

Exploring the sources of consumer-based brand equity in the cryptocurrency market

Boukis, Achilleas

DOI:

[10.1515/roms-2022-0025](https://doi.org/10.1515/roms-2022-0025)

License:

Creative Commons: Attribution (CC BY)

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Boukis, A 2022, 'Exploring the sources of consumer-based brand equity in the cryptocurrency market', *Review of Marketing Science*, vol. 20, no. 1, pp. 233-255. <https://doi.org/10.1515/roms-2022-0025>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Achilleas Boukis*

Exploring the Sources of Consumer-Based Brand Equity in the Cryptocurrency Market

<https://doi.org/10.1515/roms-2022-0025>

Received March 17, 2022; accepted September 10, 2022

Abstract: The present study adopts a qualitative approach to explore the nature and sources of consumer-based brand equity (CBBE) in the cryptocurrency market. Drawing on thirty-two semi-structured interviews with crypto investors in the UK, our findings reveal three main sources of CBBE for crypto brands (i.e. blockchain-based features, crypto brand identity, psychological factors). Also, we supply insights into how the nature and features of blockchain technology shape consumers' attitude towards crypto brands. Our findings also reveal the key elements of cryptos' brand identity (i.e. white papers, brand purpose, ICOs) as well as various psychological factors (i.e. psychological distance, escapism, curiosity) that shape consumer perceptions of crypto brands. Our work extends the cryptocurrency and branding literatures in identifying the main sources of CBBE in the crypto market.

Keywords: cryptocurrency, consumer-based brand equity, blockchain, brand identity, technology

1 Introduction

Blockchain has emerged as one of the most prominent technologies that enabled the launch of a new type of digital currencies, namely cryptocurrencies (cryptos onwards) (Iansiti and Lakhani 2017). Cryptos are digital assets designed to work as a medium of exchange and are the product of a decentralized network of exchanges that leverages blockchain technology to gain decentralization, transparency, and immutability (Tapscott and Tapscott 2016; Perez, Sokolova, and Konate 2020). Cryptos were heralded as the harbinger of a new era for peer-to-peer financial transactions and brands Bitcoin, Dogecoin and Ripple became iconic global brands over the past few years. However, despite the

***Corresponding author: Achilleas Boukis**, PhD, Associate Professor in Marketing, University of Birmingham, Birmingham Business School, University House, Birmingham, Edgbaston Park Road, B15 2TT, Office G39, UK, E-mail: a.boukis@bham.ac.uk

 Open Access. © 2022 the author(s), published by De Gruyter.  This work is licensed under the Creative Commons Attribution 4.0 International License.

massive capitalization of the crypto market (estimated at around \$1.5 trillion in 2021), scarce empirical insights exist around how consumers experience this new type of brands and how consumer-based brand equity (CBBE) is shaped in the crypto market (Breidbach and Tana 2020; Wichmann, Wiegand, and Reinartz 2022).

While prior studies extensively look the building blocks of CBBE in product and service markets, limited attention is attracted to exploring CBBE in a crypto context, where “platform” brands like Bitcoin and Dogecoin have emerged as a result of blockchain (Rojas-Lamorená, Del Barrio-García, and Alcántara-Pilar 2022; Wichmann, Wiegand, and Reinartz 2022). In fact, no empirical insights exist on consumers’ cognitive and emotional responses to cryptos’ brand identity in this high-risk, volatile and unregulated market (White et al. 2020). Given the assetless and intangible nature of cryptos as well as the relative lack of evaluative cues, consumers might evaluate and experience platform brands in different ways (Domingo, Piñeiro-Chousa, and López-Cabarcos 2020; Wichmann, Wiegand, and Reinartz 2022). Also, issuers know very little around how blockchain features influence consumers’ behavioral responses to Initial Coin Offerings (ICOs), through which most new tokens are being launched (Bellavitis, Fisch, and Wiklund 2021; Truong et al. 2017). Given the high-failure rates among crypto issuers and the need for building trust in the crypto market, a more thorough understanding is needed around the sources of CBBE for crypto brands.

This study aspires to shed light in the sources of CBBE in a crypto context. To achieve this goal, a qualitative approach is adopted through conducting thirty-two depth interviews with crypto owners in the UK. Our findings extend the technology and branding literatures in three ways. First, we uncover three main sources of CBBE in the cryptocurrency market (i.e. blockchain-based features, crypto brand identity elements, psychological factors). Additionally, we provide insights on how the features of blockchain technology shape consumer attitudes towards crypto brands. Our findings also reveal the key elements of cryptos’ brand identity (i.e. white papers, brand purpose, ICOs) in ICOs as well as some psychological factors (i.e. psychological distance, escapism, curiosity) that shape consumer perceptions of crypto brand equity.

The paper starts by highlighting the notion and dimensions of CBBE as well as delineating the nature and unique features of crypto brands. It then outlines the research design and methodology, before presenting the emerging themes from the findings. Last, it discusses the relevance of this work to pertinent literature and practice and offers some suggestions for future research.

2 Literature Review

2.1 Nature and Dimensions of CBBE

Pertinent researchers widely acknowledge the value of brand equity as a key indicator of firm performance (Aaker 1991). Existing brand equity conceptualizations can be broadly divided in two perspectives: a financial perspective that stresses the economic value of the brand to the firm and a consumer-based one that highlights the brand value for the consumer (Baalbaki and Guzmán 2016). The consumer-based perspective remains the most dominant perspective, as the value of a brand can mostly be realized when it becomes relevant to consumers (Chatzipanagiotou, Veloutsou, and Christodoulides 2016) and it is mostly operationalized through CBBE.

One of the most comprehensive definitions of CBBE suggests it as *“a set of perceptions, attitudes, knowledge, and behaviors on the part of consumers that results in increased utility and allows a brand to earn greater volume or greater margins than it could without the brand name”* (Christodoulides and de Chernatony 2010, p. 48). The notion of CBBE reflects consumers’ knowledge of a brand and their experiences with it, representing their mindset and perception of the brand (Keller 2009). The CBBE literature builds on the idea that brand equity reflects the differential consumer responses to a brand’s marketing mix that results from consumers’ associations to a brand (Aaker 1991). Work in CBBE undertakes two complementary approaches for its conceptualization. The direct approach views CBBE by assessing the actual impact of brand knowledge on customer response to different marketing elements (Veloutsou, Christodoulides, and de Chernatony 2013). A main limitation of direct approaches is that they *“provide only segment-level estimates of brand equity that do not shed light on the sources of brand value”* (Baalbaki and Guzmán 2016, p. 232). On the other hand, the indirect approach assesses potential sources of CBBE by identifying consumers’ brand knowledge structures. The majority of the work follows the indirect approach to measure brand equity as they can provide with a more aggregate picture of the brand through identifying the underlying dimensions and sources of CBBE (Christodoulides et al. 2006; Christodoulides et al. 2012).

Following the indirect approach, several studies have attempted to conceptualize the dimensions of CBBE and ways to accurately measure it (Rojas-Lamorena, Del Barrio-García, and Alcántara-Pilar 2022). In a product context, Lassar, Mittal, and Arun (1995) propose five CBBE dimensions (i.e. performance, value, social image, trustworthiness and commitment) whereas Baalbaki and Guzmán (2016) develop perceived quality, perceived value, brand preference, and sustainability as

key elements of CBBE. In a digital context, Christodoulides et al. (2006) measure brand equity indicating emotional connection, online experience, responsive service nature, trust, and fulfilment as its key dimensions. Christodoulides et al. (2012) also identify a set of brand equity dimensions including five dimensions (i.e. awareness, heritage, uniqueness, reliability and willingness to sacrifice).

The majority of these studies investigate CBBE in a product or corporate brand setting with the exception of few studies that explore brand equity in an online or service context (cf. Rojas-Lamorena, Del Barrio-García, and Alcántara-Pilar 2022). Scholars have yet to produce a universal framework for understanding CBBE across different contexts (Veloutsou, Chatzipanagiotou, and Christodoulides 2020). Moreover, the rise of “platform brands”, like cryptos, requires a new exploration of the components of CBBE beyond the product or service levels so that it encompasses their assetless and decentralized nature as well as the platform-mediated transactions that occur between consumers (Wichmann, Wiegand, and Reinartz 2022).

2.2 CBBE in the Crypto Market

Crypto brands constitute a relatively new type of platform brands. A *crypto brand* is defined as the bundle of (visual) symbols and stimuli (i.e. brand logo, name, mantra, character) that are integrated into the cryptocurrency’s digital identity (i.e. white paper, URL, website) and distinguish it from other cryptos. Such symbols might include cryptos’ brand name (e.g. Shiba Inu), their brand symbol (e.g. a dog for Dogecoin) or any other identity elements that form cryptos’ digital brand identity. As crypto issuers do not fully control their brand identity or the lack of an organized entity behind these assets (e.g. there is no organized entity behind Bitcoin to manage its brand), various market actors’ advocacy and user-generated referrals about their brand identity are an important determinant of their market performance (Lee 2019).

In a crypto context, we define CBBE as the *added value that the consumer associates with the ownership and consumption of the crypto brand as well as the associations from the bundle of brand elements that are integrated into the crypto’s digital identity*. Limited, if any, studies investigate how consumers formulate their brand equity perceptions for crypto brands, such as Cardano, Ether and Bitcoin (Boukis and Magrizos 2018; Rojas-Lamorena, Del Barrio-García, and Alcántara-Pilar 2022). Moreover, many of the existing dimensions of CBBE (e.g. brand perceived quality, product functional utility) become redundant, as crypto brands encompass a number of elements that existing CBBE conceptualizations fail to cover (e.g. assetless nature, intangibility, fungibility).

For instance, the digital-only crypto brands limit the use of non-visual branding elements; and, the lack of a business entity behind them could result in a diverse experience to users, compared to online and service brands (Wichmann, Wiegand, and Reinartz 2022). Therefore, scholarly understanding of what drives CBBE and how consumers experience crypto brands still remains confined (Boukis 2020; Domingo, Piñeiro-Chousa, and López-Cabarcos 2020). Next, to better understand the nature of crypto brands we present their key features.

2.3 Nature and Features of Cryptos

Scholars have recently begun to focus on cryptos from a usage perspective via investigating enablers and barriers of crypto adoption as well as consumers' attitudinal and behavioural responses to crypto adoption (Kher, Terjesen, and Liu 2020; Raddatz et al. 2021). Drawing on technology acceptance model (TAM), prior work indicates performance expectancy and financial gains as important drivers of cryptos' adoption and emphasizes the central role of trust for user adoption of blockchain-based applications (Kher, Terjesen, and Liu 2020; Raddatz et al. 2021). The stream has also begun to look at how consumer perceptions of cryptocurrencies are shaped from various market actors (e.g. social collectives, traders, miners, etc.) and user-generated content (e.g. social media, crypto communities) (Breidbach and Tana 2020). Next, we discuss the four distinctive features of cryptos.

2.3.1 Blockchain Nature

As cryptos rely on blockchain, they possess some novel technological features. First, there is no need for trusting intermediaries or control of any central authority, making their transactions among network actors permissionless, as opposed to national currencies (Iansiti and Lakhani 2017; Tapscott and Tapscott 2017). Second, as cryptos operate as both substitutes of national currencies and speculative assets, the financial value of their units heavily depends on investors' interest in them (Gurdgiev and O'Loughlin 2020). Third, many of them (e.g. Dogecoin) offer no physical configuration or legally bounding proof of ownership, as all transactions are digitally stored across network users (Iansiti and Lakhani 2017). Fourth, cryptos are still not clearly subject to market legislation and, usually, a fixed supply of units exists in circulation (Bellavitis, Fisch, and Wiklund 2021). Given these complex technological features, investing in the crypto market requires greater technical savvy among consumers, in line with the premises of the high-tech product literature (Chandy and Tellis 2000). As high-tech assets, their technological novelty generates increased category risk for consumers and higher barriers to purchase such radically new products (Truong et al. 2017).

2.3.2 Digital and Credence Assets

Cryptos remain highly intangible assets that do not correspond to any physical product or service offering, and often, to any corporate entity; they are exclusively accessible through digital platforms (Iansiti and Lakhani 2017; Lee 2019). Their digital nature signals reduced evaluative cues to their stakeholders, compared to other financial products (e.g. credit cards) (Chatterjee and Rose 2012). Signalling theory suggests that when consumers face increased information asymmetry for the brand under consideration, they search more extensively for evaluative cues to reduce it (Mitra, Reiss, and Capella 1999). The services literature also suggests that higher intangibility and effort-to-grasp of intangible service offerings impair consumer ability to engage in brand info-processing and makes performance evaluations more varying (Brady, Bourdeau, and Heskell 2005). In a crypto context, this high perceived intangibility is also increased due to the risk of consumers' losing their unique private key, without which access to the cryptos they own is not possible (Tapscott and Tapscott 2017).

Cryptos also possess some of the features of credence services. As the crypto market has relatively recently emerged, consumers lack technical expertise to evaluate them. Consumers have to rely on extrinsic evaluative cues (e.g. advertising, referrals, etc.) to assess cryptos' value and this heightens their decision risk (Brady, Bourdeau, and Heskell 2005). Evidence shows that consumers' inclination to purchase is reduced when they do not possess adequate info or market experience to confidently evaluate a product category (Girard and Dion 2010). Hence, when evaluating credence financial assets, like cryptos, their visual identity becomes of increasing importance for consumers (Mitra, Reiss, and Capella 1999). Interestingly, the digital identity of cryptos remains incomplete as the majority of them provide visual (mostly) cues to consumers with other parts of their identity being absent (e.g. brand mantras, video-based cues).

2.3.3 Blurred Ownership

A significant number of cryptos lack formal ownership and they are tradeable without being registered to any legal entity. As a result, they offer no legally bounding evidence of ownership to investors and their transactions are anonymously stored across network users (Iansiti and Lakhani 2017; Kher, Terjesen, and Liu 2020). In several cases, cryptos like Bitcoin and NEO belong to no specific stakeholder and no stakeholder has full control of their brand identity. At the same time, cryptos operate in a high category risk environment due to pricing bubbles, the lack of market regulation, extreme price variability and online frauds, among others (Bellavitis, Fisch, and Wiklund 2021), increasing this way the financial risk when trading these assets.

2.3.4 Initial Coin Offerings

The launch of new cryptos often occurs through ICOs. ICOs enable ventures to raise capital by selling digital assets (“tokens”) to a group of investors (Bellavitis, Fisch, and Wiklund 2021). Recent work looks into the role of different evaluative cues and factors that drive successful ICOs (Wehnert, Baccarella, and Beckmann 2019). Such factors include the availability of a technical white paper (Perez, Sokolova, and Konate 2020); team size, the number of advisors and the presence of a Twitter account, which also have a positive impact on ICO success (Domingo, Piñeiro-Chousa, and López-Cabarcos 2020). Work in the product launch literature reports that a weak brand identity often results in unsuccessful market performance of radically new products (Kamolsook, Badir, and Frank 2019). Also, consumers’ lack of concrete technical details and understanding of the crypto market could undermine how they experience a new brand in its early beginnings (Brexendorf, Bayus, and Keller 2015). For instance, cryptos are often launched without communicating a specific brand purpose (e.g. Dogecoin) or their founders’ identity might still be unknown (e.g. Bitcoin’s creator is only known as Satoshi Nakamoto).

In providing an overview of the key features of cryptos, it becomes apparent the void of knowledge around how their unique features and idiosyncratic nature could affect the formation of brand equity among consumers in this context. Hence, we aspire to address the following research question: *Which are the sources of consumer-based brand equity in the crypto market?*

3 Methodology

To answer these questions, we adopted a qualitative approach and conducted a total of thirty-two in-depth interviews with crypto owners. The use of semi-structured interviews enabled the researchers to ask probing questions and it also aided the discovery of new, relevant issues and help participants to recall information effectively (Brinkmann and Kvale 2018). The focus of the interviews was primarily to delve into informant attitudes towards crypto brands and shed light on how their brand elements and their symbolic function influences consumers brand associations. To maximize knowledgeability, informants did not qualify to participate unless they meet three specific criteria. First, they should have experience in investments (stocks, derivatives, etc.) for more than one year; second, their minimum amount of investment in the crypto market should be over £1500 at the time of inclusion; third, they should own at least one crypto for the past one year.

Interviews were conducted in the UK between September and December 2020. The rationale behind the selection of the context was evidence confirming the UK as a significant market for cryptos with an estimated number of 2.6 m active users and with high levels of awareness for cryptos among adults (73%) (Cryptoasset Consumer Research Report 2020). Choosing a market with these features would make it easier to identify and attract more knowledgeable and experienced informants for our study. Based on evidence from CoinMarketCap (i.e. an open online platform providing real-time updates for the crypto market), a list of both cryptos was generated (based on data from CoinMarketCap on August 25th 2019) and participants indicated which of these brands they currently possess. The interviews were conducted face-to-face and lasted on average 49.6 min each. All the interviews were recorded and transcribed verbatim by a professional service. Interviewees were recruited using purposive sampling. This involved selecting participants who were best positioned to provide data to allow further examination and refinement of emerging themes and categories. Recruitment was concluded when theoretical saturation was reached. The interview transcripts were further cleaned before they were content-analysed by the research team.

Inductive coding was applied to the transcripts, as there was no theoretical guidance from previous work. A thematic analytical inductive approach was adopted using an iterative process of data collection and analysis to reveal common themes in the way consumers frame their attitudes towards crypto brands (Creswell and Creswell 2017). A list of initial codes was first developed on codes emerging from the data and then was subsequently complemented with the literature review on the online branding, consumer psychology and high-tech product literatures. Then, higher-order theoretical concepts and relationships were identified. The intercoder reliability was established through the use of two independent researchers who checked the original coding. The coefficient of agreement was calculated at 98.1 percent which was considered acceptable. Discrepancies were resolved through discussion.

Regarding the demographic background of the interviewees (see Table 1), 84.3% of them are male, in line with recent surveys showing a significant gender gap in terms of retail owners of cryptos; their average age is 35.1 years; 56.2% of them have a Bachelor degree (34.3% have a Master degree); their annual income varies, 34.3% of the participants gain between 50 and 75 K annually, 34.3% of them gain between 35 and 50 K and 15.6% of them gain between 75 and 100 K per year.

Regarding participants' relationship with the crypto market, some interesting info is presented: 37.5% of the participants indicated Ether as the main crypto they own for the past one year (25% of them indicated Bitcoin; 11.5% of them indicated Solana; 9.3% indicated Shiba Inu); 93.7% of the participants indicated that they own more than one crypto; 46.8 of the participants have invested between 1.5–5 k

Table 1: Profile of interviewees.

Pseudonym	Age	Gender	Highest Qualification	Annual Income (£)	Total Value (£)	No of cryptos	Investment Experience (years)
1) Nick	32	M	Bachelor's	50–75 K	1.5–5 k	2	3
2) Jonas	41	M	Bachelor's	35–50 K	10–20 k	3	5
3) Ashley	28	F	Master's	20–35 K	5–10 k	4	2
4) Jacob	37	M	Bachelor's	50–75 K	10–20 k	3	6
5) Michael	39	M	Bachelor's	50–75 K	Over 20 k	5	3
6) Matthew	45	M	Bachelor's	75–100 K	10–20 k	2	3
7) Rick	27	M	Master's	35–50 K	1.5–5 k	7	6
8) Raul	29	M	PhD	35–50 K	3–5 k	3	1
9) Shaun	40	M	Bachelor's	35–50 K	1.5–5 k	4	5
10) Andy	42	M	Master's	50–75 K	1.5–5 k	2	4
11) Soroush	36	M	Bachelor's	75–100 K	5–10 k	5	1
12) Georgia	29	F	Master's	35–50 K	Over 20 k	15	4
13) Scott	28	M	Bachelor's	50–75 K	1.5–5 k	1	3
14) Daniel	23	M	Master's	20–35 K	1.5–5 k	3	2
15) Maria	29	F	Master's	50–75 K	5–10 k	4	2
16) Darren	30	M	Bachelor's	75–100 K	Over 20 k	3	4
17) Bill	38	M	Master's	35–50 K	1.5–5 k	5	3
18) Patrick	30	M	Bachelor's	50–75 K	5–10 k	10	2
19) Raj	33	M	Bachelor's	35–50 K	1.5–5 k	7	6
20) Paul	24	M	Bachelor's	20–35 K	1.5–5 k	3	6
21) Antonio	39	M	PhD	75–100 K	5–10 k	8	3
22) Roy	44	M	Bachelor's	50–75 K	1.5–5 k	4	1
23) John	34	M	Bachelor's	35–50 K	Over 20 k	6	3
24) Aaron	32	M	Master's	35–50 K	5–10 k	3	6
25) Stacey	31	F	Bachelor's	20–35 K	1.5–5 k	1	4
26) George	36	M	PhD	75–100 K	1.5–5 k	2	2
27) Mike	33	M	Bachelor's	50–75 K	Over 20 k	7	6
28) Peter	43	M	Master's	50–75 K	1.5–5 k	3	3
29) Jean	34	M	Bachelor's	35–50 K	5–10 k	4	4
30) Richard	47	M	Bachelor's	50–75 K	10–20 k	6	5
31) Eve	41	F	Master's	20–35 K	1.5–5 k	3	3
32) Gus	39	M	Master's	35–50 K	1.5–5 k	4	2

in the crypto market (21.8% of them have invested 5–10 k); 56.2% of them reported that they have purchased this crypto within the last 1–3 years (21.8% own a crypto for the past 3–5 years). In average, participants own 4.4 different crypto brands and have 3.5 years of investment experience. Last, we ran an unaided recall test in the beginning of the interviews (i.e. “*Could you please recall 5 crypto brands on top of*

your mind?”) that confirmed the following: Bitcoin had the highest unaided recall among participants (87.5% of the participants mentioned it) followed by Ethereum (78.1%), Dogecoin (62.5%), Tether (53.1%), Ripple (37.5%), Litecoin (31.2%) and Stellar (28.1%) in terms of unaided brand recall.

4 Findings

Our data reveals three sources of CBBE in the crypto market (i.e. blockchain-related features, brand identity elements, psychological factors). These insights are presented accordingly and we explicate each of the key themes and their sub-themes. An overview of the themes that have emerged in our analysis is presented in Figure 1 below.

4.1 Blockchain-Related Features

The reliance on blockchain technology and its features have emerged as important determinants of perceived crypto brand equity. Informants highlight four distinct aspects of crypto brand equity that derive from their underlying blockchain nature (i.e. decentralized trust, increased digital privacy, intangible and automated nature, limited interactivity), as presented below.

Around half of informants like Soroush, highlight crypto brands as the first to materialize the *“trustless [monetary] exchanges promise”* through the decentralized network of exchanges that blockchain has brought to reality. Cryptos’ reliance

Main themes	Sub-themes
Blockchain features	Decentralized trust
	Increased digital privacy
	Intangible & automated nature
	Limited interactivity
Crypto brand identity	White paper
	Brand purpose
	ICOs
Psychological factors	Psychological distance
	Escapism
	Curiosity

Figure 1: Sources of CBBE in the cryptocurrency market.

on blockchain influences informants' levels of decentralized trust in automated, peer-to-peer financial transactions with third parties, giving an increased sense of control and trust when using these brands (Harvey and Branco-Illodo 2020). Nick confirms this in their quote below:

"The promise that you don't need middlemen who own the money and take their cut in any transaction you make is cool innit? And it makes you wonder, what if this works (...) it's great for once that you have no reason not to trust this technology [blockchain]." (Nick)

Given consumers' increased frustration about how their personal information is misused in tech-mediated interactions and the social media environment (Gurdgiev and O'Loughlin 2020), informants, like Darren, emphasize the increased sense of digital privacy that crypto brands offer, due to the pseudonymity capabilities that blockchain networks offer to their users:

"Despite GDPR, the past few years these guys [social media] have become massively invasive in our lives by tracking down our spending, our buying, even our dating lives!! These breaches put at risk consumers' privacy at a global scale, and well, he [Satoshi Nakamoto] somehow put a stop at it!" (Darren)

More than half of the interviewees also raise the heightened risk and stress they experience when owning such brands. Several interviewees report increased anxiety, especially during crypto hypes, like Scott:

"I couldn't hold back from tracking EOS's value every few minutes ... The moves were so dramatic (...) that you need to check constantly how you are doing ... if not, you feel as if you 'll miss this once in a lifetime chance to get loaded!"

This is partially attributed to the lack of an organized corporate entity behind them (e.g. Bitcoin) and to their automated and human-free nature that limits informants' ability to interact with such *"self-service brands"* (Matthew). This challenges firms' centrality in managing the brand, with the network of market actors (e.g. social communities, investors, miners, etc.) evidently shaping their market performance (Breidbach and Tana 2020). Darren explains:

"What made these brands such a thrill is the idea behind them (...). You buy it, you own it, you sell it, you can make profit out of it but it feels as something that you can never take away from the internet and store it to a safebox (...). If something goes wrong, there is nobody to help you behind most of them [cryptocurrencies] so you are on your own!"

Cryptos' intangible and digital nature also impairs participants' psychological connection with crypto brands and generates a reduced sense of psychological ownership, which is widely reported from informants (Sinclair and Tinson 2017).

Eight participants refer to the sense of reduced psychological ownership they have due to their limited ability to deepen their knowledge about or interact with crypto brands, as indicated below from Bill:

“I struggle to see how a brand goes hand in hand with something that has no texture, it’s an internet product, made of a few lines of code (...) Do they have a call center or someone to protect you from scammers? How do you get to know them for real?”

4.2 Elements of Crypto Brand Identity

A second aspect of cryptos that influences participants’ CBBE perceptions relates to their brand identity elements. Our data reveals three key elements of brand identity that add value to new crypto brands: the white paper, the brand purpose, and the ICO. Some of the informants view white papers as a “*brand bible*” that largely determines their trust formation towards any new crypto brand, adding to the emerging ICO literature that looks into what drives consumer attitude towards ICOs (Bellavitis, Fisch, and Wiklund 2021; Domingo, Piñeiro-Chousa, and López-Cabarcos 2020). Published white papers that become available in the ICO phase, appear to be the most vital element of the brand, as they communicate the promise, the *raison d’être*, the story of and the problem that the new project aspires to solve (if any). Georgia’s quote displays this well:

“You can’t just get in there, you have to get a glimpse of the story they sell and whether the project is going to survive in this craze (...), some of them don’t even make it by the ICO (...). For me the disclaimer [i.e. restrictions or notifications for ICO investors] is a must to read, so does the problem they try to address.” (Georgia)

White papers appear to have a greater influence on participants’ formation of trust than other brand identity elements (e.g. brand logo), as Paul explains:

“As a crypto nerd, I always go through it [i.e. white paper] to make sure that is a solid project I am investing in and not just thin air (...) The visuals, their emblem or their website is all about marketing, but it’s the business plan for every cryptocurrency and sometimes they can trick you with fancy words and technical terminology.”

Surprisingly, the purpose of the crypto brand emerges as a central aspect of their identity among two thirds of the interviewees. A stark difference among informants was the various purposes they attributed to various crypto brands. A genuine purpose is thought to instil meaning to its stakeholders and generate stronger emotional connection with the brand. Approximately half of the informants emphasize the disruptive character of crypto brands like Bitcoin, highlighting their

“pioneering” nature that will bring “another wave of internet disruption” in the people’s lives. Mike says:

“Bitcoin is one of the world’s most important developments, along with the wheel, the internet and electric power, however just few lads understand the real revolution of cryptocurrencies, most of them are speculators, like only 10% of them are tech savvy.”

In our data, three dominant purposes emerge in relation to crypto brands (i.e. sustainability, fun and activism purposes). Around a third of the participants attribute an “activist” orientation to at least one crypto brand (i.e. Bitcoin, Coinbase, Cardano) that allows them to reduce dependence from the “tyranny” of intermediaries (e.g. banks, credit cards). They argue that the “decentralized power” of such brands offers micro-investors “equal opportunities” serving as a buffer to social inequality and making financial markets more inclusive for the bottom of the pyramid consumers. As part of this purpose, informants, often emphasize crypto brands’ rebel character (Stoeckl 2014), in line with prior work highlighting cryptos’ associations with the anarchist, hippy, and cypher-punk cultures (Harvey and Branco-Illodo 2020). Interviewees label them as a “decentralized act of resistance” against the centralized financial system, with Paul saying:

“It’s not a just a revolutionary act against how markets and financial institutions work (...), it’s a bet against central banks and the status quo, that tech people have already won, immit fascinating? [About Bitcoin]”

Interestingly, five of the participants brought up Libra (a crypto being developed by a consortium of multinationals led by Facebook) as an example that contradicts the “anti-establishment” (Maria) character of crypto brands. The idea that a crypto brand would be managed from corporates is not well-received among informants, as Matthew indicates:

“That would be quite scary huh? [About Libra’s launch] These guys know pretty much all about what you do online Imagine for a social media giant to control our money as well, then how are they different from banks? [About Facebook]”

Eleven participants also brought up the “sustainable” function of brands like Dash and Stellar. Due to their sustainability outlook these brands offer to global challenges (e.g. energy consumption), participants desire them because of their “green” and environmental brand purpose. Darren explains below:

“Currencies like Bitcoin need massive [energy] consumption to function, more than a basket of cities together (...) this kind of makes blockchain redundant to build your business model on it (...). However, newer ones rely on more efficient systems like the “Proof of Stake” [About DASH],

which make mining much greener and more sustainable. It's the sustainable future they bring to the table!"

Last, seven informants appear to bring up the fun orientation of crypto brands, like Dogecoin, in which people invest largely due to their fear of missing out (FOMO), which is often associated with increased purchase intentions in the psychology literature (Bright and Logan 2018). John explains this trend:

"Take Dogecoin for instance, it appeals to certain corners of the web while undermines the legitimacy of cryptocurrency (...) If it wasn't for blockchain something like Doge wouldn't be around. Believe or not, people value doge because of the brand, the identity, and the fact that yes a doge can be used to buy things (...) I've never bought any dogecoin because it's a joke! There are some who might buy those brands cos they see cos they are a part of the meme culture. (...) Then you have herd mentality where people jumped in it because their friends are buying them and you don't want to be left out!"

Last, some interesting insights emerge around how consumers evaluate new crypto brands during ICOs. Given the fierce competition among cryptos and numerous scams in the market, ICOs have become a crash test for new crypto brands that they need to pass successfully, as Rick explains:

"Everyone strives to become the next Bitcoin but it's really hard to stand out in the marketplace, ICO's offer scammers the perfect storm to get your money (...). You need to invest in the visuals and a catchy logo otherwise you won't create hype for the brand." (Rick)

As interviewees highlight, their trust towards new crypto brands largely depend on their evaluations of ICOs. During ICOs, informants seem to pay particular attention to the story behind the brand, the endorsements used and less on user-generated advocacy from crypto communities (Bellavitis, Fisch, and Wiklund 2021). Also, informants bring up the importance of a reliable team/founders behind new crypto brands. The quote below from Antonio displays this clearly:

"Blockchain makes it trustworthy but it cannot tell the story itself (...) Don't be a fool, ICOs are a high-risk investment and you have to ask yourself: Is there a solid and credible team? Are they validated from the community? How do the founders address community questions? (...) Look up who the team member are or you 'll end up like those guys who invested \$12M in Plexcoin [a scam ICO]!"

A fourth of the informants do not particularly value the endorsement of ICOs from celebrities with limited expertise in the field, in line with the tech product literature that considers the expertise of an endorser as more influential in reducing financial risk than attractiveness (Knoll and Matthes 2017). Four interviewees report their scepticism towards mainstream celebrity endorsement during ICOs and social media advertising. The quotes from Matthew is enlightening:

“So what exactly qualifies Gwyneth [i.e. Paltrow] or Steven Segal to promote a crypto? (...) If such faces show up then stay away (...). Do they even get what they’re endorsing? Everyone has a role to play, why else would they promote it? Nobody openly advertises the cryptos they are involved in as people will think they are shilling!!” (Matthew)

Interestingly, our findings reveal the influential role of user-generated content in crypto communities (e.g. Bitcointalk, Steemit). Given the lack of an organized entity behind many of these brands and the limited interaction with them (Truong et al. 2017), seven informants emphasize the increased informational value from relevant communities so they can understand the tech behind the brand. Darren comments on this below:

“There is nobody to help you behind most of them, so you are on your own! Basically there are two ways to get to know about cryptos: Twitter and user groups (...) When it started, everyone is supposed to share their expertise and help each other grow but as it massively grew, user groups became more of a fake news forum where they try to get you into some new project or make big moves!” (Darren)

Despite the informational value of brand communities, participants often report the lack of trust in such communities, as “everyone is there to make money” (Mike). This, along with the profit-making orientation of most crypto investors, undermines the formation of trusted relationships among community members. John explains below:

“I joined Bitcointalk a couple of years ago (...), There is loads of info in there, about mining, tech support, even beginners’ material in multiple languages (...) What’s frustrating is that you are on the same boat with folks you can’t really trust (...). For them to make money, they need you to bet against the stream!!”

4.3 Psychological Factors

Our data also reveals some psychological antecedents that seem to drive how consumers experience crypto brand equity, namely psychological distance, escapism and curiosity. The dominance of the visual brand identity in the crypto market and the reduced psychological ownership among participants result in crypto brands being mentally depicted at higher levels of abstraction among informants (Bar-Anan, Liberman, and Trope 2006). More than half of the informants showed increased psychological distance and had difficulty to use more concrete features (i.e. low-level construal) when discussing the crypto brands they own (Wakslak and Kim 2015). Approximately one out of two interviewees displayed limited ability to recall some aspect(s) of cryptos’ brand identity (e.g. logo

or brand colours) apart from their brand name, with four participants even confusing the brand names of cryptos they own (e.g. the platform “*Ethereum*” with the buyable tokens “*Ether*”). Moreover, there was a wider sense of an incomplete or inauthentic brand identity among informants for several brands in the market (e.g. Dogecoin). Daniel reports:

“Bitcoin is the real thing, the king, the first that came out (...) Many of the rest are lookalikes, just clones ... How many folks really know what’s the different promise that Stellar and EOS make, but does it matter? (...)” (Daniel)

Crypto brand ownership allows participants to temporarily experience escapism, eluding from their everyday reality. Whereas escapism is mostly identified as a determinant of hedonic experiences and activities, Maria reports on seeking arousal and thrill through engaging in active escapism:

“The idea that you own one, and they are not unlimited, and that you are part of this group of folks that changes the world is staggering (...) This is the most exotic thing, I’ve ever done as an investor! [About investing in RPPLE].”

Crypto brands also enable informants to experience escapism through materializing aspirational identities, such as the one of a social investor (Ahuvia 2005). This is evident in Maria’s saying below:

“It looks like, eventually, all these altcoin brands could be part of your cyber identity. What cryptos do you pay with? (...) It’s going to be an expression, whether it’s an overt or an anonymous expression, of who you are and what you stand for!”

In line with work in consumer psychology that shows consumers’ bandwidth to delve into new experiences (Evanschitzky et al. 2015), eight informants also report their curiosity as a driving force to engage with the crypto market. These attitudes were dominant among approximately a third of the interviewees like Aaron:

“Some more sophisticated tech executives and expert investors come in to invest, and possibly even to diversify, but I think the average user in this market, like myself, comes into it out of being curious (...) to experiment and find out what this hype is all about!”

Table 2 below presents an overview of the main themes and sub-themes that have emerged from our analysis and some indicative quotes for each one of them.

Table 2: Overview of main themes and sub-themes.

Key themes	Sub-themes	Interview Quotes
Block chain-related feature	Decentralized trust	<i>“Money is trust, therefore cryptocurrencies are trust on technology and (...) it makes perfect sense to place your hopes on tech projects, which are private and 100% free of human error.”</i> (Soroush)
	Increased digital privacy	<i>“A bunch of cryptos like Monero sure are! No matter why you want privacy there are quite a few good options in crypto space. Monero is top dog, but there are several other options with a little different spin on privacy. However, Don't trust exchanges, don't trust trading platforms, trust well read and tested white papers.”</i> (Richard)
	Intangible & automated nature	<i>“It's weird, you know your money is there, you can check it, but it often feels like it's something you'd never see, touch or smell (...), You can never own [block chain] technology, you get no royalties when others use it, you have no control on it, so how does it belong to you? (...)”</i> (Mike)
	Limited interactivity	<i>“If you join the discord of a new project, there is a very welcoming environment. In my experience the bigger, more established projects can be less friendly to newcomers because they don't need them as much. However, it's just the community you can interact with (.). It's divine but, unlike religion, the brand itself has no essence and no reps in our world”</i> (Gus)
Crypto brand identity elements	White paper	<i>“White paper is like the Bible for any project [i.e. cryptocurrency], it's got info about the team, the technical problem they deal with, proof points from other investors (...). To get techies on board, they need someone to get it through to others, that's the point where John McAfee should not come in!”</i> (Paul)
	Brand purpose	<i>Bitcoin is one of the world's most important developments, along with the wheel, the internet and electric power, however just few lads understand the real revolution of cryptocurrencies, most of them are speculators, like only 10% of them are tech savvy.”</i> (Mike)
	ICOs	<i>“The boom in ICOs the past few years made it a little hazy, a bunch of washed-up celebs like DJ Khaled or even Paris [Hilton] and Mayweather that go around shouting to people to put their money in some new crypto, that's insane.”</i> (Jonas)

Table 2: (continued)

Key themes	Sub-themes	Interview Quotes
Psychological antecedents	Psychological distance	<i>“If you search hard online, there are places that take Bitcoin as payment for goods, yet is not quite easy to use Crypto in the real world, inn it? (...) It doesn’t feel as its port of my day to day, just a digital safe box that could go bust anytime soon!”</i> (John)
	Escapism	<i>“The crypto craze epitomized the American dream, effortless wealth overnight and laziness! But its the early adopters who is getting rich, for the rest its a forthcoming market collapse that the media harnesses!”</i> (Rick)

5 Discussion

This is one of the first efforts to provide a deeper understanding of the nature and of CBBE in the crypto market. Our empirical findings are the first to bridge the branding and cryptocurrency literatures and conceptualize the notions of crypto brands and CBBE in a crypto context. This works advances the current debate around how a specific group of market actors (i.e. retail investors) perceive the branding efforts around digital assets (cryptos) that derive from new technologies like blockchain (Boukis 2020; Breidbach and Tana 2020).

Our findings extend the digital branding literature through delineating the nature and the features of a new type of platform brands (i.e. crypto brands) that have surfaced due to blockchain technology (Boukis 2020). Crypto brands constitute a step further in the evolution of branding and signal the transition from corporate and service brands to decentralized, assetless, platform brands (Wichmann, Wiegand, and Reinartz 2022). We reveal some of the implications of blockchain features for crypto brands (e.g. decentralized trust, increased privacy, intangible and assetless nature, limited interactivity) and their impact on consumers. On the one hand, blockchain features result in a heightened sense of control and privacy consumer perceptions for these brands, both of which enhance CBBE. On the other hand, crypto brands offer limited interaction opportunities to consumers to shape their meaning and generate disruptive psychological consequences for them (e.g. anxiety), reducing consumers’ psychological ownership of crypto brands. Moreover, the automated and decentralized nature of crypto brands (often combined with the lack of an organized entity behind them) impairs consumers’ psychological connection with them. These findings advance the

discussion around the implications of blockchain for brands in high-tech markets and reveal how its unique features shape consumer attitude towards crypto brands (Boukis 2020; Breidbach and Tana 2020).

Our work also uncovers three key brand identity elements as main sources of CBBE (i.e. white paper, brand purpose, ICO). Our findings set white papers as a new and one of the most influential sources of CBBE in the crypto market, refuting the premises of the high-tech product branding literature that advocates the centrality of other brand identity elements (e.g. brand logo) (Truong et al. 2017). The brand promises that white papers make to consumers appear to affect their levels of trust in ICOs. Moreover, this is one of the first studies in the branding area that sets the purpose of the crypto brand as a central aspect of their digital identity. Our findings uncover three predominant purposes among crypto brands (i.e. sustainability, fun and activism purpose). Brand purpose appears to be a new distinctive brand identity element of platform brands that seems to enhance brand equity perceptions among consumers.

ICOs emerge as the third aspect of crypto brand identity that drives CBBE. We extend the ICO literature (Bellavitis, Fisch, and Wiklund 2021; Domingo, Piñeiro-Chousa, and López-Cabarcos 2020) in uncovering the importance of storytelling strategies and team/founders' profile as vital elements of new crypto brands. Against the celebrity endorsement literature that uncovers benefits from celebrity-led storytelling messages (Knoll and Matthes 2017), our work suggests celebrity endorsement as an inappropriate strategy for crypto brands. Our data shows the limited value of third-party endorsements (e.g. celebrities) in building brand equity during ICOs. On the contrary, community-led advocacy emerges as a much more influential factor of perceived crypto brand equity. Similar to the crowdfunding venture literature (Wehnert, Baccarella, and Beckmann 2019), cryptos' brand purpose is registered in consumers' memory through the referrals from crypto communities.

Last, we extend work in the cryptocurrency stream in uncovering psychological distance, escapism and curiosity as important driving forces behind the formation of crypto brand equity among consumers (Domingo, Piñeiro-Chousa, and López-Cabarcos 2020). An interesting finding for issuers is that consumers appear to experience increased psychological distance from crypto brands (compared to other contexts) and they tend to use high-end construals to depict their relationship with crypto brands. This partially derives from the blockchain features of crypto brands as well as the limited ability to interact with them (Bar-Anan, Liberman, and Trope 2006). Despite this psychological distance from the crypto brands that participants own, many consumers seek escapism when investing in the crypto market. Despite escapism is believed to be a fundamental element of luxury and hedonic experiences, crypto owners appear to seek

temporal immersion or enact new identities in a mundane and utilitarian context, like the crypto market. Last, curiosity is thought as a motivational force that leads consumers to act and resolve the arousal and uncertainty it produces.

6 Managerial Implications

Some insights around the strategic positioning of crypto brands emerge from our work. To cope with the lack of a distinct brand identity, crypto providers could act in two directions. First, they could integrate symbolism further in their white paper through using storytelling practices that would convey one of the emerging purposes that consumers attribute to crypto brands (i.e. sustainability, fun and activism purpose). This way they can facilitate consumers to connect better with new crypto brands. Second, issuers could infuse cryptos' visual brand identity with more tangible and easy to grasp (verbal and visual) evaluative cues so that they can reduce consumers' psychological distance from them. Such cues could include the use of brand characters and the use of mantras as part of their digital brand identity. For instance, white papers could be more detailed and informative about the background of the team, the rationale for the brand elements selected, the project's market positioning and the story of the team behind the brand that led to the creation of the new crypto. However, further research is needed to establish the impact of different brand identity elements on consumers in ICOs.

Another practical recommendation from our work towards issuers would be to address in their ICO communication efforts the disruptive influences of some blockchain features (intangible and automated nature, limited interactivity). For instance, issuers should provide their stakeholders with more opportunities to actively participate in shaping the purpose of the brand. The opportunities could be both pre- and post-launch and could empower participants to have a stronger saying about the brand's identity since its early beginnings. This could happen through creating close-ended and exclusive communities so that issuers can enhance connection among community members and engender a stronger sense of brand-specific psychological ownership among crypto owners.

7 Limitations and Future Research

This study is not free of limitations. First, our findings derive from one group of market actors (i.e. retail crypto owner) that have moderate technical expertise or experience in financial markets. Other stakeholder groups of interest for crypto brands could be further investigated (e.g. miners, crypto communities, institutional investors). Second, despite our work recognizes the lack of distinct

identity elements of crypto brands, it does not explicitly quantify how each of the visual identity elements (e.g. logo, name, character, mantra) impact CBBE and market performance. Moreover, the impact of various environmental factors including macro-level (e.g. regulation), personality (e.g. openness) or cultural (e.g. individualism) aspects that could affect CBBE is not addressed in our work.

Based on these findings, some avenues for future research are proposed. First, scholars should quantify and assess the impact of various CBBE sources on crypto brand reputation and market performance. Researchers could further investigate how different brand naming practices and design affect consumers' likeability and trust towards crypto brands. Future research should also explore how various situational or brand-specific factors (e.g. country-of-origin of the project) shape consumer perceptions with different motivations (e.g. approach vs avoidance motivation) to invest in crypto brands. Researchers could further investigate whether CBBE is linked to higher intentions to invest or advocacy on social media.

References

- Aaker, D. A. 1991. *Managing Brand Equity*. New York: Free Press.
- Ahuvia, A. C. 2005. "Beyond the Extended Self: Loved Objects and Consumers' Identity Narratives." *Journal of Consumer Research* 32 (1): 171–84.
- Baalbaki, S., and F. Guzmán. 2016. "A Consumer-Perceived Consumer-Based Brand Equity Scale." *Journal of Brand Management* 23 (3): 229–51.
- Bar-Anan, Y., N. Liberman, and Y. Trope. 2006. "The Association Between Psychological Distance and Construal Level: Evidence from an Implicit Association Test." *Journal of Experimental Psychology: General* 135 (4): 609.
- Bellavitis, C., C. Fisch, and J. Wiklund. 2021. "A Comprehensive Review of the Global Development of Initial Coin Offerings (ICOs) and Their Regulation." *Journal of Business Venturing Insights* 15: e00213.
- Boukis, A. 2020. "Exploring the Implications of Blockchain Technology for Brand–Consumer Relationships: a Future Research Agenda." *The Journal of Product and Brand Management* 29 (3): 307–20.
- Boukis, A., and S. Magrizos. 2018. "Managing Brands in the Blockchain Era." In *Annual Macromarketing Conference, Leipzig*.
- Brady, M. K., B. L. Bourdeau, and J. Heskell. 2005. "The Importance of Brand Cues in Intangible Service Industries: an Application to Investment Services." *Journal of Services Marketing* 19 (6): 401–10.
- Breibach, C. F., and S. Tana. 2020. "Betting on Bitcoin: How social collectives shape cryptocurrency markets." *Journal of Business Research* 122 (3): 311–20.
- Bright, L. F., and K. Logan. 2018. "Is My Fear of Missing Out (FOMO) Causing Fatigue? Advertising, Social Media Fatigue, and the Implications for Consumers and Brands." *Internet Research* 28 (5): 1213–27.
- Brinkmann, S., and S. Kvale. 2018. *Doing Interviews*, 2. Los Angeles: Sage Publications.

- Brexendorf, T. O., B. Bayus, and K. L. Keller. 2015. "Understanding the Interplay between Brand and Innovation Management: Findings and Future Research Directions." *Journal of the Academy of Marketing Science* 43 (5): 548–57.
- Chandy, R. K., and G. J. Tellis. 2000. "The Incumbent's Curse? Incumbency, Size, and Radical Product Innovation." *Journal of Marketing* 64 (3): 1–17.
- Chatzipanagiotou, K., C. Veloutsou, and G. Christodoulides. 2016. "Decoding the Complexity of the Consumer-Based Brand Equity Process." *Journal of Business Research* 69 (11): 5479–86.
- Chatterjee, P., and R. L. Rose. 2012. "Do payment Mechanisms Change the Way Consumers Perceive Products?" *Journal of Consumer Research* 38 (6): 1129–39.
- Christodoulides, G., and L. De Chernatony. 2010. "Consumer-based Brand Equity Conceptualisation and Measurement: a Literature Review." *International Journal of Market Research* 52 (1): 43–66.
- Christodoulides, G., L. de Chernatony, O. Furrer, and T. Abimbola. 2006. "Conceptualising and Measuring the Equity of Online Brands." *Journal of Marketing Management* 22 (7/8): 799–825.
- Christodoulides, G., J. G. Cadogan, C. Veloutsou, and L. de Chernatony. 2012. "Revisiting Brand Equity: Evidence from Three European Countries." In *41st European Marketing Academy Conference (EMAC), 22–25 May 2012, Lisbon, Portugal*.
- Creswell, J. W., and J. D. Creswell. 2017. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. New York: Sage publications.
- Cryptoasset Consumer Research Report. 2020. Also available at <https://www.fca.org.uk/publication/research/research-note-cryptoasset-consumer-research-2020.pdf>.
- Domingo, R. S., J. Piñeiro-Chousa, and M. Á. López-Cabarcos. 2020. "What Factors Drive Returns on Initial Coin Offerings?" *Technological Forecasting and Social Change* 153: 119915.
- Evanschitzky, H., G. R. Iyer, K. G. Pillai, P. Kenning, and R. Schütte. 2015. "Consumer Trial, Continuous Use, and Economic Benefits of a Retail Service Innovation: The Case of the Personal Shopping Assistant." *Journal of Product Innovation Management* 32 (3): 459–75.
- Girard, T., and P. Dion. 2010. "Validating the Search, Experience, and Credence Product Classification Framework." *Journal of Business Research* 63 (9–10): 1079–87.
- Gurdgiev, C., and D. O'Loughlin. 2020. "Herding and Anchoring in Cryptocurrency Markets: Investor Reaction to Fear and Uncertainty." *Journal of Behavioral and Experimental Finance* 25: 34–42.
- Harvey, J., and I. Branco-Illodo. 2020. "Why Cryptocurrencies Want Privacy: A Review of Political Motivations and Branding Expressed in "Privacy Coin" Whitepapers." *Journal of Political Marketing* 19 (1–2): 107–36.
- Iansiti, M., and K. Lakhani. 2017. "The Truth about Blockchain." *Harvard Business Review* 9. REPRINT R1701J.
- Kamolsook, A., Y. F. Badir, and B. Frank. 2019. "Consumers' Switching to Disruptive Technology Products: The Roles of Comparative Economic Value and Technology Type." *Technological Forecasting and Social Change* 140: 328–40.
- Keller, K. L. 2009. "Building Strong Brands in a Modern Marketing Communications Environment." *Journal of Marketing Communications* 15 (2–3): 139–55.
- Kher, R., S. Terjesen, and C. Liu. 2020. "Blockchain, Bitcoin, and ICOs: a Review and Research Agenda." *Small Business Economics* 31 (3): 1–22.
- Knoll, J., and J. Matthes. 2017. "The Effectiveness of Celebrity Endorsements: A Meta-Analysis." *Journal of the Academy of Marketing Science* 45 (1): 55–75.

- Lassar, W., B. Mittal, and S. Arun. 1995. "Measuring Customer-Based Brand Equity." *Journal of Consumer Marketing* 12 (4): 11–9.
- Lee, J. Y. 2019. "A Decentralized Token Economy: How Blockchain and Cryptocurrency Can Revolutionize Business." *Business Horizons* 62 (6): 773–84.
- Mitra, K., M. C. Reiss, and L. M. Capella. 1999. "An Examination of Perceived Risk, Information Search and Behavioral Intentions in Search, Experience and Credence Services." *Journal of Services Marketing* 13 (3): 208–28.
- Perez, C., K. Sokolova, and M. Konate. 2020. "Digital Social Capital and Performance of Initial Coin Offerings." *Technological Forecasting and Social Change* 152: 71–89.
- Raddatz, N., J. Coyne, P. Menard, and R. E. Crossler. 2021. "Becoming a Blockchain User: Understanding Consumers' Benefits Realisation to Use Blockchain-Based Applications." *European Journal of Information Systems* 3: 1–28.
- Rojas-Lamoren, Á. J., S. Del Barrio-García, and J. M. Alcántara-Pilar. 2022. "A Review of Three Decades of Academic Research on Brand Equity: A Bibliometric Approach Using Co-word Analysis and Bibliographic Coupling." *Journal of Business Research* 139 (1): 1067–83.
- Sinclair, G., and J. Tinson. 2017. "Psychological Ownership and Music Streaming Consumption." *Journal of Business Research* 71 (4): 1–9.
- Stoeckl, V. E. 2014. "Lonely Rebel or Pioneer of the Future? Towards An Understanding of Moral Stakeholder Framing of Activist Brands." In *ACR North American Advances*, Vol. 12. Aalto.
- Tapscott, D., and A. Tapscott. 2017. "How Blockchain Will Change Organizations." *MIT Sloan Management Review* 58 (2): 10.
- Truong, Y., R. R. Klink, G. Simmons, A. Grinstein, and M. Palmer. 2017. "Branding Strategies for High-Technology Products: The Effects of Consumer and Product Innovativeness." *Journal of Business Research* 70 (3): 85–91.
- Veloutsou, C., G. Christodoulides, and L. de Chernatony. 2013. "A Taxonomy of Measures for Consumerbased Brand Equity: Drawing on the Views of Managers in Europe." *The Journal of Product and Brand Management* 22 (3): 238–48.
- Veloutsou, C., K. Chatzipanagiotou, and G. Christodoulides. 2020. "The Consumer-Based Brand Equity Deconstruction and Restoration Process: Lessons from Unliked Brands." *Journal of Business Research* 111 (4): 41–51.
- Wakslak, C. J., and B. K. Kim. 2015. "Controllable Objects Seem Closer." *Journal of Experimental Psychology: General* 144 (3): 522–36.
- Wehnert, P., C. V. Baccarella, and M. Beckmann. 2019. "In Crowdfunding We Trust? Investigating Crowdfunding Success as a Signal for Enhancing Trust in Sustainable Product Features." *Technological Forecasting and Social Change* 141 (4): 128–37.
- Wichmann, J. R., N. Wiegand, and W. J. Reinartz. 2022. "The Platformization of Brands." *Journal of Marketing* 86 (1): 109–31.
- White, R., Y. Marinakis, N. Islam, and S. Walsh. 2020. "Is Bitcoin a Currency, a Technology-Based Product, or Something Else?" *Technological Forecasting and Social Change* 151 (2): 1–13.