



Accessing the influence of perceived brand authenticity and value co-creation on brand loyalty of China's insurgent brands: The mediating role of psychological ownership

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ABSTRACT

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This study is motivated by the need to thoroughly investigate the impact of perceived brand authenticity and value co-creation on brand loyalty within the context of China's insurgent brands. In particular, the study uses the psychological ownership theory to examine the mediating role of psychological ownership. The dynamic nature of the Chinese market underscores the significance of understanding how these factors influence consumer behavior and brand loyalty in this specific context. SmartPLS 3.0 software was used to conduct a thorough analysis of a substantial dataset consisting of 368 completed survey responses which were collected through a robust technique that included online survey questionnaires and purposive sampling. The findings demonstrate positive associations between perceived brand authenticity, value co-creation, psychological ownership and brand loyalty with psychological ownership serving as a mediating mechanism. This study underscores their role in propelling brand loyalty, thereby contributing to the growth and success of China's insurgent brands emphasizing the importance of marketing strategies that prioritize authenticity, value co-creation and psychological ownership. Additionally, this research extends the application of psychological ownership theory to the distinctive landscape of China's insurgent brands addressing a void in empirical research. The insights derived from this study provide valuable guidance for insurgent brands looking to foster brand loyalty in this specific context laying the groundwork for strategic marketing approaches in the dynamic Chinese market.

Contribution/Originality: This study expands the scope of psychological ownership theory by applying it to the unique landscape of China's insurgent brands, a domain that has remained largely unexplored in empirical research. The findings provide valuable insights for insurgent brands aiming to nurture brand loyalty within this specific context.

1. INTRODUCTION

Insurgent brands refer to brands that meet new market needs by providing goods in the macro context of consumption upgrading (Ke & Wang, 2021). With the emergence of new communication channels through social media, and changes in the consumption habits of new consumer groups, insurgent brands have experienced rapid development in the context of the government implementing many policies to support consumption upgrades and new consumption. However, many insurgent brands are facing the challenge of maintaining brand loyalty (Du & Yi, 2021). A report by the Boston Consulting Group reveals that a mere 36% of customers remained loyal to a single brand over the past two years while a significant 81% of customers displayed brand-switching behavior. These

statistics underscore the challenges of fostering enduring connections between consumers and brands particularly within the context of insurgent brands. There is an evident need to delve deeper into the mechanisms that drive brand loyalty to bolster the sustainable growth of these brands and bolster their competitiveness in the market. However, the research concerning insurgent brands has been relatively scant in exploring this critical facet of brand development.

The concept of psychological ownership, a cognitive-affective construct acts as a bridge connecting consumers with both tangible and intangible assets (Dittmar, 1992). Psychological ownership theory has become increasingly well-known in the field of customer behaviour research in recent years (Joo, 2020). However, it's worth noting that prior research has predominantly focused on anticipating employees' motives and behavior through the framework of psychological ownership within organizational research (Pierce & Jussila, 2011) rather than delving into the sphere of customers' psychological ownership (Kumar & Kaushal, 2021). Furthermore, a conspicuous lack of research exists in investigating the interplay between psychological ownership and brand loyalty in the specific context of insurgent brands.

Psychological ownership is underpinned by four distinct human motivators: self-efficacy, self-identity, a sense of belonging and stimulation (Pierce & Jussila, 2011). Previous research has predominantly delved into the motivational aspects of psychological ownership by nurturing feelings of belongingness and concurrently stimulating perceptions of self-identity (Thürriid, Kamleitner, Ruzeviciute, Süssenbach, & Dickert, 2020). However, there exists a noticeable dearth of empirical support when it comes to establishing a link between self-efficacy, stimulation and psychological ownership (Liu, Li, Zhang, Lu, & Su, 2023). Therefore, we propose that co-creation and perceived brand authenticity could be powerful motivators and promoters of psychological brand ownership. Authentic brands play a pivotal role in individuals' self-construction by imbuing their lives with significance and a sense of identity (Morhart, Malär, Guèvremont, Girardin, & Grohmann, 2015). Additionally, objects tend to hold greater value for individuals when they have actively contributed their own effort and labour to their creation. The act of investing oneself in the process of creation amplifies the sense of ownership (Peck & Luangrath, 2023). The catalytic roles of perceived brand authenticity and value co-creation as psychological ownership stimulants and self-efficacy drivers have not yet been investigated in any previous research. These uncharted territories encompass a comprehensive examination of the intricate connections between perceived brand authenticity, value co-creation, psychological ownership and brand loyalty.

This study sets forth a conceptual framework designed to investigate the influence of stimulus and self-efficacy factors on psychological ownership by addressing the identified gaps in existing research. The study's objectives encompass (a) to explore the connection between perceived brand authenticity, value co-creation and psychological ownership. (b) To scrutinize the association between perceived brand authenticity, value co-creation and brand loyalty. (c) To delve into the relationship between psychological ownership and brand loyalty and (d) to assess the mediating influence of psychological ownership in the relationships among perceived brand authenticity, value co-creation and brand loyalty.

This research contributes to the existing body of literature by emphasizing the significance of nurturing psychological ownership through an emphasis on perceived brand authenticity and value co-creation. Moreover, it conducts an in-depth exploration of the mediating function played by psychological ownership within these variables. Furthermore, the results affirm the anticipated positive impacts, offering valuable insights for insurgent brands seeking to enhance brand loyalty.

In the upcoming section, we provide a brief exploration of the existing literature surrounding psychological ownership (theory), perceived brand authenticity, value co-creation and brand loyalty. Subsequently, we construct hypotheses based on this review. The subsequent sections discuss the methods, findings and brief discussion. Finally, this paper concludes by delving into the implications and limitations of this research and proposing opportunities for future research.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Psychological Ownership Theory

According to Pierce, Kostova, and Dirks (2001), psychological ownership is characterized as the condition in which individuals perceive the target of ownership (whether material or immaterial) or a portion of it as belonging to them. Later, Pierce, Kostova, and Dirks (2003) introduced the psychological ownership theory which encompasses cognitive and affective dimensions aiming to elucidate the psychological sense of ownership within a business context. This concept diverges from legal ownership which pertains to recognized ownership rights endorsed by society and supported by legal systems. Psychological ownership represents a unique psychological state where an individual senses possession and attachment to a specific target even in the absence of formal legal ownership rights (Peck & Luangrath, 2023).

According to established theories, the four interconnected motivations of self-efficacy, self-identity, having a place (a sense of belonging) and stimulation are intricately interplayed and make psychological brand ownership (Pierce et al., 2001, 2003). Self-efficacy underscores the notion that individuals can gain a profound sense of empowerment by exerting control, influence and alteration over objects, thereby fostering psychological ownership. Psychological ownership tends to emerge when individuals are driven by the desire for self-efficacy and it is more likely to occur when they perceive the target of ownership as something they can influence or control in some way (Peck & Luangrath, 2023). Self-identity underscores the importance of affective bonds between individuals and objects of psychological ownership in facilitating self-awareness, self-definition and self-expression with others. It is important to remember that psychological ownership satisfies people's territorial needs by providing a feeling of protection and comfort similar to that of a caring and safe "home" (Pierce et al., 2001, 2003) ultimately linked to the desire for a sense of belonging (Avey, Avolio, Crossley, & Luthans, 2009). Stimulation refers to the human desire for novelty and excitement to satisfy their arousal needs (Jussila, Tarkiainen, Sarstedt, & Hair, 2015). Stimulation plays a role when people are driven by the prospect of experiencing increased arousal or excitement under specific circumstances which is directly related to the incentive for self-efficacy (Peck & Luangrath, 2023).

The application of psychological ownership in consumer and brand research has recently gained popularity despite its lengthy history of study across a variety of disciplines including anthropology, geography, psychology, and philosophy (Dittmar, 1992). Drawing from prior research, the factors influencing and resulting from psychological ownership encompass a wide range of factors including but not limited to brand engagement (Kumar & Nayak, 2019), impression in memory (Li, Qu, & Wei, 2021), customer engagement (Joo, 2018), purchase intentions (Kumar & Kaushal, 2021) and commitment (Liu et al., 2023), among others yet to be explored. However, limited attention has been devoted to investigating how self-efficacy and stimulants such as perceived brand authenticity and value co-creation impact psychological ownership in the context of insurgent brands. Furthermore, developing marketing strategies that are both effective and unique requires identifying the critical factors that foster a heightened psychological sense of brand ownership which leads to brand loyalty. Thus, there arises a critical need to examine perceived brand authenticity and value co-creation as potential precursors to psychological ownership with a subsequent exploration of brand loyalty as a potential outcome.

2.2. Perceived Brand Authenticity

Within the realm of branding literature, the significance of brand authenticity has been a longstanding focal point, recognized as a fundamental pillar in contemporary marketing. It plays an indispensable role in shaping a brand's image and identity (Yang, Teran, Battocchio, Bertellotti, & Wrzesinski, 2021), prompting marketers to increasingly leverage authenticity as a strategic cornerstone for positioning their firms and crafting compelling product appeal strategies. Several endeavours have been undertaken to elucidate the concept of authenticity. Napoli, Dickinson, Beverland, and Farrelly (2014) defined perceived brand authenticity as the subjective assessment by

consumers regarding a brand's purity. Morhart et al. (2015) emphasized that brand authenticity hinges on consumers' perceptions of a brand's faithfulness to itself and its clientele ultimately facilitating consumers own authenticity. Guèvremont (2018) described perceived brand authenticity as embodying credibility, long-term commitment, sincerity and a dedication to quality, heritage, tradition and significant values. In a recent study, Campagna, Donthu, and Yoo (2023) characterized brand authenticity as a brand that embodies a distinctive identity, values transparency and demonstrates resilience against changing times and trends.

Simultaneously, the dimensional range of perceived brand authenticity has been derived from diverse scholarly characterizations. For example, Bruhn, Schoenmüller, Schäfer, and Heinrich (2012) introduced "continuity", "originality", "reliability", and "naturalness" as the foundational dimensions of brand authenticity. Schallehn, Burmann, and Riley (2014) advocated for "individuality", "consistency" and "continuity". In addition, Morhart et al. (2015) delineated "continuity", "credibility", "integrity" and "symbolism" as core elements. Guèvremont (2018) advanced the dimensions of "transparency", "virtuousness" and "proximity" for new brands. Oh, Prado, Korelo, and Frizzo (2019) underscored the significance of "heritage", "originality" and "sincerity".

Although the aforementioned characteristics have been studied in academic settings, Campagna et al. (2023) have presented a new perspective on the dimensions of perceived brand authenticity focusing on "longevity," "consciousness" and "self-empowerment." This viewpoint has been gaining attention. First, conscious brands are those that continuously pursue self-improvement and remain attuned to evolving consumer perceptions. Secondly, brands characterized by longevity demonstrate an acute awareness of market dynamics allowing them to adapt to influential shifts in consumer attitudes and behaviours. Thirdly, brands that foster a sense of self-empowerment engage consumers emotionally forging a partnership where active two-way communication transforms the consumer into a collaborator with the brand. The choice of dimensions for perceived brand authenticity for insurgent brands is contingent upon diverse factors, including the brand's nature, the target audience, the market environment and the brand's objectives. "Longevity" may not be as relevant for perceived brand authenticity for insurgent brands as these brands may not have a long history or established reputation in the market. Instead, they may rely on innovation, agility and responsiveness to capture market share and create a sustainable competitive advantage. Therefore, longevity may be a relevant dimension for time-honoured brands as consumers appreciate when brands are able to give a modern spin to a traditional product to match evolving preferences (Campagna et al., 2023). It may not be as relevant for insurgent brands. It's crucial to expand beyond conventional factors like genuineness, transparency and honesty when examining perceived brand authenticity. It should also encompass modern aspects that address consumers' yearning for personalization and adaptability taking into account the swiftly evolving dynamics within the market. Hence, we use the dimensions of perceived brand authenticity proposed by Campagna et al. (2023), excluding "longevity" within this research.

Morhart et al. (2015) emphasized its role in shaping a brand's psychological ownership recognizing the profound significance of brand authenticity in marketing because perceived brand authenticity empowers individuals to imbue their lives with meaning and identity. Kumar and Kaushal (2021) highlighted that it fulfils the need for control and aids in identifying genuine brands establishing a positive connection with psychological brand ownership. Additionally, the motivation to experience ownership intensifies when actions have a greater impact and when stimulation becomes feasible (Peck & Luangrath, 2023). Liu et al. (2023) advanced the idea that authenticity serves as a catalyst for psychological ownership. Consequently, we investigate the stimulating role of perceived brand authenticity on psychological ownership in the realm of insurgent brands. Accordingly, we posit the following hypothesis:

H₁. Perceived brand authenticity has a positive relationship with psychological ownership among customers of China's insurgent brands.

Research has revealed a relationship between improving a brand's perceived authenticity and cultivating better relationships between consumers and the brand which is consistent with the literature examining brand

authenticity (Yang et al., 2021). A more positive brand attitude, higher purchase intentions (Fritz, Schoenmueller, & Bruhn, 2017) and more advocacy behaviours are all a result of these stronger relationships (Morhart et al., 2015). An illustrative study underscored the capacity of brand authenticity to elevate brands above the prevalent uncertainty and anxiety of the pandemic era. This was achieved by cultivating potent and emotional connections with consumers, consequently facilitating brand loyalty (Kim, Kim, Holland, & Townsend, 2021). Conscious brands create emotional bonds and self-empowerment enhances consumers' identification with the brand. These factors collectively contribute to higher brand loyalty as consumers continue to choose and advocate for brands that they trust (Lee & Chung, 2020), feel emotionally connected to and perceive as facilitators of their self-expression and values. We propose the following hypothesis based on these results: *H₁. Perceived brand authenticity has a positive relationship with brand loyalty among customers of China's insurgent brands.*

2.3. Value Co-Creation

Value co-creation emerged as a transformative concept in business when it was introduced by Normann and Ramirez in 1993. Their pioneering notion advocated a shift in corporate focus from self-centred strategies to a broader emphasis on value itself. This broadened the scope of stakeholders participating in the process of creating value by including not only the company but other related interest groups such as partners, suppliers, internal employees and customers. This collaborative approach aimed to establish a comprehensive value creation system, encouraging collective efforts to generate value together (Normann & Ramirez, 1993). Value co-creation has evolved into a prominent and progressive trend in today's dynamic business environment. It signifies a departure from conventional practices where customers were primarily recipients of finished products and services. Instead, value co-creation empowers customers to actively participate in various stages of value generation and the production of goods and services. This contemporary paradigm shift acknowledges the instrumental role of customers in shaping and co-producing value (Meng & Cui, 2020). Value co-creation involves collaborative activity between customers and brands fostering the generation of both tangible and intangible value for mutual benefit (Galvagno & Dalli, 2014). This paradigm shift transcends the traditional dichotomy of customers and firms being on opposing sides and instead advocates for a harmonious partnership in value creation. Customers transition from passive value recipients to active co-creators engaging in a dynamic collaboration with producers throughout the value creation journey under this framework (Anshu, Gaur, & Singh, 2022).

Value co-creation empowers customers to actively contribute by suggesting enhancements, offering solutions to identified issues and even participating in the brand's novel product development endeavours (Cheung, Pires, Rosenberger III, Leung, & Ting, 2021). Customers and brands can greatly benefit from this cooperative relationship which raises the calibre of products (Merz, Zarantonello, & Grappi, 2018). Consequently, brands are reorienting their emphasis towards strategizing marketing initiatives that foster seamless value co-creation processes underscoring the acknowledged importance of co-creation within the realm of marketing. Value co-creation has been the focus of comprehensive research due to its great significance. Notably, value co-creation is intrinsically tied to customer-brand relationships (France, Grace, Merrilees, & Miller, 2018) and has been found to bolster purchase intention (Bu, Parkinson, & Thaichon, 2022), elevate perceived quality (Tran, Taylor, & Wen, 2023), foster customer satisfaction (Mursid & Wu, 2022) and enhance brand equity (González-Mansilla, Berenguer-Contrí, & Serra-Cantalops, 2019). However, Deng, Lu, Lin, and Chen (2021) point out the need for additional research on the impact of value co-creation on consumer psychological ownership and other aspects.

According to the theory of psychological ownership, individuals are more inclined to experience psychological ownership when they are driven by and capable of self-efficacy. Furthermore, individuals are driven to cultivate a feeling of ownership for entities they can influence in some manner (Peck & Luangrath, 2023). Additionally, according to Pierce et al. (2001), the two main strategies to become psychologically owned include putting yourself in the target and controlling it. Investing oneself in the target pertains to investing personal resources such as time,

dedication, financial assets, attention or vitality in the subject. Giving customers the power to select products for inclusion is perhaps a more economical strategy assuming that customers feel competent enough to make these decisions. When people invest their own labour in an object, they tend to place a higher value on it. This enhanced sense of ownership results from personal involvement in the creative process. Conversely, if an individual has the ability to exert control over a target, there is a heightened likelihood of experiencing ownership over that target. This phenomenon is closely aligned with the motivation for self-efficacy wherein a sense of control can stem from agency over one's surroundings. [Baxter, Aurisicchio, and Childs \(2015\)](#) proposed that participation in value co-creation fosters a greater sense of psychological belonging. Moreover, [Deng et al. \(2021\)](#) uncovered a direct and positive relationship between value co-creation and tourist psychological ownership. Insurgent brands often enter markets with limited resources and recognition making it essential to involve consumers in the process of value creation. These brands can have access to consumer insights, preferences, and creativity by incorporating consumers in co-creation. This allows them to create distinctive products that appeal to their target market. Hence, the following hypothesis is put forth:

H₃. Value co-creation has a positive relationship with psychological ownership among customers of China's insurgent brands.

When consumers actively engage in co-creating products, services or experiences, they become emotionally invested in the brand's success. This emotional bond often translates into increased brand loyalty as consumers feel a stronger connection to the brand leading to repeat purchases and long-term commitment. The well-established association between value co-creation and brand loyalty has garnered significant focus in recent research. [Fang \(2019\)](#) explored and substantiated how value co-creation, encompassing personalization, relationship-building and immersive experiences, exerts a positive influence on brand loyalty especially within the realm of branded apps. [Mursid and Wu \(2022\)](#) underscore the substantial influence of value co-creation on customer loyalty, especially among Umrah travellers. [Pervez, Khawaja, and Sarfraz \(2022\)](#) conducted research affirming that value co-creation leads to enhanced customer loyalty with customer trust acting as a mediating factor. [Ye, Batool, and Huang \(2023\)](#) discovered that value co-creation yields a positive impact on customer loyalty. Additionally, [Tran et al. \(2023\)](#) posited that value co-creation correlates with elevated perceptions of brand quality and heightened levels of brand loyalty. Therefore, the following hypothesis is proposed:

H₄. Value co-creation has a positive relationship with brand loyalty among customers of China's insurgent brands.

2.4. Brand Loyalty

Brand loyalty stands as a cornerstone in shaping brands' equity and financial viability. It holds the key to customers' willingness to invest in premium offerings and advocate positively for the brand, consequently bolstering revenue and profits as the depth of customer relationships intensifies ([Tran et al., 2023](#)). Scholarly perspectives on brand loyalty are nuanced encompassing three primary dimensions: behavioural, attitudinal and their combined manifestations delving into the extensive literature. Behavioural loyalty centers on observing customer actions to comprehend the essence of brand loyalty. For instance, [Ehrenberg and Goodhardt \(2000\)](#) conceptualized brand loyalty as a repetitive purchase cycle that captivates customers and nurtures allegiance to a specific brand. This multifaceted exploration captures the intricate facets of brand loyalty shedding light on the behavioral intricacies underpinning customer allegiance.

Attitudinal loyalty delves into the intricate realm of customer sentiments and emotional connections within the spectrum of customer loyalty research. This dimension is often gauged through the lens of customer emotions ([He, Li, & Harris, 2012](#)), intentions, awareness and behavioral inclinations among other factors. For instance, [Jain, Kamboj, Kumar, and Rahman \(2018\)](#) characterized brand loyalty as the profound sentiments and attachment a customer harbors for a specific brand. The concept of multidimensional loyalty underscores the importance of amalgamating external behavioral manifestations with internal psychological attitudes, offering a holistic

evaluation of brand loyalty (Coelho, Rita, & Santos, 2018). Oliver (1999) articulated loyalty as a profound dedication to continually repurchase or steadfastly patronize a favoured product or service in the future. This allegiance translates into recurrent purchases of the same brand or brand collection, persisting despite external influences and marketing endeavours that might otherwise prompt switching behaviour. Such nuanced exploration provides a comprehensive perspective on the multifaceted nature of attitudinal loyalty.

Both behavioural and attitude loyalty are essential in the context of insurgent brands when resources are scarce and competition can be intense. Attitudinal loyalty creates a devoted customer community while behavioural loyalty ensures the brand's economic sustainability. The synergy between these two types of loyalty not only strengthens the brand's market position but also enhances its resilience against market fluctuations making it vital for the enduring success and growth of insurgent brands. Therefore, according to the criteria used in this research, brand loyalty is defined as the relationship that develops between a consumer and a brand and is exhibited by active advocacy, expressed preference and repurchase intention.

Earlier research has explored the relationship between psychological ownership and brand loyalty. Joo (2018) demonstrated that psychological ownership significantly enhances customer loyalty. When customers experience a sense of psychological ownership, they tend to develop a profound attachment to the brand resulting in heightened commitment levels (Li, Yuan, Ning, & Li-Ying, 2015) and a greater propensity to advocate for it (Kumar and Nayak (2019)). This heightened psychological ownership translates into increased brand loyalty as evidenced by indicators such as repurchase intention, word-of-mouth recommendations and attitudinal preference. Insurgent brands can establish a robust base of dedicated customers who actively support the brand's growth and adaptability over time through the development of psychological ownership. Hence, we posit the following hypothesis:

H₁. Psychological ownership has a positive relationship with brand loyalty among customers of China's insurgent brands.

2.5. The Mediating Role of Psychological Ownership

When consumers perceive a brand as authentic particularly when it resonates with their consciousness and empowers their self-identity, it triggers a sense of ownership. Consumers develop a psychological stake in the brand perceiving it as an integral part of their identity. This sense of ownership, characterized by feelings of control and belongingness deepens the emotional connection between consumer and brand (Kumar, 2019), thereby facilitating brand loyalty. Moreover, when consumers actively engage in co-creating value with a brand, they invest their time, effort and ideas into the brand's products or services. This investment nurtures a sense of ownership over the co-created outcomes. Active participation in co-creation activities empowers consumers granting them control over their interactions with the brand (Cossío-Silva, Revilla-Camacho, Vega-Vázquez, & Palacios-Florencio, 2016). This empowerment coupled with the emotional attachment originating from psychological ownership enhances brand loyalty.

Prior research has illustrated the mediating function of psychological ownership across diverse contexts. For instance, Joo (2018) demonstrated that psychological ownership serves as a mediator in the connection between customer participation and loyalty. Additionally, Deng et al. (2021) identified tourist psychological ownership as a mediating factor between value co-creation and tourists' perceived value. Kumar and Kaushal (2021) observed that psychological ownership serves as a mediator between perceived brand authenticity, social exclusion and purchase intentions. Furthermore, Liu et al. (2023) demonstrated that psychological ownership mediates the link between authenticity and tourists' commitment. Hence, the subsequent hypotheses are posited:

H₂. Psychological ownership mediates the relationship between perceived brand authenticity and brand loyalty among customers of China's insurgent brands.

H₃. Psychological ownership mediates the relationship between value co-creation and brand loyalty among customers of China's insurgent brands.

Figure 1 shows the conceptual framework for this investigation in light of the previous discussion.

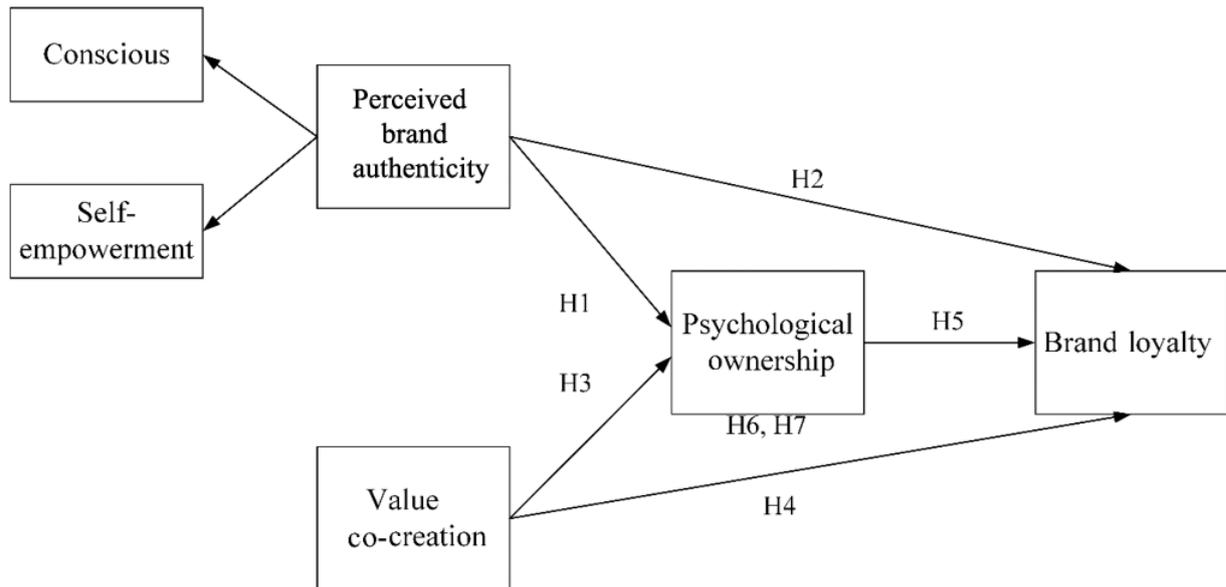


Figure 1. Conceptual framework.

Note: H1 to H5 represent direct relationship hypotheses while H6 and H7 represent mediating hypotheses.

3. METHODS

3.1. Research Context

This research delved into the realm of China's insurgent brands marked by several unique characteristics. First and foremost, insurgent brands demonstrate a dedicated focus on driving innovation in both products and categories. Secondly, they are highly attuned to the needs of new leading consumer groups. Thirdly, these brands prioritize the development of their brand identity and the effective communication of their core values. Wang (2021) revealed an increasing consumer preference for organic and health-conscious food options which has significantly contributed to the growth of the natural food and beverage sectors in recent years. Moreover, the food and beverage sectors are being endowed with diverse meanings by the new leading consumer base that insurgent brands are facing. Food and drink are becoming increasingly an opportunity for the new leading consumer base to show their personality and beliefs, whether it's through the pursuit of health, quality, adventurous tastes or social and emotional requirements (Chen, 2021). There is a difficult task for food and beverage companies as they must attract the interest of this new, influential customer base and foster brand loyalty. Additionally, the year 2020 witnessed substantial investments in the food and beverage sectors as highlighted in the research report. Consequently, this research directs its focus towards the food and beverage product category acknowledging the critical significance of nurturing brand loyalty to secure the sector's long-term sustainability and advancement.

3.2. Research Instruments

The survey questionnaire encompassed two sections encompassing the assessment of constructs and gathering demographic information from the respondents. Drawing upon existing literature, the items underwent assessment using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Perceived brand authenticity was structured as a hierarchical, reflective type II construct encompassing the first-order dimensions of consciousness and self-empowerment as proposed by Campagna et al. (2023). Eight items measured the two dimensions of perceived brand authenticity (Campagna et al., 2023). Value co-creation was assessed with three items adapted from Deng et al. (2021) while four items from Kumar and Kaushal (2021) were used to evaluate psychological ownership. Brand loyalty was evaluated using five items adopted from Bu et al. (2022). We conducted a pre-test with the help of two marketing academics and two industry specialists to make sure

the questionnaire was of high calibre. We made several changes to the items in response to their suggestions. Additionally, we conducted a back-translation procedure to facilitate the translation of the questionnaire from English into Chinese (Cha, Kim, & Erlen, 2007). Subsequently, a pilot test involving 30 respondents yielded no concerns regarding internal reliability, as the Cronbach alpha values exceeded the desired threshold of 0.7 (Hair, Hult, Ringle, & Sarstedt, 2021).

3.3. Data Collection

The questionnaire was disseminated through an online third-party platform known as “Wenjuanxing”. The participants were limited to consumers who had bought food and beverage products from insurgent brands used in this study employing a purposive sampling method. We guaranteed that all respondents had a comprehensive understanding of the research’s objectives and were furnished with in-depth explanations of insurgent brands and the specific variables under investigation before taking part in the study. We employed screening questions (“Have you ever purchased a food or beverage product from insurgent brands?”) to identify qualified participants and only those who responded affirmatively were included in the final dataset. As a result, 368 completed questionnaires met the criteria for subsequent multivariate data analysis. The sample comprised 194 female respondents (53%) and 174 male respondents (47%), showcasing a near-even distribution with regards to gender. The majority of participants fell within the 18-40 age bracket (64%) and held bachelor’s degrees (75%). Furthermore, a substantial portion of respondents reported a monthly income of 5000-10000 RMB. The detailed demographic profile of the participants is available in Table 1.

Table 1. Sample demographics (N=368).

Description	Details	Frequency	Percentage (%)
Gender	Male	174	47
	Female	194	53
Age	17 and below	4	1
	18-30	107	29
	31-40	128	35
	41-60	88	24
	61 and above	41	11
Education level	High school or below	20	5
	Bachelor	277	75
	Master	49	13
	PhD	22	7
Income level (Monthly or RMB)	Less than 5000	45	12
	5000-10000	235	64
	10001-20000	56	15
	More than 20000	32	9

3.4. Common Method Variance

When data are gathered from a single source across various variables in a cross-sectional manner, they frequently face the challenge of common method variance (CMV). Therefore, the incorporation of a marker variable within the confirmatory factor analysis framework has gained recognition (Miller & Simmering, 2023). A comparative examination of R^2 and β values was conducted both prior to and following the inclusion of the marker variable as outlined in Table 2. The findings revealed minor discrepancies signifying a lack of common method variance.

Table 2. Common method of variance testing with marker variables (MV).

Endogenous variable	R^2 without MV	R^2 with MV	β without MV	β with MV
Psychological ownership	0.335	0.340	0.188	0.178
Brand loyalty	0.394	0.401	/	/

4. FINDINGS

4.1. Data Analysis

In this research, we employed a data analysis approach known as partial least squares structural equation modeling (PLS-SEM) using SmartPLS version 3.3.6 software (Ringle, Wende, & Becker, 2015). This choice was made because PLS modeling does not necessitate an assumption of normality which is particularly advantageous in survey research where data distribution often departs from the normal distribution (Chin, Marcolin, & Newsted, 2003). PLS-SEM is a statistical technique employed in research to analyse and model relationships between observed and latent variables. PLS-SEM is a variance-based method that emphasises the prediction of dependent variables especially for complicated models with limited sample numbers in contrast to typical covariance-based SEM approaches. PLS-SEM distinguishes itself through several key characteristics in contrast to past studies that predominantly relied on covariance-based SEM. Firstly, PLS-SEM is more flexible and forgiving in handling non-normal data making it robust when applied to variables with skewed distributions, nominal, ordinal and ratio scales. This flexibility allows researchers to analyse data that may not adhere to strict normality assumptions, a common constraint in traditional SEM approaches. Secondly, PLS-SEM is well-suited for exploratory research and theory development emphasizing prediction over explanation. This characteristic makes it suitable for situations where the main focus is on understanding and forecasting relationships rather than testing pre-established hypotheses. Moreover, PLS-SEM is advantageous in cases of small sample sizes, a scenario where covariance-based SEM may face challenges. PLS-SEM can provide reliable results with fewer observations making it practical in situations where obtaining a large sample is difficult or costly. Another notable feature of PLS-SEM is its ability to handle both reflective and formative measures within the same model. This flexibility allows researchers to incorporate diverse types of variables enhancing the model's capacity to capture the complexity of relationships in various fields of study.

We used the repeated-indicator method to cope with the second-order, hierarchical constructs (Hair, Sarstedt, Ringle, & Gudergan, 2018). This involved duplicating the indicators for the first-order constructs to gauge the second-order construct. We followed the recommended two-step approach beginning with an assessment of the measurement (outer) model by running the PLS algorithm. Subsequently, the structural model was evaluated through the bootstrapping technique (Hair, 2017).

4.2. Measurement Model Assessment

When scrutinizing the measurement model, we conducted a thorough evaluation of the loadings, average variance extracted (AVE) and composite reliability (CR), adhering to the criteria outlined by Ramayah, Cheah, Chuah, Ting, and Memon (2018) and Hair (2017). Specifically, loadings were considered acceptable if they exceeded 0.5, AVE values were deemed adequate if they exceeded 0.5 and CR values were regarded as reliable if they were higher than 0.7. Since this study employed a second-order measurement for perceived brand authenticity, we first assessed all the first-order components before proceeding to test the validity and reliability of the second-order measurement. According to Table 3, all loadings and AVEs exceeded the 0.5 threshold and all CR values exceeded 0.7 confirming the validity and reliability of both first-order and second-order measurements.

In the subsequent step, we proceeded to appraise discriminant validity using the HTMT criterion guided by Henseler, Ringle, and Sarstedt (2015) and the updated criteria provided by Franke and Sarstedt (2019). We assessed the HTMT values with a more stringent threshold ensuring that they remained below 0.85. As illustrated in Table 4, all the ratios were found to be well below the established cut-off value of 0.85. The outcomes of these assessments further substantiate the validity and reliability of the measurement items.

Table 3. Measurement model.

First-order constructs	Second-order construct	Item	Loadings	AVE	CR
Conscious		CON1	0.873	0.757	0.940
		CON2	0.857		
		CON3	0.872		
		CON4	0.875		
		CON5	0.875		
Self-empowerment		SE1	0.885	0.771	0.910
		SE2	0.885		
		SE3	0.865		
	Perceived brand authenticity	Conscious	0.918	0.667	0.797
		Self-empowerment	0.701		
Value co-creation		VCC1	0.904	0.794	0.921
		VCC2	0.883		
		VCC3	0.887		
Psychological ownership		PO1	0.882	0.747	0.922
		PO2	0.842		
		PO3	0.865		
		PO4	0.868		
Brand loyalty		BL1	0.855	0.710	0.924
		BL2	0.835		
		BL3	0.843		
		BL4	0.824		
		BL5	0.854		

Note: AVE= Average variance extracted; CR= Composite reliability.

Table 4. Discriminant validity of measurement model (HTMT ratio).

Constructs	BL	PBA	PO	VCC
Brand loyalty	/			
Perceived brand authenticity	0.627			
Psychological ownership	0.531	0.586		
Value co-creation	0.541	0.534	0.535	/

4.3. Structural Model Assessment

We used the gathered dataset to do an analysis of multivariate skewness and kurtosis in accordance with the recommendations made by Hair et al. (2021) and Cain, Zhang, and Yuan (2017). The outcomes revealed a deviation from multivariate normality as demonstrated by Mardia’s multivariate skewness ($\beta = 1.839$, $p < 0.01$) and Mardia’s multivariate kurtosis ($\beta = 46.308$, $p < 0.01$). We have decided to present the path coefficients, standard errors, t-values and p-values for the structural model in order to address this departure from normalcy and in accordance with Hair, Risher, Sarstedt, and Ringle (2019). These values were obtained through a resampling bootstrapping procedure involving 5,000 samples (Ramayah et al., 2018). Additionally, we implemented a complete strategy in response to the criticism made by Hahn and Ang (2017) which emphasised the drawbacks of using p-values only for hypothesis testing. This approach encompasses the consideration of a blend of criteria, encompassing p-values, confidence intervals and effect sizes. Table 5 provides a comprehensive overview of the criteria used for the rigorous assessment of the hypotheses formulated in our study.

Firstly, we examined the impact of the two predictors of psychological ownership resulting in an R^2 of 0.335, signifying that the two predictors elucidated 33.5% of the variance in psychological ownership. Both perceived brand authenticity ($\beta = 0.376$, $p < 0.001$) and value co-creation ($\beta = 0.298$, $p < 0.001$) exhibited positive association with psychological ownership, thus substantiating the support for H1 and H3. Subsequently, we evaluated the influence of the two predictors on brand loyalty. Perceived brand authenticity ($\beta = 0.355$, $p < 0.001$) and value co-creation ($\beta = 0.224$, $p < 0.001$) all displayed a positive correlation with brand loyalty, thus H2 and H4 were

supported. Similarly, we examined the impact of psychological ownership on brand loyalty. Our analysis revealed that psychological ownership ($\beta = 0.188, p < 0.01$) exerts a notable and statistically significant influence on brand loyalty thereby providing empirical substantiation for H5.

We used bootstrapping to look into the indirect effects while analyzing the mediation hypotheses in accordance with the standards set by Preacher and Hayes (2004) and Preacher and Hayes (2008). As illustrated in Table 6, both paths $PBA \rightarrow PO \rightarrow BL$ ($\beta = 0.071, p=0.001$) and $VCC \rightarrow PO \rightarrow BL$ ($\beta = 0.056, p=0.001$) displayed statistical significance. The bias-corrected 95% confidence intervals also revealed no intervals spanning zero, further affirming our findings. Consequently, both H6 and H7 received additional support.

Table 5. Hypothesis testing results of direct effects

Hypothesis	Relationship	Std. beta	Std. dev.	t-values	p-values	BCI LL	BCI UL	f ²
H1	PBA → PO	0.376	0.046	8.137	<0.001	0.302	0.452	0.167
H2	PBA → BL	0.355	0.050	7.150	<0.001	0.268	0.432	0.140
H3	VCC → PO	0.298	0.048	6.283	<0.001	0.216	0.373	0.105
H4	VCC → BL	0.224	0.049	4.536	<0.001	0.139	0.300	0.059
H5	PO → BL	0.188	0.050	3.750	<0.001	0.107	0.271	0.039

Note: PBA= Perceived brand authenticity, VCC= Value co-creation, PO= Psychological ownership, BL= Brand loyalty, A 95% confidence interval with a bootstrapping of 5,000 was used. BCI LL= Bootstrap confidence interval lower limit, BCI UL= Bootstrap confidence interval upper limit.

Table 6. Hypothesis testing results of indirect effects.

Hypothesis	Relationship	Std. beta	Std. dev.	t-values	p-values	BCI LL	BCI UL
H6	PBA → PO → BL	0.071	0.021	3.385	0.001	0.032	0.114
H7	VCC → PO → BL	0.056	0.017	3.309	0.001	0.027	0.093

Note: A 97.5% confidence interval with a bootstrapping of 5,000 was used.

The R² values of 0.335 for psychological ownership and 0.394 for brand loyalty indicate a modest to significant impact on the model's ability to explain variance (Chin, 1998). Furthermore, we evaluated predictive relevance through the blindfolding sample reuse method revealing Q² values exceeding 0. Consequently, the research model successfully predicted both psychological ownership (Q² = 0.244) and brand loyalty (Q² = 0.275) (Hair et al., 2021).

Finally, we applied the PLS predict method which employs a holdout sample-based technique for generating predictions at the case level whether for individual items or entire constructs adhering to the guidance provided by Shmueli et al. (2019). This was accomplished using PLS-Predict in conjunction with a 10-fold procedure to evaluate predictive relevance.

According to Shmueli et al. (2019), if all errors (PLS-LM) are lower, it indicates robust predictive power whereas higher values across all indicate a lack of confirmed predictive relevance. A prevalence of lower item differences suggests moderate predictive power and if the minority displays lower values, it indicates low predictive power.

It's clear from analyzing Table 7 data that the PLS model consistently showed fewer errors than the LM model. This observation leads us to confidently assert that our model possesses robust predictive capabilities.

Table 7. Out-of-sample prediction based on PLS-prediction.

Item	PLS		LM	MAE	PLS-LM	MAE	Q ² _predict
	RMSE	MAE	RMSE		RMSE		
BL1	1.008	0.819	1.029	0.839	-0.021	-0.020	0.246
BL2	1.019	0.845	1.034	0.851	-0.015	-0.006	0.266
BL3	0.941	0.768	0.957	0.782	-0.016	-0.014	0.243
BL4	0.887	0.721	0.896	0.725	-0.009	-0.004	0.250
BL5	1.013	0.818	1.037	0.839	-0.024	-0.021	0.279

Note: RMSE= Root mean square error; MAE= Mean absolute error.

5. DISCUSSION AND CONCLUSION

This study used psychological ownership as a mediator to look at how perceived brand authenticity and value co-creation affect brand loyalty. It was based on the notion of psychological ownership. The study employed the PLS-SEM method focusing specifically on insurgent brands within the Chinese context. This research yielded several noteworthy findings. Firstly, it empirically demonstrated a noteworthy and positive correlation between perceived brand authenticity and psychological ownership, aligning with previous research by Liu et al. (2023). This finding emphasizes the notion that consumers are inclined to feel a higher degree of ownership towards brands with which they share a deeper connection (Kumar & Kaushal, 2021). Furthermore, our results validated the impact of perceived brand authenticity in promoting brand loyalty consistent with previous studies across various contexts (Kim et al., 2021; Lee & Chung, 2020).

This study aimed to explore how "value co-creation" helps to clarify consumers' conceptions of ownership about insurgent brands since self-efficacy is a pathway that leads to psychological ownership. Our findings indeed corroborated the connection between value co-creation and psychological ownership, aligning with earlier research outcomes (Deng et al., 2021). It appears that consumers actively engaged in dynamic value co-creation are more inclined to form a sense of psychological ownership towards the brand. Moreover, our examination revealed a favorable connection between value co-creation and brand loyalty aligning with earlier research findings (Ye et al., 2023). This underscores the significance of fostering a robust relationship between the brand and its customers as it enhances the efficacy of value co-creation, yielding favorable outcomes such as heightened brand loyalty.

The present findings make a significant contribution to the branding literature by establishing psychological ownership as a pivotal variable with predictive capabilities for brand loyalty. Our results validate the connection between psychological ownership and brand loyalty corroborating earlier research (Morewedge, Monga, Palmatier, Shu, & Small, 2021) highlighting the impact of psychological brand ownership on brand loyalty. This study primarily serves to validate the mediating effect of psychological ownership between the stimulating factor of "perceived brand authenticity" and the self-efficacy motivator "value co-creation" in relation to brand loyalty. Specifically, perceived brand authenticity and value co-creation imbue consumers with a feeling of identity and importance thereby amplifying their psychological ownership and prompting favorable behaviors and attitudes. Consequently, the impetus and psychological encounter of possessing psychological ownership are shaped by the desire for stimulation and self-efficacy ultimately fostering positive behaviors and attitudes such as brand loyalty.

5.1. Theoretical Implications

This study makes a substantial contribution to established theoretical frameworks by delving into under-explored constructs that hold theoretical importance. Notably, the precise influence mechanisms of stimulation and self-efficacy motivators on psychological ownership have not received much attention despite the growing interest in psychological ownership among researchers (Chen et al., 2021; Zhou, Li, & Meng, 2022). This research illuminates the pivotal role of stimulation and self-efficacy in the formation of psychological ownership thereby solidifying the foundational concepts of psychological ownership theory. Here, individuals perceive objects as integral parts of themselves, a phenomenon attributed to the impact of stimulation and self-efficacy in relation to specific brands. Additionally, this study introduces and elucidates the role of two critical factors, perceived brand authenticity and value co-creation in triggering psychological ownership in a favorable manner.

Secondly, the realm of brand loyalty within the sphere of insurgent brands has been notably overlooked in existing literature. Our investigation revealed a critical oversight where scholars have largely omitted the intricate interplay of perceived brand authenticity, value co-creation and psychological ownership all of which collaboratively shape brand loyalty. When evaluating brand loyalty among insurgent brands, it is crucial to take these variables into account and use a holistic approach. These findings not only enhance the current understanding

of insurgent brands but also bridge gaps in singular-factor investigations of brand loyalty offering a comprehensive and multifactorial research perspective.

Thirdly, preceding research has often confined perceived brand authenticity within a single dimension, acknowledging its significance in fostering psychological ownership (Liu et al., 2023). This study augments existing literature by empirically validating the conceptualization of perceived brand authenticity as a multifaceted construct encompassing conscious and self-empowering dimensions. Additionally, this research enriches the domain of marketing scholarship by presenting a comprehensive framework elucidating the intricate connections among perceived brand authenticity, value co-creation and their subsequent outcomes notably psychological ownership and brand loyalty. The findings underscore the pivotal roles played by perceived brand authenticity and value co-creation in stimulating psychological ownership, thereby fostering enduring brand loyalty.

Lastly, this study explores the complex relationship between psychological ownership and brand loyalty in the context of insurgent brands elaborating on the theoretical underpinnings of psychological ownership theory. In doing so, it extends the boundaries of psychological ownership theory specifically within the context of insurgent brands. This research not only explores the direct influence of psychological ownership on brand loyalty but also delves into its nuanced mediating role, intricately shaping the relationships between perceived brand authenticity, value co-creation and the ultimate outcome of brand loyalty.

5.2. Managerial Implications

The practical insights gleaned from this study offer invaluable guidance for marketing professionals and brand managers operating within the realm of China's insurgent brands. Firstly, recognizing the pivotal role of perceived brand authenticity; brands can invest in comprehensive authenticity assessments to ensure brand values align with consumer expectations. This involves an introspective analysis of organizational values and practices, necessitating transparency in communication and consistency in brand messaging. By addressing discrepancies between perceived and actual authenticity, brands can fortify trust, which serves as the bedrock for enduring customer relationships. Brands should employ qualitative and quantitative tools to gauge authenticity perception continuously, enabling real-time adjustments to marketing strategies.

Secondly, the research highlights the importance of value co-creation as a driver of brand loyalty. Brands can actively engage consumers in the product development process, leveraging platforms that encourage collaboration and feedback. Incentivizing and rewarding customer participation can foster a sense of ownership enhancing brand loyalty. Moreover, integrating consumer suggestions and preferences into product offerings demonstrates responsiveness reinforcing the brand's customer-centric approach. Managers should invest in training and incentivizing staff to facilitate these co-creation initiatives effectively, ensuring a seamless and engaging experience for consumers.

Lastly, understanding the mediating function of psychological ownership illuminates a critical area for managerial intervention. Brands can design marketing campaigns and initiatives that specifically target fostering a sense of ownership among consumers. Recognizing that perceived brand authenticity and value co-creation are fundamental constituents of psychological ownership, brands should meticulously focus on these elements in their strategic endeavors. These strategies could encompass transparent brand narratives, genuine interactions, engaging customers as partners, valuing their inputs and involving them in the co-creation journey. Brands can adeptly navigate the intricate terrain of authenticity, co-creation and psychological ownership by embracing these strategic initiatives. By doing so, they not only enrich the customer experience but also lay the foundation for enduring brand loyalty, forging connections that transcend mere transactions and delve into the realm of profound psychological connection between consumers and brands within China's insurgent brand market.

5.3. Limitations and Suggestions for Future Research

Although the understanding of consumer-brand dynamics has greatly advanced as a result of our research, it is important to recognize limitations that present interesting directions for future research. Notably, our study concentrated on insurgent brands within the food and beverage sector. This specificity undoubtedly provided rich insights tailored to this industry; however, the transferability of these insights to other sectors of insurgent brands remains an untapped domain. Future studies should broaden their emphasis and include a variety of insurgent brand categories in order to improve the scope of our findings. This approach will not only increase the data's broader application but also reveal subtle patterns specific to many sectors. Moreover, our research meticulously dissected the intricacies of perceived brand authenticity, value co-creation, psychological ownership and brand loyalty within a particular context. Extending the boundaries of inquiry into varied contexts or cultural settings stands as a promising trajectory for future research. Understanding how these phenomena manifest and interact in different cultural milieus would not only refine our comprehension of these intricate processes but also unveil culturally specific factors that influence consumer-brand relationships. Researchers can unveil the universal principles shaping consumer-brand dynamics while appreciating the cultural nuances that color these relationships, thereby enriching the academic discourse in this domain by venturing into unexplored territories.

Furthermore, our primary technique for gathering data for the study was a cross-sectional self-reported survey which has limitations even if it is an informative tool. We advocate for the incorporation of mixed methods designs in future investigations to bolster the depth and reliability of our research outcomes. Embracing a multifaceted approach and integrating methods such as comprehensive interviews, case studies, rigorous archival data analysis and online surveys can enrich the scholarly understanding of the phenomena in question. This methodological diversification not only enables the validation of our conclusions through multiple lenses but also fosters a more nuanced and encompassing comprehension of the complex interconnections within the realm of our research focus. Researchers can triangulate findings ensuring a more robust and comprehensive exploration of the intricacies inherent in the subject matter by embracing diverse methodologies.

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