et al., 2023). However, poor skilling capacity and training of newly graduated engineers in semiconductor manufacturing, brain drain issues dampen human resource potential for semiconductor industry. Through international student exchange programs, skilling and training programs, Indian students prefer to stay abroad after the training hindering empowerment of domestic semiconductor ecosystem (Business Standard, 2024).

Inculcating sustainable practices for green and clean semiconductor manufacturing process

Skyline & Orbit, in their discussion on the topic, Sustainability in Semiconductor Fabs: A Green Revolution in Silicon, highlight the adverse ecological impact and resource crisis through the semiconductor manufacturing process (Social O., 2025). Spotlighting the effect that semiconductor processes are highly water- and chemical-intensive which could potentially contaminate water bodies in case of ineffective chemical disposal and lead to water resource constraints impacting water consumption for households (Social O., 2025). Moreover, the semiconductor manufacturing process is less energy efficient as they require preparation of high-temperature rooms, releasing hazardous greenhouse gases, and inefficient handling of the discard of by-products and waste can lead to ecological problems (Social O., 2025). In this regard, sustainable practices adhering to environmental standards, integrating eco-conscious practices into the manufacturing process, adopting alternative energy resources for electricity production, and promoting water conservation practices transform the semiconductor manufacturing process.

The discussion suggested some of the prominent sustainable practices spanning from energy sourcing, water conservation, waste disposal, and strict environmental standards.

Adopting Alternative Energy Sources: Switching to renewable energies such as solar, tidal, hydro, wind, and hydrogen energy to produce electricity and establishing reuse methodologies for waste releases such as water, heat, and raw materials. (Social O., 2025).

Water Management: Integrating water recycling methods within the manufacturing processes, reducing usage of chemicals, and streamlining process efficiency by minimizing water usage (Social O., 2025).

Disposal of Chemicals and Waste: Constructing in-built filter systems that reuse the released chemicals, water, and heat along with the promotion of 3Rs for reduction, recycling, and reuse of raw materials (Social O., 2025).

Emission Control: Adopting carbon-neutral and carbon-free technologies that capture and store carbon, complying with environmental quality standards and certifications, and designing semiconductor manufacturing equipment with in-built facilities that minimize emissions and energy usage (Social O., 2025).

The Way Forward

India is at the juncture to tackle youth unemployment, national ambitions, global partnerships, and visionary targets. While India strategically aims to develop a semiconductor ecosystem through significant investments and programs, linking domestic and international producers and suppliers, training, and skilling talent to create an Atma Nirbhar semiconductor hub, challenges include with respect to high manufacturing and establishment costs, dependency on critical mineral-rich nations, environmental targets, geopolitical tensions, and intellectual property rights issues. With ambitious initiatives such as the Indian Semiconductor Mission, through financial incentives and infrastructural approaches to combat entry-level challenges, India has a long way to go in its semiconductor journey. Currently, India lacks a comprehensive environmental, social, and governance (ESG) policy framework for semiconductor manufacturing units, disrupted local supply chains, logistical challenges, and talented professionals. Above all, India needs to strengthen its grassroots-level implementation of the mission, addressing and tackling ecological impacts of the mission, and establish a supply chain network within the country.

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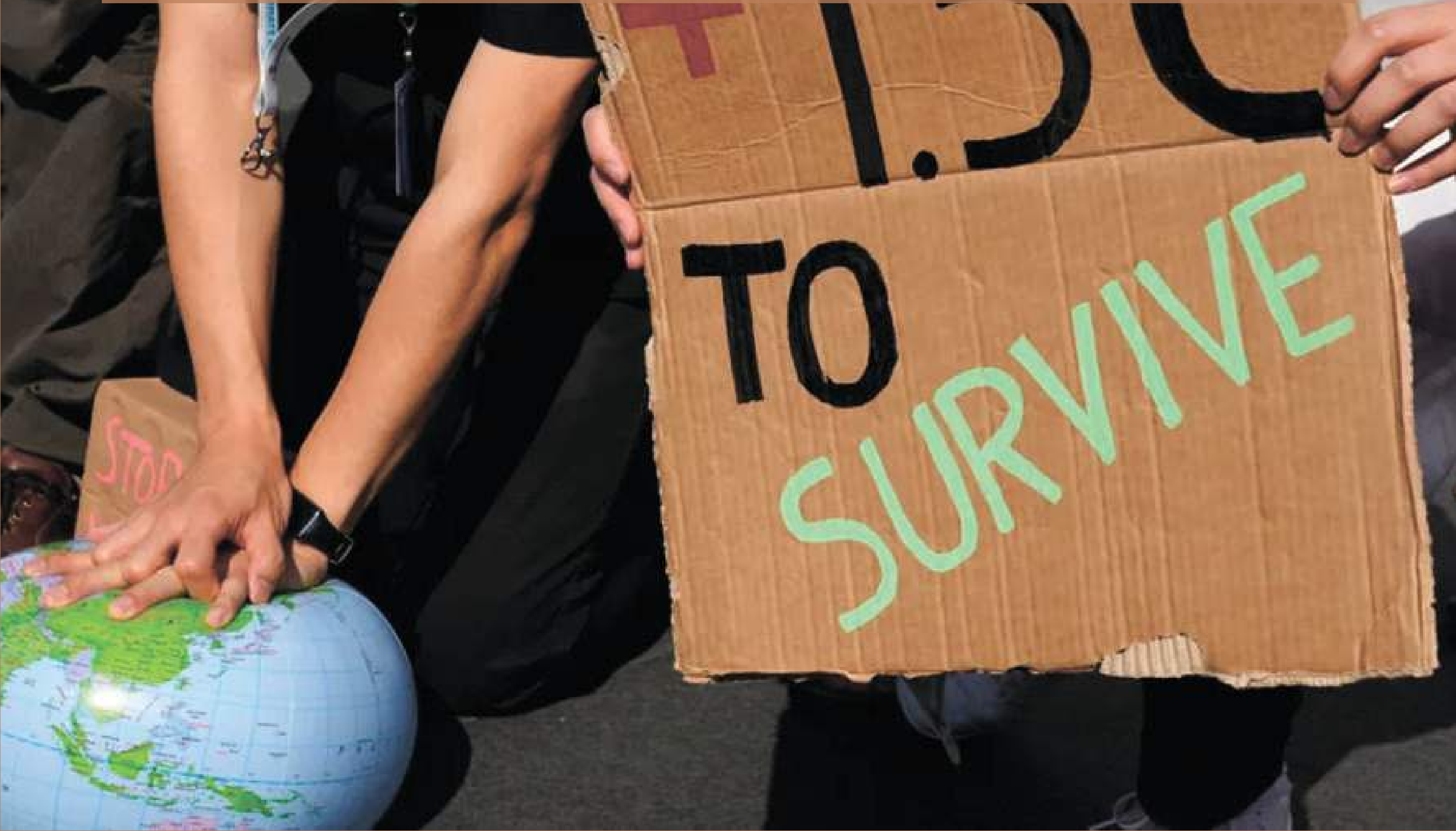
EUROPE

PARIS AGREEMENT: HOW IT IS IN DANGER

Written by **Shruti Shiraguppi** and Edited by **Neelambika Kumari Devi**



The Paris Agreement, adopted in December 2015, is a landmark accord within the United Nations Framework Convention on Climate Change (UNFCCC). Its primary aim is to limit global warming to well below 2 degrees Celsius above pre-industrial levels, while striving to limit the increase to 1.5 degrees Celsius. The agreement represents a global commitment to combat climate change, involving almost every nation on earth. However, this ambitious pact is facing impact is facing significant challenges, putting its goals in jeopardy.

Background

The Paris Agreement marked a turning point in global climate policy. Unlike the Kyoto Protocol, which mandated only developed countries to cut emissions, the Paris Agreement requires all countries to submit nationally determined contributions (NDCs) outlining their plans to reduce greenhouse gas emissions. These contributions are reviewed every five years, with the expectation that countries will progressively enhance their commitments. The agreement also emphasizes the importance of financial support from developed countries to assist developing nations in their climate mitigation and adaptation efforts.

One of the most significant setbacks for the Paris Agreement was the withdrawal of the United States, announced by then-

President Donal Trump in June 2017. US, being the second-largest emitter of greenhouse gases globally, plays a crucial role in international climate efforts. Trump's administration argued that the agreement imposed unfair economic completed in November 4, 2020.

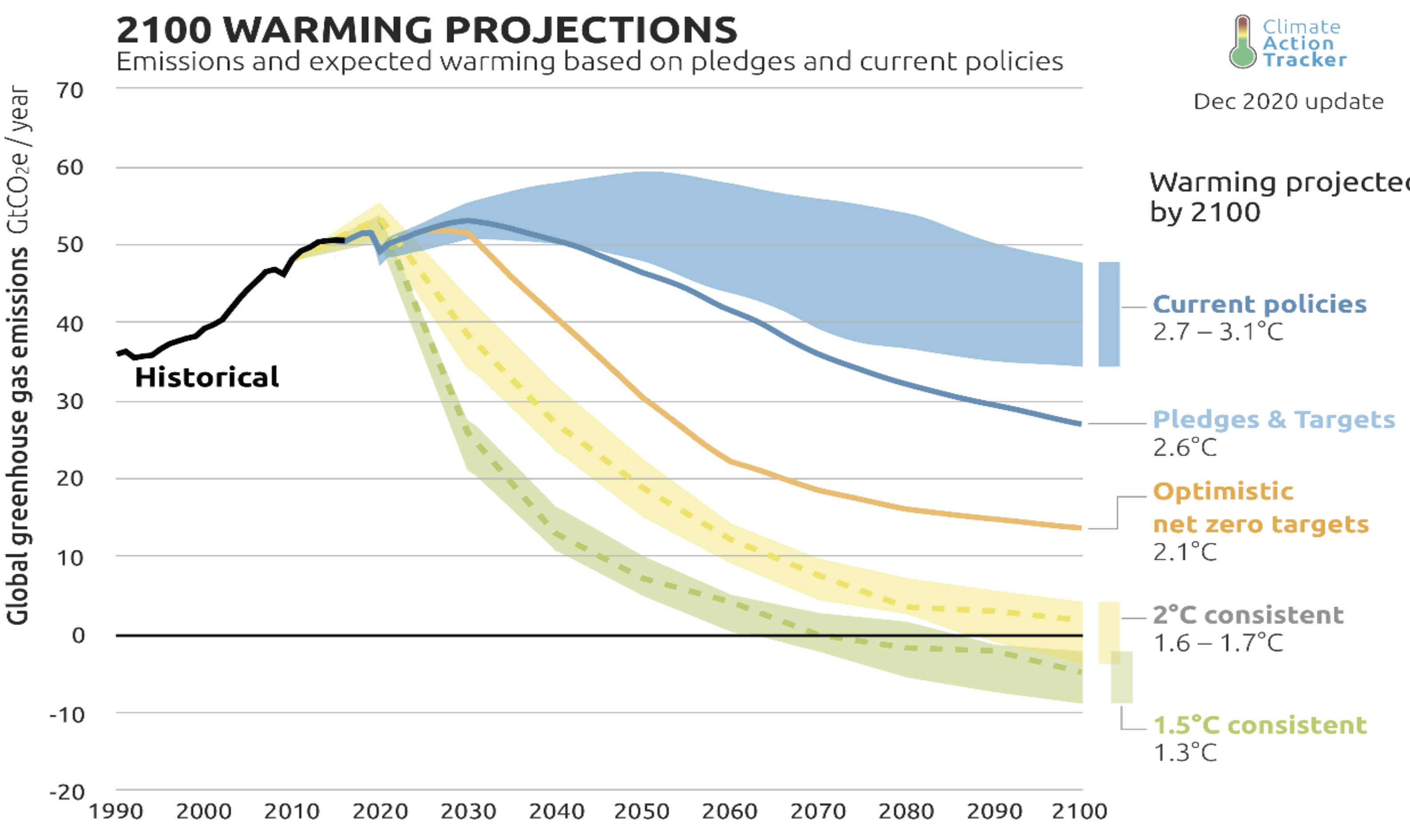
The withdrawal of United States had profound implications. It not only weakened the global commitment to the agreement but also created a leadership vacuum. Other major emitters, such as China and India, were left to shoulder a larger share of the responsibility. Moreover, the lack of US participation undermined the financial commitments promised to support climate action in developing countries.

The withdrawal of US from the Paris Agreement had a ripple effect on global climate efforts. With one of the world's largest economies stepping back, other countries faced increased pressure to meet their own commitments while compensating for the shortfall in emission reductions. The absence of US leadership also emboldened other nations to backtrack on their climate promises.

Furthermore, the COVID-19 pandemic exacerbated these challenges. The economic downturn led many countries to prioritize immediate economic recovery over long-term climate goals. Stimulus packages focused on reviving traditional industries rather than investing in green technologies, further hampering progress towards the Paris Agreement's targets.

Current Impending Danger

Despite increased renewable energy



Source:: The World Economic Forum

adoption, persistent fossil fuel investments and slower-than-needed emissions reductions put the agreement's goals at risk. Climate finance remained a critical issue, with developed nations falling short of their $100 billion annual commitment to support developing countries' climate initiatives. The Global Stocktake process highlighted concerning gaps between countries' pledges and the actions needed to achieve the agreement's temperature targets.

The Agreement's success hinges on collective action and cooperation. However, the word remains deeply divided on climate policy. Economic disparities, political interests, and conflicting priorities have created significant hurdles. Developing countries argue that key need financial and technological support to transition to low-carbon economies, while developed nations emphasize the need for robust commitments from all parties.

Moreover, the fossil fuel industry continues to wield significant influence, particularly in countries heavily dependent on oil, coal and natural gas. Lobbying efforts and political resistance have slowed the implementation of climate policies. Additionally, geopolitical tensions, such as those between the US and China, have further complicated international cooperation on climate issues.

Conclusion: Possible Solutions to Salvage the Agreement

Despite the challenges, there are potential solutions to salvage the Paris Agreement and reinvigorate global climate action. Firstly, re-engaging the US is crucial. The US's renewed commitment may restore confidence and encourage other countries to enhance their contributions.

Secondly, increasing financial support for developing countries is essential. Developed nations must fulfil their promises to provide climate finance, enabling developing countries to invest in renewable energy, sustainable infrastructure, and climate resilience. This financial assistance can bridge the gap between ambition and implementation.

Thirdly, fostering international cooperation and dialogue is vital. Platforms such as the UNFCCC, G7, and G20 can facilitate the collaboration, knowledge sharing and collaborative activities and initiatives. By strengthening the multilateral institutions and mechanism, countries can overcome political and economic differences and work towards common climate goals.

Fourthly, promoting innovation and technology transfer can accelerate the transition to a low-carbon future. Investment in research and development of clean energy technologies, as well as the sharing of best practices, can drive innovation and make sustainable solutions more accessible and affordable.

Finally, public awareness and grassroots movements play a crucial role. Mobilizing public support for climate action can pressure governments and business to prioritize sustainability. Advocacy, education, and community engagement can create a groundswell of demand for stronger climate policies. Ban Ki-moon, former Secretary-General of the United Nations has rightly pointed out, "Climate change is not just an environmental issue; it is a humanitarian issue. It is a security issue. It is a threat multiplier that exacerbates existing vulnerabilities and creates new ones."

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AFRICA

THE IMPACT OF BEHAVIOURAL BIASES ON AFRICAN ENTREPRENEURS' ACCESS TO MICROFINANCE

Written by ***Harshi Shah*** *and Edited by* ***Mabbu Gangotri Devi***

Introduction

Microfinance has revolutionised entrepreneurship in Africa, offering small business owners access to crucial financial services and loans that conventional banking institutions often deny them. Microfinance institutions (MFIs) promote entrepreneurship and economic growth through microloans, savings accounts, and financial literacy initiatives. Despite the microfinance offers African business owners a lot of potential, a number of behavioural biases affect how they get, use, and repay these funds.

Entrepreneurs may make less-than-ideal financial decisions as a result of behavioural biases, which are systemic patterns of deviance from logical decision-making. Cognitive and emotional biases, such as overconfidence, loss aversion, anchoring, and herd mentality affect how entrepreneurs assess credit conditions, perceive risk, and communicate with microfinance organisations. This article examines the impact of behavioural biases on African entrepreneurs' access to microfinance, along with the difficulties and possible solutions for enhancing the industry's financial decision-making.

Understanding Microfinance in the African Context

Microfinance has bridged the gap between informal business owners and mainstream financial systems. Due to the lack of collateral, credit history, or steady revenue, many African business owners operate in the unorganised sector, with limited access to standard banking services.

Microfinance offers a substitute by providing modest loans with adjustable payback plans, enabling business owners to launch or grow their enterprises. However, microfinance organisations have difficulties in guaranteeing responsible lending and repayment, notwithstanding the benefits.

For lenders and borrowers alike, high default rates, financial illiteracy, and volatile market circumstances pose challenges. Behavioural biases also make financial decisions for entrepreneurs more difficult, potentially resulting in excessive debt, inadequate risk assessment, and inefficient capital utilisation. Understanding these biases is essential to improving access to microfinance and ensuring its long-term effectiveness.

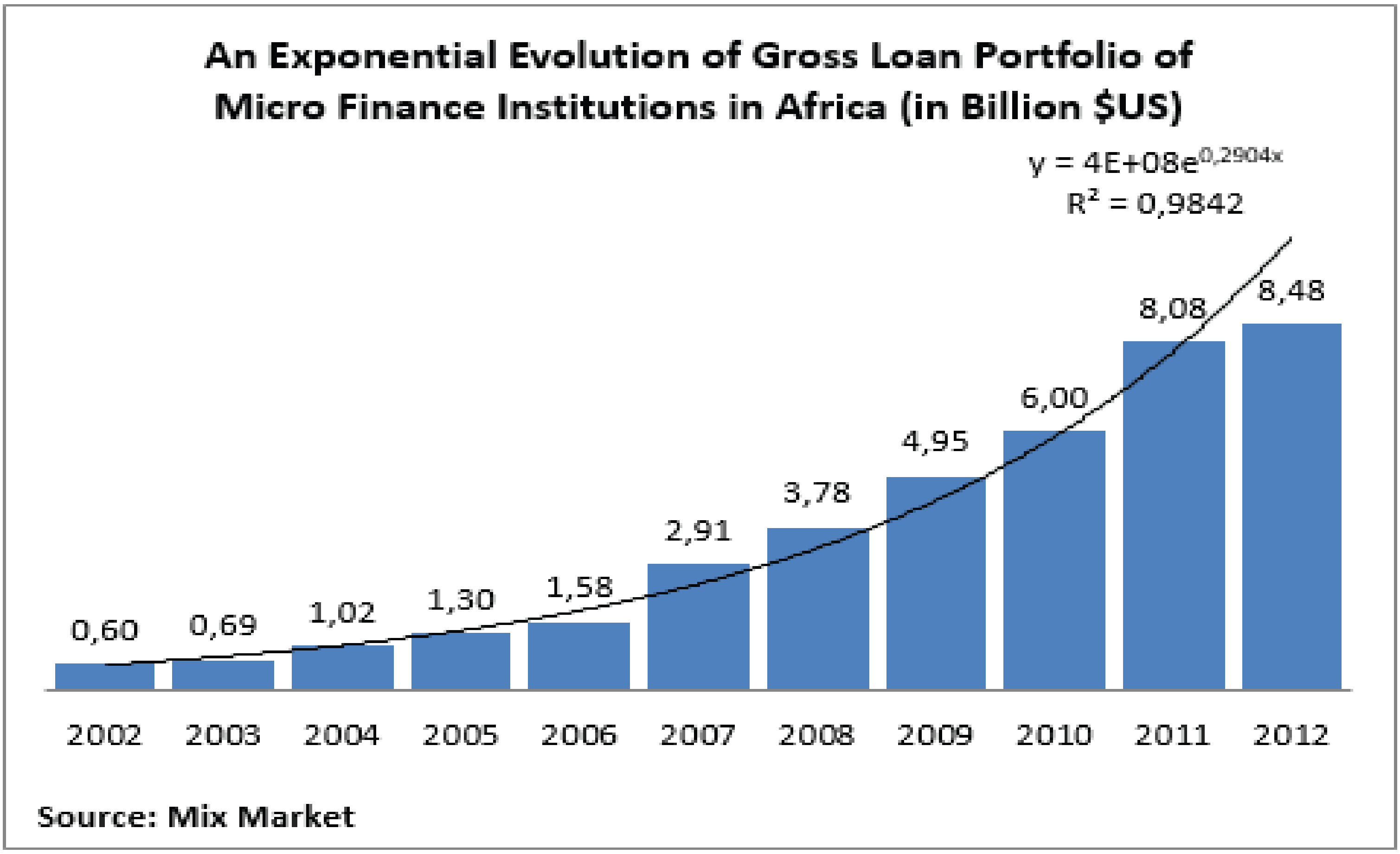
Key Behavioural Biases Affecting African Entrepreneurs

Overconfidence Bias

Entrepreneurs often overestimate their expertise, abilities, or potential for success beyond capacity. They undervalue possible dangers like market swings, competition, or operational difficulties as a result of their overconfidence, causing them to borrow more than they can pay back. This can result in loan defaults and financial distress. Entrepreneurs who are overconfident may also underuse financial advising services since they don't see the need for advice on investment or debt management.

Bias in Loss Aversion

Loss aversion is the fear of losing money that often outweighs the potential ben-



efits of investment. Even when the potential rewards of investing in their firms exceed the risks, many entrepreneurs are reluctant to accept microloans due to loss aversion. On the other hand, some entrepreneurs may also persist failing ventures instead of efficiently reducing losses and reallocating resources. This hesitation to make rational financial adjustments can lead to unnecessary debt and stagnation.

Anchoring Bias

Entrepreneurs frequently rely too much on past financial experiences, influencing their borrowing decisions. African business owners may base their financial decisions in the context of microfinance on prior borrowing experiences, loan offers, or interest rates without taking current market conditions into account. In a similar vein, some business owners base their expectations on unofficial lending practices, opting to borrow from friends and family instead of looking into structured microfinance solutions that provide financial stability.

Herd Mentality

People who suffer from herd mentality bias tend to follow their peers or community members instead of independent research. Entrepreneurs in many African communities use social media to make business decisions. Investment decisions are also influenced by herd behaviour. Instead of evaluating market need and sustainability, entrepreneurs may invest in popular sectors or business strategies. In some industries, this may result in oversaturation, which would lower profitability and raise financial risk.

Present Bias

Present bias describes the tendency to prioritize immediate rewards over long-term benefits. Many African entrepreneurs focus on short-term business needs rather than planning for long-term financial stability. This bias leads to impulsive borrowing, and affects saving behaviour. Instead of setting aside a portion of income for future investment or loan repayment, entrepreneurs may prioritize personal consumption or reinvestment without a structured financial plan. This mindset can lead to chronic financial struggles and an inability to build sustainable businesses.

The Consequences of Behavioural Biases on Microfinance Access

The capacity of African entrepreneurs to obtain, use, and successfully repay microfinance loans is impacted by behavioural biases. Among the main repercussions are:

1. Misjudgement of risk and poor financial planning lead to higher default rates, making lenders hesitant to offer new credit.

2. Negative perceptions shaped by anchoring and herd mentality prevent entrepreneurs from engaging with microfinance institutions.

3. Overconfidence and present bias result in poor investment decisions, reducing business sustainability.

4. Entrepreneurs who avoid borrowing due to loss aversion may miss opportunities to scale their businesses.

Addressing these biases is essential to improving the effectiveness of microfinance in supporting entrepreneurship.

Strategies to Overcome Behavioural Biases in Microfinance

Programs for Financial Literacy and Education-

Biases like present bias and overconfidence can be reduced by educating business owners on risk assessment, loan utilisation, and financial management. Realistic financial strategies and long-term sustainability should be emphasised in training sessions.

Digital Tools and Behavioural Nudges

To combat current prejudice, microfinance organisations might employ behavioural nudges, such as electronic reminders for loan repayments and savings contributions. Budgeting tools in mobile banking applications can assist business owners in making wise financial choices.

Financial Models Based in the Community

Herd mentality bias can be lessened by utilising social networks through group financing arrangements. Programs for mentorship and peer responsibility can promote prudent borrowing and money management.

Customised Loan Products with Adjustable Terms

Loan products should be created by microfinance organisations taking behavioural biases into consideration. For example, reducing present bias and increasing payback rates can be achieved by providing structured repayment schedules that are correlated with corporate cash flows.

Conclusion

Behavioural biases have a significant influence on African entrepreneurs' access to microfinance, affecting their financing sustainability, investment choices, and borrowing decisions. Herd mentality, anchoring, loss aversion, overconfidence, and present bias all act as roadblocks to productive interaction with microfinance organisations. It is essential to address these biases using technology, financial education, and customised financial products in order to increase microfinance accessibility and promote entrepreneurship in Africa. In order to create a microfinance ecosystem that is more sustainable and inclusive, regulators, financial institutions, and entrepreneurs themselves must acknowledge the psychological elements that influence financial behaviour.

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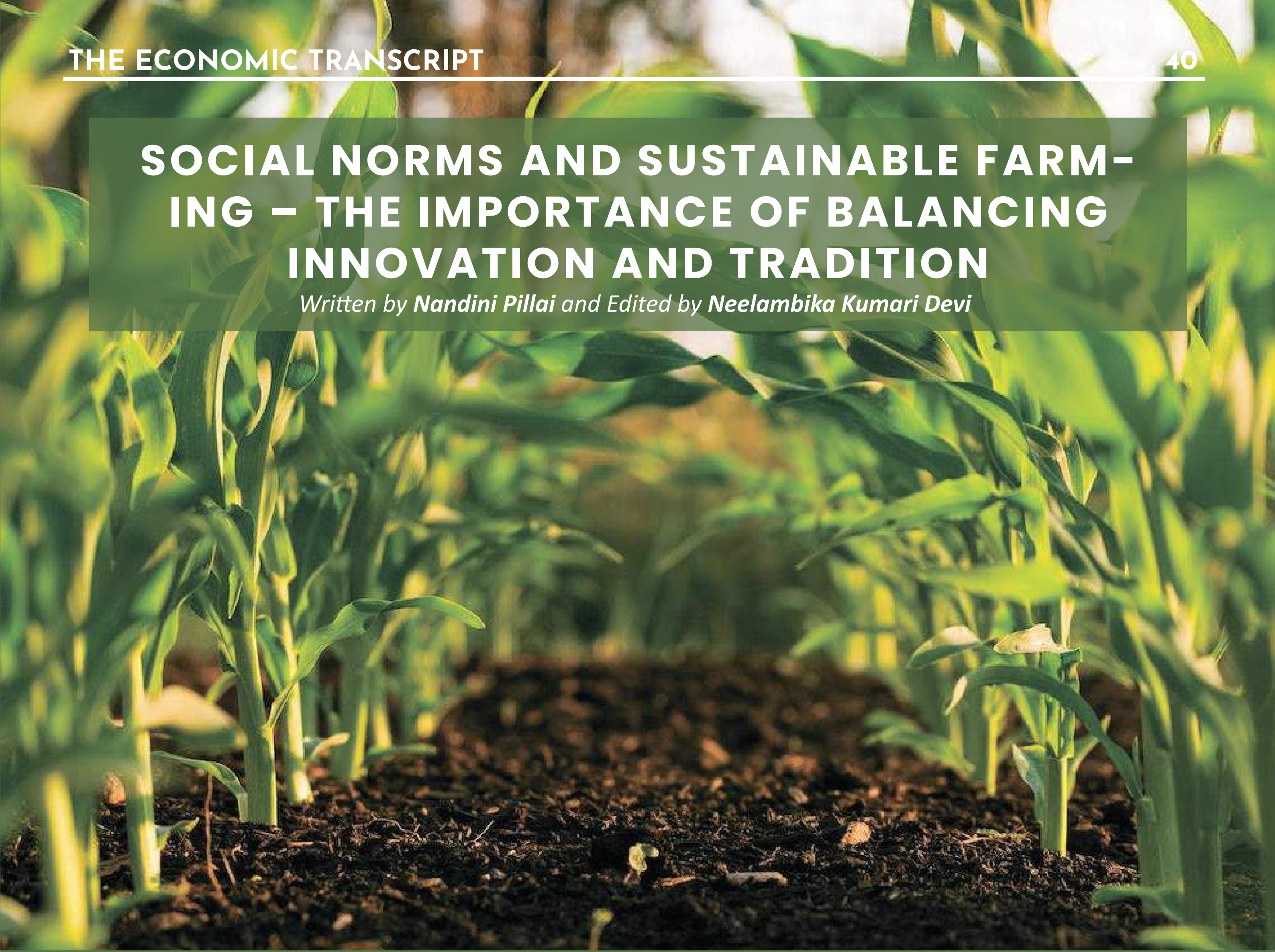

SOCIAL NORMS AND SUSTAINABLE FARMING – THE IMPORTANCE OF BALANCING INNOVATION AND TRADITION

*Written by **Nandini Pillai** and Edited by **Neelambika Kumari Devi***

Understanding social norms and their influence

A norm refers to a rule or standard of behavior that is generally accepted as being right by all members of a particular society. Essentially, social norms serve as an informal code of conduct for all members of the society that it comes from. Social norms are varied, and they differ in each community and/or society. They are highly efficient tools that monitor and regulate behavior in societies. Most individuals in a society conform to the norms in that society and exhibit expected acceptable behavior because of the way norms are enforced in society. Norms may be internalized, leading to individuals conforming to them subconsciously because they have incorporated these social norms within their own individual identities, or they may be enforced due to external factors like rewards or sanctions. For instance, conformity or adherence to a particular norm may lead to positive sanctions whereas nonconformity may lead to a withdrawal of these rewards or even the imposition of negative sanctions.

Different schools of thought in the field of sociology have attributed different characteristics of norms as the key reason why they are followed so diligently, and at times even stringently. The functionalist school of thought believes that social norms fulfill certain developmental functions in human society. They argue that since norms, which are as a concept more concrete as compared to values and ideals, reflect the acceptable behavior in society, they must represent the general consensus of all the members of that society. Social norms hence become key tools in transmitting and acquiring knowledge and culture vis-à-vis the process of socialization.

The conflict school of sociological thought on the other hand views social norms as a way to address and solve problems faced by society. In this scenario, social norms are thought to be tools that enable the enforcement of acceptable behavioral patterns. To limit our analysis of social norms to only one of these perspectives would lead to a rather static and narrow perception.

Social norms have acted as a very effective method to ensure the display of acceptable behavior. For instance, in rural areas, several small landowners and farmers pool their resources together to become eligible for loans from banking and non-banking financial institutions. If the group were to default on their loan, the institution will not lend to them again. To prevent this from happening, the farmers use several informal methods of regulation, like imposition of social sanctions that discipline those who deviate from the norm of paying back their part of the loan on time, thereby curbing bad behavior.

Social norms and sustainable farming in Africa

Social norms are not merely tools to correct behavior. They also serve as an excellent device to drive growth and development in the community. For instance, studies have shown that social norms have been an important factor in the transition towards sustainable farming in Africa. The agriculture sector is of immense importance to African economies.

To boost the productivity of the agricultural sector, small landowners and small farmers have adopted innovative techniques like improved seeds and fertilizers. However, such protective techniques have not been widely adopted.

A study done in 2022 identifies the impact of norms and other cultural behavior in the adoption of innovative agricultural practices in rural Mozambique. The study finds that the social norm of being a "good farmer" is central to understanding adoption of innovation. They find that the idea of a good farmer is one that is based on characteristics that are valued by farming peers in the community. Adherence to this "good farmer" social norm is often the deciding factor in several decision-making processes. A good farmer is one who is concerned with not only his individual well-being, but the well-being of others in his community (Crudeli et. al, 2022). This strong adherence to the ideal self as defined and established by social norms can be used to drive agriculture towards sustainability. By aligning self and community goals with climate positive and sustainable development goals, one can use the impact of social norms as a positive sanction to bring about positive change. The study finds that even more radical innovations will be adopted, if an individual feels that by adopting these techniques and innovations, one moves closer to the ideal of the good farmer.

Similarly, the social norms surrounding indigenous knowledge can also be used as a tool to forge a pathway to sustainable farming. Indigenous knowledge refers to the collection of existing local and traditional knowledge that has emerged over the years from experiences in dealing with various scenarios that have external forces and pressures. Indigenous innovations are more likely to be driven by local knowledge and their usage is heavily rooted in traditions and norms. Innovations that have external motivations may in fact be unsustainable in the long run. A study conducted in 2023 showed how improvements in sustainable food systems can be brought about through the inclusion of indigenous knowledge systems in modern innovation. The study asserts that Africa can use its treasure trove of indigenous knowledge systems to create innovations in sustainable food systems (Assan, 2023).

Challenges to Sustainable farming

The basic principle of sustainability involves ensuring current use of resources does not deplete its reserves, leaving enough for the use of future generations. Sustainable agriculture therefore refers to agricultural practices that aim to protect and replenish natural and non-renewable resources. Climate change, droughts, famines, land degradation, spread of disease, limited access to natural resources and policy barriers are some of the challenges to sustainable farming. The very existence of African agriculture is at risk because of the looming threat of climate change. Unstable and fluctuating weather patterns jeopardize the production of agricultural produce.

Further, there is an information gap that exists. Many farmers lack access to relevant information pertaining to the markets and to innovations in agriculture that they can use to leverage the produce from traditional farming practices. It is of utmost importance that traditional agricultural practices be preserved and subsequently practiced in a way that ensures the well-being of all. There is a plethora of local agrarian practices that are followed all over the African continent. These practices have evolved from years of traditional farming that prioritized not just the livelihood of the current generation, but the sustenance of their future ones too. For instance, ancestral agrarian techniques used in Burkina Faso increase yields while simultaneously ensuring that the soil gets replenished after every cropping cycle. The Fulani pastoralists from the Sahel regions in Africa have learnt to better anticipate climate risks after following a traditional calendar that distinguished five seasons.

The indigenous communities in Africa have an extensive knowledge of what works best in their local lands, and it is important that this know-how does not get lost for favour of more exogenous farming practices. For instance, in Uganda, Ankole Longhorns, one of the oldest native cattle breeds, are raised by the Bahima ethic group. This group of people have traditionally looked after and reared this cattle breed, whose specialty is their tenacity and ability to survive even in the most arid climates. However, since 1990s, the Ugandan government has created and imposed programmes that favour the breeding of non-native, exotic cattle breeds, causing the Ankole Longhorns to slowly die out and move towards extinction.

The way going forward

The value of traditional know-how in agriculture and related activities can not be understated. Continuing to prioritize novel agricultural methods to produce for international markets while ignoring the needs of the locals will only lead to disaster in the long run. Simply implementing policies of sustainable development without considering local dimensions will yield no results. This exclusion of local knowledge can be traced back to colonial and imperial times, when the survival of the indigenous people was sidelined in order to meet the needs of the colonial masters. Ancestral practices were pushed to the side to set up plantations of exotic cash crops, harming both indigenous life and land in the process. In recent times, removing local representation from forest management has led to biased narratives surrounding what is best for the land and the environment.

Policies and programmes have to be crafted in a way that local knowledge is leveraged to ensure the replenishment of natural reserves and their sustenance for generations to come. For instance, in Rwanda the use of traditional knowledge supplemented by academic innovations has been made the new norm when setting up agricultural policies. The practice of Agroecology is gaining momentum in Africa. It is a system that links “traditional dynamics and social actors” to create a foundation of agrarian practices that are “ecologically sound, economically viable, and socially just”. This system of adaptive techniques in farming is gaining momentum because it has been linked with social factors. The interest of the indig-

enous populations is being aligned with that of the government, thereby ensuring the sustenance of all. When the practice of ancestral techniques is encouraged and not condemned, conformity to the social norms surrounding their operations is also encouraged. This external encouragement is not necessarily a positive sanction, rather it is the withdrawal of negative sanctions placed on following traditional practices, as it eliminates the conflict that arises within indigenous communities when they have to practice methods of farming that go against their own social norms.

Thus, it can be observed how aligning the goals of the individual with that of the society can lead to better conformity of social norms. It is this very conformity that can then be used to drive sustainable practices to eliminate problems of social inequality and food insecurity. When the interest and the knowledge systems of the indigenous communities are respected, it empowers them to use this information to sustain not themselves, but also the future generations to come. Creating paradigms that allow for collaboration between the past and the present is of utmost importance in ensuring that sustainable farming practices become the norm once again.

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MIDDLE EAST

NEOM CITY- SAUDI ARABIA'S FUTURISTIC MEGAPROJECT AND ITS ECONOMIC AND GEOPOLITICAL IMPACT

Written by ***Harshi Shah*** *and Edited by* ***Shruti Shiraguppi***

Introduction

Neom City, a $500 billion futuristic megaproject, is the result of Saudi Arabia's Vision 2030, an ambitious plan to reduce its reliance on oil. Neom is intended to be a high-tech, sustainable metropolitan centre that combines state-of-the-art artificial intelligence (AI), renewable energy, and next-generation infrastructure, and it is positioned as the focal point of Saudi Arabia's economic revolution. Neom, which is situated near the Red Sea in the northwest Tabuk province, is anticipated to revolutionise urban life and establish Saudi Arabia as a pioneer in international innovation. Beyond its economic goals, Neom has important geopolitical ramifications that alter regional power structures and have an impact on global investment and commerce. The economic potential of Neom and its wider geopolitical effects on Saudi Arabia and the rest of the globe are examined in this article.

Neom City: An Upcoming Vision

Neom, which comes from the Arabic term "Mustaqbal" (future) and the Greek word "Neo" (new), is intended to create a cutting-edge metropolis of 26,500 square kiAlometres. The project spans several regions, including Trojena, a year-round mountain resort that will host the 2029 Asian Winter Games, Oxagon, an industrial hub on the Red Sea that is anticipated to be the largest floating structure in the world, Sindalah, a luxury island resort, and The Line, a 170-kilometer linear city without cars and conventional roads.

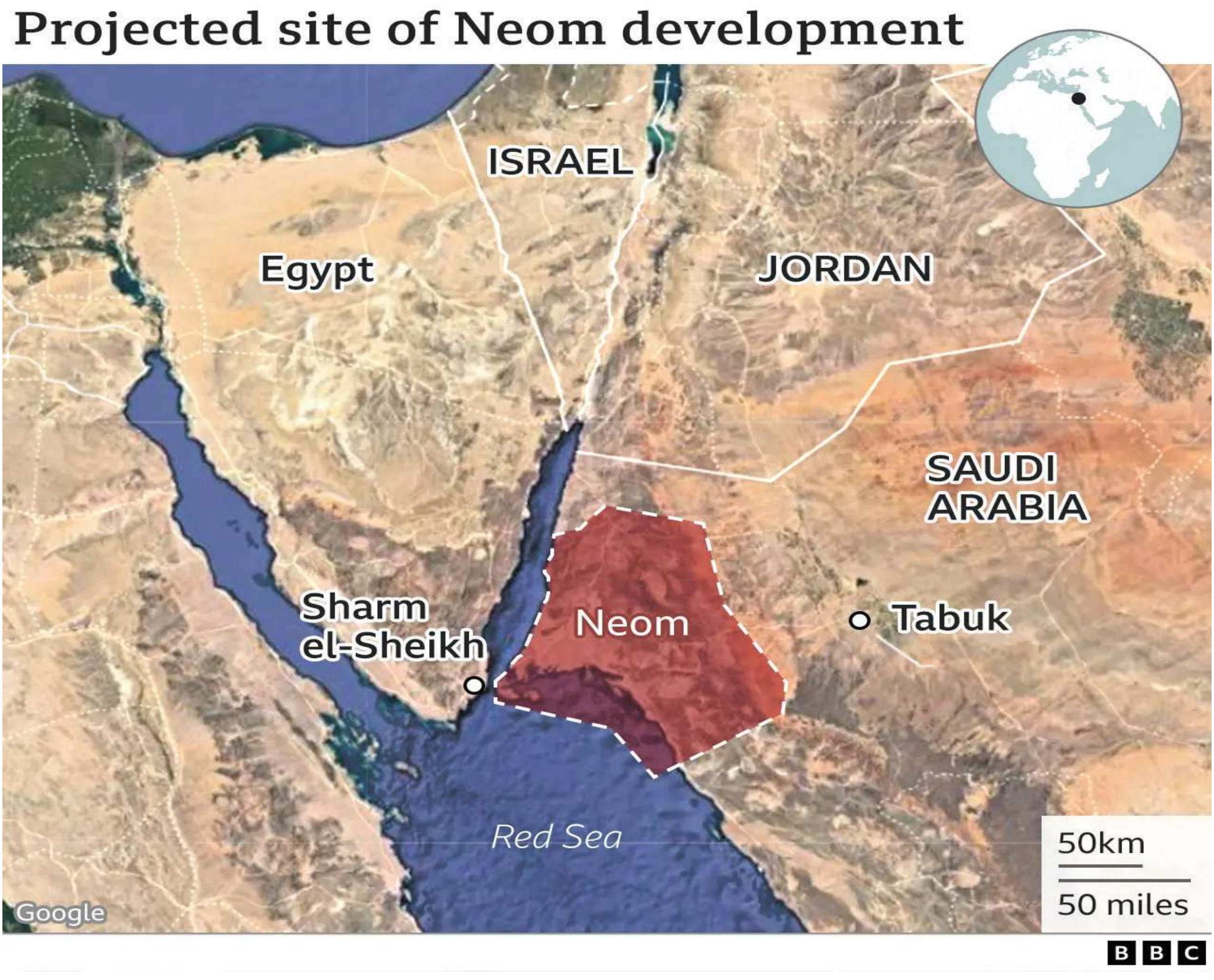
These advancements establish Neom as a prototype for future smart cities by highlighting its emphasis on luxury travel, sustainability, and technology.

Neom City's Economic Impact

Economic Diversification and the Production of Non-Oil Revenue:

Neom is a key initiative in Saudi Arabia's plan to reduce its reliance on oil for economic growth. The Saudi government wants to generate new sources of income by investing in industries including biotechnology, advanced manufacturing, tourism, renewable energy, and the digital economy. By encouraging innovation and drawing in foreign investors, the city is anticipated to make a substantial contribution to the GDP of the nation. Sustainability is a fundamental element of Neom's business strategy. In keeping with international environmental standards, the project places a strong emphasis on using only renewable energy sources, including solar and wind. This emphasis establishes Saudi Arabia as a clean energy leader and creates opportunities for global partnerships and green technology investment.

Job Creation and Workforce Development:



By 2030, Neom is expected to provide over 380,000 jobs, giving Saudi citizens and foreign workers equal job prospects. The city will need a skilled workforce because of its concentration on automation, artificial intelligence, and high-tech enterprises. In order to educate its residents for employment in developing industries, the Saudi government has responded by making significant investments in education and training initiatives. Neom also wants to draw in talent from across the world by establishing itself as a Silicon Valley-style innovation cluster. Saudi Arabia aims to become a worldwide leader in emerging technologies by fostering an environment that encourages research, development, and entrepreneurship.

Boost to Foreign Direct Investment (FDI):

Neom aims to draw substantial international investment with its future vision. To realise Neom's ambition, Saudi Arabia has already teamed up with international technology corporations, infrastructure firms, and renewable energy organisations. The city is more appealing to investors due to its advantageous location along important marine trade routes, which present prospects for industrial growth, tourism, and logistics. Furthermore, outside of Saudi Arabia's current legal system, Neom is being established as a free economic zone with its own set of rules and regulations. It is anticipated that this investor-friendly strategy would entice international companies and multinational enterprises to set up shop in Neom, therefore solidifying Saudi Arabia's standing in the world economy.

Neom City's Geopolitical Impact

Strengthening Saudi Arabia's Regional Influence:

Neom's growth is a calculated geopolitical move in addition to an economic one. Neom gives Saudi Arabia more control over important trade routes because of its location along the Red Sea and the Gulf of Aqaba. The city is an important hub for regional political and economic cooperation because of its closeness to Egypt, Jordan, and Israel. Saudi Arabia's infrastructure diplomacy is another indication of its expanding regional influence. Neom gives Saudi Arabia the chance to spearhead international cooperation with its neighbours, enhancing its strategic and commercial ties.

Competition with Regional Powers:

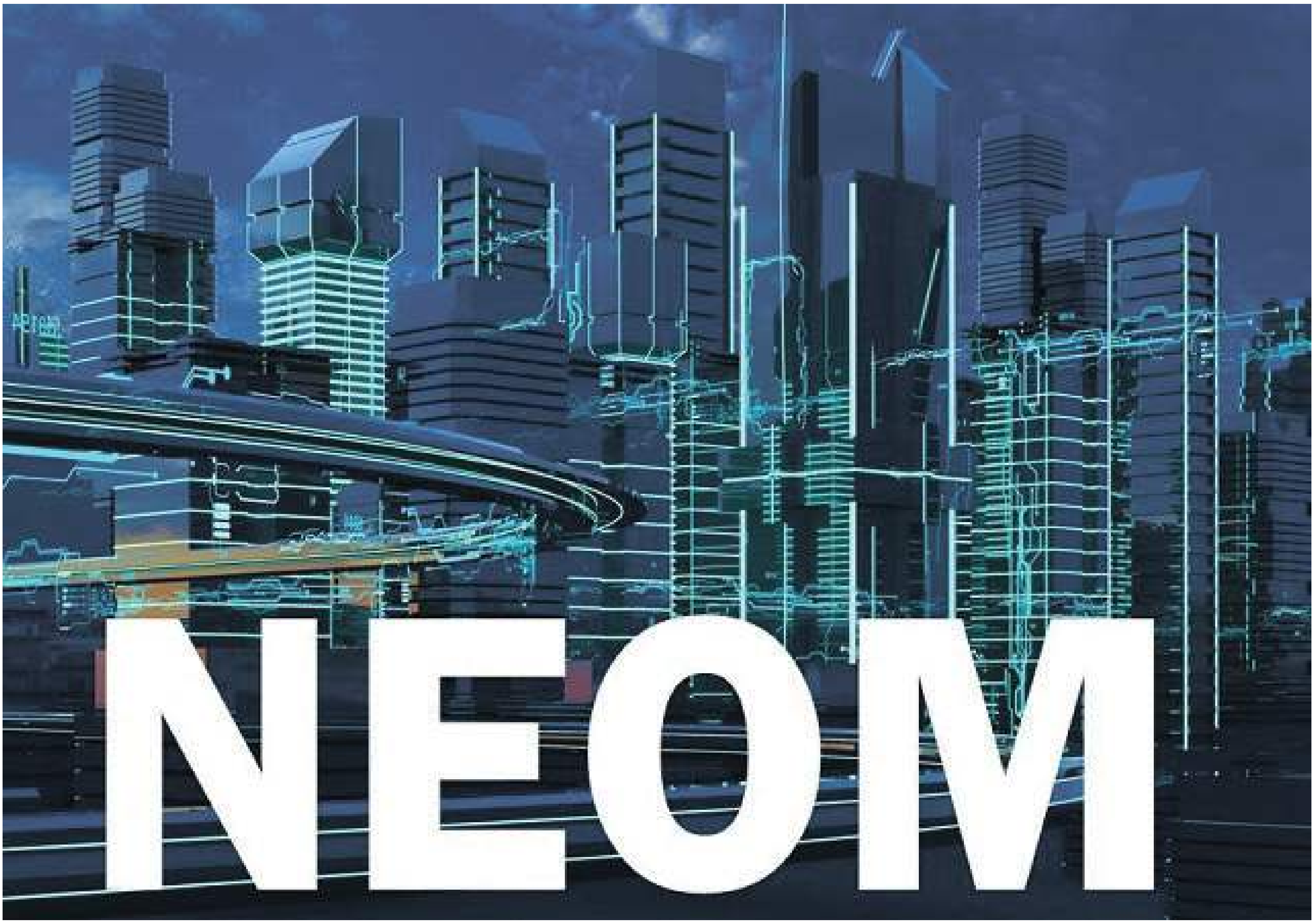
By establishing itself as a worldwide hub for innovation and business, Neom challenges other Middle Eastern economic centres like Dubai and Qatar. Saudi Arabia intends to rebalance regional economic dominance in its favour, as seen by its aggressive modernisation drive. Neom may face competition from established technological and financial centres as it grows in terms of drawing in foreign investment and firms. Neom also supports Saudi Arabia's larger geopolitical goals, especially in thwarting Iranian dominance in the area. Saudi Arabia wants to fortify its strategic position against regional adversaries by establishing itself as a technologically advanced global superpower.

Implications for Global Trade and Strategic Partnerships:

Neom has a strategic edge in international trade due to its location at the intersection of Europe, Asia, and Africa. For global transportation and logistics, the growth of Oxagon, a high-tech industrial metropolis on the Red Sea, is especially important. Neom hopes to become a significant force in international maritime commerce by providing a cutting-edge, AI-driven port, hence lowering dependency on established trading centres such as Singapore and Dubai. Additionally, Neom's focus on sustainability is in line with worldwide developments that are climate-conscious. Because of this, Saudi Arabia is now seen as a desirable partner for Western nations looking to work together on green energy projects. Through Neom's growth, Saudi Arabia is improving its status internationally by cultivating commercial ties with the US, Europe, and Asia.

Challenges and Criticisms

Despite its lofty goals, Neom has a number of obstacles to overcome. The project calls for significant financial outlays, and attaining financial sustainability is still a major worry. For Neom to succeed, securing consistent foreign investment is essential. Furthermore, sustainability activists are concerned about the environmental impacts of extensive infrastructure expansion and building. Neom has also come under fire for problems with human rights and governance. Concerns over the project's social effects have been raised by the dispute surrounding the relocation of indigenous tribes, especially the Howeitat tribe. Resolving these issues will be essential to preserving investor confidence and global reputation.



Conclusio

Neom City is a daring and innovative endeavour to reshape urban life, revolutionise Saudi Arabia's economy, and increase its geopolitical might. Saudi Arabia wants to establish itself as a major player in the global economy of the twenty-first century by emphasising technical innovation, sustainability, and economic diversification. However, overcoming geopolitical, economical, and environmental obstacles is essential to Neom's success. If Neom is carried out as intended, it would not only transform Saudi Arabia's economy but also the geopolitical dynamics of the Middle East, securing the kingdom's position as a major world power in the ensuing decades. Neom's long-term effects on Saudi Arabia and the wider world will be determined by how well it integrates cutting-edge technology, sustainable development, and strategic policymaking as it moves from idea to reality.

Although it aspires to be a model city for coming generations, its legacy will ultimately depend on its capacity to draw in consistent investment, encourage innovation, and uphold social inclusion. Neom's geopolitical importance goes beyond Saudi Arabia as well; it shapes commercial ties, regional alliances, and Middle Eastern economic competitiveness. If the initiative overcomes its obstacles, it may usher in a new era of smart urbanisation and establish a standard for how countries strike a balance between economic development and geopolitical policy.

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CRYPTOCURRENCY AS A LIFELINE: IRAN'S RESPONSE TO ONGOING SANCTIONS

*Written by **Arnav Dwivedi** and Edited by **Sualiha Khan***

Cryptocurrency as a Lifeline: Iran's Response to Ongoing Sanctions

Iran, a unitary Islamic republic, has been on a constant friction with United states and European Union, who are two major powers in the current Global scenario. This conflict between Iran and the world's superpowers have led to many forms of sanctions on the country which have deeply impacted the trade capabilities of the country, such that, even pushing it to adopt cryptocurrency as an accepted form of payment. The reason behind the friction is multidimensional and can be understood by critically analysing Iran's government policies and international relations.

Country's current political and sociological scenario

At the apex of the government structure is the supreme leader (rahbar), senior cleric who holds significant authority over state affairs. He has many authoritative powers for example he can appoint key officials in the judiciary, military, and media. The President serves as the head of the government and is responsible for managing the executive branch. Then there is the Guardian council which oversees the unicameral parliament (Majlis). The council comprises of 12 jurist, half appointed by the Supreme Leader and the other half by the judiciary. It's purpose is to make sure that laws are in order with Islamic principles and the constitution.

Iranian society has been characterised by its cultural heritage and a youthful, diverse population. However, there have been numerous human rights violation in the country, against which many other countries including both US and EU have raised voices. The countrywide protests that happened following the death of Mahsa Jina Amini in 2022 is a notable example. The country enforces strict enforcement of conservative dress codes and behaviour's, especially for women, that has led to increasing tensions in the country. Iran adopts extremist laws that have been causing growing discontent among its populace, particularly among women and youth.

Current Economic Overview

Growth Projections

According to International Monetary Fund (IMF), Iran's economy is projected to grow by 3.1% in 2025 with a gross domestic product (GDP) projected to increase to $463 billion. This projection has been made despite the country facing a number of international sanctions and economic turmoil.

Inflation and Currency Issues

Iran is facing astounding inflation rate of about 31.2% as of September 2024. The rates are expected to fall to 29.5% in 2025, which is still significantly higher than many of it's neighbouring countries. Country's currency, Iranian rial has been continuously on the path of depreciation and has lost about 62% of it's value against the U.S. dollar over the past year, causing economic instability and reduced purchasing power of citizens.

Oil and Gas Production

Despite all this, Iran still is a major player in hydrocarbon production. It's oil production is expected to average 3.1 million barrels per day and gas production is expected to average 5.2 million barrels per day in 2025. Oil exports which serve

as the major sources of revenue for the country are projected to reach about 1.6 million barrels per day.

Social Impact

Due to high inflation and economic stagnation, many Iranians have been pushed into poverty, leading to social unrest and protests against the government. The country is also facing socio-economic divide, with citizens demanding call for reforms and improvement in their living conditions.

Key Sanctions Imposed on Iran

Economic Embargo (2010-Present):

This sanction imposed by United States includes a comprehensive ban on all Iranian-origin imports, prohibition on U.S. companies doing business with Iran. It also enforces restrictions on financial institutions that engage with Iranian entities. The goal of this sanction was to limit Iran's nuclear program and support for terrorism by isolating the country from global financial system.

Sanctions on Oil Exports (2018-Present):

This sanction includes penalties on countries and companies that purchase Iranian oil, making it hard for the country to generate foreign currency, as oil exports account for about 80% of government revenue. The goal here is to limit Iran's funding for it's nuclear program and regional militancy.

Shadow Fleet Sanctions (December 2024):

Shadow fleets were use by Iran as a proxy for supply chain oil transportation networks. This sanction, put by United States, targeted 35 entities and vessels involved in transporting Iranian oil. The goal here was to cut off revenue streams that fund military activities and nuclear advancements.

Nuclear Proliferation Sanctions (2010-Present):

This sanction, imposed by European Union, includes bans on dual-use goods, travel bans for individuals involved in nuclear activities, and asset freezes targeting key Iranian officials and organizations related to the nuclear program. The goal here is to prevent Iran from developing nuclear weapons.

Human Rights Violations Sanctions (2011-Present):

Another sanction imposed by the E.U. which enforces travel bans and asset freezes for individuals associated with human rights violations, as well as restrictions on exporting equipment that might be used for internal repression. 1
SWIFT Exclusion

E.U., in march 2012, also put up a sanction on the prohibition of SWIFT, the global financial messaging service, from providing services to certain Iranian banks, thus effectively disconnecting them from the international financial system. Because of this sanction, Iran's ability to conduct foreign trade got severely hindered, as it was not able to facilitate international payments.

U.S. Financial Sanctions

U.S. with it's Executive order 13902, issued on October 8, 2020, sanctioned eighteen major Iranian banks for operating in Iran's financial sector. The sanction also blocks all property and interests in property of these banks within U.S. jurisdiction. The goal was to limit the Iranian government financial resources that could fund it's nuclear program and support terrorism.

Trade Dynamics

Sanctions have limited Iran's ability to engage in international trade, particularly in oil, which is a major source of revenue for the country. Many countries have also been forced to reduce or halt their imports of Iranian oil as they'll also have to face secondary sanctions.

Due to SWIFT exclusion by E.U. and Executive order 13902 by U.S., Iran has also lost access to international banking system, making it challenging for Iran to conduct transactions and thus increased reliance on barter trade.

Economic Growth

These sanctions have severely impacted economic growth of the country. GDP growth is projected to only moderately recover, while inflation exceeds 29% and currency keeps getting devalued.

There has been rise in poverty levels as the government struggles to match declining revenues with its responsibility of providing basic services.

Thus, facing a number of sanctions and economic turmoil, on august 29, 2022, Iran officially recognized cryptocurrency

as an accepted form of transaction. Iranian government also approved regulations that allowed cryptocurrency to be used for international trade and imports. Iran's primary need for using cryptocurrency is to circumvent international sanctions and manage its economic challenges. ***Given below are the detailed reasons why Iran adopted cryptocurrency:***

1. Circumventing Sanctions

Economic sanctions by the U.S. and E.U. have severely restricted Iran's access to global financial systems. Cryptocurrency that has been adopted by Iran uses cryptographic technology via which one cannot know neither the source nor the destination of the transaction. Thus Iran is able to bypass these sanctions, allowing the country to engage in international trade without relying on traditional banking channels.

2. Preserving Asset Value

Iran's currency, Iranian rial, has experienced significant depreciation and has lost about 95% of it's value over the past decade. Cryptocurrencies such as Bitcoin and USDT (Tether) are perceived as safer stores of value compared to Iranian rial (which is constantly depreciating in value), and thus many Iranians seek crypto as alternative means of preserving their wealth.

3. Financial Freedom and Accessibility

Owning crypto also offer Iranians a degree of financial freedom that is often restricted by government policies. One has the ability to engage in transactions without government oversight and also gain access to international products and services more easily.

4. Mining as an Economic Activity

In 2019, Iran officially recognised crypto mining as a legal economic sector. The government has also provided with regulations, as the country aims to generate income while bypassing the restrictions imposed by the sanctions. Thus, the country leverages its abundant energy resources and sees crypto mining as a potential revenue source.

Conclusion

In summary, Iran has carefully strategized it's adoption of cryptocurrency in its response to circumvent international sanctions, preserve asset value amidst economic turmoil, and provide greater financial freedom for its citizens. The country has shifted its approach from traditional banking system and barter trade to cryptocurrency as an innovative solution in an increasingly isolated economic environment. Thus, cryptocurrency is likely to play a pivotal role in its economic strategy moving forward.

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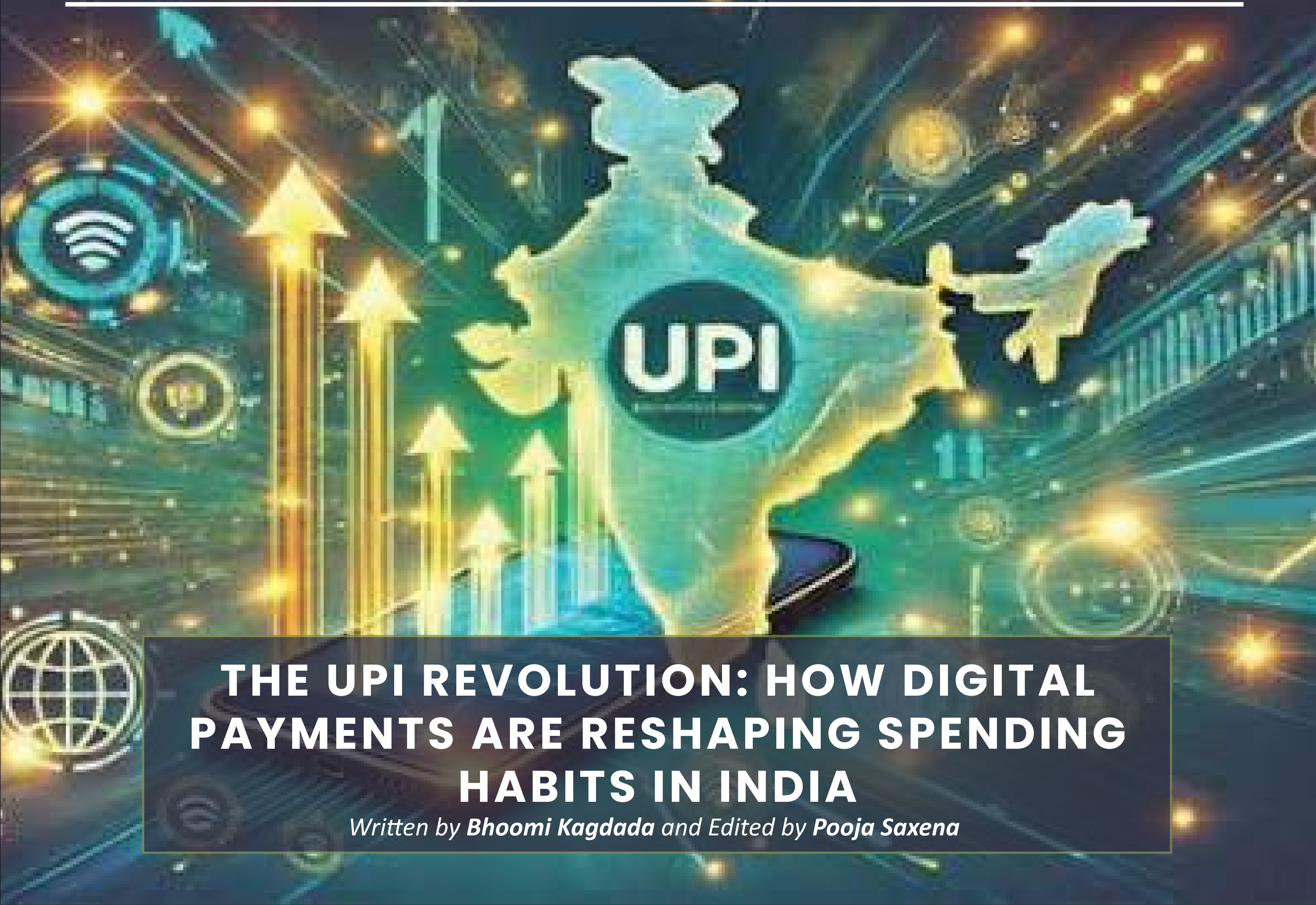


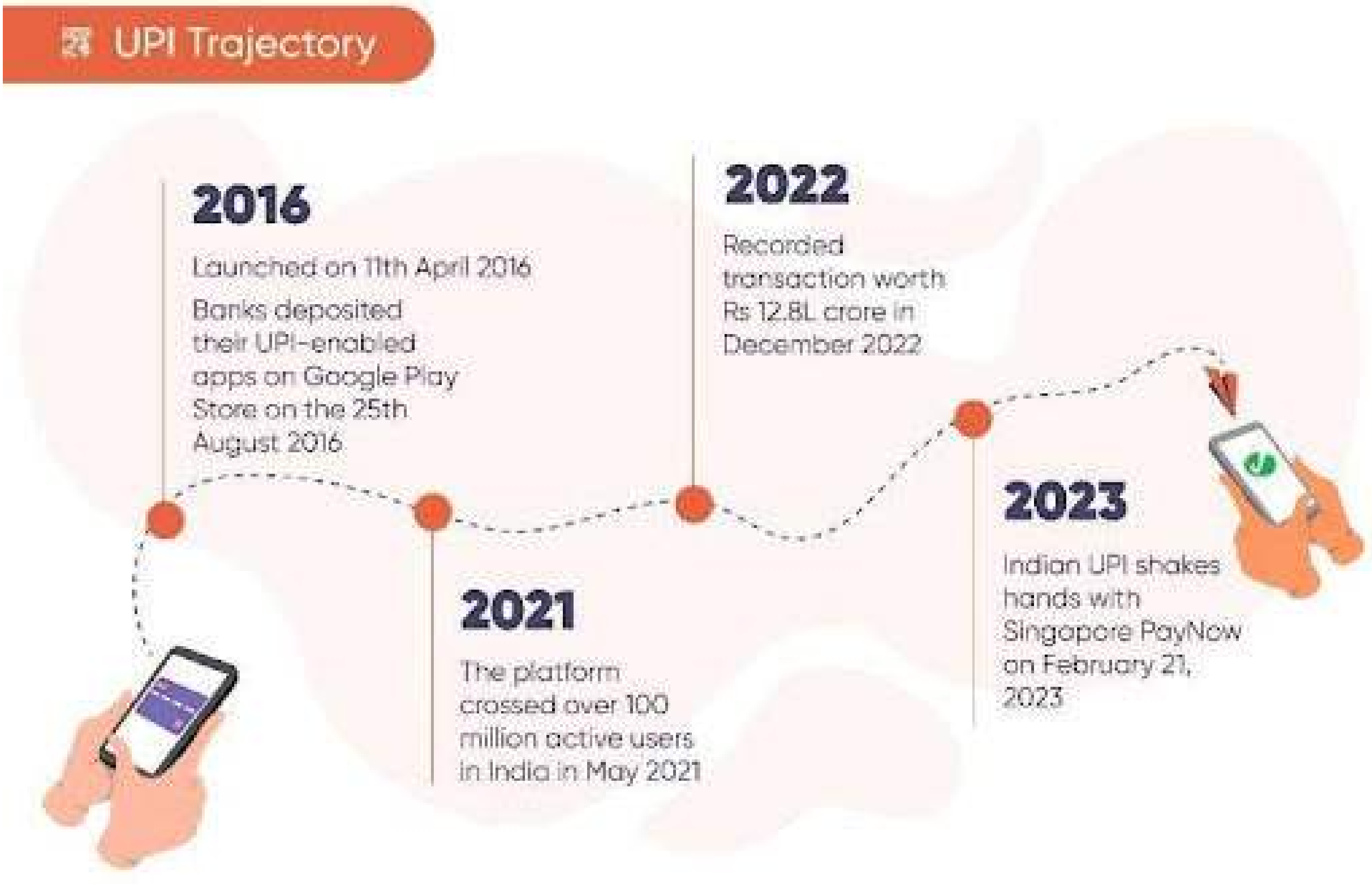
THE UPI REVOLUTION: HOW DIGITAL PAYMENTS ARE RESHAPING SPENDING HABITS IN INDIA

*Written by **Bhoomi Kagdada** and Edited by **Pooja Saxena***

India accounted for the highest number of digital transactions in the world in the year 2022, nearly 46% of global transactions stemmed from one country alone - Press Information Bureau.

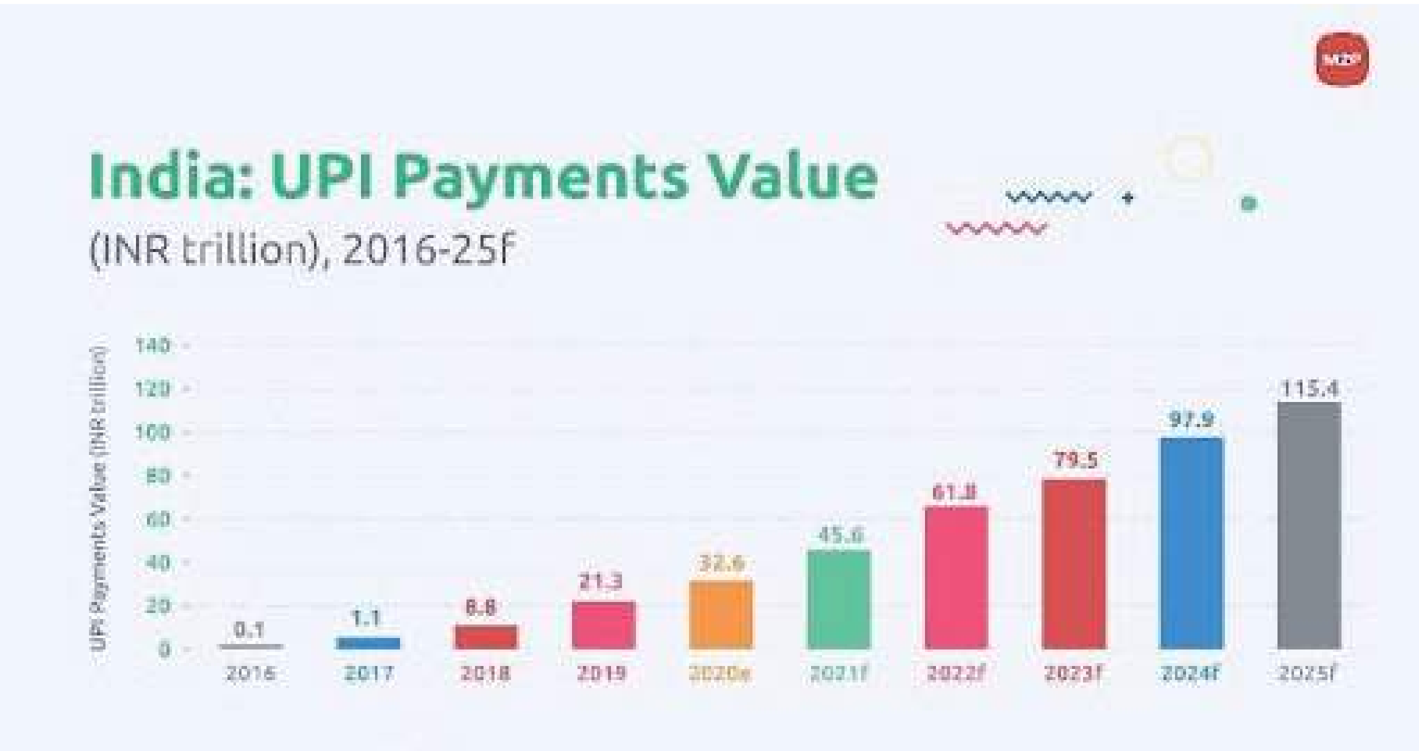
That's a significant jump from the bare 10% recorded before the introduction of UPI. From a 5 Rupee biscuit transaction to a 20 thousand business transaction, all are possible at the click of a few buttons because of one system alone. Unified Payment Interface, or UPI, is a real-time payment system launched in 2016 by the National Payment Corporation of India. It facilitates person-to-person and business transactions, provided both parties have an active bank account, a smartphone, and the Internet. Introduced to promote cashless transactions in the country, today it processes nearly 75% of the country's retail digital payments, having registered over 14 billion transactions in May 2024 alone. It's safe to say that UPI singlehandedly dominates the digital payment landscape today, as RBI data points out that while the total digital transactions stood at 2 thousand crores in 2018, UPI's share of the same was 375 crore transactions. Fast forward to 2024, UPI contributed to the country's digital transactions reaching 20 thousand crores, spearheading an impressive 17 thousand crore transactions. As UPI became a citizen-favourite mode of transaction, the usage of other payment systems like RTGS, NEFT, and IMPS, credit and debit cards dropped from 66% to 17%, according to a report from The Economic Times.

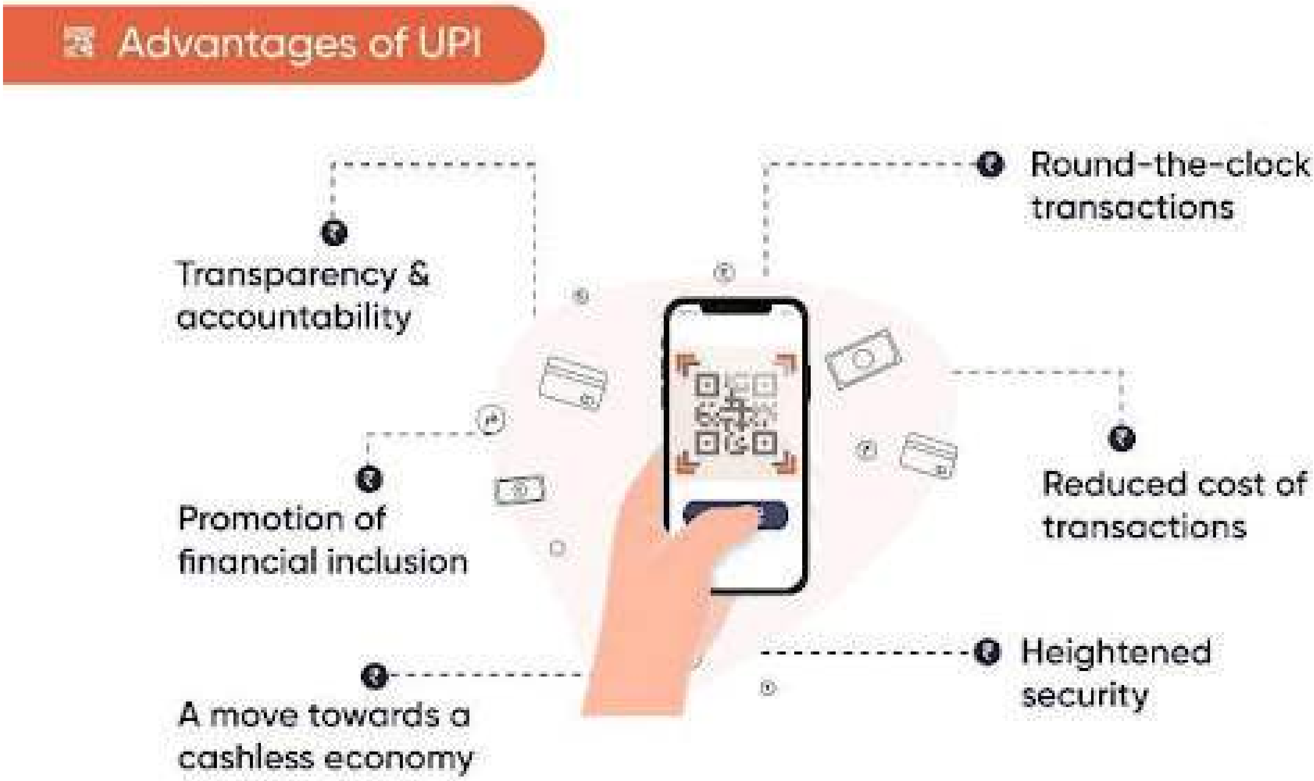
Enough with the numbers, what exactly contributed to this relatively new and dynamic payment gateway skyrocketing in our country? Several factors deserve the credit. From access to mobile phones and internet packs at subsidized rates to innovative government schemes like Jan Dhan Yojana or demonetization and startups to the likes of Paytm and PhonePe, all have been stepping stones in UPI's success story. Introduced by Nirmala Sitaraman in 2014, The Pradhan Mantri Jan Dhan Yojana aimed at financial inclusion throughout the country. A successful scheme, it led to an increase in the number of bank accounts in the country, eventually leading people to consider digital banking in the long run. As the primary requirement of making digital payments is a mobile phone and internet connectivity after a functioning bank account, of course, the recent decade witnessed a boom in this market with mobile phones reaching even the most remote areas alongside thriving in the urban areas. Not to forget, Reliance Jio brought forth a revolution in the telecommunication industry in 2016. Taking all of its competitors by storm, it offered 4G internet services at nearly half the prices in the market, thus providing impetus to the UPI revolution in the country. As the government ban on notes of rupees 500 and 1000 came into action in 2016, a majority population shifted to digital payments and UPI due to the scarcity of notes. This move slowly culminated in a decrease in cash-based transactions and marked a turning point in the transaction economy of the country. As many started preferring UPI over cash-based transactions or physical cheques and bank cards, a booming opportunity



stood in the open for start-up enthusiasts giving rise to several applications facilitating UPI transactions. Additionally, the Covid-19 pandemic made it impossible for people to go to banks regularly thus having to stick to digital payments and UPI. In February 2024 alone, out of the 12 billion transactions processed by UPI, PhonePe processed a whopping 6.1 billion (50% of the total), Google Pay amounted to 4.7 billion (39%), and Paytm processed 1.3 billion (10.8%) alone–points data from The Economic Times.

While the numbers may be huge and magnificent to look at, as technology progresses to evaluate lifestyles, it also puts important questions in the spotlight. The growth of UPI has been a turning point in the digital economy and has eased the flow of transactions. Gone are the days you'd have to wait a week for your cheque or DD to process or move from ATM to ATM to withdraw cash and pay someone. UPI has summed it all up with the help of





a minimal QR, a pin, and the receiver's number that too without any transaction fee at all. While it has significantly eased transactions in all walks of life, the huge turnout visible seems justified–until it doesn't.

We'll take the help of behavioural economics as we move further. Recollect this: how many times have you ended up buying something when you're out of hard cash but you've had access to UPI? Exactly. While the introduction of UPI has helped ease the give and take of money, there's been a downside, too. A huge one that we often tend to overlook. The way UPI has come to significantly alter our spending habits. Without UPI, in a normal scenario, you would probably limit your purchase to the amount of hard cash with you, but having 24x7 access to money has influenced radical financial decisions like no other. A recent study conducted by IIT Delhi has concluded that 74% of 276 users of UPI platforms believe they're overspending. Let's have a quick history recap: since the age-old times, human beings have relied on the barter system for acquiring goods and services. They used tangible products like pots and pans. Next, they used a variety of stones for the purpose, and finally then came proper currency. Post that came banks and their instruments. Still tangible, though. Now UPI comes and changes the entire game. When you're consciously aware of the number of notes and coins you're using, it's easier to restrict your spending. UPI's intangibility doesn't let you see the money you spend. It shields you from looking at all of that under the guise of convenience, and it's not until the end of the day that you realize you spent 500 rupees on your ordinary morning walk without even realizing it. There's a tendency to engage in mental accounting bias (i.e., dividing money into separate categories rather than treating it as the same) as money spent via UPI is deemed insignificant due to the often-small-scale transactions done via the medium (rupees 30 for a beverage, 10 for chips or 18 for tea) thus escalating to a large amount at the end of the day.

Impulsive spending is skyrocketing, especially in the urban setting as UPI gets decentralized. Temporal discounting, yet another principle of Behavioural economics best sums up the case at hand. It refers to the preference people generally give to immediate benefits over future benefits. Due to access to UPI, you are most likely to buy a relatively attractive dress that you saw in a shop even when you aren't carrying cash or a card rather than coming back later for it or abandoning the purchase and saving the money instead. And this doesn't just apply to dresses, be it food, or experiences

all are now available at the click of a button driving people to incessant spending and leading to financial disasters. E-commerce and Quick commerce took a step further, and the instant doorstep deliveries of phones, groceries, and shoes made it possible to click click click and move no muscle to receive food on your table or the table itself. Forget the hassle of entering your long credit or debit card numbers and CVV and instead enter a minimal pin, and boom! Your order is on the way.

But interestingly, UPI has its positives, too. It has saved so many of us from that embarrassing situation where we were cashless and cardless to the ones where our Auto driver just did not have the exact change to give us back. As the country moved aggressively towards digital payments and UPI post-demonetization, it has led to a significant boom in the economy. From small-scale businesses and roadside vendors to homegrown brands, all have found an efficient medium in UPI to scale their business to newer heights, which wouldn't have been possible otherwise. UPI has eliminated the headache of having exact change, pristine-looking currency, and the hassle of carrying cash and cards everywhere you go. It eliminated even the risks of thefts and robbery associated with the loss of cash and especially cards. UPI has further included nonbanking fin-tech companies and payment wallets like Cred, Family Upstocx, etc, which led to widespread use of the same.

With several initiatives launched towards making the country accustomed to digital payments like Digital India, Make in India, and Start-Up India, the small business economy has been flourishing more than ever as UPI has reached the grassroots levels. It has further helped independent initiatives thrive as the middlemen and their greed are eliminated, with the QR code being directly linked to the seller's account. Additionally, the large-scale adoption of UPI for transactions has helped curb black money as every transaction done via applications is recorded.

That's with the positives. While UPI may be a messiah in the robust and tiring banking scenario in India, danger looms on this instrument just like any other. A 2022 banking survey, conducted by an Indian economist shows that 18% of UPI users experienced grievances with the platform, including fraud or incorrect payment recipients.

Only 30% of those issues were resolved. Fraudsters can find innovative ways to scam users and UPI just shows how. Several QR codes happen to be illegitimate and trap the user's account details without them knowing about it. Or when users scan a QR instead of receiving money, it goes on deducting from their account. And before the person is well aware of it, the scamster on the other end has already discarded the sim card and withdrew hard cash from his bank. Sometimes sellers might send fake money requests pretending to be genuine and authorized service providers. While UPI also largely is connected to the SIM card of the users, several scams involving duplicate SIM cards have come to the surface where the fraudsters end up accessing OTPs to carry out transactions.

As a result, there needs to be reforms in the way UPI currently operates to cease scams as far as possible because a large section of the population depends on the same for carrying out numerous transactions. As the UPI trend continues to bloom, it's here to stay for a long time. Soon, some banking instruments might also become a rarity. Backed with steady technological advancements, the market is expected to reach even newer heights. Reports denote that payments made via UPI are expected to reach 90% in 2027. Due to its no-fee policy and on-the-go nature, UPI has largely penetrated Indian society. In the end, if used wisely, UPI can be more than just an impulse-spending app providing real-time data on your account balance, helping you save, and also being a saviour in moments when you are out of hard cash or need to send someone money urgently.

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INDONESIA'S DEEP ROOTS IN INDIAN CULTURE: PRESIDENT SUBIANTO ACKNOWLEDGES HISTORIC TIES

*Written by **Shruti Shiraguppi** and Edited by **Neelambika Kumari Devi***

Indonesia and India share a rich tapestry of historical and cultural connections that span centuries. The bonds between these two nations are rooted in their shared heritage, trade, religion and cultural exchanges. President Prabowo Subianto's acknowledgement of these historic ties underscores the enduring significance of the relationship between Indonesia and India.

Historical and Cultural ties

The historical ties between the aforementioned countries date back to ancient times, as back in time as the time when Hinduism and Buddhism blossomed all over the world, ultimately shaping the cultural landscape of the Indonesian archipelago. Indian merchants, scholars and religious teachers travelled to Indonesia, bringing with them their religious beliefs, art and the Prambhan and Borobudur temples, which reflect Indian architectural styles and religious iconography.

The ancient Indian epic, the Ramayana, is deeply ingrained in Indonesian cultural even though it is a Muslim-majority state. The story of Lord Rama, Sita and Hanuman is celebrated in traditional Indonesian dance and theatre forms, such as the Wayang kuilt (shadow puppetry) and the Ramayan ballet.

The Sanskrit language, which was one of

the lingua franca of the Indian subcontinent, also navigated its way to Indonesia. Many old Javanese inscriptions and texts are written in Sanskrit scripts, highlighting the linguistic and literary connections between the two regions. The exchange of knowledge and ideas between Indian and Indonesian scholars enriched the intellectual and cultural heritage of both nations.

The Austronesian-speaking peoples, who are believed to have originated from Taiwan, migrated southwards and eventually settled in the Indonesian archipelago. Genetic evidence suggests that these Austronesian-speaking peoples intermingled with the people of the southern parts of India, resulting in a shared genetic heritage. This socialisation is reflected in the current day cultural and linguistic similarities as well, between the two states.

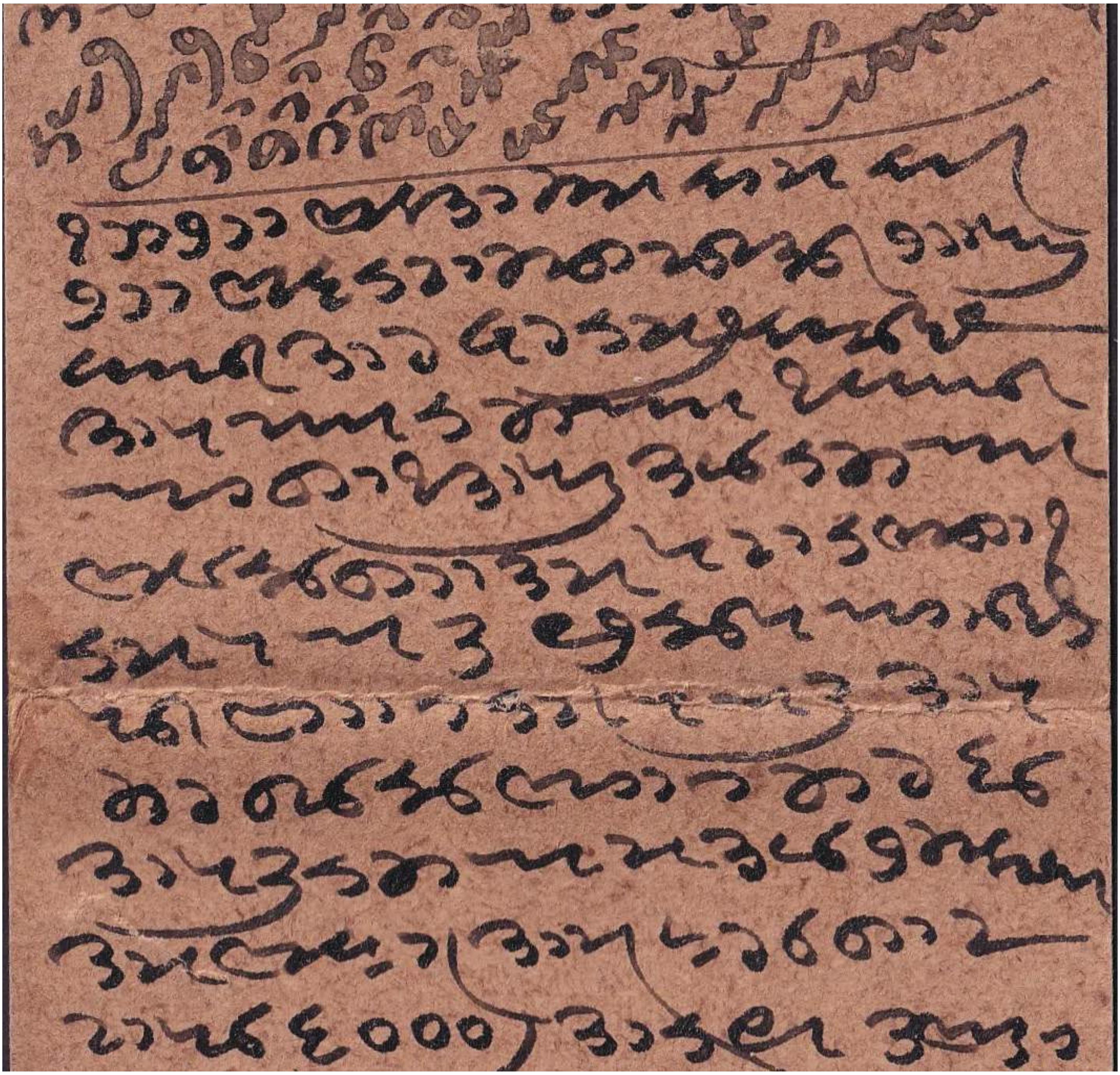
Current day Diplomatic and Economic Relations

Upon invitation of the Prime Minister of India, H.E. Shri Narendra Modi, President of Indonesia, H.E. Mr. Prabowo Subianto paid a visit to India to discuss about defence, security, infrastructure, countering terrorism, so on and so forth. He was also invited as a chief guest to celebrate the Republic Day along with 352 Indonesian Armed Forces personnel who constituted the marching band on the day of celebrations.

President Subianto humorously acknowledged his "Indian DNA' during his visit to India, "A few weeks ago, I had my genetic sequencing test, and they told me I have Indian DNA. Everyone knows when I hear Indian music, I start dancing." This underscored and further reinforced the strong historical connections that have shaped the identities of both, India and Indonesia (MSN, 2021)

In modern times, India and Indonesia have continued to build on their historical ties, fostering strong diplomatic and economic relations. Both countries are dignitaries of regional and international organisations such as ASEAN, G20 and UN. Their collaboration on various global issues, including trade, security and climate change, deepens their shared commitment to multilateralism and international cooperation.

Trade and economic relations between India and Indonesia have grown significantly over the years. Indonesia is one of India's largest trading partners in Southeast Asia, with bilateral trade encompassing a wide range of goods and services, including palm oil, coal, textiles and pharmaceuticals. The two countries have also explored opportunities for investment in sectors such as infrastructure, energy and technology.



The Canggal inscription, dated to 732 CE, is one of the earliest known inscriptions from Java. Written in Sanskrit using the Pallava script, it signifies the profound influence of Indian culture and language in ancient Indonesia.

The strategic partnership between India and Indonesia has been further strengthened through high-level visits and dialogues. During President Subianto's visit, he praised Prime Minister Narendra Modi's leadership and expressed his commitment to enhancing bilateral cooperation. "His commitment to alleviating poverty, helping the marginalised, and helping the weakest part of our society, is an inspiration for us," Subianto stated, thus acknowledging the efforts of the Indian government in promoting inclusive development (Business Standard, 2021).

Future Prospects

President Subianto envisions a future where India and Indonesia continue to build on their historical and cultural connections to create a stronger, more prosperous partnership. He emphasized the importance of mutual respect, understanding and collaboration in addressing common challenges and seizing opportunities for growth and development.

One of the key areas of focus for President Subianto is poverty alleviation and social welfare. He commended on India's efforts to regulate and eradicate poverty to uplift its people and affirmed that both the countries can learn from each other's experiences and work together to implement policies and initiatives that promote inclusive development.

Another area of emphasis is cultural diplomacy. President Subianto highlighted the role of cultural exchanges in strengthening people-to-people ties and fostering mutual appreciation and understanding. He advocated for increased collaboration in the fields of education, tourism, and the arts, which can serve as bridges between the two nations.

In the realm of defence and security, President Subianto expressed his commitment to enhancing cooperation to address regional and global security challenges. Both India and Indonesia share concerns about maritime security, and transnational crime. Collaborative efforts in these areas can contribute to regional stability and peace. This is clear when he stated, "I would like to see Indonesia and India continuing to be close partners and friends." His aspirations underscore a commitment to deepening the bond between these historically connected nations.

The deep-rooted historical and cultural connections between Indonesia and India serve as a strong foundation for their modern day, diplomatic and economic relations. President Subianto's acknowledgement of these ties underscores the significance of the relationship between the two nations. As India and Indonesia continue to navigate the complexities of the modern world, their shared heritage and common values will play a crucial role in shaping their future.

President Subianto's vision for India-Indonesia relations is one of mutual respect, collaboration, and growth. By building on their historical connections and working together to address common challenges, India and Indonesia can create a brighter future for their peoples and contribute to global peace and prosperity.

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BUSINESS

WHY SCARCITY MARKETING WORKS: BEHAVIOURAL INSIGHTS FROM GLOBAL E-COMMERCE TRENDS

*Written by **Vedika Muni** and Edited by **Neelambika Kumari Devi***

What is Scarcity Marketing?

Picture this: You're scrolling on your phone, looking through your favourite online store. You find the perfect jacket, and you stare at it, imagining yourself wearing it but no real intentions to buy it and then! Your eyes drift towards - "Only 1 Left in Stock! Buy Now and Get 25% Off" Your heart skips a beat. You ask yourself: Do you really need it? Maybe not. But you can't just let an offer like that go! Authentic leather jacket? At 25% Off? Only One Left in Stock? Yes! For that one road trip you have been planning since 12th grade!

Have you ever bought something just because you thought you might lose the chance? Why does the thought of scarcity flip a switch in our minds and make us want something we might otherwise ignore? `This is called Scarcity Marketing.

Scarcity marketing refers to a technique where a sense of urgency is created in order to bring in more buyers for a particular good or service. It is a concept that makes use of the idea that people view things as more valuable when that product is less readily available.

Today, multiple global e-commerce platforms utilize scarcity marketing techniques to influence consumer behaviour and increase product sales. The increased use of online marketing, along with digital platforms amplifies the effect of scarcity marketing, as it becomes more accessible for businesses to showcase their products and offers as well as to instantly engage customers in their business. The most prevalent example of this technique would be the limited-time offers, flash sales, and countdown timers.

This technique is a part of behavioural economics, wherein a marketing tactic capitalizes on the psychological processes of the consumers.

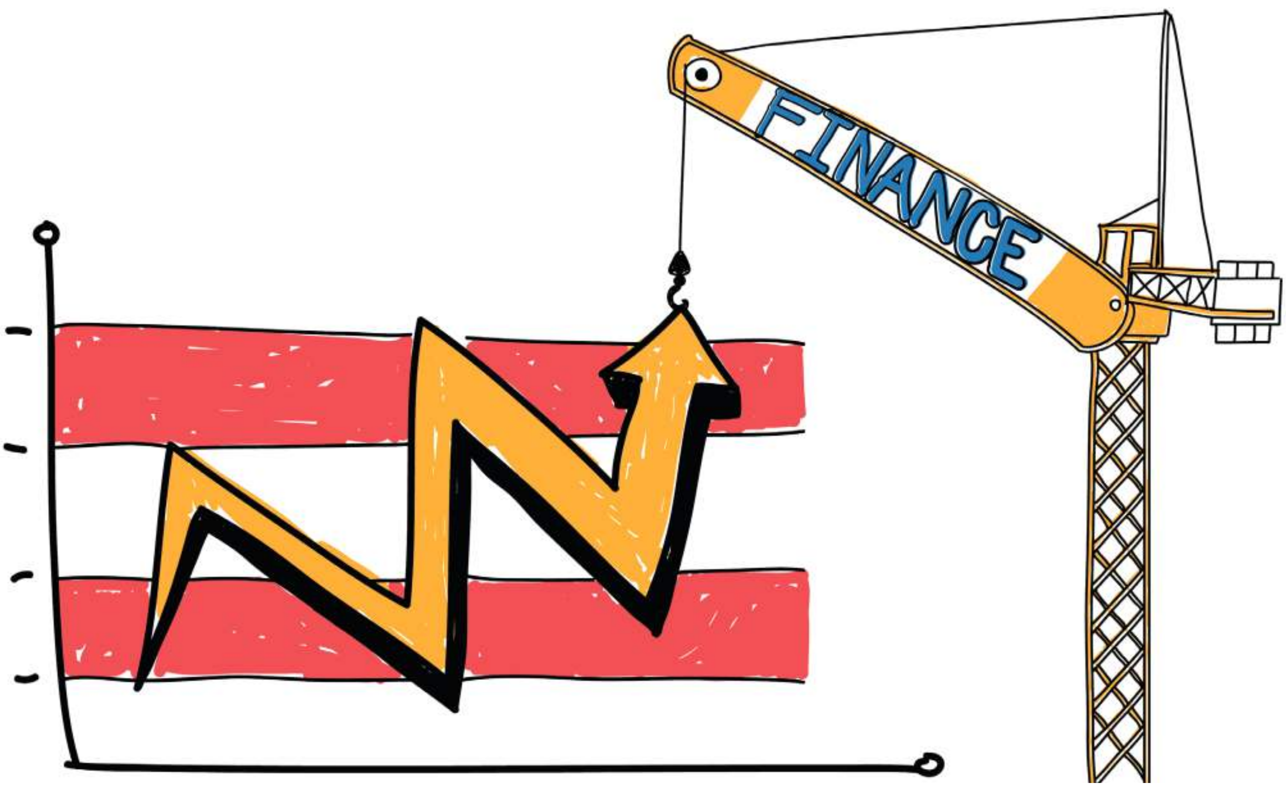
The Psychology of Wanting What's Rare

There are multiple theories that explain why consumers are so highly influenced by scarcity techniques. A dominant framework is that of Commodity Theory with its main principle stating that "any commodity will be valued to the extent that it is unavailable" (Brock, 1968). Other relevant frameworks such as Conformity theory, Regret theory, and Reactance theory also explain the phenomenon. While these theories offer unique perspectives, at their core, they revolve around how humans react to restrictions, scarcity, or social pressures.

Robert Cialdini, in his research on compliance and persuasion, discussed 6 principles; scarcity being one of them. Cialdini spoke of the idea of scarcity, of something - anything - that is perceived as rare, uncommon, or decreasing in availability becomes more valuable.

Although speaking from a different perspective of scarcity, Princeton Psychologist Eldar Sharif, mentions how scarcity or deprivation has the power to 'wreak havoc' on individuals' cognitive and decision-making skills.

Scarcity Marketing also operates on Loss Aversion. This cognitive bias explains that people tend to react more strongly to a



loss of a product as opposed to an equivalent gain. For example, losing a 25% discount on a limited product would elicit a stronger emotional response than buying the same product when it is readily available.

Fear of Missing Out or FOMO is another construct that determines the impact of scarcity marketing techniques, especially in the younger consumer base. The idea that other people are enjoying a product or service and that you have to act now in order to not miss out on it entices individuals to participate in purchasing that good or service. Today, FOMO tactics have successfully generated sales and increased revenues in multiple domains.

All these perspectives attempt to explain the role of perceived urgency and the need to make a decision under such time pressures. They explain how scarcity marketing is a longstanding business tactic.

How Scarcity Marketing Became a Global E-Commerce Powerhouse

In recent years, there has been a noticeable change in consumer behaviour. Shopping is no longer means to an end, i.e., simply buying and consuming products; it is now about experiences, about the need to engage in both the processes. For this, businesses have had to adapt and create marketing strategies that caters to this need as well. Initially, scarcity marketing was primarily of the physical kind: empty shelves, vague information regarding flash sales and other offers, and so on. With the increasing use of internet and social media in marketing, consumers are more aware of scarcity cues of products or services. While online purchasing behaviour lacks physical assessment of products, the scarcity cues such as pop-ups, alerts, and countdowns, take on an even larger appeal.

Scarcity techniques receive substantial investments from retailers, demonstrating their effectiveness in sales. These strategies are often context dependent and based on detailed market segmentation done by businesses creating tailor-made

appeals to specific markets.

Common scarcity marketing tactics include: Limited-quality offers (e.g. “Only 1 Left in Stock”), Limited-time offers (e.g. Flash sales, countdown timers), Exclusive access or membership (e.g. access to VIP programs, member-only sales), Seasonal and Event-Based Scarcity (e.g. Valentine’s Day offers, Diwali Sale), and Demand-Based Scarcity (e.g. “15 people are viewing this product right now”).

While these offers are available on e-commerce platforms, the use of Integrated Marketing Communication - notifications, emails, text messages, and other promotional elements - enhances the effect of this strategy. Different companies make use of such strategies, for example, Amazon.com used Limited-quality principle, Flipkart has sales during big events, e.g. Republic Day Sale or Diwali Offer, and so on.

Globalization and easy internet access has made scarcity marketing universal and easier to indulge in such buying behaviours.

AI Driven Scarcity Tactics

The introduction of Artificial Intelligence in the field of marketing has propelled e-commerce platforms and their use of scarcity strategies. Advanced machine algorithms now learn and predict individual consumer preferences, browsing behaviours, and purchase patterns and adjust scarcity messages accordingly. AI algorithms identify potential targets, track their interests, and optimize this information to curate notifications that are more appealing to the individual. This detailed analysis of behavioural data makes AI the perfect marketing tool.

For instance, AI ensures that the right message is sent at the right time. Just like a pop-up on your screen sending a reminder that says “Buy Now or Regret Later” when you close the clothing app you saw that leather jacket on.

AI also plays a role in dynamic pricing, for example, Airlines that show limited seats at discounted rates for a limited time; and stock visibility manipulations based on real-time demand trends, for example, display messages such as “7 people are looking at this property right now.” While some of these alerts may be accurate, many are due to certain AI algorithms that are designed to prioritize increasing views or engagement than transparency. Blending different uses of AI creates the perfect environment to influence individuals to engage with products or services as well as creating the sense of urgency that motivates people to rush through the buying decision-process. Additionally, AI tactics aim to ensure minimal consumer fatigue.

The Ethical Tightrope: Manipulation or Marketing?

From a marketing perspective, scarcity techniques are undeniably, a good way of increasing profits. However, the techniques raise an ethical question: Is it fair to create a false sense of urgency to push people into impulsive purchases? And where do we draw a line between persuasion and manipulation?

For instance, dynamic pricing. While it allows businesses to increase revenue, it is an unfair tactic and consumers end up paying higher prices for a product that is readily available at a lower or standard rate.

Cases such as that of Booking.com, where fabricated scarcity tactics led to legal consequences, poses an ethical dilemma and acts as a source of concern for consumers.

While scarcity marketing strategies have short-term benefits, it is imperative to take into account the long-term effects as well. Misleading or false tactics lead to mistrust and eventual loss of potential consumer base.

On the other hand, various companies have had successful endings with the help of scarcity marketing. Amazon's lightning deals and stock alerts have turned browsers to buyers; the exclusivity offered by Tesla and the shared Apple community continue to thrive with offers such as pre-ordering and exclusive member discounts.

Balancing It All

Can scarcity marketing be ethical and effective at the same time? Yes.

When employing scarcity marketing techniques, it is important to keep in mind certain parameters, especially transparency. It is important to maintain customer trust by valuing and respecting them. Making people feel valued instead of rushed creates a loyal consumer base which is more likely to be beneficial for long-term profits while keeping a practice ethical in nature. This creates a win-win situation for both, brand and customer.

AI-driven strategies require regulations about data privacy and ensure anonymity of the collected data as well as avoiding intrusive practices.

There is certain power in scarcity marketing which must be used effectively and ethically. It is important for marketers to look at consumers are individuals and not just data points. The rise of conscious consumerism is increasing awareness about manipulative marketing practices and there is a shift towards brands that are more transparent and sustainable. The consumer base is becoming an active community and even fighting back with movements such as "anti-scarcity."

Scarcity Marketing is a blend of psychology, economics, commerce, and technology. And it has its pros and cons. At the end of the day, it is about striking a balance between profit and ethics. And about whether you would choose to be a conscious consumer and let go of that jacket or fall into a marketing tactic and ordering the jacket to hang it in the back of your closet until that road trip.

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MACHINE MINDED - HOW BEHAVIOURAL ECONOMICS IS RESHAPING MARKET STRATEGIES IN THE AI ERA

Written by ***Prisha Khemka*** *and Edited by* ***Mabbu Gangotri Devi Sri***

Imagine launching your favorite shopping app and discovering exactly what you didn't realise you needed—at the perfect price, with a limited-time offer that's hard to resist. This isn't coincidence; it's the result of AI-powered algorithms leveraging insights from behavioural economics to predict and influence your decisions. As businesses merge data-driven technology with an understanding of human biases, market strategies are being reshaped in ways traditional methods could never achieve.

Behavioural Economics and Irrational Choices

The foundation of behavioural economics is empirical studies of human behaviour, which show that even when given the information and resources to do so, people do not always choose the course of action that neoclassical economists would have them take. For instance, why do people frequently put off exercising or investing in 401(k)s even when they are aware of the advantages? And why, despite the fact that the odds are the same regardless of "streaks," do gamblers frequently take on greater risk after winning and losing?

Behavioural economics views people as human beings who are impacted by their surroundings and situations and are prone to emotion and impulsivity. It does this by posing such questions and finding solutions through studies. This description stands in contrast to conventional economic models that have viewed humans as either completely rational agents with flawless self-control and an unwavering focus on their long-term objectives, or as individuals who periodically make sporadic mistakes that eventually balance themselves out.

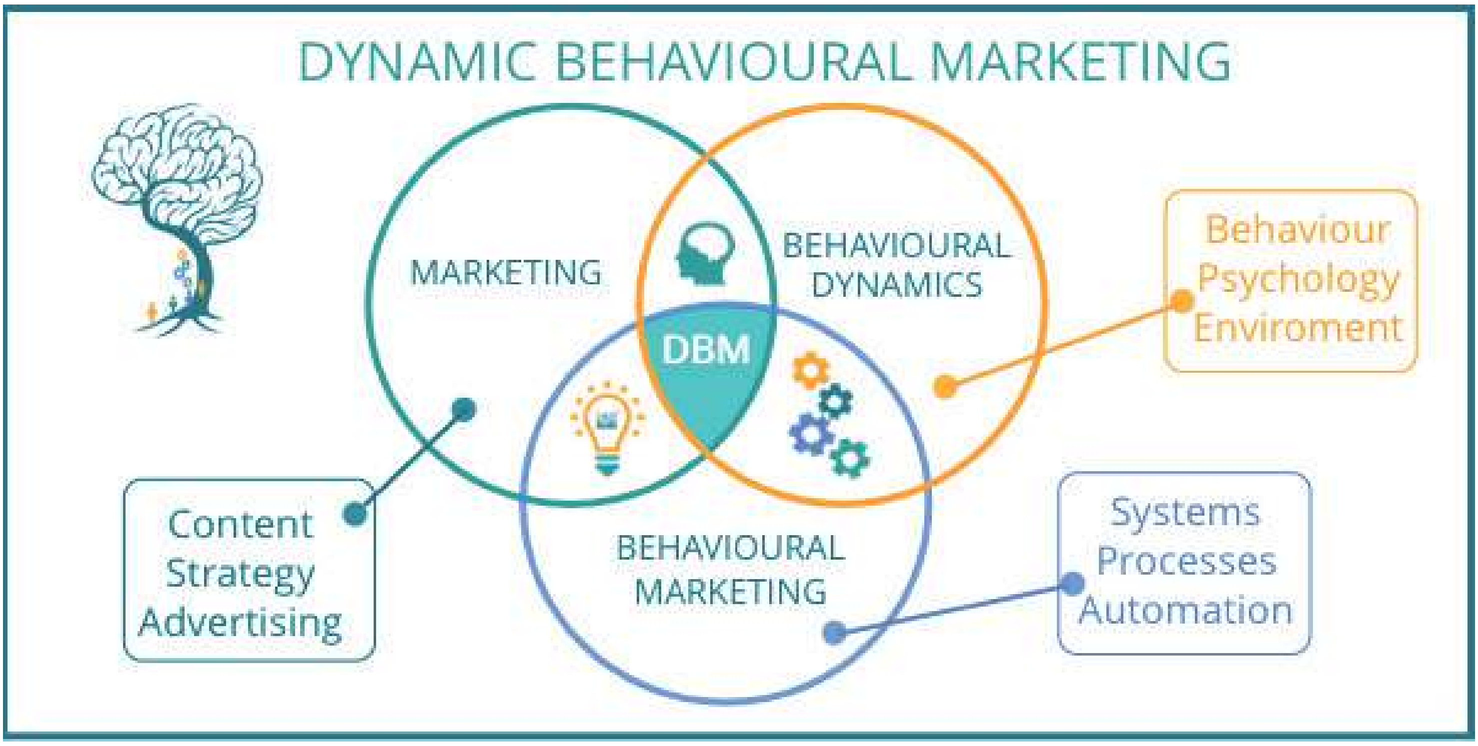
The availability heuristic is the theory that when assessing the probability of a specific event, people frequently depend on information that is easily remembered rather than actual data. For instance, after reading about a shark or bear assault, people would assume that these attacks frequently result in fatalities, but in reality, they are quite uncommon.

Role of AI

Pioneering computer scientist and economist Herbert Simon, was the first to bridge artificial intelligence and economic theory earning the 1978 Nobel Prize in Economics and the 1975 Turing Award in Computer Science. Simon's work highlighted the limitations of human rationality and suggested that AI could be instrumental in studying and modelling decision-making patterns.

He believed that studying human cognition might be accomplished through the analysis of computer simulations. This strategy can also be used in the present day, when AI can aid in behavioural economics research by attempting to develop novel models of the behavioural patterns that influence human decision-making.

Analysing how participants interact with artificial agents in an experimental setting provides a strong foundation for understanding human-machine interactions in economic contexts. There is convincing evidence that the strategic behaviour of artificial agents is frequently altered by human involvement. In particular, even in

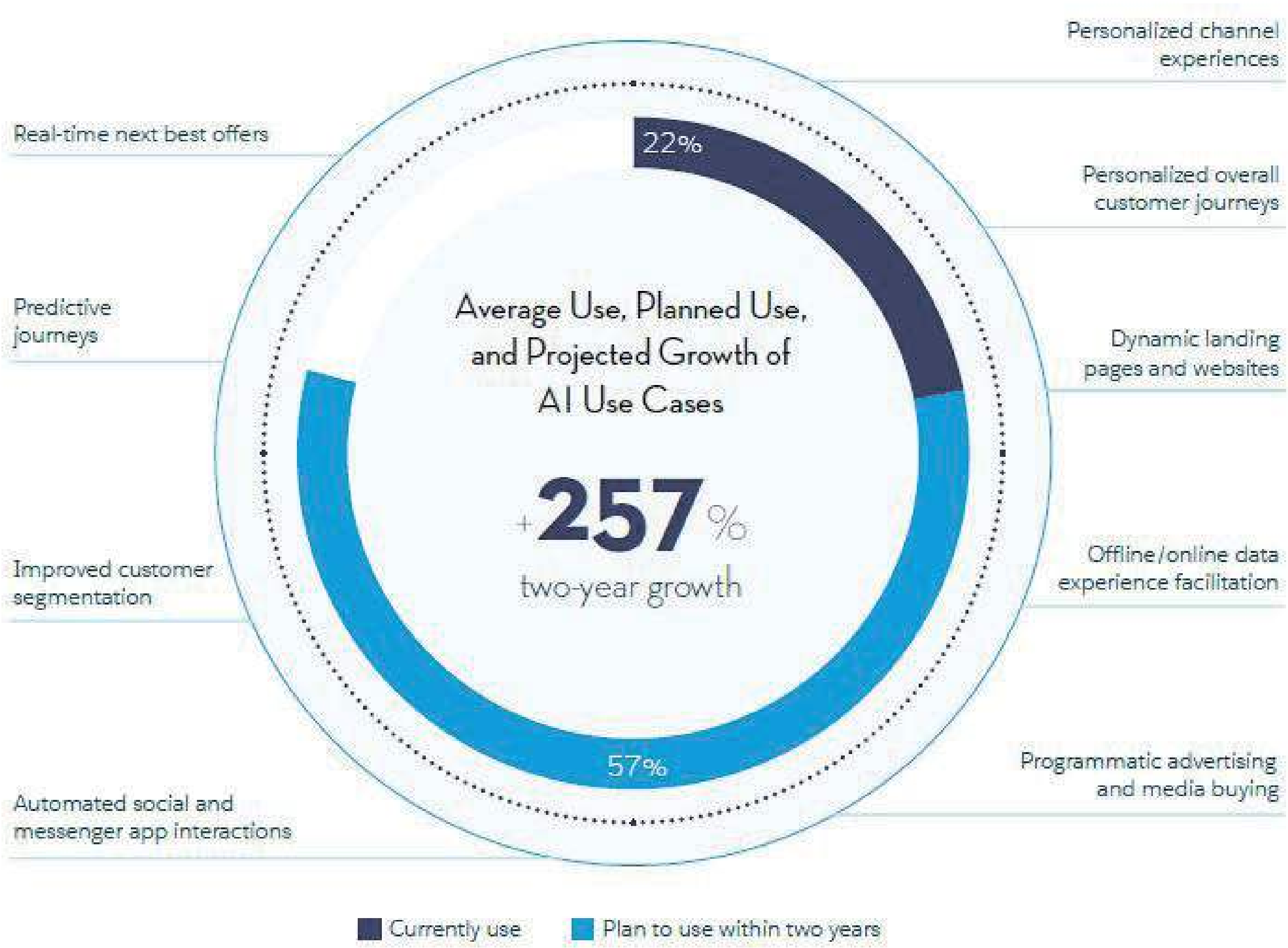


the absence of any information regarding artificial agents, human subjects adjust to them. Additionally, they behave more logically and generally more selfishly when engaging with artificial agents. This begs the question of how people collaborate with AI as opposed to one another.

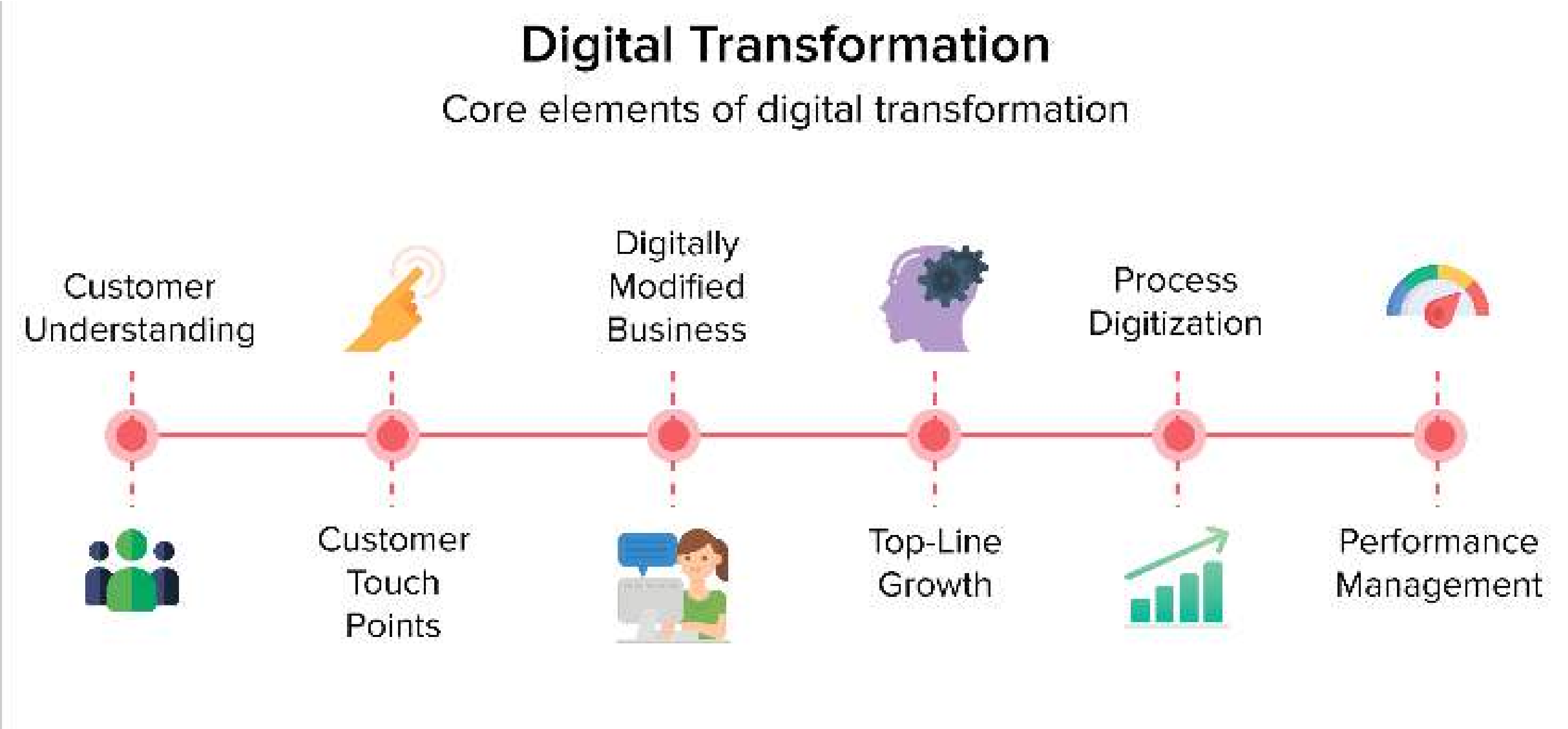
Evidence suggests that people only co-operate when it serves their self-interests and are less likely to do so with kind AI agents than with human actors. The takeaway from this is that people's individual behaviour and the financial results of their interactions with computers are frequently different. As a result, there are concerns about how society and the economy will change when there are a lot of interactions between AI and humans or amongst AIs.

AI applies key behavioural economic principles to reshape marketing strategies with impressive results. Nudging through personalization is evident in platforms like Spotify, where AI-curated playlists drive over 60% of user engagement by subtly guiding listening habits. Anchoring and dynamic pricing are utilized by companies like Uber, whose surge pricing algorithms adjust fares in real-time based on demand, influencing rider decisions and

Marketers Are Experimenting with AI in an Assortment of Ways



Base: Marketers currently using AI or planning to use AI



boosting revenue by up to 20% during peak hours. Social proof and influence are harnessed by Amazon, where AI-driven features like "frequently bought together" recommendations contribute to 35% of total sales, capitalizing on consumer tendencies to follow popular trends.

AI and Market Growth

E-commerce giants like Amazon attribute up to 35% of their revenue to AI-driven product recommendations, which leverage consumer behaviour patterns to suggest items based on previous purchases and browsing history. Similarly, Netflix reports that 80% of the content watched on its platform comes from personalized recommendations powered by AI algorithms that analyse viewing habits and preferences. In the financial sector, robo-advisors like Betterment have attracted over 700,000 users by using AI to provide personalized investment strategies, incorporating behavioural nudges that encourage diversified portfolios. Retailers like Tesco use AI-driven loyalty programs, increasing customer retention rates by 20% through targeted promotions that align with habitual purchasing patterns.
According to a McKinsey global survey on AI conducted in 2022, half of the broad sample of organisations have already implemented AI. Robotic process automation, computer vision, natural language text comprehension, and virtual agents or conversational interfaces were the most often utilised AI capabilities

The poll also revealed that among AI-using organisations, the most common use cases are customer service analytics, customer segmentation, AI-based product development, and service operations optimisation. As is evident, the operations and marketing departments of businesses usually handle a large number of these tasks. The report does, however, draw the startling conclusion that businesses have not strengthened their cybersecurity, regulatory compliance, personal privacy, explainability of AI models, organisational reputation, equity and fairness, workforce displacement, and physical safety strategies to reduce the risks of AI.

This raises questions about whether there are private incentives to lessen the risks associated with AI and demonstrates why the gap between social and corporate motivations necessitates AI regulation. Governments and international organisations must respond to regulations in order to strike a balance between the enormous hazards associated with AI and its potentially remarkable benefits.

The Future

The future of market strategies in the AI era points towards hyper-personalization and deeper behavioural segmentation, driven by vast data and advanced algorithms. Studies show that 80% of consumers are more likely to purchase from brands that offer personalized experiences, and companies that excel in personalization can generate 40% more revenue than those that don't.

AI-powered behavioural segmentation moves beyond demographics to analyse psychological traits, predicting consumer needs with remarkable accuracy. For instance, Spotify's AI-curated playlists contribute to over 60% of user engagement, while Coca-Cola's AI-driven product development, like the launch of Cherry Sprite, was based on insights from over 35 million beverage combinations created in their Freestyle machines.

As AI integrates with emerging technologies like AR, VR, and the Metaverse, brands are poised to offer immersive, tailored experiences, with the global AR/VR market expected to exceed $160 billion by 2025, reshaping how consumers interact with products and services.

The fusion of AI and behavioural economics is transforming how businesses engage with consumers, moving beyond traditional strategies to deeply personalized, data-driven approaches. By leveraging cognitive biases like loss aversion, anchoring, and social proof, companies can subtly influence purchasing decisions and enhance customer loyalty. However, as these techniques evolve, ethical considerations around data privacy and manipulation become increasingly important. The future of marketing lies in balancing technological innovation with responsible practices that respect consumer autonomy.

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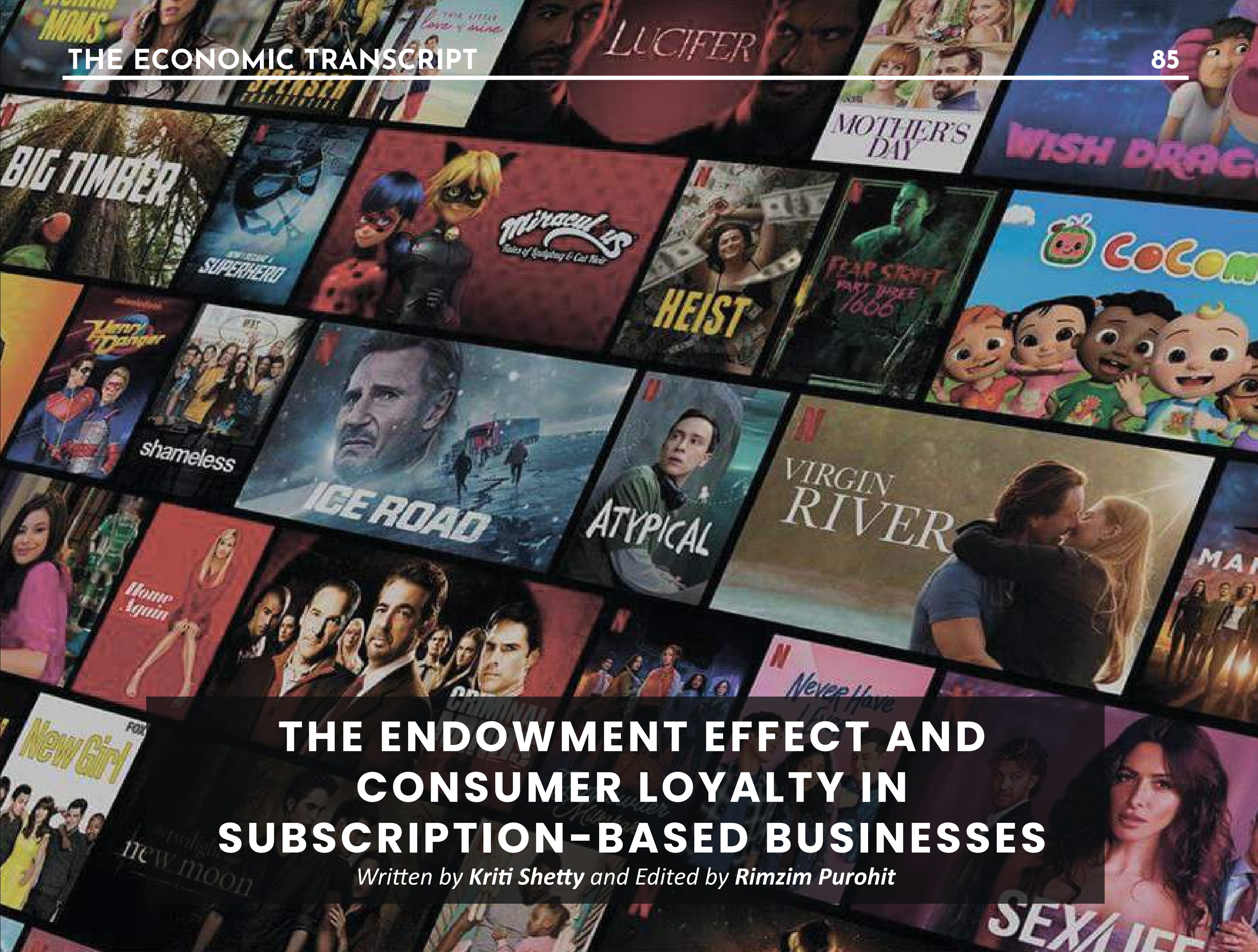


THE ENDOWMENT EFFECT AND CONSUMER LOYALTY IN SUBSCRIPTION-BASED BUSINESSES

*Written by **Kriti Shetty** and Edited by **Rimzim Purohit***

The tendency to place certain commodities higher than their original value is an experience everyone finds themselves in very frequently. Placing a cognitive bias on entities once they gain the status of 'special' or 'memorable' towards the consumer is known as the 'Endowment Effect'.

The term was coined in 1980 by the Nobel Laureate Richard Thaler, who showed how this cognitive bias creates a loss aversion in the perspective of behavioral economics. Initially, the theory was derived by psychologists Daniel Kahneman and Amos Tversky in 1979 under their Prospect Theory. This concentrated on how humans are more motivated to avoid losses rather than pursuing to gain the equivalent reward. Thaler built on this by placing economic value on selling or buying a commodity with emotional leverage. He describes how people tend to assign a higher value to an object once they gain ownership. Essentially, showing how people demand more money for objects they own when compared to the amount of money they would spend for the same if it belonged to someone else.

This phenomenon can be seen in multifarious industries with the central aspect of 'ownership' in all. The largest exploiters of the 'Endowment effect' can be seen in the subscription-based business models.

The Reign of Subscription-based Businesses

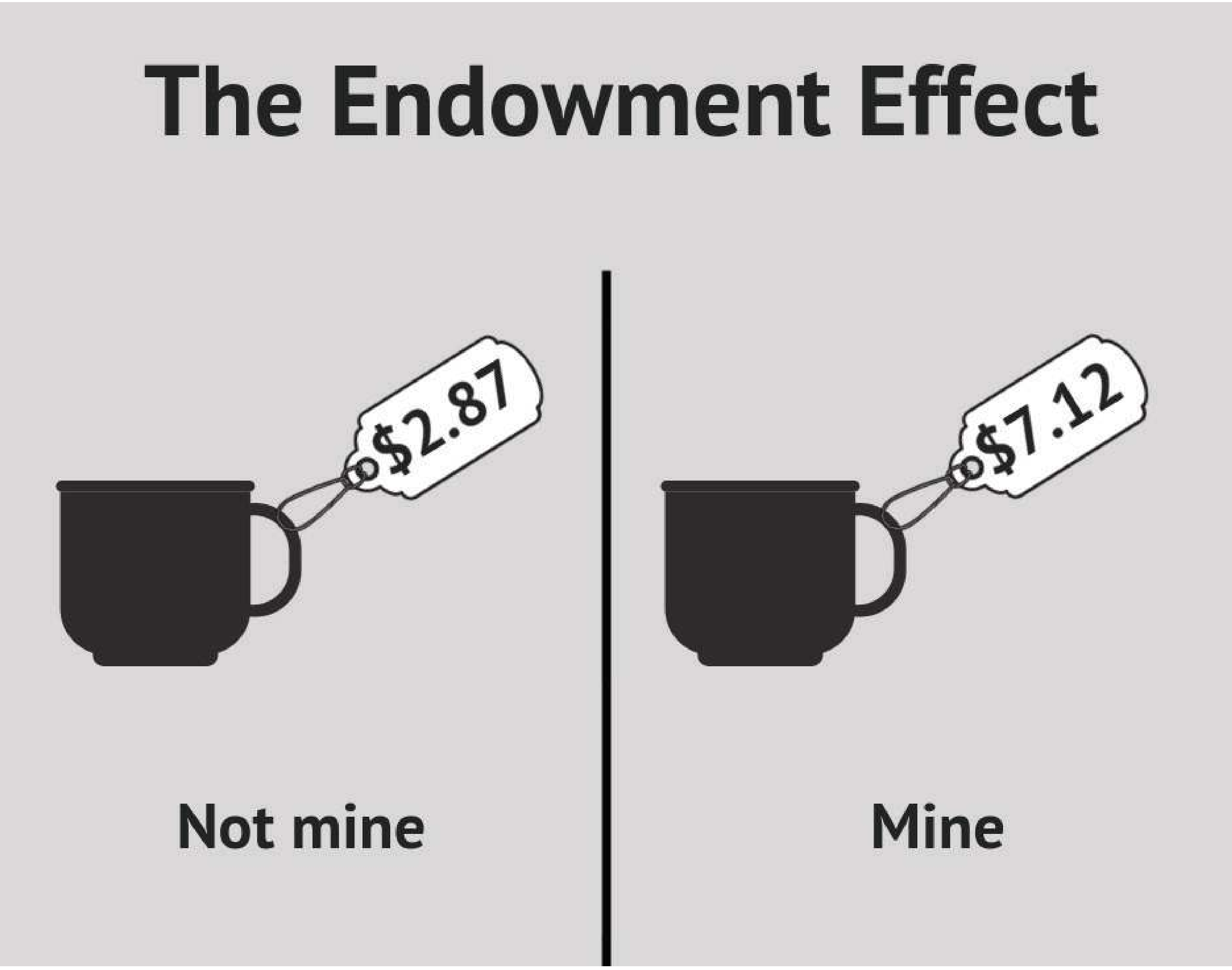
The crux of this business model lies in providing a product or service periodically, often monthly or yearly. Originally, the most popular forms of subscriptions were magazine subscriptions, gym memberships, milk, and renting different forms of media. Nevertheless, with the heightened control of technology in every aspect of our lives, subscription models have placated a huge portion of our lifestyles.

From food to streaming services to medical necessities, the concept of obtaining daily products through subscriptions has fervently found its place in almost every new business venture. According to 2021 data, Americans on average spend over $273 a month on these services. This has only sky-rocketed in the current year. Renowned businesses: Netflix, Spotify and SWIGGY have built dedicated customer bases through this exact model.

But how exactly does the 'Endowment Effect' work in this circumstance?

The Semblance of Ownership

When a consumer has to pay for a service repeatedly, it ends up leaving them with a sense of lethargy.



An example could be buying a physical record of an album. Constantly having to buy multiple albums to create a collection for most people will end in diminishing returns. While the albums may leave a form of attachment (especially if it is their favourite band), the demand for paying for a subscription service which provides a plethora of albums will always override the demand for a singular album. It is easier and more accessible to pay for a singular platform providing a catalogue of different genres rather than paying for a single album periodically. This effect can be seen in our demand for movies, food and even daily necessities.

The idea of 'owning' a huge assortment of products while paying a certain fee on a timely basis, pushes consumers towards the subscription model. The concept gained fruition by giving the option of customization to certain aspects of the service, driving the consumer's notion of ownership.

Another way the theory influences choices is by providing trial sessions to its patrons. After having a time-stricken window to enjoy the benefits of a product, consumers are more likely to come back. This is due to the sense of attachment gained towards the product during their free session. The temporary sentiment of ownership compels the users to remain consistent with the service.

All these faucets supply a loyal customer base with a high churn rate for businesses to have constant profits. A few examples of the business benefiting from this structure are discussed below-

Netflix-

The adored streaming service has become a staple in most households thanks to its overwhelmingly large catalogue of movies, TV shows and even mini-games. The endless influx of new and old media acts as leverage to attract more audiences and regulate the returning user base. This loyalty is only persistent by the way Netflix makes use of the Endowment Effect.

Netflix uses AI segmentation to identify patterns for clusters of people and find similarities in content consumption. This allows them to create a 'community' for each user and provide recommendations according to their preferences. Personalization creates a sense of control for the user.

The ability to rate shows and personalize accounts to create a curated list which inhabits their tastes builds ownership for the consumer, increasing the value they place on their Netflix.

After enabling users to spend so much time curating their tastes and providing a platform of entertainment for a huge customer base, the consumers find it difficult to step outside the platform, caving into the subscription model.

Spotify-

Like Netflix, Spotify thrives on giving users the platform to personalize their streaming experience.

Creating playlists, suggesting new artists and songs by pattern recognition, and the 'Spotify Wrapped' venture all create the source of proprietorship for its users. This constructs a high churn rate towards the website. To continue 'owning' their playlists and enjoy the comfort of a large catalogue, Spotify convinces people to stick to paying the subscription.

Zomato-

The online food delivery service provides its customers with certain loyalty programs to drive the retention of its user base.

By subscribing to 'Zomato Gold' a user gets exclusive access to discounts, faster delivery, complimentary items and many more benefits. This derives a sense of speciality for its consumers and plays into the Endowment Effect for secure customer loyalty. Another initiative was the 'Brand Packs' which offered discounts for the restaurants' customers frequently ordered from.

This approach, although different from the earlier examples, uses similar principles to retain patrons on their platform. By giving the notion of 'speciality' consumers are driven to stick to the subscription plan to maintain the flow of the benefits provided.

Reinforcing the perception of 'Ownership'

The above methods do work to attract customers into the subscription model, however, for businesses to retain a long-term clientele they have to make constant changes to fortify the idea of ownership.

Adding regular updates and keeping up with current trends to modify customer experiences reminds them of the value they are obtaining from the product. Regular communication with the users further encourages the benefits they gain from the service. Creating a space where the consumer is comfortable with the service, makes them place a notion of familiarity, this makes it all the more difficult for them to unsubscribe.

Conclusion

The Endowment Effect is not just a theory found in psychology and behavioral economics; it is a tool that businesses can use to leverage more customers and enhance their customer loyalty.

By practicing and testing this effect, companies can strengthen the emotional connection customers place on their products and in turn, have a higher retention rate for customer loyalty. A more pleasurable and effective experience can result from the strategic management of the Endowment Effect, whether it be through the development of brand communities, tailored communications, or special offers.

The principles used in this theory help businesses understand how to create a platform to interact with its user base. Giving the space for personalization allows businesses to understand their clientele better and simultaneously provides a space for users to have a sense of control and ownership. By doing so, the Endowment Effect builds a more engaging, satisfying, and ultimately successful experience for everyone involved.

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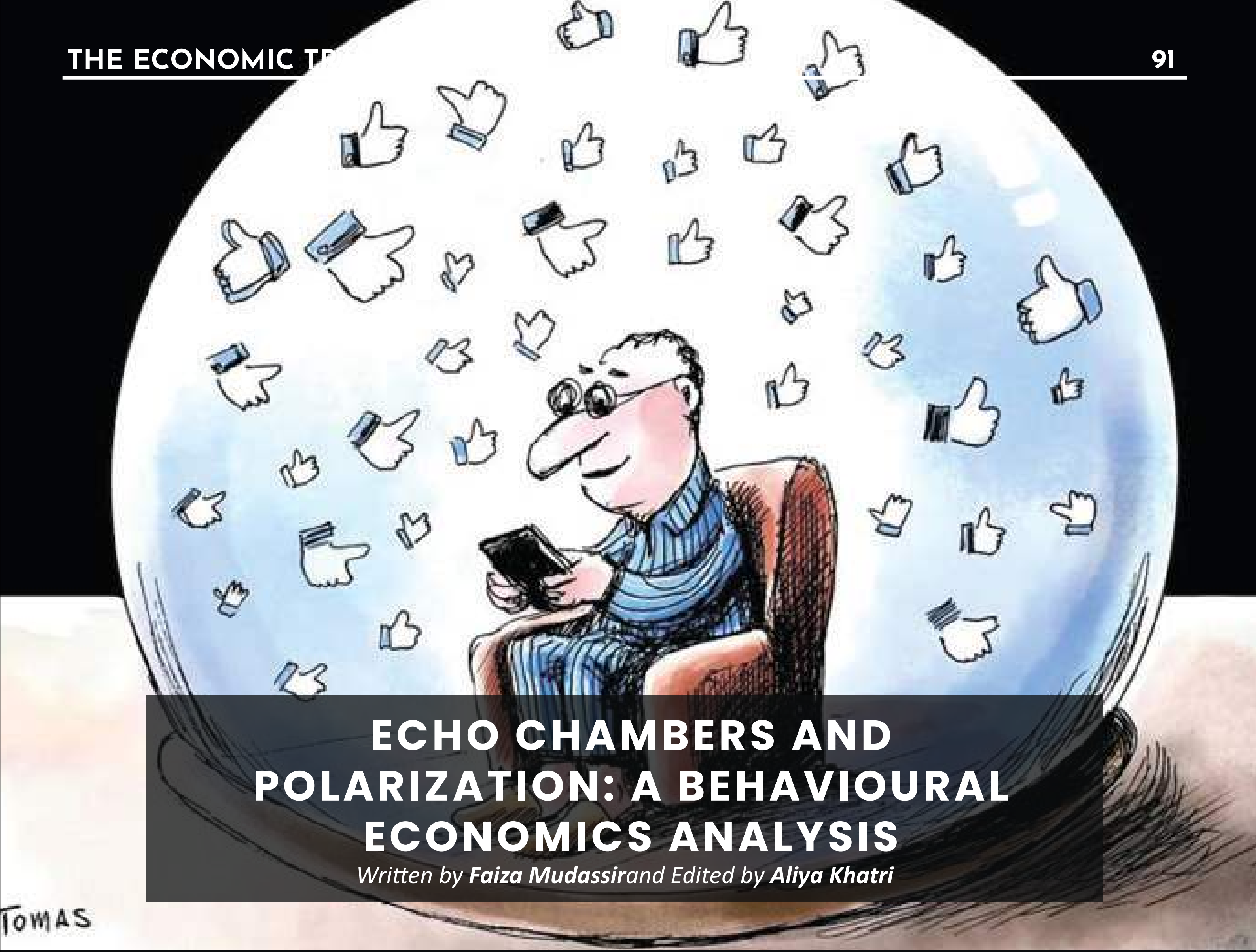
POLITICS



ECHO CHAMBERS AND POLARIZATION: A BEHAVIOURAL ECONOMICS ANALYSIS

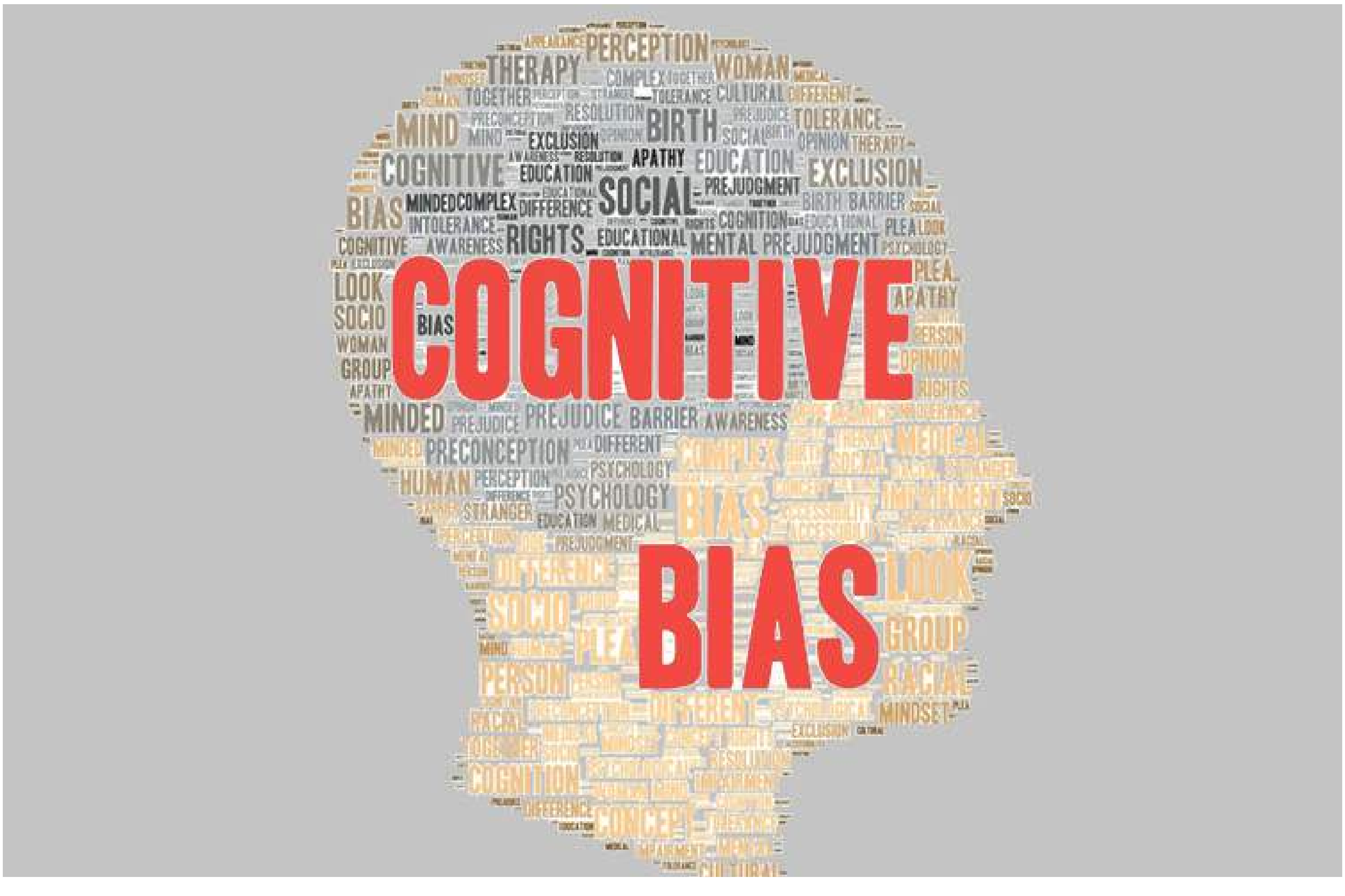
*Written by **Faiza Mudassir**and Edited by **Aliya Khatri***

In an era dominated by social media and digital information, people are increasingly retreating into ideological echo chambers, reinforcing their existing beliefs while shutting out opposing viewpoints. This phenomenon, known as polarization, has profound social, political, and economic consequences. But why do individuals gravitate toward these closed circles? The answer lies in behavioural economics, a field that explores how psychological factors influence decision-making, often leading people to act in ways that are not entirely rational. Unlike traditional economic models, which assume individuals make logical and informed choices, behavioural economics acknowledges the impact of biases, social influences, and cognitive shortcuts on human behaviour.

Echo chambers form when individuals deliberately or unconsciously curate their information sources, surrounding themselves with like-minded people who reaffirm their beliefs. This segregation is fuelled by both psychological tendencies—such as confirmation bias and in-group favouritism—and external forces like social media algorithms. As a result, polarization deepens, making meaningful dialogue and consensus-building increasingly difficult. Understanding the behavioural economics behind this phenomenon helps us not only explain why polarization occurs but also explore ways to mitigate its impact in an increasingly divided world. Behavioural economics blends insights from both economics and psychology to examine the factors influencing real-world decision-making. Unlike neoclassical economics, which assumes individuals have clear preferences and make rational, self-interested choices, behavioural economics recognizes that human behaviour is often shaped by cognitive biases, emotions, and external influences.

Empirical studies have consistently shown that people do not always make the most rational or optimal decisions, even when they have access to relevant information and resources. For instance, many individuals delay investing in retirement plans or neglect regular exercise despite knowing the long-term benefits. Similarly, gamblers frequently increase their bets after both wins and losses, even though probability remains unchanged, revealing how emotions override logical reasoning. This stands in contrast to traditional economic theories, which depict individuals as entirely rational beings with perfect self-control, making only occasional, random errors that balance out over time.

By investigating such patterns through experiments, behavioural economics acknowledges that human choices are not purely logical but are influenced by psychological tendencies and situational factors. This tendency extends to political and ideological polarization as well, where individuals increasingly segregate themselves into groups that reinforce their existing beliefs—a phenomenon commonly known as an echo chamber.



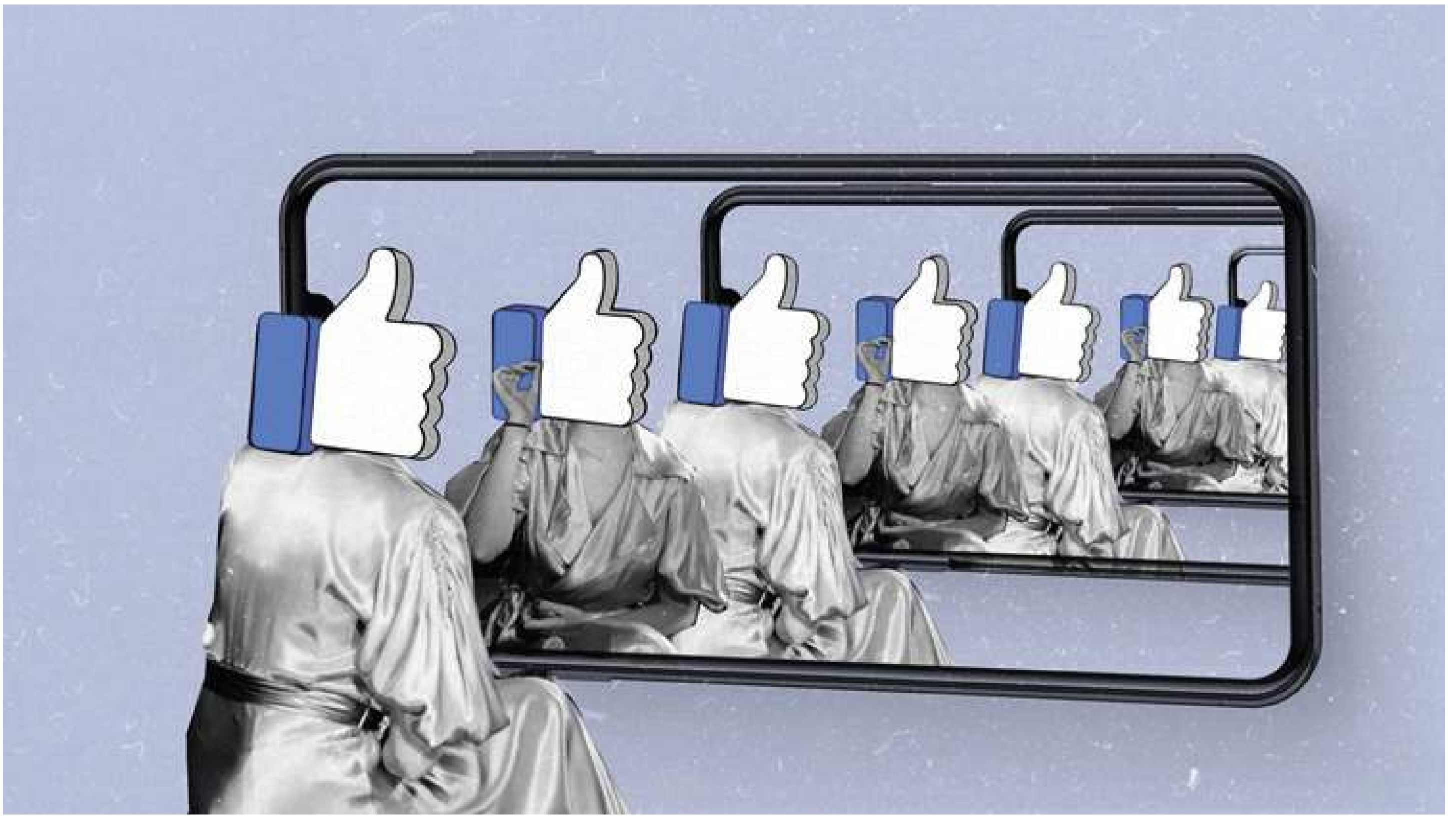
The echo chamber phenomenon has captured the attention of researchers, psychologists, and social scientists alike. At its core, an echo chamber is a closed environment where individuals are repeatedly exposed to information and opinions that align with their existing beliefs, reinforcing their perspectives while minimizing exposure to opposing viewpoints. This phenomenon extends beyond politics, permeating various social spaces and online platforms. Understanding the psychology behind echo chambers requires examining their underlying mechanisms, their impact on society, and potential ways to counter their effects. This tendency to seek reinforcement of one's beliefs is not limited to political or social realms—it is also deeply intertwined with economic factors, particularly economic polarization and income inequality.

Economic polarization, often defined by income inequality, highlights the divide between the "haves" and "have-nots" in society. This disparity in wealth distribution affects many aspects of life, including political affiliations, access to information, and decision-making behaviours. Particularly in developing and underdeveloped countries, economic hardships create an environment where people gravitate towards ideological echo chambers as a means of identity reinforcement and self-preservation.

To understand echo chambers and their influence, it is useful to break the term into two components:

Chambers: Individuals tend to segregate themselves with like-minded people who share similar preferences, beliefs, or attitudes.

Echo: Within these groups, individuals are influenced in a non-rational manner by the reinforced beliefs of those they communicate with.



The psychology behind echo chambers:
A key factor behind the persistence of echo chambers is cognitive bias—the tendency for individuals to favour information that aligns with their existing beliefs, often without realizing it. This selective exposure reinforces preconceived notions while limiting engagement with opposing viewpoints. Recognizing these psychological mechanisms is essential to understanding how echo chambers form and persist.

One of the most influential biases at play is confirmation bias, which causes individuals to interpret and recall information in a way that supports their preexisting views. When people encounter content that aligns with their beliefs, it provides validation and strengthens their worldview. Consequently, they actively seek similar information while disregarding or dismissing contradictory evidence. From a behavioural economics perspective, confirmation bias can be understood through the lens of bounded rationality, where individuals rely on mental shortcuts (heuristics) rather than thoroughly analysing all available information.

Another psychological mechanism contributing to echo chambers is cognitive dissonance—the discomfort experienced when confronted with conflicting information or beliefs. To reduce this internal tension, individuals often reject or avoid information that challenges their perspectives, further entrenching them within their ideological bubbles. Behavioural economics helps explain this phenomenon by recognizing that people are not purely rational decision-makers; they tend to prioritize emotional comfort over objective analysis. The concept of "loss aversion" is particularly relevant here—just as individuals are more motivated to avoid financial losses than to achieve equivalent gains, they also resist losing their sense of certainty and belonging by entertaining opposing viewpoints.

Additionally, social identity theory explains how group affiliations reinforce echo chambers. People naturally gravitate toward communities that share their values and perspectives, as these groups offer a sense of belonging and identity. Within these spaces, members validate one another's beliefs, fostering an environment where dissenting opinions are discouraged. This collective reinforcement strengthens the echo chamber, making it increasingly difficult for alternative viewpoints to break through.

The Decision-Making Process Behind Echo Chambers

People do not enter echo chambers by chance; they make decisions that determine the sources of information they are exposed to. These choices range from major life decisions—such as career moves or relocating to a new city—to smaller, everyday choices like what media to consume, which social networks to engage with, and what topics to search for online. Sometimes, these decisions are made without considering their long-term effects, such as moving to a city primarily for a job offer without anticipating its impact on future political perspectives. In other cases, they are more delib-

erate, such as selecting a school for one's children based on the values it upholds.
From a behavioural economics perspective, these decisions are often influenced by cognitive biases rather than purely rational calculations. Confirmation bias plays a significant role, as individuals tend to seek environments that reinforce their existing beliefs, making them more likely to gravitate toward ideologically homogeneous communities. Additionally, the principle of loss aversion helps explain why people avoid exposing themselves to conflicting viewpoints—just as individuals are more sensitive to financial losses than equivalent gains, they also resist the psychological discomfort of questioning deeply held beliefs. Over time, these patterns reinforce self-segregation, making it increasingly difficult for individuals to encounter diverse perspectives, further fuelling ideological polarization.

While personal decisions shape the formation of echo chambers, the rise of social media has significantly intensified their impact by curating the information people see and reinforcing existing biases.

The Influence of Social Media

The advent of social media has significantly amplified the echo chamber effect. Platforms such as Facebook, Twitter, and YouTube utilize algorithms that curate content based on users' past interactions, creating personalized information ecosystems (Pariser, 2011). As a result, individuals are often unintentionally shielded from diverse perspectives. Furthermore, the rapid and widespread dissemination of information whether accurate or misleading—on these platforms allows certain narratives to gain traction within specific echo chambers, reinforcing preexisting biases and deepening societal divisions.

Addressing the Echo Chamber Effect

Mitigating the harmful consequences of echo chambers requires active efforts from individuals, communities, and digital platform developers. Promoting media literacy is essential, as equipping individuals with critical thinking skills and the ability to assess credible sources can help curb the spread of misinformation. Social media companies can also play a crucial role by refining algorithms to encourage exposure to diverse viewpoints and providing users with tools to recognize and challenge their information bubbles. Additionally, fostering structured discussions between individuals with differing perspectives can promote constructive dialogue and reduce ideological polarization.

Conclusion:

By applying behavioural economics to echo chambers, we gain insight into why individuals continue engaging in environments that reinforce their existing beliefs rather than exposing themselves to diverse perspectives. Just as behavioural economics explains why people delay investing in retirement plans or why gamblers irrationally chase winning or losing streaks, it also sheds light on why individuals gravitate toward self-reinforcing ideological bubbles.

Traditional economic models assume that people act rationally in their best interests, but behavioural economics acknowledges that people are subject to emotion, social influence, and cognitive limitations. Recognizing these factors is crucial in addressing the growing issue of polarization and finding ways to encourage open discourse and critical thinking in an increasingly divided world.

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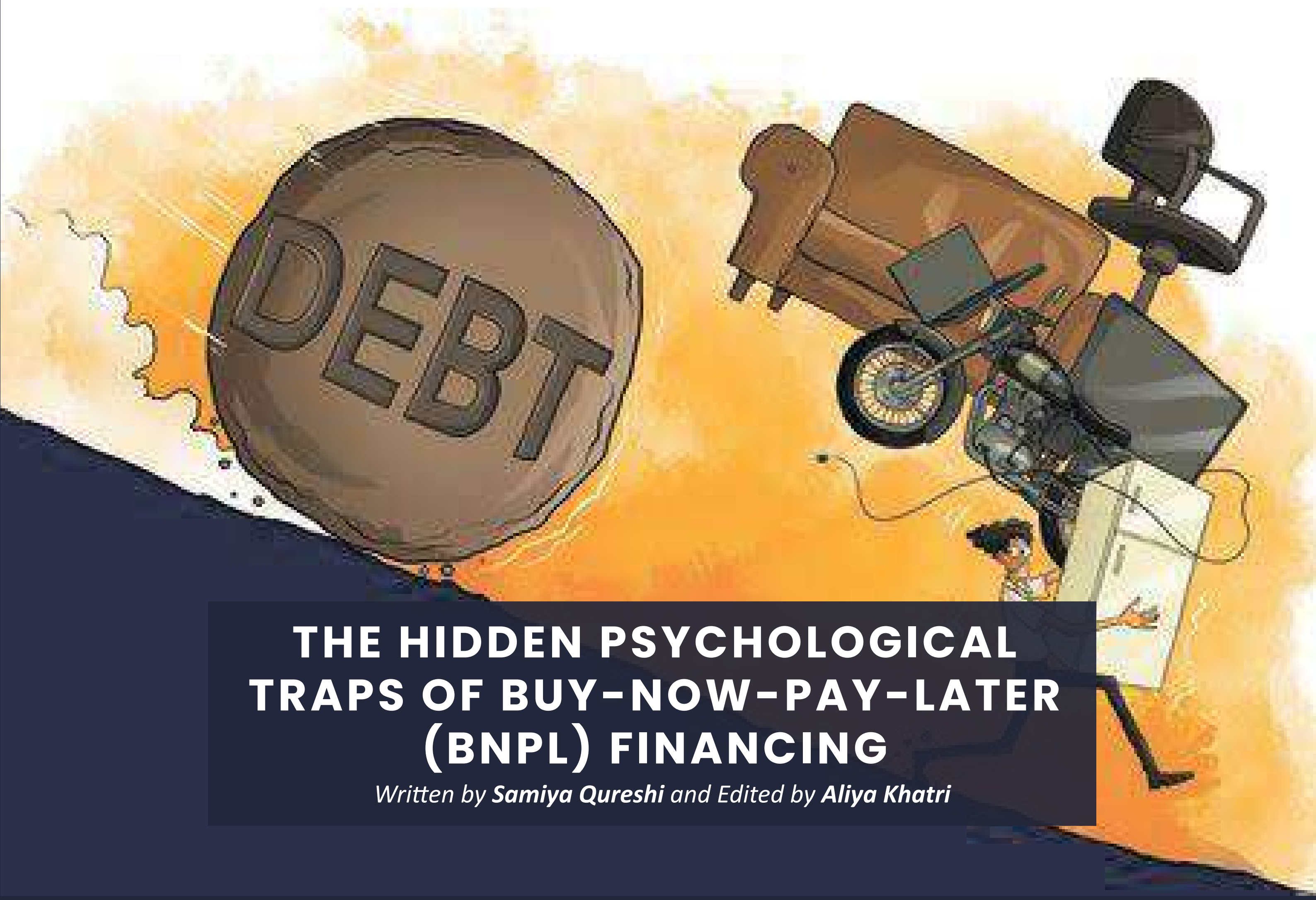
ECONOMICS AND FINANCE



THE HIDDEN PSYCHOLOGICAL TRAPS OF BUY-NOW-PAY-LATER (BNPL) FINANCING

Written by ***Samiya Qureshi*** *and Edited by* ***Aliya Khatri***

More payment choices are available to consumers than ever before, and many of them provide incredibly flexible options as well as various credit financing possibilities. When making a typical credit purchase, most consumers initially preferred to pay with credit cards. Consumers are changing the way they shop, spend money, and think about credit in particular because of BNPL choices at online checkouts, which let them buy now and pay 30 days later, interest-free (Klarna, n.d.-b; Webster & Rees, 2021). Having credit debt is advantageous for a lot of customers. It can ease life transitions and other challenging circumstances, assist customers in achieving lifestyle goals, and help them establish their personal identities. However, credit debt is only a useful financial tool if it is acknowledged as such and, more crucially, paid back on time. For many young customers, this has not been the case in prior years. In 2018, Kredinor, the biggest debt collection firm in Norway, handled 700,000 instances involving past-due notices and received 1.4 million debt collection cases. Remarkably, their data indicates that younger age groups—those between 18 and 25 and 26 and 34—have the highest rates of debt and debt collection growth (Dinero, 2019). Young adults' growing usage of credit, primarily due to an increase in internet buying, is one factor contributing to this development (Dinero, 2019; Kredinor, 2018).

n addition to the expanding usage of credit for most commodities, the prominence of interest-free credit options has been linked in recent years to an increase in household debt and personal bankruptcies, particularly among young individuals (Bauer et al., 2021). Apart from youth, consumers' debt decisions have been found to be influenced by personal views and specific psychological characteristics (Frigerio et al., 2020). Previous studies have identified personal traits including poor self-control and a lack of financial understanding as contributing factors to higher credit. According to earlier studies, consumers who possess these traits are therefore more susceptible to becoming overly indebted (Brougham et al., 2011; Frigerio et al., 2020; Gathergood, 2012; Majamaa et al., 2019).

BNPL, sometimes referred to as Point-of-Sale (POS) financing, is an electronic credit payment system that enables customers to buy products, receive them right away, and postpone payments for up to 30 days without incurring interest. Customers can choose to pay off the amount early, pay in instalments, or postpone the due date with the apps and online client portals offered by many BNPL providers. The big BNPL providers provide services that impose a fee on each transaction for the merchant. In contrast, the consumer incurs no extra expenses as a result of the credit they receive. Only in the event that the customer misses a deadline are additional fees assessed. The bar is lowered for both big and minor purchases when there are no extra expenses (Johnson et al., 2021; Visser, 2021).

The market for BNPLs has grown rapidly in recent years. When a number of fintechs joined the market as payment platforms in 2015 as part of the e-Business expansion, working with top e-commerce retailers to provide credit option choices, the growth accelerated (Capco, 2020; Xing et al.,2019). Especially during the COVID-19 pandemic, the value of BNPL has increased even further. The reason for this is because the epidemic has accelerated the shift to electronic payment methods and internet purchasing (Bullock, 2020). Our decreased mobility as a result of the pandemic has led to an increase in online spending.

Present bias, which represents customers' propensity to place a higher value on instant gratification than long-term financial security, is one of the most important behavioural inclinations driving the adoption of BNPL. By providing rapid access to goods and services without the immediate responsibility of complete payment, BNPL plans take advantage of this prejudice. People find it difficult to strike a balance between their immediate wants and their long-term financial objectives, according to Thaler and Shefrin's (1981) model of self-control. Customers may underestimate the financial impact of accruing repeated BNPL commitments while concentrating on the immediate advantages of purchasing a product, which is made worse by the deferred payment structure of BNPL services.

The optimism bias, which causes consumers to underestimate their future financial constraints, is another significant cognitive bias at work. Despite their uncertain financial status, many people think they will have enough money to fulfil their deferred payment obligations. When consumers take on several BNPL programs without thoroughly evaluating their repayment capacity, this optimism may lead to overcommitment. According to a study by Meier and Sprenger (2010), people who exhibit higher levels of optimism bias are more prone to borrow money in ways that could put them in financial trouble. By providing ostensibly affordable instalment plans, BNPL schemes perpetuate this cognitive error and facilitate consumers' inadvertent debt accumulation.

Additionally, Prelec and Loewenstein's (1998) pain of paying hypothesis sheds light on how BNPL influences customer purchasing patterns. Conventional payment methods, such cash or debit cards, can discourage excessive spending because they immediately produce a sense of loss. However, by postponing the cash impact, BNPL plans lessen the psychological suffering brought on by payments, which results in more expenditure. This is comparable to how credit cards incentivize greater spending than cash purchases. In BNPL services, the separation of purchase and payment lowers the apparent cost of consumption, which may encourage careless financial choices.

By utilizing default settings and frictionless transactions, BNPL platforms' choice architecture further shapes consumer behavior. The cognitive effort needed to opt in is decreased by the smooth integration of many BNPL providers with online and in-store checkout procedures. Consumers are more likely to engage in actions that they may otherwise reconsider under more deliberate circumstances when choices are organized to minimize resistance, according to research on nudging by Thaler and Sunstein (2008). A psychological nudge that promotes impulsive purchases is produced by the automated selection of BNPL at checkout and persuasive messaging like "No interest if paid on time" or "Spread your cost with ease." This design takes advantage of status quo bias, which is the tendency for customers to choose the default choice that is offered to them.

In order to manage their debt levels and negotiate BNPL plans, users must be financially literate. People who are less financially literate are more likely to misunderstand the terms and circumstances of BNPL agreements, according to studies (Lusardi & Mitchell, 2014). Many customers are unaware of the hidden costs, penalties for late payments, and possible effects on credit scores that come with using BNPLs. This problem is made worse by the lack of thorough financial education, which leaves customers open to debt cycles brought on by careless payback planning. Furthermore, customers may overestimate their capacity to maintain several BNPL obligations at the same time because to the illusion of affordability, which makes small instalment payments seem more doable than a single sum.

The social proof effect, in which people are swayed by their peers' purchasing patterns, is another behavioural element impacting debt associated with BNPLs. In order to normalize deferred payments, BNPL suppliers frequently employ influencer endorsements, social media marketing, and testimonies. People are more likely to adopt a behaviour after witnessing others do it, according to research on social influence by Cialdini (2001). Customers who might not have previously thought of instalment financing may adopt BNPL as a result of this social validation impact.

Consumer debt accumulation rises as a result of the perceived popularity of BNPL services, which encourages a culture of frequent borrowing. Individuals typically feel the anguish of monetary losses more keenly than they do the joy of comparable gains. BNPL users may engage in avoidance behaviours, postponing action and letting debt accumulate, when they are unable to make payments on time. Financial difficulty can be made worse by penalties, late fees, and long-term harm to one's credit score as a result of this reluctance to face financial repercussions. The informal and flexible character of

BNPL may encourage repayment procrastination, in contrast to traditional loans, where formal agreements and structured payback plans offer a stronger sense of commitment.

A multifaceted strategy that includes responsible lending practices, regulatory intervention, and consumer education is needed to address the behavioural hazards connected to BNPL scams. Additionally, excessive borrowing by those with low repayment capability can be avoided by undertaking affordability assessments prior to sanctioning BNPL transactions. In conclusion, to reduce the possible risks provided by BNPL schemes there is a necessity of enhanced consumer knowledge, regulatory monitoring, and appropriate lending procedures.

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SPORTS

HOW FAR IS TOO FAR – UNDERSTANDING THE SUNK COST FALLACY

*Written by **Nandini Pillai** and Edited by **Bazilah Kirmani***

Behavioral economics is a field that combines knowledge from both economics and psychology, enabling us to study not just the actions of people in the world, but also their motivations and reasons for behaving the way that they do. The field of behavioral economics evolved from research done by Richard Thaler, a scholar from the University of Chicago. The discipline focuses on studying the difference between what people should do versus what they do in reality, and the subsequent consequences of these actions.

The term “sunk cost” refers to an expense that cannot be recovered even after incurring additional expenses and is one of the most central concepts in the field of behavioral economics. The sunk cost dilemma occurs when an individual is at crossroads trying to decide between investing more money into a project that has failed to produce the desired results or walking away from the project entirely. The sunk cost fallacy occurs when the individual decides without taking into consideration the consequences of the sunk costs.

Most economic theory assumes man to be a rational being, one that operates in his self-interest, that is, to maximize his utility and well-being. Ironically, the entire basis of the sunk cost fallacy is the irrational behavior of man (in actuality).

Often individuals continue to stick with bad or underperforming projects and investments simply because they have already spent so much time, money and/ or effort on it. Such situations can occur in various scenarios across a plethora of fields and disciplines. Most individuals follow through on projects they have invested heavily in, be it via time, money, effort or even emotional energy. This behavior of individuals, to continue incurring costs in the present for a venture where losses cannot be recovered, is a clear violation of the rationality assumption we make in our analysis of their decisions and actions. The sunk cost fallacy can be observed in a multitude of ways in the world of sports, athletics and competition.

A common scenario is the case of parents investing loads of money in youth sports. Often times parents make big investments into the sports training of their children in the hopes that this training will equip their children with the skills required to go pro. However, the likelihood of this happening is slim. According to a report published by LendingTree in 2021, nearly 50% families with income below $35,000 have children participating in at least one competitive activity; and 8 out of 10 parents have been in debt in order to pay for their children's competitive extracurriculars. Some 46% of these parents say that these payments cause stress and turmoil for them. These figures beg the question – are the financial sacrifices made by the parent worth it?

Further, the athletes themselves encounter the sunk cost dilemma. Perseverance, persistence, endurance, and hard work are key tenets to succeed in any sports activity. However, injury and fatigue may occur irrespective of the work an athlete puts in. The sunk cost dilemma comes into play here, for both the players, as well as their coaches and managers.

For instance, in the cases of extreme sports like high-altitude mountain climb-

ing, falling prey to the sunk cost fallacy can have disastrous consequences, like the loss of one's life. Even in sports like gymnastics and figure skating, persevering through an injury (when advised to stop) to finish one's programme can have lasting effects on an athlete's long-term physical and mental well-being. Similarly, managers and coaches of teams also face the sunk cost dilemma when deciding which players will play the game.

Studies have shown that the sunk cost fallacy led to flawed decision-making and managerial inefficiencies in European Football (Özaydin, 2022). Managers in the English Premier League made biased decisions on account of Transfer fees. The study shows that there is a direct and positive relationship between Transfer fees (the cost incurred to transfer a player from one club to the other) and percentage of matches played. The fact that the playing time of a player increases as the transfer fees of the player increase, irrespective of the player's performances in recent matches, shows biased decision-making. An additional factor was the frequent management changes, which resulted in inefficiencies. Interestingly, the study considers the German football league, the Bundesliga, to be missing these inefficiencies and therefore suggests that the effect of the sunk cost fallacy is either not present or rather

The sunk cost fallacy occurs when individuals are unable to let their future view of an investment or project be influenced by past behavior. It occurs as a result of flawed, irrational decision-making. Psychologists attribute the suboptimal outcomes that result from the sunk cost fallacy to several attributes. For instance,

loss aversion, i.e. the idea that avoiding loss is preferable to a potential equivalent game, ensures that people stay committed to failing investments. Commitment bias arises from a lack of willingness to move to newer plans. Oftentimes individuals will justify and rationalize the rejection of a new idea rather than accepting it because as sunk costs increase, it becomes harder to recognize poor decisions.
Further, there is also the case of emotional attachment and excessive optimism that may affect one's personal decision-making processes. The sunk cost dilemma also causes cognitive dissonance, wherein making decisions based on conflicting views can cause discomfort to the decision-maker. Misguided attempts to avoid further wastage of resources also act as a pretty solid motivator toward the sunk cost fallacy.

The sunk cost fallacy can be avoided by evaluating a project, investment or situation in terms of the potential future gains and losses instead of making decisions based on past behaviors. Some argue that considerations about future investment into the sunk cost should be done by exclusively considering future performance, however, such a task is not easy as there are a number of socio-economic factors that affect our every decision. Instead of viewing the sunk cost problem in a very rigid context, one can try reframing the context of the problem. By doing so one can isolate the specific problems that need to be solved and decide if a situation is a sunk cost or not. Creating independent frameworks free of bias to study the situation enables the creation of an analytical environment wherein the sunk cost can be identified and appropriate measures may be taken. Future costs and benefits should be taken into consideration. The opportunity cost of continuing to invest in the sunk cost must be carefully examined. The long-term goals of the endeavor, individual or institution can also act as a strong guide for establishing the value of the continued investment into a particular cost. Similarly, a good understanding of risks as a concept can be beneficial in determining when to stop investing in a failing investment. Further, using data-driven matrices to evaluate a situation or an investment at various stages helps in making informed, unbiased and reliable decisions.

In conclusion, sunk costs are a part of our daily interactions in the world and it is impossible to ignore their existence. It is of the utmost importance that individuals recognize that merely incurring a cost because of the assurance of avoiding a failure over potentially seeing success is foolish optimism at best, and an utter waste of resources at worst. Learning how to deal with and avoid sunk costs can only be done when individuals learn to differentiate between good and bad risks, and learn to practice mindfulness and logic while evaluating the situation.

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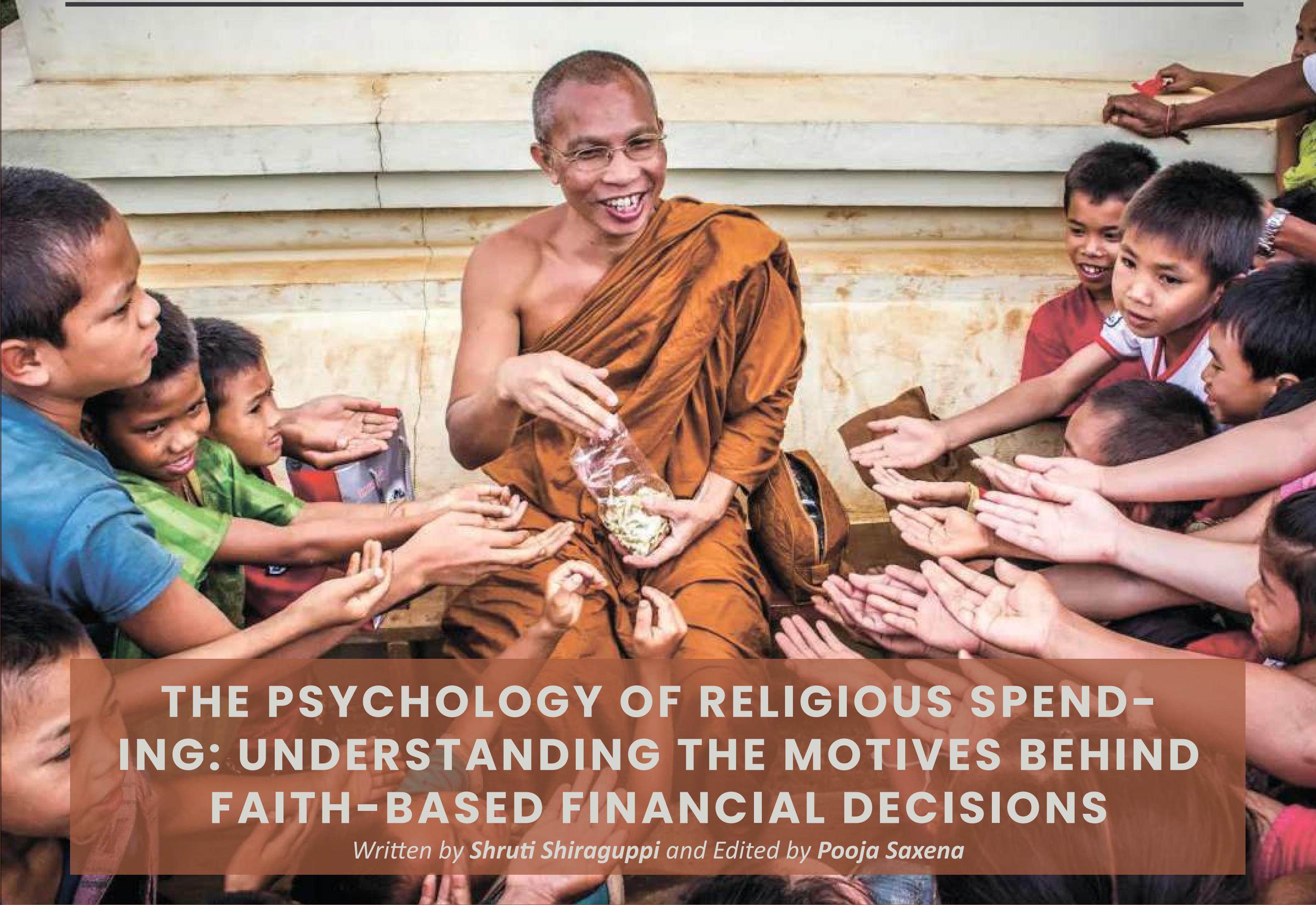
SOCIETY



THE PSYCHOLOGY OF RELIGIOUS SPENDING: UNDERSTANDING THE MOTIVES BEHIND FAITH-BASED FINANCIAL DECISIONS

Written by ***Shruti Shiraguppi*** *and Edited by* ***Pooja Saxena***

The act of religious spending, where individuals allocate financial resources for religious purposes, is a phenomenon that has persisted across cultures and historical periods. Understanding the psychology behind faith-based financial decisions is essential for grasping the broader implications of religion in economic and social contexts.

Religious spending is deeply rooted in various psychological motivations. One of the primary drivers is the concept of "faith and belief". Individuals who adhere to religious beliefs, often view their financial contributions as an expression of their faith.

These contributions can take the form of donations, tithes, or offerings, which are seen as acts of devotion and worship. The belief that giving to a religious cause will result in spiritual rewards or blessings can reinforce the motivation to contribute financially.

The Business of Religion

Religious organisations require financial resources to operate effectively. The business aspect of religion involves managing these resources to support various activities, including worship services, educational programs, community outreach, and facility maintenance. The intersection of religion and business raises ethical considerations, particularly regarding the commercialization of religious activities and its potential impact on spiritual authenticity.

Economic and Social Impact

Religious spending has significant impact on the economy and society. Economically, religious donations and expenditures contribute to the overall financial health of communities through job creation, local business support, and charitable activities. On a social level, religious spending fosters community engagement and social cohesion through programs that benefit individuals and families, including youth activities, educational scholarships, and support services.

Cross-Cultural and Historical Perspectives

In ancient India, religious spending was integral to societal and spiritual life. During the Vedic period, offerings of wealth, cattle, and produce were made during rituals and sacrifices. Kings and wealthy individuals often donated to temples, seeking spiritual merit and social prestige. The practice of dana (charity) involved giving alms to priests, ascetics and the needy, fulfilling moral duties and accruing religious merit. These contributions sustained religious institutions, supported community needs, and reinforced the social and spiritual fabric of ancient India society.

Royal families of princely states also donated generously influencing contemporary philanthropic practices and inspiring modern-day charitable giving, such as donations to temples in the form of gold and other valuable items. Temples not only served religious and social purposes but also functioned as financial institutions. They accumulated significant wealth through donations and used these resources to provide loans to traders and farmers. Temples acted as banks by safeguarding deposited wealth, funding commercial ventures, and supporting local economies. This practice facilitated economic growth and ensured a stable financial system within communities, as evidenced by inscriptions at the Brihadeswar Temple in Thanjavur and literary sources such as “A History of India” by Burton Stein.

The Shirur Mutt Case (1954) was a landmark judgement by the Supreme Court of India that established legal principles regarding religious freedom and state intervention. The court introduced the doctrine of essentiality, which determined essential religious practices. It clearly demonstrates how legal frameworks can impact religious institutions'' financial autonomy and spending practices, ensuring they can manage their finances while adhering to state regulations.

Similarly, the Padmanabhaswamy Temple case addressed the management and administration of one of the wealthiest temples in India. The Apex court ruled in 2020 that the royal family of Travancore should continue to manage the temple, emphasizing the autonomy of religious institutions in handling their significant assets. This case underscores the financial complexities and accountability involved in religious spending, highlighting the importance of transparent and ethical management of religious funds and donations.

Similarly, Waqf was a donation system by Islamic rulers to fund religious and charitable activities. Today, current day Muslims in India and elsewhere, continue this tradition through Zakat and Sadaqah, ensuring community welfare. However, it has been currently under scrutiny due to widespread corruption and mismanagement.

The nature of donations from royal families and waqf Boards reflects their re-

spective historical and cultural contexts. Royal donations were often grand and public, showcasing the wealth and piety of the ruling elite. In contrast, waqf donations traditionally focused on long-term social welfare, though current challenges in management and oversight have complicated their effectiveness.

Psychological and Ethical Considerations
The psychology of religious spending involves complex motivations and ethical considerations. While genuine faith and altruism often drive religious giving, social pressure and expectations can lead to financial strain. Religious organisations must balance revenue generation with spiritual values while ensuring transparency and accountability in fund management.

Another significant factor is the sense of community and belonging. Religious congregations often serve as close-knit communities where members support one another. Financial institutions help sustain the community's activities and infrastructure, fostering a sense of unity and shared purpose. The act of giving can enhance feelings of social connectedness and reinforce one's identity within the religious group.

The psychological benefit of altruism also plays a crucial role. Many religious teachings emphasize the importance of helping others and engaging in charitable acts. By donating to religious causes, individuals can experience a sense of fulfilment and moral satisfaction. This altruistic behaviour is often linked to positive emotions and a heightened sense of well-being.
Understanding the psychology of religious spending illuminates the complex motivations behind faith-based financial decisions. The interplay with faith, community, altruism and ethical considerations shapes how individuals and religious organisations approach financial contributions.

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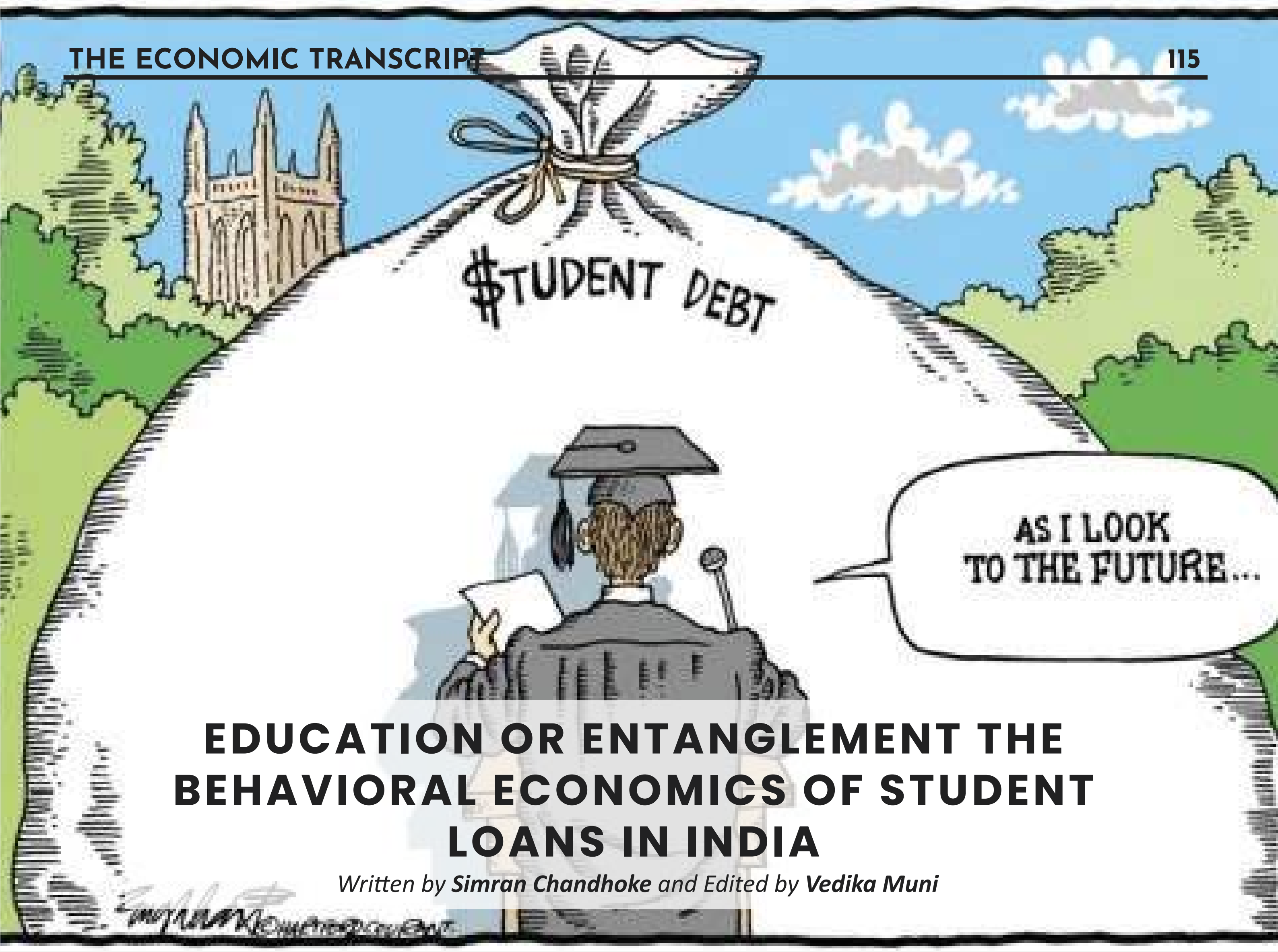


EDUCATION OR ENTANGLEMENT THE BEHAVIORAL ECONOMICS OF STUDENT LOANS IN INDIA

Written by ***Simran Chandhoke*** *and Edited by* ***Vedika Muni***

Student debt has evolved into a major worldwide economic challenge that affects India as much as other nations. The rapid growth of higher education institutions combined with increasing costs has led students to seek loans for financing their education. Structural factors such as the growth of college expenses and economic inflation have spurred the Indian student debt problem, while poor borrower financial literacy remains a key contributing element. According to Behavioral Economics theory, the borrowers' decision-making is typically guided by psychological factors which maintain the debt cycle beyond economic factors. Analyzing the root causes of the crisis involves examining economic factors alongside psychological characteristics that influence how borrowers behave.

The Student Debt Crisis: What Is It and How Did It Happen?

The Indian student loan crisis shows rapid growth in both, the number of borrowers and the loan amounts taken to fund university education. The amount of student loan debt in India increased to ₹1.45 lakh crore throughout 2022 while 12 million students took out education loans. The expanding education expenses in private institutions create a major cause of the increased borrowing among students. Student loans serve as the dominant funding source that enables access to higher education for students from lower- and middle-income backgrounds.

Throughout Indian history, parents pursued education funding as an investment for social advancement, which frequently required accepting financial hardships. The liberalization of India's economy together with worldwide job opportunities has heightened the necessity for individuals to pursue advanced education. The prevalence of competitive exams and the need to attend prestigious universities have made borrowing for education almost inevitable for many students.

The Economic Implications of Student Debt

These debts affect the economy in deeply spread-out ways. Many people view education as an investment yet students often find the return on their investment (ROI) to be uncertain. Students graduating from Indian institutions with low reputations face a salary dilemma because their earnings fail to cover increasingly demanding debt repayment responsibilities. Graduates in India receive starting salaries ranging from ₹3 lakh to ₹6 lakh annually but these figures fall below the average loan repayment amounts demanding ₹10 lakh or higher from students who attended prestigious institutions.

Such income and debt imbalances create substantial economic effects on the system. Undergraduate debt causes severe restrictions for students who can neither save, invest nor support economic growth. The late payment of loans results in negative impacts on borrowers' credit scores thus leading to reduced access to future financial opportunities.

Economic problems in the country become more serious because of growing student loan defaults. A study from the All India Survey on Higher Education (AISHE) indicates that 70% of Indian loan borrowers fail to repay their debts on schedule which causes lending institutions to experience increasing non-performing asset problems. The deficit in student loan payments creates financial stability challenges for India's economic framework while elevating borrowing expenses for succeeding university students.

Behavioral Economics and Borrower Decision-Making

The decision-making process regarding student loans becomes more understandable through behavioral economics theory which unites psychological data with economic principles. Students and their family members in India frequently sign loan agreements primarily based on incomplete awareness of lasting implications.

Optimism Bias: Borrowers who are first-generation students along with others commonly underestimate the difficulties they will experience when paying back their student loans. Graduating students display unrealistic expectations about instantly getting high-paying employment although they face substantial competition in the job market. This bias leads to over-borrowing, with students taking loans that are far beyond their immediate repayment capacity.

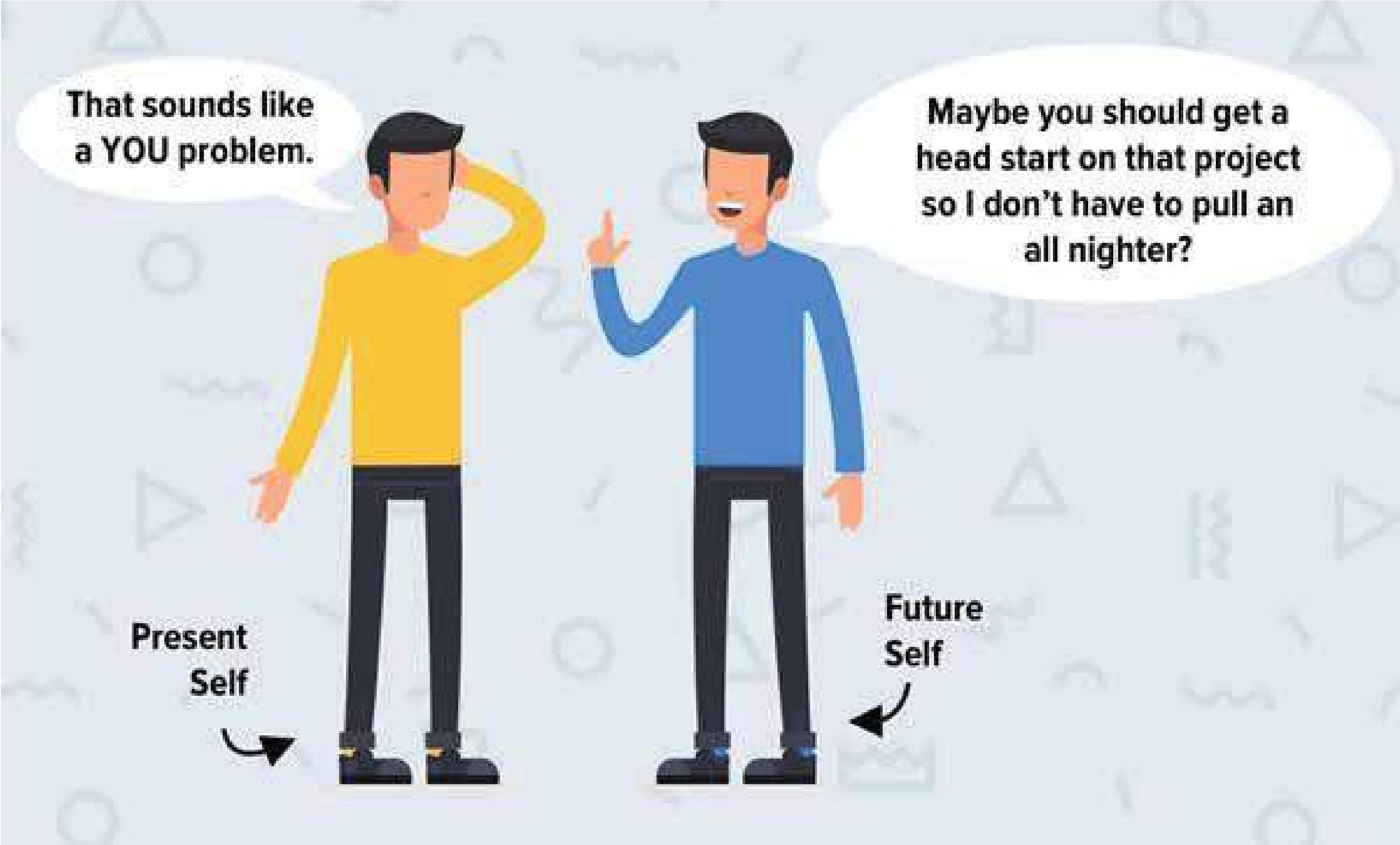
Present Bias: Numerous borrowers demonstrate present bias through their tendency to seek immediate satisfaction over enduring future outcomes. Student borrowers select education loans even though they fail to properly assess their future debt obligation burden. Students tend to emphasize the short-term advantage of receiving a degree from a prominent university instead of evaluating the long-term consequences of student loan repayments properly.

Lack of Financial Literacy: Financial illiteracy at both individual and family levels stands as a core inhibitor for students to make better choices concerning their financial situation. Students often lack sufficient knowledge about the details of their loan agreements which include interest rates together with repayment terms alongside payment penalties. Poor borrowing choices made by students due to financial ignorance lead to increased debt accumulation.

Anchoring Bias: The psychological factor of anchoring bias functions as another behavioural influence on borrower decisions. Students typically measure their loan debt against financial aid provisions provided by competing educational institutions and foreign programs. Students who assume borrowing ₹10 lakhs is appropriate since counterpart educational institutions abroad typically grant similar

Edu Loan NPAs (as of Dec 2020)

Stream	Loan Outstanding*	NPA amount*	% of NPAs*
Medical profession	Rs 10,147-cr	Rs 633-cr	6.20%
Engineering	Rs 33,316-cr	Rs 4,042-cr	12.10%
Nursing	Rs 3,675-cr	Rs 520.2-cr	14.10%
MBA	Rs 9541-cr	Rs 685.5-cr	7.20%
All Others	Rs 28,286-cr	Rs 2,383-cr	8.40%
Total	**Rs 84,965-cr**	**Rs 8,263-cr**	**9.70%**



amounts might choose inferior loan options because of this global benchmark.

Implications and Future Directions

To address the student debt crisis, policymakers need to account for both economic and psychological factors. While raising awareness about financial literacy is a key solution, changes to loan structures and repayment options are equally important.

Loan Repayment Flexibility: A new option for loan repayment should incorporate flexible arrangements linked to borrowers' earnings. The implementation of an income-driven repayment (IDR) system enables borrowers to make loan payments proportional to their earned income thus minimizing defaults through more feasible payment amounts. Improved Financial Literacy: The nation must launch a broad-scale educational effort to teach people about loans along with interest rates and debt control practices. Schools together with financial institutions should provide financial literacy courses to students through joint programs that help students understand loan effects in the long term.

Behavioural Interventions: The government can use behavioural motivational techniques to provide borrowers with notices about repayment deadlines and default risk together with financial planning information. Strategies that enhance loan comprehension along with "default" features such as lower-interest-rate options will enhance borrowing choices for loan recipients

Alternative Funding Models: The adoption of income-share agreements (ISAs) and government-backed scholarships represents the final alternative funding model to explore. Such financing systems need reduced initial debt amounts and give students flexible and secure payment options.

Conclusion

The student debt crisis in India exists due to ineffective behavioural patterns and suboptimal decisions taken by borrowers. The student debt crisis generates extensive consequences which affect both personal economic stability and general economic stability in India. A solution needs multiple elements which unite economic development with direct behavioural adjustment methods. India can resolve the escalating student debt challenge by improving financial education while developing flexible repayment schedules and applying principles from behavioural economics to benefit future students.

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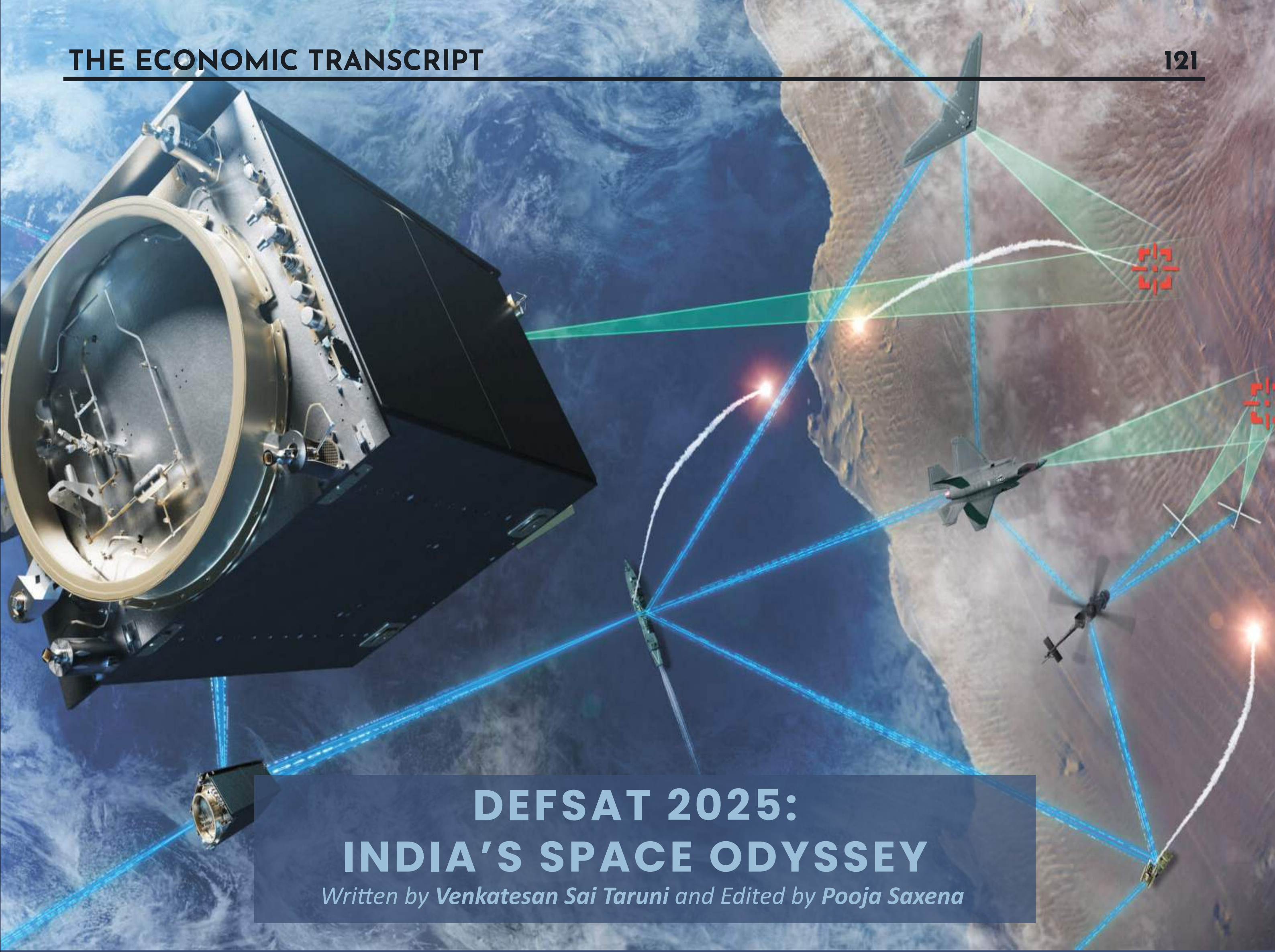

DEFSAT 2025: INDIA'S SPACE ODYSSEY

Written by ***Venkatesan Sai Taruni*** *and Edited by* ***Pooja Saxena***

India's Planetary Movements to advance space interests

DefSat is a space seminar and exhibition of emerging technologies, advancements in the space sector and the culmination of agencies, startups, and private players in the space sector. Officially launched in 2023, India has successfully exhibited the 3rd edition of the DefSat in 2025 bringing together space experts, defense officials, private sector leaders, and policymakers to advance India's space sector. The DefSat 2025 was a three-day conference organized by the SatCom Industry Association, India (SIA), along with prominent collaborators such as the Defence Research and Development Organisation (DRDO), the Astronautical Society of India, and others, held between January 8, 2025 and January 10, 2025 attracting about 500 delegates and participants for knowledge dissemination, industry exhibitions, and technology explorations woven in the theme of ***"Integrated Space Capabilities for Multi-Domain Operations."***

Key highlights of the event include the keynote speeches setting the context of India's growth in the space sector, a host of thematic discussions spanning from the themes of cybersecurity to the application of artificial intelligence in multi-domain security areas, the inaugral knowledge series through the launch of The Space Economy Handbook, and the most appealing IndSpace Wargame 3.0 simulation exercise addressing and tackling real-life security issues (Singh H., 2025). During the event, several partnerships and collaborations emerged especially the signing of the Memorandum of Understanding (MoU) between the Data Security Council of India and the SIA India, aiming to achieve three major goals: efforts in building specific skill sets, encouragement of cybersecurity aspects in the Indian space industry, and leverage market research to attract further partnerships, collaborations, and prospects within the space industry (Singh H., 2025).

Spotlight on pivotal areas of discussion

The occasion discussed 13 diversified thematic areas covering AI-powered space technologies, quality standards, maritime security focus, satellite communication systems, investment and funding strategies, and simulation exercises. Some of the dominant highlights are described below.

Thematic Area in DefSat 2025	***Brief Description***
AI-Enabled Mosaic Warfare: Transforming Multi-Domain Operations for Next-Gen Defence Space	Focuses on the application of the latest computer technology, such as machine learning, the role of artificial intelligence, advanced data analytics of satellite data, and real-time data across security areas in space technologies to enhance operational duties.
Pillars of Strength: Foundational Technologies for Defence Space Resilience	Highlights on fundamental and critical space technology needed for efficient combating systems across land, sea, space, cyber areas, and national borders.
Understanding Military-Grade Standards: Certifications Processes for India's Defence Space Sector	Outlines the prominent certification agencies for defense technologies and space equipment, streamlining the processes, criteria, licensing, procedures, and institutional agencies for quality standards.
Securing Turbulent Waters: Space-Powered Maritime Strategies	Integration of space technologies, satellite systems for maritime surveillance, coastal operations, and sea security.
Another session, Secure Satcom: Enhancing Military Comms	Enhancing satellite communication systems for space missions, military operations, and space communication technologies
Harnessing Space Technologies for Comprehensive Homeland Security	Encouragement of space-based information systems to safeguard national borders, empower resilience, emergency tactics, operational rescues, and training of security representatives.
Defence Space Innovation: Venture Funding and Investment Opportunities	Attracting funding opportunities through private investments, a boost of space startups, venture capital, and public-private partnerships for research, development, and innovation in space technologies.
Space-Enabled Land Warfare: Enhancing Army Operations Tech Brief	Understanding the interrelation, integration, and intersection of land security through space-enabled systems for accurate geomapping military exercises, missions, and operations.
Non-Kinetic Space Warfare: Securing National Space Capabilities	Advancing security intelligence through electronic media, computing systems, and energy instruments for defensive strategies.
Cyber Shield for Space:	Strengthening digital infrastructure through
Integrating Space and Cyber	cyber security technologies, policies, risk awareness systems, and reducing cyber threats.

Thematic Area in DefSat 2025	*Brief Description*
Harnessing Space Capabilities for Aerospace & Precision Strike Missions	Examining the aerospace combating strategies, integration of space-induced networks such as drones,and altitudinal combating systems for resilient air defense.
Advancing Sensor Subsystems and Payloads for Space Application	Collating space data through data platforms, observations, sensor technologies, and applications for data maintenance.
ndSpace Wargame 3.0: Global Perspectives on Space Security Challenges	Tackling space security challenges and opportunities through collaborative efforts by military and defense experts across various nations.

Connecting nations through space partnerships

India has been navigating geopolitical ties to accelerate innovations, technologies, and investments for the space sector. In November 2024, India partnered with the US for the PRISM 1.0 seminar, highlighting the ITAR and MTCAR regulatory frameworks, collaborations between SIA India and IndUSTech Council, and expanding the space network towards Australia, Japan, and Germany to spark space innovations (Writer, 2025). Moreover, India has been advancing its space ties with Africa, evident from the MoU signed between SIA India and Ghana Space Science and Technology Institute for training and orientation in space technologies (Writer, 2025).

Exploring India's Space Legislation and Policy Frameworks

Are space explorations legal and ethical? Major concerns regarding space explorations, space missions, and related activities include adverse environmental impact in space such as the release of harmful gases, accumulation of space debris, contamination of space areas, and damage to the space layers. Several space research scholars raise the question of whether space defense and space technology are needed in the 21st century. In a global context, where nations, communities, and international organizations embrace peace, safeguarding basic human rights such as clean air to breathe, safe housing and shelter, and protecting national borders, space exploration paves the way for an ethical dilemma. However, space research and space technology have emerged as one of the dimensions of human security, where space security culminates and broadens the overall national security. From safeguarding coastal, land, and air borders to exploring space, regulatory implications, legislative pushes, and institutional approaches bridge the gap between advancing national interests and human rights.

India needs to strengthen legal frameworks and institutional capacities related to space activities such as space technology regulation, space agencies, innovation and research in space equipment, and space missions, owing to the vision of becoming a space superpower. In 1969, India introduced its first domestic space regulation policy, establishing the Indian Space Research Organisation (ISRO) through the Indian Space Research Organisation Act, 1969. The act specifies the functioning, framework, and responsibilities of ISRO, such as advancing space activities through research and development, launchin satellites, drafting regulatory procedures for space equipment (Ganesh. M, 2023). In addition, the Satellite Communication Policy of India (2000) envisages the coordination among nodal agencies for smooth satellite communication and network systems, proposing cutting-edge space technology and applications, formulating safety standards and guidelines, and licensing space equipment (Ganesh.M, 2023).

Similarly, in 2011, the Remote Sensing Data Policy was proposed, easing the imaging process, regulations, and restrictions, wherein the images taken from defense sites could be utilized for private purposes by the government agencies (Raza & Khan, 2023). Encouraging the private players for investment in the space sector, space technology advancement, and risk mitigation for space missions, the Space Activities Bill was initiated in 2017 (Raza & Khan, 2023). In a more recent addition, with the establishment of a space association named the Indian National Space Promotion and Authorization Centre (IN-SPACe), commercialization of the space sector specifically for licensing of space equipment, and development of the latest space technologies, the India Space Policy, 2023 touches upon the areas of conflict management, private sector involvement, investment, and incentive-based space funding (Raza & Khan, 2023).

Institutionally, India's space activities are largely governed by the government-instituted agencies, defense agencies, and space research-related organizations. Some of the prominent space agencies include ISRO, Department of Space, Government of India (DoS), Indian National Committee for Space Research (INCOSPAR), and the IN-SPACe. ISRO predominantly operates in the implementation, execution, planning, and development of space missions such as Chandrayaan-3. While the Department of Space acts as a coordinating agency for space technology along with the Ministry of Electronics, the Ministry of Information Technology, and others. INCOSPAR was the foundational space agency which later transformed to ISRO. Likewise, IN-SPACe is a single apex agency, under the Department of Space involved in space policy formulation, attracting private investors, funding space technology, and developing space equipment (Ganesh.M, 2023).

Conclusion

Through the dissemination of expert knowledge, collaborative partnerships, welcoming private sector involvement in space sector advancement, and strengthening traditional security bases such as land, sea, air, space, human security, and national borders by embracing digital technologies and ethical, legal usage of artificial intelligence, significantly fosters a space ecosystem in India. Aspiring for skilled professionals, enabling opportunities through prospective partnerships, funding, and incentivizing manufacturing hubs for technologies such as remote sensing, drones, defense equipment, cybersecurity systems for private companies and space startups boosts the space sector. Moreover, India, through such initiatives, aims to establish, strengthen, and transform the security portfolio into resilient security systems. Fostering talks, webinars, expert collaborations, and the exhibition of realistic space models and simulations showcases India's space aspirations, developments, and boosting initiatives.

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REWRITING THE MOON'S LEGACY: THE ARTEMIS PROGRAM AND THE FUTURE OF EXPLORATION

Written by ***Yumna Fatima*** *and Edited by* ***Neelambika Kumari Devi***

By combining behavioural economics, strategic multinational alliances, and state-of-the-art technology, the Artemis Program marks a paradigm shift in space exploration. Artemis, named after the Greek goddess of the moon, represents humanity's mission to establish a sustainable presence beyond Earth and its return to lunar exploration. In contrast to earlier lunar missions, Artemis will be launched with long-term objectives in mind, encouraging financial rewards, risk mitigation, and international collaboration. NASA's Artemis program intends to send people back to the Moon by utilizing these tactics, setting the stage for future Mars missions and a long-term lunar presence. Global participation in the cosmic economy is being reshaped by the 2025 goals, which act as both an economic stimulus and an ideological turning point.

Artemis is an essential next step in human spaceflight because of the tremendous evolution of space technology and international cooperation since the Apollo missions. The Artemis Program, in contrast to its predecessor, aims to create a permanent presence on the Moon instead of making one-time landings. This program lays the groundwork for future human missions to Mars and beyond while also supporting NASA's overarching goal of deep-space exploration. In addition, Artemis hopes to motivate the upcoming generation of engineers, scientists, and astronauts by highlighting the contribution of space exploration to technical advancement and economic expansion.

Objectives

The foundation of NASA's Artemis program is strategic diligence, which holds that short-term efforts pay out in the long run. The following are the main goals for 2025:

1. For the first time since 1972, Artemis III will land humans on the Moon. It will target the lunar South Pole, which is abundant in water ice and crucial for in-situ resource utilization (ISRU).

2. The Artemis missions aim to test new ventilatory support structures spacesuits, and surface shelters that would eventually enable longer lunar stays, thus enhancing human spaceflight expertise.

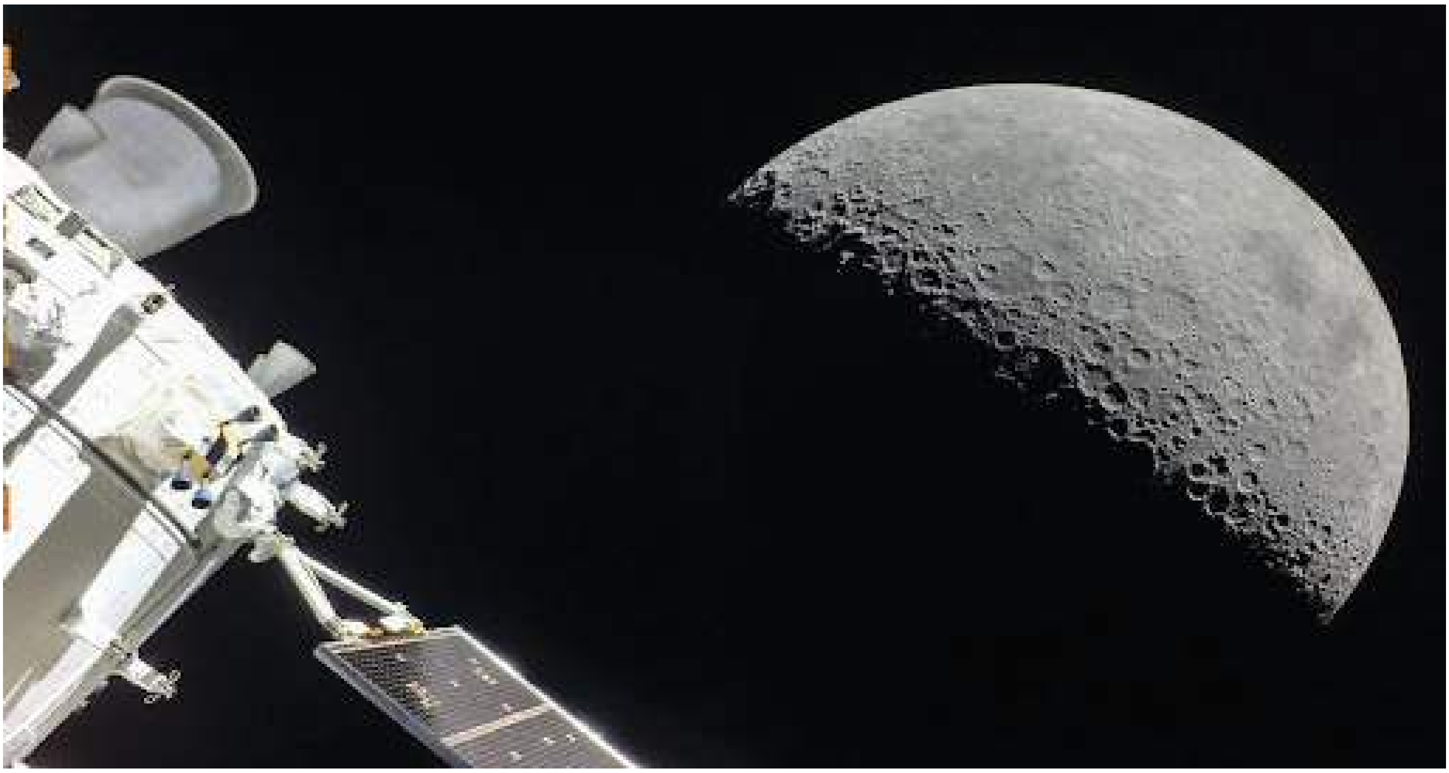
3. Scientific Research and Technological Illustration: The program will concentrate on lunar geology, ice mapping, and regolith research, providing economic insights into the viability of ISRU and lunar mining.

4. Creating a Sustainable Lunar Economy: In order to encourage sustained expenditures and inventiveness, NASA wants to include the private sector in lunar exploration.

5. Mars Preparation: Deep-space logistics, conservation, and astronaut wellness studies will all be strengthened by the technology created and tested during Artemis missions, which will form the basis for future crewed trips to Mars.

Milestones 2025 and beyond

According to behavioural economics, public-private engagement and dedication are increased when milestones are framed as stepping stones toward great-



er accomplishments. Important Artemis benchmarks for 2025 consist of:

Artemis I Recap: The Space Launch System (SLS) and Orion spacecraft successfully underwent an uncrewed test, demonstrating the dependability of the system.

The crewed lunar flyby mission Artemis II (2024–2025) will test mission safety and life support technologies.

Late in 2025, Artemis III will make a noteworthy lunar landing with humans, emphasizing technological affirmation, resource use, and expedition.

“Artemis will be the broadest and most diverse international human space exploration program in history, and the Artemis Accords are the vehicle that will establish this singular global coalition (NASA Administrator Jim Bridenstine said in 2020 when the Accords were founded.) With today’s signing, we are uniting with our partners to explore the moon and are establishing vital principles that will create a safe, peaceful, and prosperous future in space for all of humanity to enjoy.”`

The ongoing building of the Lunar Gateway, an adaptable space station in lunar orbit that will act as a logistics centre for upcoming missions, is known as ***Gateway Development.***

International Collaboration and Global Partnerships

Game-theoretic cooperation, in which reciprocal advantages promote long-term cooperation, is best shown by the Artemis Program. Signed by more than 30 countries, the Artemis Accords offer an umbrella for sharing scientific knowledge and peaceful lunar activity.

Important foreign contributors:
The Orion spacecraft's European Service Module, which guarantees dependable propulsion and life-sustaining systems, is provided by the European Space Agency (ESA).

Japan Aerospace Exploration Agency (JAXA): Helping with robotics and Gateway logistics.

The Canadarm3, an autonomous robotic system for Gateway, was contributed by the Canadian Space Agency (CSA).

Private Sector Players: Essential launch, landing, and habitation technologies are supplied by SpaceX, Blue Origin, and other business partners.

Similar to strategic alliances in economic markets, the involvement of foreign businesses reduces financial risk while promoting technical exchange. Additionally, by fostering a common vision for the viable and humane use of space resources, ***Artemis improves diplomatic relations.***

Challenges and Risks

Artemis has a lot of obstacles in spite of its lofty plan. Key categories of risk are identified using a behavioural economic analysis:

Financial Uncertainty: Budget overruns and fluctuating political objectives are common problems for large-scale space programs. Clear economic incentives are necessary to guarantee the stability of investments over the long run.

Technological Challenges: In order to fulfil mission deadlines, the Human Landing System (HLS) and Gateway need to undergo a great deal of testing and improvement.

Geopolitical Risks: The emergence of rival space initiatives (such as China's lunar aspirations) could cause a change in global alignment and impact the dynamics of cooperation.

Astronaut Safety and Health: Extended lunar missions necessitate improved countermeasures since they expose astronauts to radiation, microgravity effects, and psychological pressures.

Public and Political Support: Securing steady funding and policy alignment for Artemis depends on maintaining public interest and political support.

Economic and Scientific Impact

From the standpoint of behavioural economics, Artemis encourages investment in emerging technologies by acting as a commitment device. Important scientific and economic advantages include:

Utilization of Lunar Resources: ISRU technologies have the potential to save expenses and establish sustainable supply chains for missions to Mars and the Moon.

Commercialization of Space: Artemis encourages private businesses to develop new ideas, leading to improvements in robotics, propulsion, and space habitation.

Scientific Discovery: Planetary research and resource planning are improved by knowledge of lunar geology and the Moon's function in the evolution of the solar system.

Workforce Development: By promoting STEM education, the initiative increases technological advancement and generates high-skilled jobs.

Investment in Space Infrastructure: From communications via satellite to potential projects for asteroid mining, Artemis's development of lunar infrastructure may open up new business prospects.

The path forward

Artemis must continue to be flexible in the face of political and technical change while guaranteeing ongoing support from public and private stakeholders. Preventing delays in mission timeframes will require securing long-term support through steady budgetary allotments and private investments. By enhancing participation in the Artemis Accords, encouraging diplomatic cooperation, and securing multilateral agreements that safeguard space as a shared resource, NASA and its partners should keep advancing international cooperation. Another important factor is public participation; using behavioural economic concepts like social incentives and strategic framing can help sustain political support and public interest. Furthermore, ongoing advancements in robotics, spacecraft, and resource use will reduce costs and improve mission effectiveness, guaranteeing Artemis' long-term viability.

Building infrastructure, such as fuel depots and lunar bases, will be crucial for sustainable exploration as mankind expands farther into space. With a combination of strategic vision, financial investment, and international cooperation, Artemis is more than just a return to the Moon; it is the first step toward Mars and beyond, influencing the direction of human spaceflight in the future.

Conclusion

The 2025 objectives of the Artemis Program, which combine financial incentives, technological aspirations, and international collaboration, represent a significant advancement in lunar exploration. NASA and its partners can secure Artemis' long-term success and pave the road for humanity's continued presence beyond Earth by implementing behavioural economics concepts, including as risk-sharing, strategic commitments, and incentive structures. The choices made now will determine the direction of space exploration in the future, and Artemis is a game-changing investment in that direction. Artemis has the potential to completely transform humanity's relationship with the Moon and beyond with the help of robust international cooperation, strategic economic planning, and public involvement.

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EDITORIAL

DECODING THE FAN ECONOMY: HOW PSYCHOLOGICAL TRIGGERS INFLUENCE CONCERT TICKET PRICES AND MERCHANDISE SALES

Written by ***Bhoomi Kagdada*** *and Edited by* ***Helee Thaker***

Google's definition of a Fan economy is 'a business model that generates revenue by targeting the relationship between fans and celebrities or brands.' While it might seem like an abstract concept or minor in scale, real-world data paints an entirely different picture. If it weren't for concepts like these, it would truly be hard to explain why your X timeline or conversations around you look something like this: "Hey, man, did you manage to get the Coldplay tickets?", "No pal, I need the VIP tickets to Diljit's show, or I am not going!" and "Hey, did you check for tickets on this site, it looks legit!" From crazy admirers to FOMO gangs to younglings under peer pressure, the concert culture is taking on a whole new meaning in today's day and age. There'd be no other scenario to best describe how the fan economy is thriving than the inflating concert tickets & related merchandise sales or fan parks.

Ticketing for concerts depends on a wide range of factors but is not immune to classic economic concepts. The principle of demand and supply is as evident over here as it is in the case of other luxuries or necessities. The popularity and marketability of the artist create a high demand. As a result, a humongous crowd is willing to pay their coffers off to witness their favourites singing live, especially when their tours are fewer in number and limited to only certain locations. With stadium or ground venues usually crunched up with limited seats, the game gets interesting. Tickets for concerts in stadiums are usually priced from lowest to highest. The lowest tickets take you to the far end of the stadium i.e., the topmost or side seats while the high-priced tickets are meant for the ground near the stage or special view box providing a clear-shot view of the stage performance. Ticketing platforms bank on the number of fans and the spending power of the population at the location for pricing their tickets, for example, the ticket range in a tier 1 city would be high while that may not be the case in tier 2 and 3 and the same rule is applied to nations.

When the ticketing platforms are aware of the buzz around the artist–they'll go to lengths to maximize profit; it's time to meet our old friend, fan economy again. The show begins with 'Early-Bird tickets,' those tickets that are released months in advance of the main event and are usually priced lower than the original tickets. Concepts of Behavioural economics are so closely tied to the behaviour of fans before and during a concert. Temporal discounting is a dynamic concept from the field of behavioural economics that denotes the fact that individuals are more prone to prefer immediate rewards (like buying tickets months in advance) than waiting for future benefits (like waiting for the original tickets to roll out, as in many cases they are clubbed with any discounts, are cheaper or offer a better view than the early bird ones, etc.) In a bid to save a couple of pennies, fans often end up buying these tickets, and on the offside, some fail to clear their schedule for the day later on revealing the whole plan to be a financial blunder.

Before the main concert, the artists often collaborate with a variety of brands to increase their brand awareness or garner new audiences. Be it through social media, on-ground campaigns, or barter

advertisements–all of them eventually contribute to only one factor: skyrocketing the fan economy. Picture this, as a hard-core fan you decided to skip your favourite singer's concert this time. But on the way to the office, you spot a billboard announcing their arrival. Your perfect Instagram algorithm constantly shows you posts and reels related to them by analysing your years' worth of stored data taken from various apps and sites. It doesn't end there. You order your favourite food but the packaging design includes their lyrics. You're browsing for clothes online but all brands seem to have rolled out a limited-edition line of your singer. Sigh. Would you, a hard-core fan, still manage to skip the event? The answer's no. But on the off chance you decide to, you might still order clothes from that limited edition line to feel better. You might visit fan parks that they might've happened to arrange. Or probably, you might end up paying for a streaming app's subscription that is showing the event live. What if you couldn't manage to get the tickets or be available for the event on D-day? These seamless instruments of today's digital age have made sure you don't feel a minute of FOMO. The fact is you will justify your spending on the specific clothing line and the streaming app subscription because your mind has anchored your financial decisions on your emotional connection to the artist or the band. This also brings us to yet another important concept in Behavioural economics: Anchoring. Anchoring refers to a cognitive bias in decision-making that plays a huge role in decisions that involve numerical values.

Next up the list comes the ever-present black market. Large popularity and demand magnetically attract these smugglers, and that makes a tiny flourishing illegal business of its own. Take for example the recent Coldplay concert's ticket

sales. As a large crowd was glued to their screens to book them, several sites at the same time claimed to sell tickets for that exact event, but of course 10x that of the original price. While some found 'luck' in these resold tickets, a majority fell into a beautiful trap of scams. One of the tickets for the Coldplay concert at the Ahmedabad venue sold for a gigantic 10 Lakhs, several reports claim. It gets even fishier when rumours of the official ticketing platforms selling these tickets firsthand to the middlemen surface online. Nevertheless, the money bank keeps overflowing as emotional fans keep falling for these ploys. Because it's a once-in-a-lifetime event they say. Perhaps spending this much for once wouldn't hurt, right? Only for it to become a habit or worse, lead to other radical impulse spending. Offers and deals, on the other hand, don't miss out either. "Limited time offer" to "Buy 3 get 2 Free" or "Buy 3 and get a flat 10% on our merchandise!" … and so run the carefully crafted advertisements. Needless to say, they often encourage fans to spend more than needed and especially in the last case buy merchandise they probably wouldn't consider otherwise. "It's a cool deal", they might say. "I just have to spend three thousand rupees instead of three thousand five hundred for Chris Martin's Autograph? Why not!"

Social media and its implications are not to be ignored either. A majority of the youth which makes up the target audience for concerts spend incessant time on the Internet and the same Internet brings them ad campaigns that are difficult to ignore as a fan or otherwise, when you are constantly bombarded with one item and one item only. As a result most people who wouldn't even know the band or singer's name would stick to the screens to buy tickets or show up at the venue to stay relevant. At the same time, concerts may also be considered a fad amongst one's peers resulting in the enactment of what behavioural economics calls, herding, i.e., doing what others are doing without really thinking about ourselves. The moment something goes viral or earns the spotlight on the internet, numerous individuals are eager to grab the same to be a part of the larger conversations. While there's nothing wrong in trying out new things and exploring, often these actions, stem from a wish to 'fit in' or put simply, Fear of missing out. Behavioural economics has yet another term for it: Loss Aversion. The pain of losing (Fear of missing out that'll creep up on the day of the concert when you see your Instagram list full of stories of the concert) is twice as powerful as the joy you will experience (actually attending the concert).

While the big brands will constantly see ways to monetize and push sales up for these events, it eventually falls on the fans to consider the economic repercussions of their financial decisions in the long run. It involves making judgments that are more rational and based on facts rather than emotional states of mind being in control of the steering wheel. At the same time, an equal responsibility is shared by the organizers and ticketing apps so that there are no discrepancies in the entire ticket-selling process involved, and no bias or prejudice seeps its way into the system. They are expected to deliver a seamless smooth experience to the fans, working with utmost integrity.

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HEADLINES OF FEAR THE LOSS AVERSION IN JOURNALISM

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Muni “If it bleeds, it leads.”- William Randolph Hearst

Evolutionarily, the human brain is wired to prioritise threats over positive experiences. Our ancestors depended on heightened awareness of danger for survival—those who paid attention to threats were more likely to avoid harm. This survival mechanism has persisted into the modern world. We tend to focus more on negative stimuli than positive ones because negative events are perceived as more significant and urgent. Studies in

cognitive psychology indicate that bad news provokes heightened emotional responses, reinforcing its memorability and prolonging the brain’s fight-or-flight activation. For instance, a crime report is likely to be discussed more widely than a story about a good Samaritan. Negative news sparks fear, anger, or sadness—emotions that drive engagement, discussion, and deeper cognitive processing. Additionally, when people read about crimes, disasters, or political instability, their brains perceive these as potential threats, compelling them to stay alert and informed. Since bad news is more widely reported, individuals assume that negative events happen more frequently than they actually do. This creates a skewed perception of reality, where people believe the world is more dangerous or problematic than it is. For example, media coverage of plane crashes can make people fear flying, even though car accidents are statistically more common. This bad news also often contains an element of uncertainty, which increases its psychological grip on people. The brain dislikes uncertainty and seeks to resolve it, leading individuals to consume more news in an attempt to understand and control their environment.

The Influence of Loss Aversion on Journalism and Media Coverage

Journalism has long been criticized for its emphasis on negative news over positive stories. This bias is deeply rooted in psychological mechanisms, particularly loss aversion, a cognitive bias where people feel the pain of losses more intensely than they experience the pleasure of equivalent gains. As a result, media consumers are naturally more drawn to bad news, influencing journalistic practices and shaping public perception of reality.

Loss aversion is a core principle in prospect theory, developed by Daniel Kahneman and Amos Tversky (1979), which explains how people perceive gains and lossesasymmetrically. In the context of news consumption, negative news—such as crime, disasters, or political scandals—triggers stronger emotional responses than positive stories about progress, scientific breakthroughs, or acts of kindness.

This psychological tendency creates a feedback loop. First, audience demand plays a significant role. Readers and viewers are more likely to engage with negative news, leading media outlets to prioritise these stories. Second, the business model of journalism, driven by advertising revenue and engagement metrics, reinforces this trend, as negative content generates more clicks, shares, and prolonged attention. Finally, editorial decisions reflect this reality, with journalists and editors selecting stories based on their emotional and sensational impact.

A study by Soroka et al. (2019) found that people have a “negativity bias” in their news consumption, meaning they pay more attention to bad news regardless of their political or cultural background, justifying why headlines are often framed to emphasise risk, danger, and conflict rather than progress or resolution. Journalistic values, such as timeliness, impact, and conflict, also naturally align with negativity bias. Newsworthiness criteria prioritize events that disrupt the status quo—hence, accidents, corruption, and scandals receive more coverage than slow, positive developments like declining poverty rates or scientific progress. Research by Trussler and Soroka (2014) demonstrated that, even when people claim to prefer positive news, their actual behaviour contradicts this preference. When presented with a mix of articles, participants overwhelmingly clicked on negative headlines. Technological factors also contribute to the amplification of negative content. Social media platforms and search engines use engagement-based ranking algorithms to promote content. Since negative news tends to provoke strong reactions, it spreads more rapidly than neutral or positive content.

A study by Vosoughi et al. (2018) analyzed Twitter data and found that false news stories (often negative) spread significantly faster and further than truthful ones. The study suggested that misinformation’s emotional appeal, especially fear and outrage, contributed to its virality.

Consequences of a Negative News Bias Media Amplification vs. Societal Apathy

While the media plays a crucial role in informing the public, its emphasis on crisis-driven narratives often overshadows solutions-based journalism. The consequence is a cycle where distressing events dominate the discourse, but discussions

on healing, policy change, and preventive measures receive less attention. For instance, mass shootings or mental health crises may make headlines, yet sustained conversations on gun reform, mental health infrastructure, or systemic prevention efforts are often sidelined. This selective focus reinforces societal apathy, where distress is normalised but not meaningfully addressed.

Psychological Consequences: Desensitization vs. Emotional Burnout

While staying informed is essential, excessive exposure to bad news can have psychological consequences. Studies have linked heavy news consumption to increased stress, anxiety, and depression. The mean world syndrome, a term coined by media theorist George Gerbner, suggests that people who consume excessive negative news develop a distorted, overly pessimistic view of reality. This can lead to feelings of helplessness, fear, and distrust in society. Moreover, the constant bombardment of negative news can lead to compassion fatigue—a phenomenon where individuals become emotionally numb to tragedies because they feel powerless to make a difference. This can reduce empathy and discourage people from taking action, creating a paradox where awareness of issues does not always lead to solutions.

Repeated exposure to negative news creates also two contrasting psychological effects, namely, desensitisation & emotional burnout. The public may become numb to suffering, treating crises as inevitable rather than preventable. This is evident in humanitarian crises, where public empathy declines over time due to repeated exposure without corresponding action. Constant media-driven distress also leads to compassion fatigue, where individuals feel overwhelmed and powerless to help, further discouraging engagement in trauma mitigation efforts. This paradox—where people both overconsume and disengage—deepens the scarcity of proactive solutions in both journalism and society.

Economic and Political Incentives for Crisis Narratives

From an economic perspective, negative news generates higher engagement, clicks, and ad revenue, incentivizing media outlets to sensationalize suffering rather than report on constructive responses. Politically, fear-based narratives are often leveraged to justify restrictive policies (e.g., increased surveillance in response to crime reports) while overlooking community-driven interventions that could address root causes. Instead of investing in mental health services, housing stability, or education reform, resources are often redirected toward reactionary measures that fail to mitigate long-term trauma.

Can Good News Gain More Attention?

To counteract the overwhelming negativity in journalism, many scholars and media professionals advocate for constructive journalism—an approach that balances critical reporting with solutions-oriented stories. Constructive journalism shifts the focus from problems alone to potential solutions, promoting engagement without inducing despair.

Studies indicate that audiences respond positively to solution-oriented news, as it fosters hope and agency (McIntyre, 2019). In recent years, several initiatives have emerged to provide more balanced coverage. The Good News Network is a platform dedicated to uplifting stories, while the Solutions Journalism Network trains journalists to report on effective responses to social problems. Additionally, mainstream media outlets like BBC have introduced segments such as Uplifting News to highlight positive developments. Ethical journalism also requires balancing the public's right to know with responsible reporting.

Avoiding sensationalism, promoting media literacy, and diversifying news diets are essential steps. Journalists must ensure that headlines and stories provide context rather than fear-mongering, while media consumers should be encouraged to critically assess the news they consume. News organizations should adopt editorial policies that encourage balanced reporting. Social media platforms should adjust algorithms to prevent the disproportionate spread of negative content. Media consumers must be educated on cognitive biases and encouraged to diversify their news sources. Governments and regulatory bodies can also support initiatives that promote responsible journalism.

Conclusion

Loss aversion plays a crucial role in shaping media coverage, making bad news more prevalent than good news. While this tendency is rooted in psychological and evolutionary mechanisms, it has profound implications for public perception, mental health, and societal stability and well-being. By adopting constructive journalism, promoting media literacy, and fostering a more balanced news ecosystem, it is possible to mitigate the negative effects of loss aversion in journalism. A well-informed public benefits not from an excess of fear-driven narratives but from accurate, contextualized, and solutions-oriented reporting.

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