



Sustainable Digital Assets

A Study on Attitudes of Millennial and Gen-Z
Investors in the State of West Bengal, India,
Towards Investment in Green Cryptocurrencies



Rajib Bhattacharya



Sustainable Digital Assets: A Study on Attitudes of Millennial and Gen Investors in the State of West Bengal, India, Towards Investment in Green Cryptocurrencies

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Dedication To

I dedicate the debut of my authorial journey to:

My father, Late Pranab Kumar Bhattacharya, whose quiet wisdom and moral strength taught me that integrity is the truest form of wealth;

My mother, Smt. Supriya Bhattacharya, whose unwavering faith and love have been the constant light on every path I have taken;

My wife, Rina, for her patience, understanding, and infinite encouragement during every phase of this journey;

My son, Mukutmani, a representative of the generation this book speaks about — curious, idealistic, and forward-looking — may your world be guided by conscience as much as by intelligence;

and

Every scholar, policymaker, and investor who believes that finance can serve humanity without harming nature and society and that sustainability is not a constraint but the highest expression of progress.



About the Author

Dr. Rajib Bhattacharya is an accomplished academician and researcher with a multidisciplinary background that bridges commerce, law, finance, and management. After completing his double graduation in Law and Commerce, he qualified as a Cost and Management Accountant (CMA)—a credential that strengthened his expertise in financial analysis and corporate governance. His academic pursuits continued with two postgraduate diplomas in *Marketing Management* and *Human Resource Management*, followed by dual master's degrees in *economics and financial management*. His deep commitment to learning led him to complete an M.Phil and a Ph.D., and he is currently at an advanced stage of submitting his D.Litt. thesis.

Before entering academia, Dr. Bhattacharya spent over a decade in industry, gaining diverse experience across sectors ranging from manufacturing to banking. This professional grounding provided him with invaluable practical insights, which he later integrated into his teaching and research. Pursuing his true passion for academics, he has served as a faculty member, question setter, and Chief Head Examiner in reputed business schools and university departments of business management.

Dr. Bhattacharya has also been a corporate trainer for middle and senior management professionals across more than ten multinational corporations, and has served as a guest lecturer at *Universitas Pelita Harapan*, Indonesia — reflecting his international exposure. Currently, he is associated with NSHM Knowledge Campus, Kolkata, West Bengal, India, where he teaches in the areas of Finance and Accounting.

His research and teaching interests encompass Behavioural Finance, Financial Markets, Asset Pricing, and FinTech. Beyond academia, Dr. Bhattacharya is an ardent traveller and trekker with a keen interest in Indian temple architecture. He resides in Kolkata, West Bengal, India, with his mother, wife, and son.

Foreword

The world of finance is undergoing a profound transformation — one that transcends balance sheets and trading floors to engage directly with the most urgent moral question of our time: how can economic progress be reconciled with environmental sustainability? As digital technologies redefine the architecture of global markets, the very nature of value, trust, and investment is being re-imagined. It is in this dynamic and often paradoxical context that Dr. Rajib Bhattacharya’s book, *Sustainable Digital Assets: A Study on Attitudes of Millennial and Gen-Z Investors in the State of West Bengal, India, Towards Investment in Green Cryptocurrencies*, makes a remarkably timely and original contribution.

This study arrives at a moment when the vocabulary of finance is itself evolving. Terms such as decentralized finance, tokenization, carbon credits, and green blockchain now populate the lexicon of economists, regulators, and policymakers across continents. Yet, beneath this proliferation of technological possibilities lies a deeper question of human behaviour — what drives individuals to trust, adopt, and sustain new financial paradigms that promise both profit and purpose? Dr. Bhattacharya’s work distinguishes itself precisely by confronting this behavioral and ethical dimension head-on. It moves beyond the mechanics of cryptocurrency markets to examine the psychology, values, and aspirations of the emerging generations who will shape the financial systems of the future.

What lends this research its distinctive resonance is its focus on Millennial and Gen-Z investors, two generational cohorts who collectively represent the largest share of the world’s digital citizenry. These are individuals who have grown up amidst rapid technological innovation, global connectivity, and escalating climate anxiety. They are at once the architects and inheritors of a digital civilization whose prosperity will depend on its ability to harmonize efficiency with sustainability. By investigating how these young investors in West Bengal perceive and engage with “green cryptocurrencies,” Dr. Bhattacharya captures the pulse of a wider global transformation in financial consciousness.

The author’s empirical rigour deserves special commendation. Employing both Covariance-Based Structural Equation Modelling (CB-SEM) and Partial Least Squares Structural Equation Modelling (PLS-SEM), the study stands out for its methodological sophistication. It balances quantitative precision with conceptual depth, weaving together insights from behavioural finance, environmental psychology, and digital economics. The dual-model approach, further reinforced by 50,000 bootstrap iterations, ensures robustness and

reliability of findings that few studies in this domain can claim. The scale of the sample and the granularity of the analysis reflect the author's commitment to academic excellence and statistical integrity.

Beyond its methodological strength, the book's central theoretical innovation — the Dual Mandate Model — deserves particular attention. It posits that investment in green digital assets is driven by two synergistic forces: ethical conviction, manifested as concern for environmental sustainability, and speculative motivation, expressed through behavioural biases such as the fear of missing out and herd behaviour. This elegant conceptualization illuminates a new paradigm in sustainable finance: that moral idealism and market opportunism are not mutually exclusive but may co-exist as complementary drivers in the psyche of the twenty-first-century investor. Such insight has profound implications not only for scholars of behavioural finance but also for policymakers seeking to design effective regulatory and incentive frameworks.

The findings carry lessons that extend well beyond the geographical boundaries of India. They speak to a universal phenomenon — the rise of an ethically aware, digitally empowered investor class that is challenging the traditional dichotomies of finance. In regions as diverse as the European Union, North America, and Southeast Asia, similar patterns are emerging: young investors are demanding that their portfolios reflect not only financial goals but also social and ecological commitments. The resonance between Dr. Bhattacharya's data from West Bengal and the global trends in ESG (Environmental, Social, and Governance) investing underscores the universal validity of his conclusions.

Particularly striking is the book's ability to translate complex behavioural constructs into actionable policy recommendations. The proposed Four-Pillar Framework — comprising ideological alignment, behavioural nudging, regulatory incentives, and investor protection — represents a holistic strategy for integrating sustainability into the architecture of digital finance. It calls for green certification and auditing mechanisms to guard against "green washing," for the strategic use of behavioural design to channel speculative impulses toward ethical ends, and for differentiated taxation and risk-education initiatives that recognize the psychological realities of the modern investor. This synthesis of behavioural insight with institutional design is rare and invaluable; it exemplifies the kind of interdisciplinary thinking that the future of sustainable finance demands.

The global significance of this work also lies in its articulation of a new moral narrative for technology-driven finance. In an age often criticized for speculative excess, data exploitation, and environmental neglect, Sustainable Digital Assets offers a counter-vision: one where innovation is guided by

responsibility, and digital wealth creation becomes a vehicle for ecological renewal. It suggests that the blockchain — often maligned for its carbon intensity — can, under the right ethical and regulatory conditions, become an instrument of climate stewardship and social inclusion. Such reframing is essential if humanity is to harness technological disruption for collective good rather than unchecked gain.

From an educational perspective, this book also performs a vital pedagogical function. It will serve as a valuable resource for students and scholars of finance, economics, management, and environmental studies who seek to understand the interplay between digital technology and sustainable development. The clarity with which complex statistical analyses are presented makes it a model of academic communication. Equally, its integration of philosophical reflection with empirical evidence invites readers to think critically about the moral direction of modern finance. In this sense, the book transcends its disciplinary boundaries; it is as much a study in ethical economics as it is in quantitative modelling.

For policymakers and financial institutions, Dr. Bhattacharya's findings offer actionable guidance. They reveal that sustainable investment cannot be imposed through regulation alone but must be nurtured through trust, transparency, and generational engagement. They also demonstrate that the young investor is not merely a passive recipient of financial innovation but an active co-creator of ethical value. By understanding and supporting this agency, governments and corporations can transform sustainability from a policy slogan into an everyday financial habit.

Perhaps the most inspiring aspect of this book is its optimism. It affirms that the future of finance need not be a choice between technological progress and environmental survival. Rather, it envisions a convergence — a world where digital ingenuity amplifies ecological consciousness. The young investors studied here are not just speculators; they are participants in a global experiment to redefine what it means to invest responsibly in the digital age. Their behaviour, meticulously analysed in these pages, offers a glimpse into a future where sustainability is not an external constraint but an intrinsic logic of economic growth.

As the world edges closer to a carbon-neutral economy, and as digital finance becomes the bloodstream of global trade, studies such as this will serve as guideposts. They remind us that sustainability is not only an environmental imperative but also an intellectual and ethical challenge — one that demands the integration of data with conscience, and innovation with responsibility. Sustainable Digital Assets is more than a scholarly achievement; it is a call to

action for all who believe that finance, when guided by wisdom and empathy, can indeed become a force for planetary healing.

I commend this book to scholars, practitioners, and policymakers across the world. It stands as a testament to how rigorous academic inquiry can illuminate the path toward a more sustainable and equitable digital future. In celebrating Dr. Rajib Bhattacharya's contribution, we also celebrate the enduring capacity of scholarship to shape not only our understanding of markets but our vision of a better world.



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Preface

In an era defined by the twin forces of digital transformation and environmental urgency, the global financial landscape stands at a pivotal crossroads. Technology-driven innovation has disrupted traditional models of value creation and exchange, while the imperatives of sustainability have challenged investors, policymakers, and corporations alike to reimagine growth in ethical and ecological terms. It is within this complex intersection that the present work — *Sustainable Digital Assets: A Study on Attitudes of Millennial and Gen-Z Investors in the State of West Bengal, India, Towards Investment in Green Cryptocurrencies* — situates itself. The study represents a confluence of behavioural finance, environmental economics, and digital technology, attempting to interpret how the youngest cohorts of investors are responding to the moral and material questions posed by the rise of sustainable cryptocurrencies.

The twenty-first century has witnessed the emergence of digital assets as a transformative force in global finance. From the advent of Bitcoin in 2009 to the proliferation of blockchain-enabled innovations today, the trajectory of financial evolution has been marked by decentralization, transparency, and unprecedented accessibility. Yet, this revolution has not been without its contradictions. The environmental cost of crypto-mining, largely dependent on energy-intensive proof-of-work mechanisms, has generated significant concern among ecologists, regulators, and socially responsible investors. Simultaneously, a new category of eco-friendly cryptocurrencies — often termed green cryptocurrencies — has emerged, seeking to reconcile the technological potential of digital assets with the imperatives of sustainability. This book explores how young investors, particularly Millennials and Generation Z in the Indian state of West Bengal, perceive and engage with this emerging asset class.

The genesis of this research lay in a set of broader questions concerning the sustainability of the digital economy. Can speculative technologies be aligned with long-term environmental goals? How do ethical considerations coexist with behavioral biases in investment decision-making? And, most importantly, how are new generations of investors redefining the relationship between profit and purpose in a world that is rapidly digitizing yet environmentally constrained? These questions assumed greater relevance in the aftermath of global crises — economic, ecological, and social — that have forced both individuals and institutions to revisit the moral foundations of finance.

India, as one of the world's fastest-growing digital economies, provides an illuminating context for such an inquiry. With nearly half of its population comprising Millennials and Generation Z, India represents not only a vast market for digital assets but also a social laboratory for studying the interaction between technology adoption, environmental awareness, and investment behaviour. West Bengal, a state marked by intellectual vibrancy and a rapidly urbanizing youth demographic, offered a particularly rich ground for this empirical investigation. The study, while regional in scope, aspires to speak to global themes — the psychology of digital finance, the ethics of environmental stewardship, and the evolving contours of sustainable capitalism.

The book draws upon a robust methodological framework combining Covariance- Based Structural Equation Modelling (CB-SEM) and Partial Least Squares Structural Equation Modelling (PLS-SEM). By employing a large and statistically significant sample, it captures the subtle dynamics that influence investment attitudes toward green cryptocurrencies. Central to this framework is the Dual Mandate hypothesis: that the motivation to invest in green digital assets arises from both an ethical impulse — reflected in the concern for environmental sustainability — and a speculative impulse, manifest in social and psychological drivers such as the fear of missing out (FOMO) and herd behaviour. These twin forces, as the study demonstrates, coexist and interact in complex ways, giving rise to a new investment archetype — one that is both idealistic and opportunistic, digital and conscientious.

Beyond the realm of empirical modelling, the book also engages with the philosophical and policy dimensions of sustainable finance. It argues that the future of digital assets will depend on their ability to align with the broader agenda of sustainable development. The decarbonization of blockchain technologies, the integration of cryptocurrencies with carbon-credit mechanisms, and the creation of regulatory frameworks that reward ethical investment behaviour are all crucial to achieving this alignment. The study therefore proposes a Four-Pillar Policy Framework — encompassing ideological alignment, behavioural management, regulatory incentives, and investor protection — to guide the responsible evolution of the green cryptocurrency ecosystem.

At a theoretical level, the work extends the boundaries of behavioural finance by incorporating sustainability as an intrinsic cognitive and emotional variable influencing investor behaviour. Traditionally, models of investment psychology have focused on biases such as overconfidence, herd mentality, or loss aversion. However, as the data in this research reveal, environmental consciousness itself functions as a behavioural determinant — shaping intention, mediating speculative drives, and ultimately influencing real investment decisions. This

reframing of behavioural finance through the lens of environmental ethics represents one of the distinctive contributions of the study to the academic literature.

The research journey that culminated in this book was as intellectually demanding as it was personally transformative. Conducting empirical research on a subject as fluid and volatile as cryptocurrency investment required constant adaptation to new data, shifting market dynamics, and evolving regulatory discourses. Moreover, understanding the motivations of Millennials and Gen Z investors demanded both quantitative rigour and qualitative sensitivity — an appreciation of not only statistical patterns but also generational narratives of aspiration, risk, and responsibility. Throughout this journey, the integration of diverse disciplines — finance, psychology, environmental science, and information technology — remained a defining feature of the research process.

For a global readership, this book offers both regional insight and universal relevance. Although the empirical focus lies on West Bengal, the behavioural tendencies observed among young investors resonate with patterns emerging across the world. The dual pursuit of ethical alignment and financial opportunity is a hallmark of the global youth investment psyche. Whether in Silicon Valley, Singapore, or Kolkata, young investors increasingly view their financial choices as expressions of identity, ideology, and digital fluency. The rise of sustainable cryptocurrencies thus symbolizes a generational shift from the extractive capitalism of the past to a regenerative capitalism of the future — one that seeks to balance profit with planetary responsibility.

The book is structured to provide a coherent progression from conceptual foundations to empirical validation and policy synthesis. The initial chapters trace the historical evolution of investment behaviour, highlighting how technological disruption has continuously reshaped the contours of financial participation. Subsequent sections examine the theoretical underpinnings of sustainable finance and behavioural decision-making, leading to the development of a comprehensive conceptual model tested through Structural Equation Modelling. The empirical findings are followed by an interpretive analysis that situates these results within broader economic, technological, and ethical debates. Finally, the book concludes with strategic recommendations for policymakers, regulators, and investors seeking to foster a sustainable digital asset ecosystem.

While this work is anchored in academic scholarship, its implications extend far beyond the university. For policymakers, it offers empirical evidence to design nuanced regulatory frameworks that encourage innovation without compromising environmental integrity. For financial institutions and fintech

entrepreneurs, it provides insight into the evolving preferences of young investors — a demographic that will soon dominate global capital flows. For scholars, it opens new avenues for interdisciplinary research at the intersection of behavioural finance, digital technology, and sustainability. And for the general reader, it offers a reflective exploration of how human values and aspirations continue to shape, and be shaped by, the relentless advance of digital modernity.

As the global community grapples with the twin challenges of economic uncertainty and ecological degradation, the need to reconcile finance with sustainability has never been more urgent. Green cryptocurrencies, though nascent, represent one of the most intriguing experiments in this quest. Whether they succeed in transforming global finance or remain a niche phenomenon will depend not merely on technological innovation but on the attitudes and decisions of investors themselves — particularly those of the younger generations who will inherit the digital and ecological future. It is to that evolving dialogue between technology, ethics, and human behaviour that this book humbly seeks to contribute.

The journey of Sustainable Digital Assets is thus not merely a study of market behaviour but a reflection on the moral imagination of a new age of investors. It is an invitation to scholars, practitioners, and citizens alike to envision finance not as a detached instrument of accumulation but as a participatory practice of stewardship — of both wealth and the world we share.

Acknowledgement

At the threshold of this scholarly journey, I bow in profound reverence to the Divine Mother Goddess Tara of Tarapeeth, West Bengal — the Eternal Shakti, the boundless embodiment of wisdom and compassion. It is Her divine grace that has illuminated my intellect, sustained my spirit, and dispelled doubt at every moment of uncertainty. In times of fatigue, Her presence has been both solace and strength; in times of triumph, a reminder that all achievement is but a manifestation of Her will. To the Blessed Mother, I dedicate the first and deepest note of my gratitude.

I extend my heartfelt gratitude to Dr. Tanu Pawar, my Co-Advisor, whose unwavering guidance, insightful feedback, and constant encouragement have been pivotal in the completion of this book. Her intellectual acumen, critical observations, and meticulous suggestions enriched both the content and structure of this work. Her patience, motivation, and generous sharing of knowledge provided direction and clarity at every stage of development. Without her active involvement and scholarly mentorship, this book would not have seen the light of day. I remain deeply indebted to her for her invaluable contribution and enduring support throughout this journey.

I owe an enduring debt to the ambience and academic ethos of NSHM Knowledge Campus, Kolkata, an institution that does not merely impart knowledge but cultivates the very spirit of inquiry. It is rare to find an environment where curiosity is not only encouraged but celebrated— where research is not viewed as an obligation, but as a joyful expression of discovery. At the heart of this culture stands Mr. Cecil Antony, Chief Mentor and Managing Trustee, whose visionary guidance and humanistic philosophy have transformed NSHM into a cradle of creativity and innovation. His belief that education must nurture both intellect and conscience has been an invisible thread weaving through every page of this work.

My heartfelt appreciation extends to Dr. Krishnendu Sarkar, Chief of Academics, whose intellectual clarity and steadfast support have been an inspiration to all scholars within the NSHM fraternity. His deep commitment to academic rigour, coupled with an unwavering emphasis on ethical research, created a climate where inquiry could flourish freely. His mentorship, both formal and informal, has left a lasting imprint on my approach to scholarship.

I record my sincerest gratitude to Dr. Subir Sen, Principal, NSHM Business School, Kolkata, for his constant encouragement, administrative guidance, and generous empathy. His open-door approach to ideas and his quiet but consistent

motivation made the often-demanding process of research not only manageable but truly rewarding. His faith in my work, expressed at crucial junctures, served as a beacon when challenges appeared daunting.

My warmest thanks go to all my colleagues and students at NSHM Business School, who have been companions in this intellectual voyage. Their conversations, critiques, and kindnesses enriched the texture of my thinking and often revealed perspectives I might otherwise have overlooked. Many of the insights in this book were sparked in corridors, classrooms, and coffee-table discussions that embodied the spirit of collaborative scholarship.

The staff of the Central Library, with their quiet efficiency and endless patience, deserve special mention. Their readiness to assist in locating obscure resources and facilitating inter-library access was invaluable in completing the extensive review of literature that underpins this work. The team at the Computer Laboratory, ever attentive and technically adept, ensured seamless data processing and analysis during the demanding phases of statistical modelling. Likewise, the ever-courteous members of the Reprographics Corner offered unfailing assistance with the production, formatting, and duplication of research material, often extending help far beyond the call of duty. To all of them, I convey my heartfelt appreciation — their contribution, though often unseen, was fundamental to the smooth completion of this study.

I extend my sincere appreciation to Iterative International Publishers, Karnataka, India, for believing in the relevance and timeliness of this work. Their editorial sensitivity, professionalism, and patience have transformed a manuscript into a meaningful book. Every stage—from peer review to publication—has reflected a rare blend of academic integrity and aesthetic care. To the entire editorial and production team, I remain deeply grateful for their meticulous attention and unwavering commitment to excellence.

No acknowledgement could ever be complete without the deepest expression of love and reverence to my family, the quiet anchors of my life. My father, Late Pranab Kumar Bhattacharya, though no longer in this world, remains my moral compass and eternal guide. His integrity, quiet strength, and enduring faith in the power of knowledge continue to illuminate my path. To my mother, Smt. Supriya Bhattacharya, I owe everything — her blessings, her moral guidance, and her silent prayers have been the invisible scaffolding upon which all my work rests. Her grace and endurance continue to remind me that true scholarship is not measured merely by intellect, but by humility and devotion.

To my wife, Rina, I extend gratitude beyond words. Her patience during long hours of writing, her understanding of my silences, and her unflinching faith in my purpose gave me the courage to persevere. She has been both critic and confidante — the one who steadied me when I wavered and celebrated every small victory as her own.

And to my son, Mukutmani, I owe an equally heartfelt acknowledgment. His youthful curiosity and gentle humour infused this journey with joy. As a representative of the very generation this study seeks to understand, he continually reminded me of the hope, intelligence, and conscience that define today's youth. His quiet questions often inspired new reflections that found their way into this work.

Finally, I offer my sincere appreciation to the numerous authors, scholars, and thinkers whose monumental works form the intellectual bedrock of this research. From the pioneering architects of behavioural finance to the contemporary analysts of sustainability and digital economics, their ideas provided the scaffolding upon which this study was built. Each citation in this book represents not merely a reference but an act of homage to minds that have illuminated the path of human understanding. If this work adds even a small insight to that grand continuum of knowledge, it is due entirely to the shoulders upon which I have been privileged to stand.

This book, then, is not the culmination of a solitary effort but the outcome of a shared journey— of blessings received, guidance given, and kindness extended. To all who have, in ways seen and unseen, contributed to its completion, I offer my deepest gratitude and most respectful salutations.

From the Publishers

The global discourse on sustainability has entered an age of digital urgency. As financial ecosystems increasingly migrate toward virtual and decentralized architectures, the ethical and environmental implications of these innovations demand closer examination. In this context, *Sustainable Digital Assets* by Dr. Rajib Bhattacharya represents a pioneering work that bridges the divide between behavioural finance, technology, and environmental responsibility.

This volume distinguishes itself by its rare blend of empirical precision and visionary thought. Drawing on advanced econometric and psychometric modelling, the author illuminates how Millennials and Gen-Z investors — two cohorts who will dominate future capital formation — reconcile speculative ambition with ecological conscience. His analysis of “green cryptocurrencies” is not only timely but also transformative, positioning sustainability as the moral compass of the next financial epoch.

As the world grapples with climate change and the complexities of digital governance, this book provides both insight and inspiration. It serves as a vital reference for scholars, regulators, and industry professionals seeking to align innovation with integrity. Its findings, while rooted in the socio-economic realities of India, carry universal significance for policymakers and practitioners across continents.

We are proud to present this work to a global readership. *Sustainable Digital Assets* exemplifies our commitment to publishing research that challenges convention, deepens understanding, and contributes to humanity’s collective pursuit of a just and sustainable future.

In publishing this important study, we celebrate not only a distinguished scholar but also a generation’s aspiration — to invest not merely in wealth, but in the well-being of our shared planet.

Introduction to the Book

1. The Context: A Financial Revolution in Transition

The history of finance has always mirrored the evolution of civilization — from the barter economy of ancient communities to the sophisticated networks of algorithmic trading and digital assets that define our age. Every epoch of financial transformation has introduced both progress and peril. The twenty-first century, shaped by the unprecedented fusion of technology and capital, has given rise to one of the most disruptive innovations of our time: cryptocurrencies. Built upon the principles of decentralization and blockchain technology, cryptocurrencies have redefined notions of value, trust, and exchange.

Yet, with this digital liberation has come a profound dilemma — one that transcends economics and enters the moral sphere. The environmental cost of maintaining blockchain networks, particularly those based on the proof-of-work consensus mechanism, has sparked intense global debate. The same systems that democratized finance have also been accused of accelerating carbon emissions. This paradox — between innovation and sustainability — lies at the very heart of this book.

2. The Rise of Green Cryptocurrencies

The concept of green cryptocurrencies emerged as a corrective response to the ecological footprint of conventional crypto mining. These are digital currencies designed to minimize environmental harm by utilizing energy-efficient validation protocols such as proof-of-stake, proof-of-authority, or hybrid models powered by renewable energy sources. In essence, green cryptocurrencies represent an effort to align financial innovation with the global sustainability agenda outlined by the United Nations Sustainable Development Goals (SDGs).

While technological solutions have advanced rapidly, the real challenge lies elsewhere— in human psychology and behaviour. The sustainability of any financial system ultimately depends on the attitudes and actions of its participants. It is not merely the existence of green cryptocurrencies that matters, but whether investors — particularly young, tech-savvy ones — perceive them as credible, desirable, and valuable. This realization forms the nucleus of the present study.

3. Millennials and Generation Z: The Ethical Investors of Tomorrow

In any society, generational cohorts act as mirrors reflecting collective priorities, anxieties, and aspirations. Millennials (born 1981–1996) and Generation Z (born mid- 1990s–2012) are unique in history: they are the first to have matured in an entirely digital world. Constantly connected through the internet, social media, and smart devices, they are both consumers and producers of digital value.

These generations are also marked by heightened environmental awareness. Surveys across continents show that Millennials and Gen-Z consumers prefer brands, employers, and investments aligned with ethical and sustainable practices. This values- driven consumerism has naturally extended into the investment domain, manifesting as interest in ESG (Environmental, Social, and Governance) investing and socially responsible finance.

However, these same cohorts are not immune to speculative impulses. Exposure to online trading platforms, financial influencers, and digital investment communities has cultivated what behavioural economists call “speculative consciousness” — an attraction to volatility and a fear of missing out (FOMO). The duality of ethical concern and speculative enthusiasm defines their financial identity. Understanding how these forces coexist and interact is crucial to anticipating the evolution of global financial behaviour.

4. The Indian and Regional Context

India presents a particularly compelling context for studying digital investment behaviour. With a population exceeding 1.4 billion and a median age of around 28 years, India is among the youngest nations on Earth. Its youth are digitally literate, economically ambitious, and environmentally concerned — characteristics that make them ideal participants in the emerging digital economy.

Within India, the State of West Bengal offers a fascinating microcosm for such analysis. Known for its intellectual heritage, cultural dynamism, and growing technology adoption, West Bengal represents a distinctive blend of tradition and innovation. Its Millennial and Gen-Z investors are not only participants in national financial trends but also contributors to a new social narrative where economic growth and ecological responsibility coexist.

The regional focus of this study, therefore, provides both depth and representativeness. While rooted in the local context, the behavioural patterns observed among West Bengal's youth investors resonate with global trends, making the findings universally significant.

5. Research Objectives and Core Questions

This book seeks to examine and explain the attitudes of Millennial and Gen-Z investors toward investment in green cryptocurrencies, with particular reference to the behavioural, psychological, and demographic factors influencing their decisions.

The key objectives are

- To identify and model the psychological drivers — such as Concern for Environment and Sustainability (CFE), Fear of Missing Out (FOM), Herd Bias (HDB), and Snake-Bite Effect (SBE) — that shape investment intentions.
- To investigate the mediating role of general investment intention in cryptocurrencies (INC) on the relationship between these psychological drivers and the intention to invest in green cryptocurrencies (IGC).
- To assess the moderating impact of demographic variables — Gender (GEN), Domicile (DOM), Medium of Education (MDE), Principal Household Income (PHI), and Speculative Investment in Family (SIF) — on these behavioural relationships.
- To compare two analytical frameworks — Covariance-Based SEM (CB-SEM) and Partial Least Squares SEM (PLS-SEM) — for robustness, validity, and predictive accuracy.
- To derive strategic insights and policy implications for promoting sustainable investment behaviour through education, regulation, and innovation.

At its heart, the study seeks to answer one overarching question:

What combination of ethical conviction, psychological bias, and socio-demographic context drives the intention of Millennials and Gen-Z investors to invest in sustainable digital assets such as green cryptocurrencies?

6. Theoretical and Conceptual Framework

The study is anchored in an integrated theoretical framework combining principles from Behavioural Finance, Technology Adoption Theory, and Environmental Psychology.

- Behavioural Finance provides the lens through which emotional and cognitive biases such as FOM, herd behavioural, and risk aversion are analysed.
- Technology Adoption Models help explain how digital natives perceive and engage with new forms of financial technology, including crypto-based assets.
- Environmental Psychology introduces the dimension of moral and ecological consciousness, recognizing sustainability as both a cognitive and affective variable influencing behavioural.

The interaction of these elements gives rise to the study's central hypothesis — the Dual Mandate Model — which posits that ethical motivation and speculative interest operate as dual engines driving investment in green cryptocurrencies.

7. Research Methodology and Design

To validate this framework, the research employed a quantitative design involving a structured survey administered to 1,056 respondents across West Bengal. The data underwent rigorous statistical processing, including:

- Exploratory Factor Analysis (EFA) to identify latent constructs;
- Confirmatory Factor Analysis (CFA) to validate measurement models;
- Covariance-Based SEM (CB-SEM) and Partial Least Squares SEM (PLS-SEM) for structural validation, mediation, and moderation testing; and
- Bootstrapping (50,000 resamples) to ensure stability and robustness of results.

The use of dual SEM methodologies — one theory-driven (CB-SEM) and one prediction-oriented (PLS-SEM) — distinguishes this research from earlier studies, offering both analytical rigor and practical relevance.

8. Key Findings: The Dual Engine of Sustainable Investment

The analysis revealed that Concern for Environment and Sustainability (CFE) is the most powerful positive driver of investment in green cryptocurrencies. However, speculative impulses, particularly Fear of Missing Out (FOM) and Herd Bias (HDB), also exert a significant positive influence. This interplay

confirms the Dual Mandate hypothesis: that ethical and speculative motives coexist in shaping investor behavioural.

Conversely, the Snake-Bite Effect (SBE) — a form of psychological inhibition stemming from prior investment losses — emerged as the strongest deterrent, illustrating the lasting impact of negative financial experiences. Interestingly, the Lack of Technical Knowledge (LTK) was found statistically insignificant, underscoring that technological competence is not a barrier among digitally fluent youth.

Demographic moderation further revealed that higher household income (PHI) and English-medium education (MDE) amplify positive investment intentions, while suburban domicile (DOM) intensifies herd-based decision tendencies. These insights underscore the heterogeneity of investor psychology across social segments.

9. Policy and Strategic Implications

The study culminates in a Four-Pillar Policy Framework designed to guide the development of a sustainable digital asset ecosystem:

- **Ideological Alignment:** Institutionalize green certification and auditing to safeguard against “greenwashing” and preserve investor trust.
- **Behavioural Nudging:** Employ digital architecture and interface design that subtly channels speculative impulses toward certified green assets.
- **Regulatory and Financial Incentives:** Introduce differentiated tax regimes and fiscal benefits for verified green crypto investments.
- **Investor Protection and Education:** Mitigate psychological deterrents such as SBE through risk simulation, literacy programs, and targeted outreach.

These policy recommendations, though derived from Indian data, carry universal relevance for governments and regulators seeking to harmonize technological innovation with ethical sustainability.

10. Global Relevance and Scholarly Contribution

The global significance of this book lies in its interdisciplinary vision. It demonstrates that the conversation about sustainability cannot be confined to climate science or environmental policy; it must also encompass finance, technology, and human behavioural. The findings illuminate a generational transformation in financial ethics — a shift from extractive to regenerative capitalism.

Moreover, by integrating advanced SEM-based methodologies with behavioural constructs, this study advances quantitative behavioural finance research in the emerging field of sustainable digital assets. It establishes a replicable model for cross-cultural comparison and offers a conceptual bridge between traditional investment theories and the evolving realities of the digital economy.

11. Structure of the Book

The chapters of this volume unfold logically from conceptual foundations to empirical synthesis:

- Chapter 1 introduces the historical evolution of investment and the rise of digital assets.
- Chapter 2 presents a comprehensive survey of literature, mapping theoretical and empirical gaps.
- Chapter 3 defines the constructs and conceptual models forming the analytical backbone of the research.
- Chapter 4 details the research design, sampling, instrumentation, and analytical methods.
- Chapter 5 and Chapter 6 present the empirical findings of CB-SEM and PLS-SEM analyses, respectively.
- Chapter 7 and Chapter 8 translate findings into strategic, ethical, and policy frameworks.
- Chapter 9 concludes with a synthesis of insights, policy recommendations, and directions for future research.

12. Concluding Perspective

This book is both an academic inquiry and an ethical reflection. It argues that sustainability and speculation — often seen as opposites — can, under the right conditions, form a constructive alliance. By aligning digital innovation with ecological awareness, societies can transform finance from a source of environmental strain into a catalyst for regeneration.

In the final analysis, *Sustainable Digital Assets* is less about cryptocurrency per se and more about the values that underpin the financial behavioural of a generation. It is a study of how the digital and the moral intersect — and how that intersection might shape the architecture of tomorrow's sustainable economy.

Contents

Chapter 1	Introduction	1-23
	1.1 Investment & Mankind	1
	1.2 Investment Products & Evolution Thereof	2
	1.3 Different Classes of Investors	5
	1.4 Cryptocurrencies as an Asset Class for Investments	15
	1.5 Context of the Current Study	21
Chapter 2	Survey of Literature	24-94
	2.1 Prelude to Survey of Literature for the Study	24
	2.2 Selection of Reports, Research Papers etc. for the Survey	27
	2.3 Cryptocurrency – General Matters	30
	2.4 Green Cryptocurrencies	39
	2.5 Behavioural Finance	45
	2.6 Factors Influencing Investment in Cryptocurrencies by Retail Investors	66
	2.7 Technology Adoption Models	84
	2.8 Attitude of Gen-Z and Millennial Investors towards Cryptocurrencies	87
	2.9 Policies of Different National Governments towards Cryptocurrencies	91
	2.10 The Research Gap Identified through the Survey of Literature	92
Chapter 3	Conceptual Model and Hypotheses Development	95-118
	3.1 Choice of Reflective Constructs Over Formative Constructs	95
	3.2 The Constructs	96
	3.3 The Mediator	101
	3.4 The Moderators	102
	3.5 The Conceptual Models	103
Chapter 4	Research Methodology	119-148
	4.1 A Brief Outline of the Research Methodology for the Study	119
	4.2 Research Design and Objectives	119
	4.3 Participants and Sampling	120
	4.4 Measures and Instrumentation	128

4.5 Data Collection Procedure	133
4.6 Data Analysis Tool - Structural Equation Modelling (SEM)	134
4.7 Data Preparation and Screening	138
4.8 Assessing Validity and Reliability of the Sample Data	144
4.9 Limitations of the Research Design	147
Chapter 5 Data Analysis and Findings	149-224
5.1 Data Description	150
5.2 Tests of Reliability	170
5.3 Exploratory Factor Analysis	182
5.4 Confirmatory Factor Analysis	188
5.5 Inner Model of the Hypothesized Structural Equation Model on the Covariance Based Approach	205
5.6 Inner Model of the Hypothesized Structural Equation Model on the Partial Least Square Based Approach	214
Chapter 6 Discussions	225-240
6.1 Assessment of the Measurement Model: Reliability and Validity	225
6.2 Analysis and Discussion of R^2 and Adjusted R^2 Values in the Structural Model	229
6.3 Path Coefficients	232
Chapter 7 Policy Recommendations	241-253
7.1 The Strategic Objective	241
7.2 The Broad Framework for Policy Formulation	241
7.3 Policy Formulation in Detail	243
Chapter 8 Ethical Considerations and Dissemination	254-258
8.1 Ethical Framework	254
8.2 Ethical Considerations in Research Design and Data Collection	254
8.3 Ethical Considerations in Data Analysis and Reporting	256
8.4 Strategies for Responsible and High-Impact Dissemination	257

Chapter 9	Conclusion and Future Scope of Research	259-270
	9.1 Dual Mandate for Green Cryptocurrency Adoption	259
	9.2 Conclusion on Core Findings: The Dual Engine of Investment	259
	9.3 Policy Recommendations: The Integrated Four-Pillar Framework	261
	9.4 Final Synthesis: The Path to a Sustainable Ecosystem	262
	9.5 Scope of Future Research as a Sequel to this Study	263
	References	271-289
	Epilogue	290-294
	Annexure I	295-301
	Annexure II	302-306
	List of Abbreviations and Acronyms used in this Thesis	307-309

List of Charts

Chart No.	Chart Title	Page No
1	Population Pyramid of India	22
2	Population Pyramid of West Bengal	22
3	Density Plot – Cryptocurrency – General Matters	32
4	Network Plot – Cryptocurrency – General Matters	34
5	Overlay Plot – Cryptocurrency – General Matters	36
6	Density Plot – Behavioral Finance	48
7	Network Plot– Behavioral Finance	49
8	Overlay Plot –Behavioral Finance	53
9	Density Diagram – Cryptocurrency Investment Drivers	68
10	Network Diagram – Cryptocurrency Investment Drivers	69
11	Overlay Diagram – Cryptocurrency Investment Drivers	70
12	Hypothesized Model 1	105
13	Hypothesized Model 2	113
14	Composition of the respondents by gender	152
15	Composition of respondents by domicile	153
16	Composition of respondents by principal source of family income	153
17	Composition of respondents by practice of speculative investment in family	154
18	Composition of respondents by medium of education	154
19	Bar Plots for the Tests of Association of GEN with DOM and MDE	157
20	Bar Plots for the Tests of Association of GEN with PHI and SIF	158
21	Bar Plots for the Tests of Association of DOM with MDE, PHI and SIF	159

22	Bar Plots for the Tests of Association of MDE with PHI and SIF	160
23	Bar Plot for the Tests of Association of PHI with SIF	161
24	Mosaic Plots of DOM-MDE & DOM-PHI	161
25	Mosaic Plots of DOM-SIF & GEN-DOM	162
26	Mosaic Plots of GEN-MDE & GEN-PHI	162
27	Mosaic Plots of GEN-SIF & MDE-PHI	163
28	Mosaic Plots of MDE-SIF & PHI-SIF	163
29	FOM	165
30	TCB	165
31	HDB	166
32	SBE	166
33	TSI	166
34	ING	166
35	RTL	166
36	LRA	166
37	LTK	167
38	CFE	167
39	INC	167
40	IGC	167
41	Mean Scores of Responses	168
42	Median Scores of Responses	168
43	Standard Deviations of Scores of Responses	169
44	Coeff of Variation of Scores of Responses	169
45	Pearson Correlation between constituent statements of FOM	171
46	Pearson Correlation between constituent statements of TCB	172
47	Pearson Correlation between constituent statements of HDB	173
48	Pearson Correlation between constituent statements of SBE	174

49	Pearson Correlation between constituent statements of TSI	175
50	Pearson Correlation between constituent statements of ING	176
51	Pearson Correlation between constituent statements of RTL	177
52	Pearson Correlation between constituent statements of LRA	178
53	Pearson Correlation between constituent statements of LTK	179
54	Pearson Correlation between constituent statements of CFE	180
55	Pearson Correlation between constituent statements of INC	181
56	Pearson Correlation between constituent statements of IGC	182
57	Scree Plot - EFA	183
58	The Path Diagram - CFA	204
59	Mediation Effects	212
60	The Path Diagram -PLS	214
61	HTMT Matrix Heatmap	217
62	Forrest Style Plot – Construct Correlation	217
63	Moderating Effect of Gender	221
64	Moderating Effect of Domicile	222
65	Moderating Effect of Medium of Education	222
66	Moderating Effect of Principal Household Income	223
67	Moderating Effect of Speculative Investments Practice in Family	223

List of Table

Table No.	Title of Table	Page No.
1	Hypotheses framed for testing Model 1	107
2	Hypotheses framed for testing Model 2	115
3	Results of Tests of Association of GEN with DOM, MDE, PHI and SIF	157
4	Results of Tests of Association of DOM with MDE, PHI and SIF	158
5	Results of Tests of Association of MDE with PHI and SIF	159
6	Results of Tests of Association of PHI with SIF	160
7	Reliability Test Results for FOM	170
8	Reliability Test Results for TCB	171
9	Reliability Test Results for HDB	172
10	Reliability Test Results for SBE	173
11	Reliability Test Results for TSI	174
12	Reliability Test Results for ING	175
13	Reliability Test Results for RTL	176
14	Reliability Test Results for LRA	177
15	Reliability Test Results for LTK	178
16	Reliability Test Results for CFE	179
17	Reliability Test Results for INC	180
18	Reliability Test Results for IGC	181
19	EFA Test Results	184
20	Factor Loadings -EFA	185
21	Factor Statistics Summary -EFA	187
22	Inter-Factor Correlation -EFA	187
23	EFA – Model Fit Measures	188
24	Model Fit Measures- CFA	190
25	Inter-Factor Correlation – CFA	192

26	Factor Loadings -CFA	192
27	Factor Covariances- CFA	195
28	Residual Covariances- CFA	197
29	Residual Intercepts -CFA	200
30	CFA Model Fit– χ^2	201
31	CFA – Model Fit Measures	202
32	Construct Reliability & Convergent Validity	207
33	HTMT Matrix	208
34	Fornell-Larcker Matrix	209
35	Structural Model –Path Coefficients (Standardized)	210
36	INC → IGC (Mediator Construct → Target Construct)	210
37	Direct paths to IGC (Independent Constructs → Target Construct)	210
38	Direct Effects– Mediation	211
39	Indirect & Total Effects	211
40	Measurement Model (Reliability & Validity)	214
41	Fornell–Larcker Criterion	215
42	Heterotrait-Monotrait (HTMT) Matrix	216
43	Explanatory Power of the Model	218
44	Path Coefficients	218
45	Mediation Effects	220
46	Moderation Effect	224
47	Measurement Model Summary	229
48	Explanatory power of Mediator	230
49	R^2 and Adjusted R^2	231
50	Path Coefficients to the Mediator	232
51	Direct Mediation Effects	234
52	Partial Mediation Effects	236

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