Binance Academy : blockchain for business sustainability

course 3 : Potential Blockchain Use Cases to All Firms

Module : Shift in logic required for ethical marketing in the blockchain-based sharing economy

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Marketing is related to the following :

- Institutions (consumer, firms, channels,and regulator)
- Processes (innovation, branding, customer experience, and value appropriation)
- Value creation (value creation for consumer: value creation for firm, and value creation for society)

1. Blockchain Capabilities

This cluster focuses on what blockchain can do to support strategic, trustworthy, and operational improvements.

Sub-cluster	Topic (Explanation)
Strategic technology	Blockchain enhances financial inclusion, cybersecurity, and data privacy. It removes intermediaries and supports innovations like cryptocurrency, trustworthy tech infrastructure, global commerce, self-sovereign identity, and decentralized collaborative organizations.
Trustworthy digital records management	Blockchain ensures the integrity and reliability of data. It's ideal for systems where data immutability is crucial (e.g., health records, land titles).
Operational transformation	Blockchain supports business resilience and process innovation through applications like peer-to-peer payments, foreign exchange, energy microgrids, smart contracts, insurance, identity management, drone navigation, and collaborative business models.

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2. Blockchain Attributes

This cluster details the technical features and enablers that make blockchain unique and powerful.

Sub-cluster	Topic (Explanation)
Consensus mechanism	Blockchain networks require a consensus protocol (e.g., Proof of Work, Proof of Stake) to verify and publish transactions without central authorities.
Digital transformation in asset management	Blockchain enables the commercialization of both physical and intangible assets, turning them into digital tokens (e.g., NFTs, tokenized real estate, IP rights).
Programmable properties	Blockchain supports self-verification, self-executing smart contracts, distributed ledgers, and automated clearing and reconciliation processes.
Blockchain governance	Involves how decisions are made within blockchain networks—covering voting rights, incentives, trust, ownership, and market governance mechanisms.
Strategic value	Blockchain reduces transaction costs, increases transparency, supports supply chain traceability, and facilitates trust-free ecosystems for asset tokenization and secure data exchange.
Digitalization and sustainability's convergence in the ecosystem	Blockchain promotes economic, social, and environmental sustainability, especially in ecosystems like renewable energy or carbon trading.
Value perception	Blockchain contributes to the creation, recording, and realization of value, helping track how value flows within digital ecosystems.

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3. Underlying Economic Theories of Blockchain

This cluster highlights the economic and business theories that explain blockchain's role in transforming systems.

Sub-cluster	Topic (Explanation)

N/A	Blockchain relates to several key economic theories: • Stakeholder capitalism • Transaction cost theory • Trust theory • Information asymmetry • Diffusion of innovations theory

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Summary

- Capabilities = What blockchain empowers in practice
- Attributes = The key technical features of blockchain
- Theories = The economic logic behind blockchain's impact

Synthesis of the Principles of Stakeholder Capitalism and the Key Foundations of Marketing Through Blockchain Technology

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Overview

This diagram connects two big ideas:

1. Stakeholder Capitalism Principles & Marketing Foundations
2. Capabilities and Attributes of Blockchain Technology

It argues that blockchain offers a new model for economic coordination and governance, especially in the sharing economy, by supporting principles of stakeholder capitalism and marketing innovation.

SECTION 1: Principles of Stakeholder Capitalism + Marketing Foundations

These six principles reflect how stakeholder capitalism changes business and marketing strategies:

Principle	Key Stakeholders	Focus and Evolution

1. Stakeholder Cooperation	Consumers/Prosumers	Shift from ineffective roles to impactful participation. Prosumers now co-create value, not just consume.
2. Stakeholder Engagement	Firms and Channels	Shift from temporary advantages to sustainable value. Marketing evolves from centralized to decentralized management.
3. Stakeholder Responsibility	Regulatory Entities	Blockchain enables new types of institutional roles. For consumers, it promotes a digital-first and responsible mindset.
4. Emergent Competition	Innovators & Customers	Enables business model innovation and shifts customer experience from centralized control to pseudonymous, incentive-based systems (e.g., tokenized rewards).
5. Continuous Creation	Brands & Society	Marketing shifts from platform branding to co-branding. Value is created for society as a whole: consumers, providers, environment (sustainability).
6. Complexity	Ecosystems	Emphasizes managing the appropriation of value and navigating complex, multi-actor challenges.

SECTION 2: Blockchain Technology's Role

Blockchain supports these transformations through Capabilities and Attributes:

Capabilities of Blockchain Technology

Category	Description
Strategic Technology	Provides secure, decentralized, transparent infrastructure for business operations.
Trustworthy Digital Records Management	Ensures data integrity, immutability, and trust (e.g., for legal docs, transactions).
Operational Transformation	Enables innovation in business processes: smart contracts, automation, identity systems, etc.

Attributes of Blockchain Technology

Category	Description
Consensus Mechanism	Enables trustless systems by validating data through decentralized agreement.
Programmable Properties	Smart contracts automate business logic and agreements.
Digital Transformation in Asset Management	Tokenizes real-world assets (property, art, IP) and intangible assets.
Blockchain Governance	Decentralized decision-making; transparency and fairness in protocol development.
Strategic Value	Reduces transaction costs, improves traceability, and builds trust.
Value Perception	Helps define and track how value is created, distributed, and realized.
Digitalization & Sustainability in Ecosystem	Merges economic, social, and environmental sustainability goals.

MAIN INSIGHT

> Blockchain technology acts as the bridge between theory and practice—offering the tools to apply stakeholder capitalism and marketing principles in a decentralized, digital, and collaborative economy.

It supports value co-creation, sustainability, trust, and fair governance, helping us rethink how value is produced and shared in the modern world.

The principle of stakeholder cooperation

Consumer/ Prosumer : From ineffective institutional roles to impactful institutional roles

- While analyzing the profile of users in the blockchain economy, some of them may be a trader, a miner, a validator, or a developer.
- Thus, blockchain consumers/prosumers hold impactful institutional roles as they significantly contribute to the blockchain consensus mechanism and

blockchain governance; their influences will gradually shape the operational transformation of a particular blockchain platform/brand.

- In this context, consumer/prosumers focus on the social nature of value creation by making voluntary agreements (self executing contracts) with other exchange parties-the principle of stakeholder corporation
- For these reasons, consumer/prosumer in the blockchain-based sharing economy- be they holder, trader, validator, developer- shall have a higher level of self-identity that is congruent with blockchain technology.

The principle of stakeholder engagement

Firms and Channels : From transient to sustainable competitive advantages

- Firms and channels that wish to adopt blockchain technology are required to invest a large amount of resources since the technology will replace the existing digital records management systems in order to facilitate resource sharing with multi-stakeholder in the ecosystem.
- Thus, a concept of sustainable competitive advantages that focuses on stakeholders value is emphasized to clarify both how blockchain could serve as a strategic technology and to what extent the firms and channels could benefit from the strategic values in the blockchain-based sharing economy.
- That is, firms and channels have to focus on how to sustain value creation among the exchange parties by engaging them in the ecosystem for the purpose of satisfying the needs of multi-stakeholders- this follows the principle of stakeholder engagement.

The principle of stakeholder responsibility

Regulatory Entities : Effectuating new types of institutional entity

- The approval of the Liechtenstein blockchain act, which came into force on January 1, 2020, has introduced a new list of blockchain service providers.
- A new type of legal custodian that is responsible for ensuring a link between the online and the offline world, where a physical, real asset continues is expected to exist once the asset is tokenized.
- Further, firms would create more special-purpose entities to alleviate their ethical responsibilities-subsidiaries created by a parent firm to isolate financial and ethical risk-and to secure them from bankruptcy while adopting blockchain technology.
- Therefore, regulatory entities must develop a set of legal frameworks that will create and sustain mre value in the blockchain projects so that exchange parties are willing to accept and be accountable for their responsibilities-this follows the principle of stakeholder response.

The principle of emergent competition

Innovation : From business model innovation to asset management innovation

- Firms could utilize blockchain technology to commercialize tangible and intangible assets digitally by tokenizing their assets.

- Asset tokenization refers to the process of converting the ownership rights to a particular asset into digital token in a blockchain for self-execution, such as the rights to real estate (land and houses), right to assets (diamonds and paintings), or license rights (music rights).
- A firm could leverage the strategic value of blockchain technology by publicly trading some of their digital tokens that relate to a unit of a property investment asset.
- In terms of resource sharing in a private blockchain, the granularity of information is a feature of dynamic asset management.
- That is, data owners could provide low data access to others for a specific purpose for a particular period, which would enhance the flexibility of data sharing and data monetization in the blockchain-based sharing economy.
- Therefore, the relationship between asset tokenization and asset management innovation should have a direct impact on firm's subsequent ethical marketing activities.
- In this sense, the innovation process is leading toward a relatively free society that allows stakeholders to have different options in their assets management for competitiveness-this follows the principle of emergent competition.

The principle of continuous creation

Branding : From platform branding to co-branding

- Co-branding between firms is relatively essential as BT is a strategic technology that requires a consortium to start gathering a team of players who have a common end goal in mind in order to solve a problem.
- Thus, the blockchain consortium generally consist of multi-stakeholders looking for digitization and sustainability's convergence in the ecosystem for stakeholder well-being.
- However, it is critical to emphasize the value perception of blockchain project (some may be misleading and over-claiming of sustainability contribution).
- The co-branding strategy between the brands and blockchain firms could be leveraged for ethical marketing, including authentic brand storytelling, blockchain-enabled loyalty programs, traceable online advertising, reduced counterfeit consumption, brand transparency, and trust of brands in online marketplaces.
- In this regard, brand managers have to collaborate with other stakeholders in the ecosystem to create new sources of brand values-this follows the principle of continuous creation.

Value Creation for Society : From primary stakeholders (Consumers, Resource Providers, and the environmental) to an ecosystem perspective

- In the context of a blockchain-based sharing economy, societal value is related to the convergence of blockchain technology and sustainability in the supply ecosystem.
- The ecosystem view allows focusing on resource integrations between any number of actors for the well-being of each individuals actor and for the

system as a whole, which could be viewed as a recursive process connected with stakeholder's common goals.
- To achieve societal values today, non-human actors, such as autonomous machines, are often involved in the ecosystem as relevant contributing to societal value.
- Thus, the role of blockchain technology in an ecosystem has two facets, either than of an actor or enabler.
- This notion is important when identifying the societal and ethical values gained in the blockchain-based sharing economy from the ecosystem perspective, which underlines the principle of continuous creation that emphasizes how BT as an institutional technology that motivates stakeholders continuously creates new sources of value for society.

The principle of complexity

Managing the appropriation of value : Complexity and Challenges

- The appropriation of value is even more complex and challenging for blockchain firms as they have to compete against the existing sharing platforms, prosumers as resource providers, traditional firms, and also blockchain firms.
- An important note is that blockchain governance plays a critical role in the process of how a blockchain firm appropriates strategic value from the marketplace.
- For instance, the blockchain market involves more autonomous actors (machines, the IoT, and decentralized autonomous organizations), and the network governance shifts from being business oriented to using multi-stakeholders or open-source approaches.
- Thus, blockchain firms may need to compete against a decentralized autonomous organization, and at the same time, a collaborative business model that fulfills multi-stakeholders is essential in order to generate substantial revenue through alliances in the blockchain-based sharing economy (operational transformation).
- In this sense, the principle of complexity shall be practiced as the appropriation of value is complex in the block-chain-based sharing economy; managers need to evaluate and balance between diverse value and points of view from different forms of stakeholders, including the human being, machine, and decentralized autonomous organizations.