Journal of China-ASEAN Studies

(JCAS)

Vol. 6 No. 1, December 2025

Chinese International College
Dhurakij Pundit University

Policy

JCAS (Journal of China-ASEAN Studies) is an open-access, peer-reviewed bi-annual journal of Chinese International College, Dhurakij Pundit University. It is the premiere forum for global researchers, teachers, policy makers, leaders, managers and administrators, interested in all aspects of Southeast Asian countries and China.

Aim and Scopes:

JCAS aims to support and inform researchers, scientists, and scholars, administrators, educators, emerging and established researchers, and policy makers interested in all facets of business, education, tourism, and arts related to Southeast Asian countries and China through the publication of original research that advances knowledge, theory and practice in the field include:

Arts and Design

Business Innovation

Business and Management

Economics

Education and Teaching

Finance and Accounting

Humanities

Marketing

Media and Intercultural Communication

Multicultural Studies

Languages and Culture

Languages and Education

Social Sciences related to Thai-China

Publication Frequency

JCAS publishes twice a year in June and December (January – June; July – December).

Language

English and Chinese

Publication Policy

JCAS only considers manuscripts that have not been previously published in other journal, conference or any kind of publication before, and are not under consideration for publication elsewhere.

Article Processing Charge

JCAS is an open access publication that does not charge any processing fees including submission, review and publication.

Free Access

JCAS is free access via online platform https://so07.tci-thaijo.org/index.php/JCAS

Types of Manuscripts

- **Original research articles**: The manuscripts should be about 5,000-8,000 words. The manuscripts must include a review of the existing state of knowledge on the research question(s) of interest, and then share new information or new ideas that will influence the situation of theory and/or practice in the field of China-ASEAN Studies.
- **Review article**: The manuscripts should be about 1,500-3,500. The manuscripts must include the current state of understanding on a particular topic about studies of Southeast Asian countries and China by analysing and discussing research previously published by others

Editor's Note

Dear Sir / Madam,

The quality of articles in JCAS journals has begun to improve significantly and is being recognized by scholars. Previously published articles are starting to be cited in TCI and Scopus, which is exactly the result of our consistent efforts.

We are delighted to announce the publication of the sixth volume, first issue, of the Journal of China-ASEAN Studies (JCAS). This latest edition marks significant advancement towards securing Tier 2 accreditation from the Thai Citation Index (TCI), reflecting promising outcomes derived from our concerted academic endeavors. The international environment is currently experiencing substantial transformation, notably with ASEAN economies gaining prominence globally. Moreover, emerging considerations related to sustainability, media marketing, innovative teaching method and artificial intelligence (AI) necessitate rigorous analysis of evolving global environmental contexts.

Included in this issue are meticulously peer-reviewed articles expected to yield groundbreaking insights. Our strict adherence to peer-review protocols demonstrates our ongoing dedication to positioning JCAS as a reputable academic journal dedicated to China and ASEAN-related studies, with an ultimate goal of recognition by esteemed academic indices, including TCI 1, TCI 2, and Scopus.

JCAS distinguishes itself through an expansive interdisciplinary scope, addressing contemporary issues ranging from workforce dynamics and Sino-Thai relationships to business management, wellness paradigms, tourism, hospitality management, leisure studies, information technology, finance, accounting, communication arts, economics, education, humanities, arts and design, linguistics, applied sciences, and engineering. The journal's primary objective is to serve as a prestigious platform for academics, industry professionals, and students to disseminate both conceptual and empirical research of exceptional caliber. Manuscripts are invited in both Chinese and English to promote multilingual scholarly dialogue. JCAS is thus dedicated to publishing intellectually significant contributions and providing a platform for the rigorous discussion of advanced research methodologies and exemplary practices.

Your sincerely

Editor-in-Chief
Assist. Prof. Dr. Chun-Shuo Chen
Journal of China-ASEAN Studies

Contents

Business Plan for Sustainable Certified Vietnamese Coffee: A Mockup Case Study

Received: November 22, 2025
Revised: December 22, 2025
Accepted: December 24, 2025

Heng-Yu Chang[1*] Bui Huyen Dieu Linh[2]
[1*]Department of Digital Financial Technology, Chang Gung University, Taiwan
[2]School of Business, Chang Gung University, Taiwan
hychang@mail.cgu.edu.tw

Abstract

This simulated business plan outlines Amazing Coffee's strategy to become a pioneer in Vietnam's sustainable coffee market. It reviews global ESG trends and the coffee industry's shift toward eco-friendly, ethically sourced products, and positions Amazing Coffee within this transition. The simulated plan outlines a sustainable supply chain that aligns with international standards for organic cultivation, fair trade, water conservation, renewable energy, biodegradable packaging, and carbon offsetting. Financial projections indicate a net present value of 712.4 million VND, an internal rate of return of 19.6%, and a return on equity of 22.8%, based on an initial investment of 1 billion VND. Beyond environmental measures, the plan emphasizes Amazing Coffee's mission to reshape consumer behavior and industry norms in Vietnam through sustainability-focused marketing and transparent sourcing practices. It expresses the company's goal to bring authentic Vietnamese coffee to market responsibly, while influencing peers to adopt similar standards. Overall, the simulated business plan presents Amazing Coffee as a future leader in sustainable coffee, prepared to meet evolving consumer expectations, tighter regulations, and rising ESG demands, while delivering positive environmental and social impacts within Vietnam's coffee sector.

Keywords: Sustainable Coffee Market; ESG Initiatives; Sustainable Business Model

1. Introduction

Many firms across industries "go green" because international standards and new technologies reveal that even traditionally non-green businesses can benefit from environmental sustainability, for example via resource efficiency and lower energy use (Wolniak et al., 2023). Sustainability is increasingly seen as a driver of a new industrial revolution, in which ecological, social and ethical concerns shape production and consumption, especially in food and agriculture (Adams et al., 2016; Zwiech, 2023). In this context, food and agricultural firms face pressure from consumers, policymakers and NGOs to design more sustainable supply chains, closing information gaps and addressing market failures around environmental externalities (Danker, 2013).

This simulated business plan highlights sustainability as a core element of Amazing Coffee's model, rather than an add-on. Management recognizes the need to clarify what sustainability means in practice, to align internal values with global ESG expectations, and to

systematically examine equipment, materials and processes in order to meet local and international expectations for sustainable food production (Ullah et al., 2021). The study therefore develops a simulated sustainability-oriented business plan that translates abstract concepts into operational choices in sourcing, processing, marketing, and stakeholder engagement (Bocken et al., 2013; Lambrechts et al., 2017).

Coffee businesses are attractive because they require relatively modest capital and administration, but differentiation is difficult in a market where many cafés and brands offer similar products (Cohen & Winn, 2007). In such contexts, strong foundational ideas—opportunity recognition, knowledge and finance—are crucial for building a competitive venture (Barney, 1991; Massa et al., 2017). Vietnamese Amazing Coffee operates in a crowded F&B sector where products are differentiated mainly by subtle attributes and consumer perception, making sustainability a potential strategic lever for differentiation and legitimacy (Klaniecki et al., 2018; Rodrigues & Franco, 2019).

Amazing Coffee, a mockup and young Vietnamese brand selling premium beverages, sees sustainability as vital for waste reduction, high-quality ingredients and alignment with corporate values. Yet it is still learning how to design sustainability marketing and strategies that credibly demonstrate social and environmental responsibility (Ensign, 2022; Pirzada et al., 2023). The study aims to help Amazing Coffee (mockup case) understand and improve its sustainability performance by examining key sustainable business and marketing concepts, assessing current practices, and proposing enhancements such as recyclable packaging, more visible sustainability communication, and increased sustainable coffee sales (Bocken et al., 2013; Edward & Sergiy, 2017; Lambrechts et al., 2017).

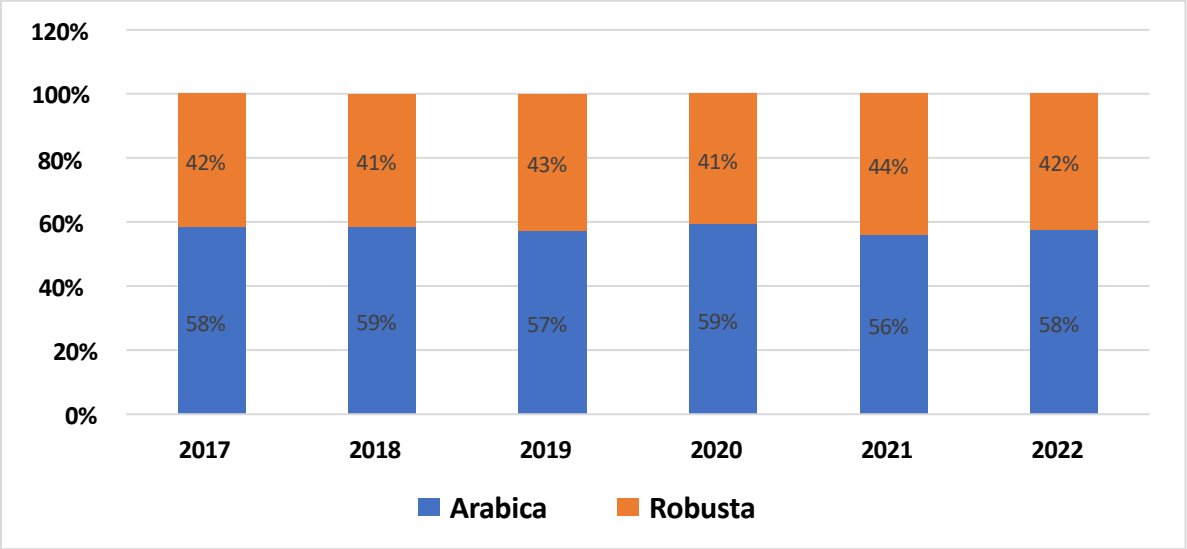
2. Business Issues

2.1 Sustainable Coffee Product

Climate change is already affecting coffee production, lowering yields in some regions, altering Arabica/Robusta ratios, and increasing extreme weather events that threaten sustainable farming (Baker, 2012; IPCC, 2018). Many sustainability initiatives emerged before climate risks were fully recognized, so standards and support systems now need rethinking to address landscape-scale constraints rather than only farm-level issues (Baker, 2012; Navarro Hundzinski et al., 2013). Certified coffee has increased from around 1% to 10% of global sales, yet total production has grown faster and often expanded into newly deforested land, meaning current sustainability trends are too small and slow to offset environmental degradation (Baker, 2012; Krishnan, 2017).

Figure 1

The Proportion of Coffee in the World from 2017-2022



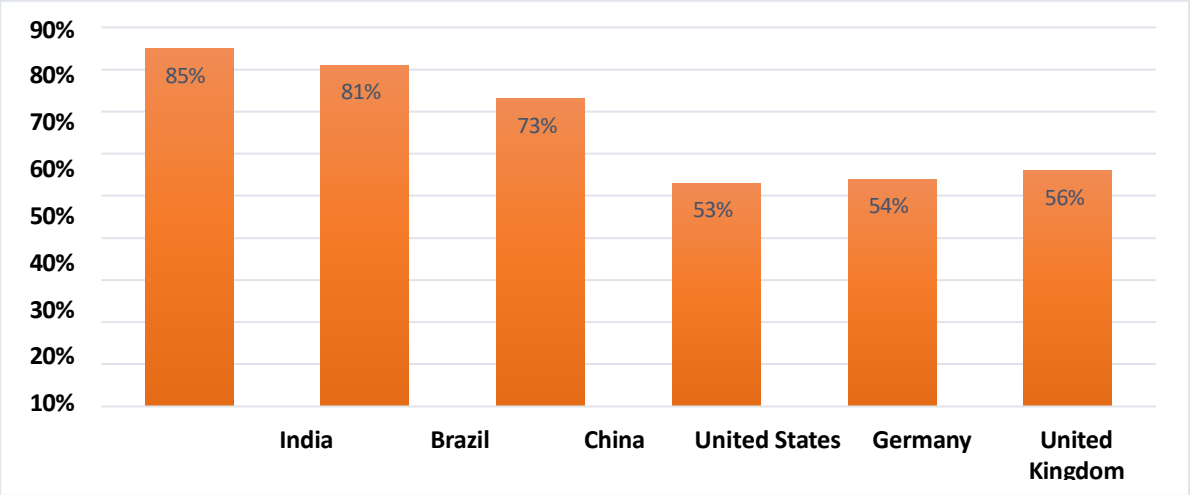
Note: Source from ICO (2023)

Coffee is cultivated in about 80 tropical countries, with 125 million people depending on it, but genetic resources are being lost due to deforestation, land degradation, low prices and climate-induced pest and disease pressures (Castro-Tanzi et al., 2012; Krishnan, 2017). To secure livelihoods and biodiversity, production must focus on raising quality and net returns through environmentally conscious, sustainable farming rather than volume alone (Krishnan, 2017;). In Vietnam, eco-efficiency analysis of conventional and certified plantations shows that farms can reduce environmental pressure by over 50% per crop year while maintaining value added, especially when they use windbreak trees, efficient irrigation and higher-elevation sites (Ho et al., 2018). These results suggest certification and good agronomic practices can jointly support economic and environmental goals, but eco-efficiency models should more fully integrate ecological and wellbeing dimensions (Ho et al., 2018).

Empirical evidence on whether consumers reward sustainability is mixed. Lingnau et al. (2019) show that poor sustainability performance, particularly on social issues, is punished by lower willingness to pay, but positive measures are not always rewarded, indicating asymmetric consumer responses. Global surveys report that around two-thirds of consumers are very concerned about environmental sustainability, with even higher concern in emerging markets such as India, Brazil and China than in developed countries like the US, Germany and the UK (Mark S., 2023). However, many still perceive sustainable choices as costly, which creates a gap between concern and actual behavior (Mark S., 2023; Van Loo et al., 2015).

Figure 2

Percentages of Consumers Concerned about Environmental Sustainability in Different Market

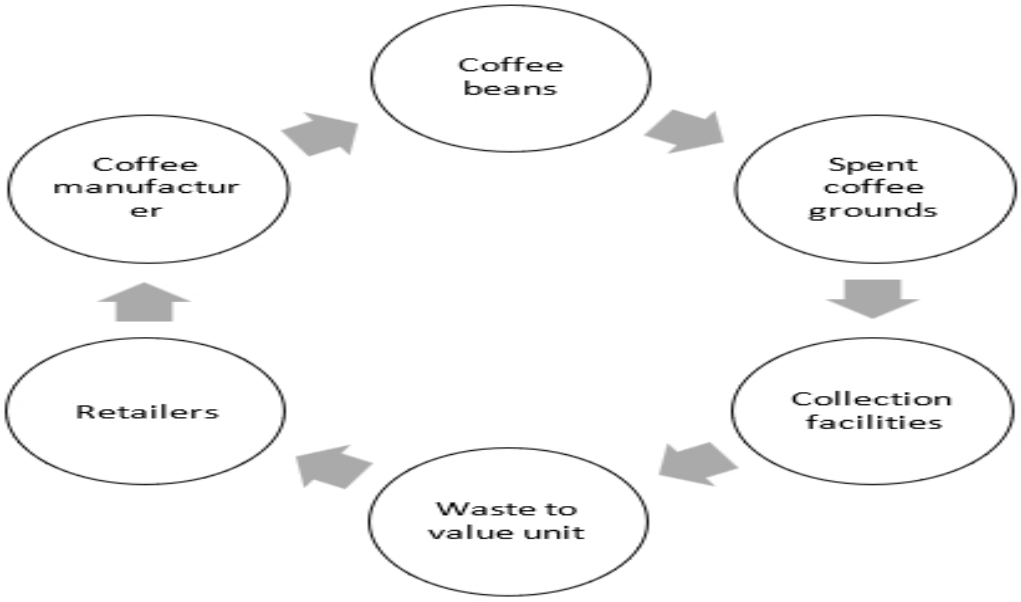


Note: Source from Mark (2023)

The coffee industry generates significant waste, including spent coffee grounds (SCGs), disposable cups, utensils and packaging. A circular economy perspective emphasizes keeping materials in use, maximizing value through reuse, repair, remanufacturing and recycling (Hofstetter et al., 2021; La Scalia et al., 2021). SCGs can be composted, used for energy generation or transformed into raw materials for other products, turning waste into value and reducing environmental burdens (Amores-Monge et al., 2022; Angelopoulos et al., 2019). By redesigning processes and optimizing resource use, the coffee sector can become a flagship example of circular economy implementation in agri-food systems (Allnoch et al., 2022; Hofstetter et al., 2021).

Figure 3

Circular Economy in Coffee Industry



2.2 Sustainable Coffee Certification

Sustainable coffee certification schemes address environmental conservation, fair labor and economic viability, offering farmers price premiums and market access in exchange for compliance with specific standards (Lazos-Ruiz et al., 2022; Moda et al., 2022; Navarro Hundzinski et al., 2013). Certifications such as Rainforest Alliance/UTZ, Fairtrade, Organic and 4C require third-party verification and aim to promote biodiversity, reduce agrochemical use, improve working conditions and support smallholder livelihoods (Fairtrade International, 2022; Meylan et al., 2022; Rainforest Alliance, 2022; 4C Association, 2022).

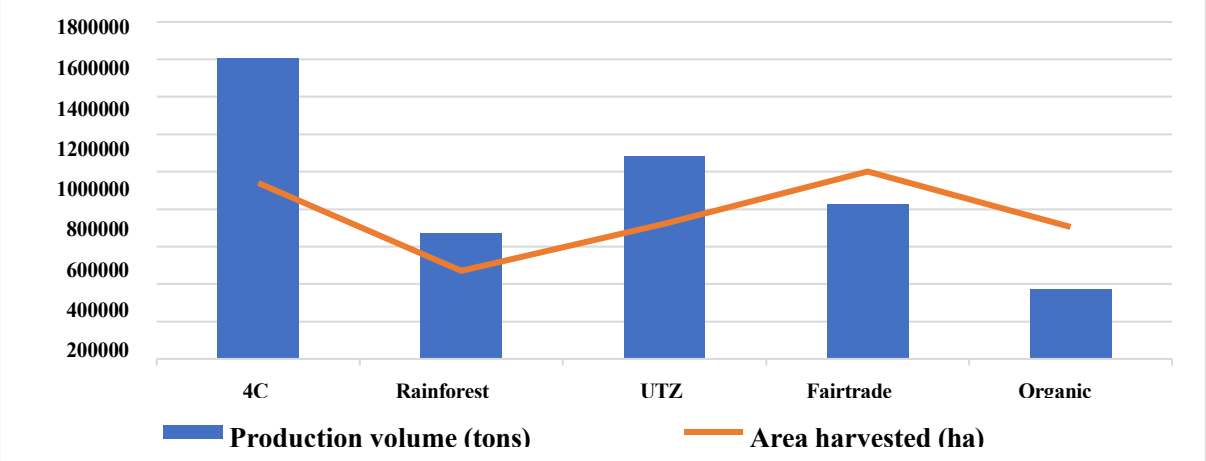
Rainforest Alliance/UTZ focuses on biodiversity, agrochemical reduction and labor practices; Fairtrade emphasizes minimum prices, premiums and smallholder empowerment; Organic bans synthetic inputs and GMOs to protect biodiversity; and 4C provides an entry-level baseline across social, economic and environmental dimensions (Fairtrade International, 2022; Meylan et al., 2022; Moda et al., 2022; Rainforest Alliance, 2022). Together, these schemes create a "standards market" that interacts with brands and NGOs to shape coffee value chains (Basu & Hicks, 2008; Goranova & Ryan, 2012).

Adoption, however, is uneven and challenging for smallholders because of high costs, complex requirements, limited resources and weak awareness (Jati et al., 2012; Rao et al., 2017). Latin American countries such as Brazil, Colombia and Mexico host many Rainforest Alliance and Fairtrade farms, while in Asia, Vietnam and Indonesia have expanded 4C and UTZ mainly due to export demand (ICO, 2022; Jati et al., 2012). Consumer studies show positive willingness to pay for sustainability labels, especially when they combine social and environmental attributes; for example, US consumers exhibit the highest premiums for coffees with both Direct Trade and Organic, or Fair Trade and Organic labels (Fuller & Grebitus, 2023). In Thailand, about 36.48% of respondents are willing to pay a premium for sustainable coffee, highlighting both opportunity and heterogeneity in demand (Uttha et al., 2021).

Overall, certifications can promote responsible practices and provide economic benefits, but their impact depends on farmer support, market demand and the broader institutional environment (Chiputwa et al., 2015; Ibanez & Blackman, 2016; Kilian et al., 2006).

Figure 4

Certified Coffee Production Volume and Area Harvested in 2019



Note: Source from Meier et al. (2021)

2.3. Vietnam's Coffee Industry and Sustainable Practices

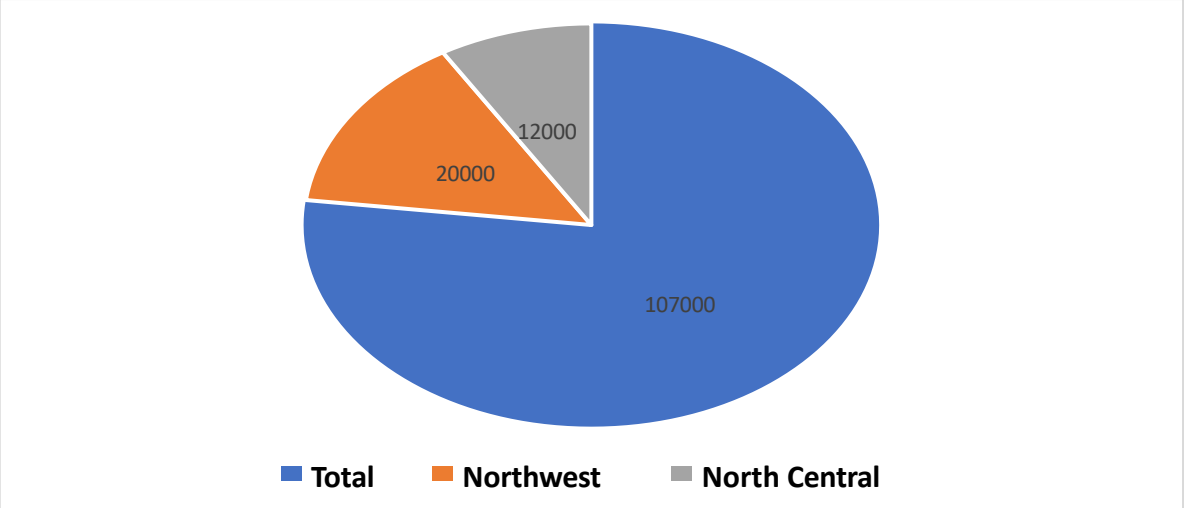
Consumers increasingly want coffee that mitigates climate change and protects growers and ecosystems, recognizing that soils, water and forests are finite and that human activity is driving global warming (Bacon, 2005; IPCC, 2018). Sustainability is commonly framed in terms of economic fairness (profit distribution), social justice (labor conditions, land use choices) and environmental protection (biodiversity, resource use, climate targets), in line with the UN Sustainable Development Goals (Ullah et al., 2021; UNDP, 2018).

Certified agriculture can improve environmental performance by diffusing good practices through accreditation programs. Research shows that many consumers in Germany and the US are willing to pay more for Fairtrade or shade-grown coffee, creating premiums that can benefit farmers (Basu & Hicks, 2008; Van Loo et al., 2015). Some studies report reductions in costs, higher incomes, reduced vulnerability and better biodiversity under certification (Bacon, 2005; Bolwig et al., 2009; Hardt et al., 2015; Kilian et al., 2006; Philpott et al., 2008). Others find limited economic or environmental effects, underlining that certification is not a panacea and outcomes depend on context and implementation (Castro-Tanzi et al., 2012; Chiputwa et al., 2015; Ibanez & Blackman, 2016; Valkila, 2009).

Vietnam's rapid coffee expansion in the Central Highlands has caused deforestation, soil depletion, water scarcity and heavy pesticide and fertilizer use, threatening long-term competitiveness (Krishnan, 2017; Vietnamnet, 2023). In 2022, the country exported 1.7 million tonnes of coffee worth US$3.9 billion, but unsustainable practices expose it to ecological and market risks (Vietnam Coffee and Cocoa Association; Vietnamnet, 2023). To address aging plantations and productivity issues, the Ministry of Agriculture and Rural Development plans to re-cultivate around 107,000 hectares of coffee between 2021 and 2025, including 20,000 hectares of Arabica in the Northwest and 12,000 hectares in the North Central region (Vietnamnet, 2023).

Figure 5

Arabica Coffee Re-Cultivation Area Compared to the Total Coffee Re-Cultivation Area in Vietnam for the 2021–25 period states



Note: Source from Vietnamnet (2023)

Specialty and premium coffees remain niche because of high prices, but regions such as Cau Dat and Lac Duong in Lam Dong have developed strong Arabica brands like "Arabica Langbiang Coffee" and "Cau Dat Coffee – Da Lat," illustrating potential for quality-driven, localized branding (Nguyen and Sarker, 2018; Vietnamnet, 2023). Vietnam's sustainability transition is embedded in broader commitments under the Paris Agreement and national programs on organic fertilizers, forest and biodiversity conservation, and decent labor (Carlos, 2022; GCP, 2021; IPCC, 2018).

Vietnam adopted certification schemes such as 4C, Fairtrade, C.A.F.E. Practices and Rainforest Alliance more than two decades ago and is reported to be the world's largest sustainable coffee producer, with over 360,000 tones annually in 2019–2020 (GCP, 2021). Yet certified coffee still accounts for only a portion of total production (about 1.75 million tones in 2020), and producers struggle with certification costs, inadequate price premiums, low wages and challenging traceability requirements (Carlos, 2022). These constraints highlight the need for more effective governance, support mechanisms and business models that can spread sustainability benefits beyond a small subset of farmers (Fonseca and Souza, 2016; Nguyen et al., 2021; Tran and Nguyen, 2020).

3. Industry Analysis

3.1 Market Demand and Growth Projections

Demand for certified coffee complying with voluntary sustainability standards (VSSs) has grown rapidly as consumers and firms seek ethical and low-impact products (Meier et al., 2021). Certified production accounted for an estimated 21–45% of global coffee output in 2019, particularly in Europe and North America, signaling a structural shift rather than a niche trend (ICO, 2022; Meier et al., 2021). Global coffee production has increased steadily since 2008, reaching roughly 150 million 60-kg bags, with certified segments representing a rising share of the total (ICO, 2022). The International Institute for Sustainable Development projects a compound annual growth rate of 4.28% for the coffee market from 2021 to 2026 and forecasts certified volumes could rebound to 950,000–3.31 million tonnes by 2025, after a period of stagnation or mild contraction between 2014 and 2019 (Meier et al., 2021).

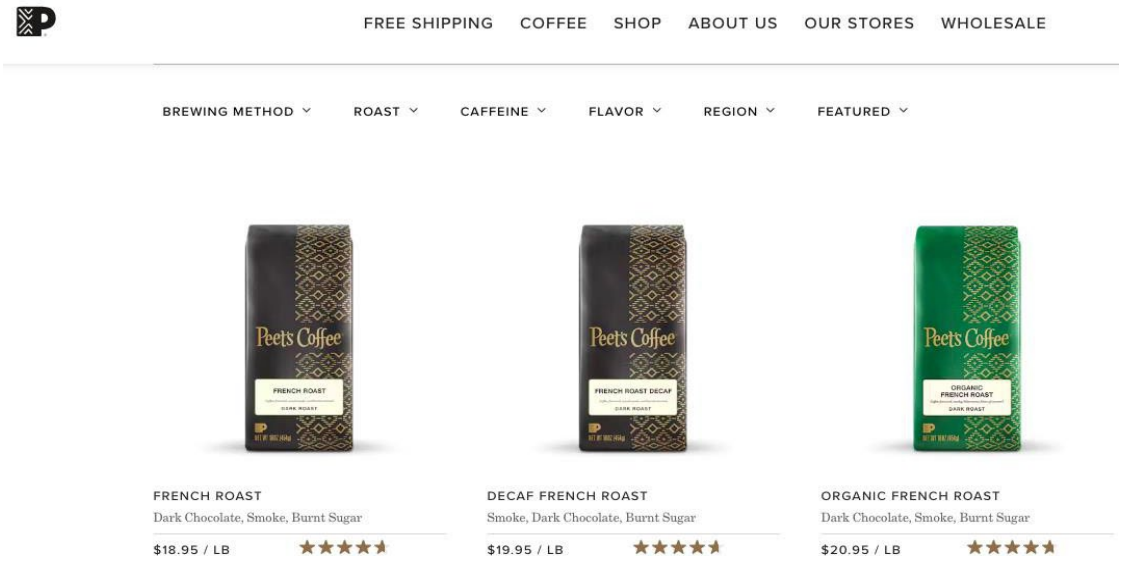
Vietnam is a major player, with certified output estimated at about 12 million 60-kg bags in 2022/23—around 26% of national production—positioning it among the top sources of certified coffee worldwide. Rising demand in emerging markets like China and Indonesia further strengthens the strategic opportunity for Vietnam's certified sector (Tran & Nguyen, 2020; CBI, 2022). Customers' preference for sustainable products translates into price premiums for certified coffee: estimates range from 5–30% above conventional prices, depending on certification type and market (Basu & Hicks, 2008; CBI, 2022). These premiums partly offset higher costs associated with sustainable practices, auditing, and organizational changes, and can improve net revenues where yields and operational efficiency are maintained (Jati et al., 2012; Kilian et al., 2006). In Indonesia, certified farmers earn higher net income than conventional farmers even after additional expenses, suggesting that sustainability can support profitability when embedded in broader efficiency strategies (Bolwig et al., 2009; Jati et al., 2012).

Examples from retail markets illustrate how premiums materialize. Peet's Organic French Roast sells at about US$20.95 compared to US$18.95 for its non-organic French Roast, a roughly 10% premium for certification (CBI, 2022; Peet's Coffee, 2024). Starbucks' Fairtrade Arabica has historically commanded about US$16.12/lb versus US$14.56/lb for comparable

non-certified specialty Arabica, an 11% premium (Basu & Hicks, 2008; Starbucks, 2002, 2003). Profitability, however, depends not only on price but also on cost structures, supply-chain organization, and marketing capabilities (Konietzko et al., 2018; Massa et al., 2017).

Figure 6

Peet's coffee price



Note: Sources from Peet's coffee (2024)

3.2 Production Volumes and Market Share

The coffee industry employs around 25 million farming households across nearly 80 tropical countries and is one of the most traded agricultural commodities, with an annual market value approaching US$100 billion (ICO, 2022). Coffee is the second most consumed beverage after water, with about 2.2 billion cups consumed daily, making it both an economic and cultural staple (ICO, 2022; Krishnan, 2017). Certified segments have grown faster than uncertified ones, reflecting corporate sustainability commitments and consumer preferences for responsible products (CBI, 2022). Brazil, Vietnam and Colombia are among the countries with the highest shares of certified production, underscoring their central role in shaping global sustainability trajectories (ICO, 2022). In Vietnam, certified coffee reached roughly 1.5 million 60-kg bags in 2021/22, about 20% of national output, and some estimates suggest sustainably certified volumes may now constitute 40–50% when broader schemes are considered (Vietnam Ministry of Agriculture and Rural Development, 2022). Vietnam accounted for approximately 16.4% of world coffee production in 2022, supported by favorable policies, improved agronomy and efficient processing and export infrastructures, yet it still faces climate, water and quality challenges (ICO, 2022; Nguyen et al., 2021; Nguyen & Sarker, 2018; Tran & Nguyen, 2020). Addressing these will be essential to maintain competitiveness in a market where certified and specialty segments are expanding.

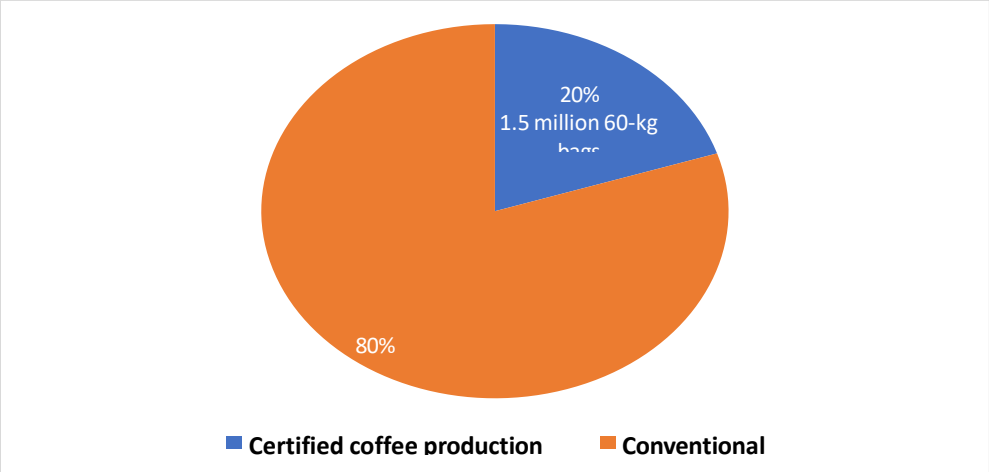
The sustainable certified coffee market is competitive, with global leaders such as Starbucks and Nestlé committing to near-100% ethically or responsibly sourced coffee, thereby influencing standards, farmer practices and consumer expectations (Danker, 2013; Nestlé, 2025; Starbucks, 2003). In Vietnam, the sustainable segment is nascent; brands like Trung Nguyên, Vinacafé and Tan Hiep Phat have begun pursuing certifications and export-oriented premium

lines, but relatively few brands focus systematically on transparency and domestic sustainability narratives (Nguyen & Sarker, 2018; Tran and Nguyen, 2020). A new venture like Amazing Coffee therefore faces both opportunity and competition—from specialized sustainable brands and mainstream firms adding "green" lines—requiring clear differentiation and robust execution (Pirzada et al., 2023; Rodrigues & Franco, 2019). Key trends underpinning sustainable coffee include rising demand for transparent, traceable origins, greater environmental and social awareness, and the diffusion of digital tools such as blockchain to enhance traceability and trust (Lazos-Ruiz et al., 2022; Pu et al., 2022; Wahyudi & Jati, 2012). Multiple certifications and labels allow firms to target different market segments but also increase complexity for producers and consumers (CBI, 2022; Van Loo et al., 2015).

Challenges are significant. High production and certification costs burden smallholders, who often lack finance, technical support and bargaining power (Jati et al., 2012; Rao et al., 2017). Awareness of sustainability schemes remains limited in many producing regions and among domestic consumers, weakening demand and adoption (Ha et al., 2020; Rao et al., 2017). Complex supply chains, infrastructural bottlenecks and compliance requirements add transaction costs (Lazos-Ruiz et al., 2022; Wahyudi & Jati, 2012). Oversupply in some certified segments risks price erosion, while climate change threatens yields and quality (CBI, 2022; Tran et al., 2022). In Vietnam, fragmented supply chains, logistical constraints and the need for stronger farmer support and extension services further complicate the transition to sustainable coffee (GSO, 2023).

Figure 7

The Proportion of Certified Coffee Production in Vietnam in the 2021/22 Marketing Year



Note: Source from USDA (2022)

4. Commercial Planning for Amazing Coffee

4.1 Business Ideas and Prospect

The global coffee industry faces intertwined environmental and social challenges—climate change, deforestation, resource overuse and smallholder vulnerability—while consumers increasingly demand transparency and ethical sourcing (Bacon, 2005; Baker, 2012; Krishnan, 2017). Many existing brands do not fully satisfy these expectations, leaving space for ventures that integrate sustainability principles throughout their business models (Bocken et al., 2013; Pirzada et al., 2023).

Amazing Coffee, founded in Vietnam, seeks to respond to these issues by promoting a circular, transparent and inclusive coffee model built on the country's strong Robusta base and growing Arabica potential. Its business concept centers on minimizing waste, protecting ecosystems and empowering smallholder farmers through fair prices, training and long-term partnerships (Carlos, 2022; Fonseca & Souza, 2016). By combining traditional coffee culture with modern sustainability practices, the company aims to become a catalyst for positive change and a blueprint for other sectors wishing to reconcile economic prosperity with environmental and social responsibility (Ensign, 2022; Rodrigues & Franco, 2019).

Figure 8

Amazing Coffee's Logo

Amazing Coffee is a local Vietnamese brand dedicated to sustainability, transparency and quality across its product lines, including sustainably certified powders and beans (Nguyen & Sarker, 2018; Tran & Nguyen, 2020). Every product is intended to tell a story of ethical sourcing, environmental stewardship and community empowerment, emphasizing the link between consumer choices and upstream impacts.

- Name: Amazing Coffee
- Slogan: "Farm to Table: Savor the Journey"
- Vision: Redefine the coffee landscape by mainstreaming sustainability, transparency and quality so that "Farm to Table" becomes a lived practice rather than a slogan (Bocken et al., 2013; Konietzko et al., 2018).
- Mission: Connect people, planet and flavor to create a more equitable and resilient coffee ecosystem, ensuring that value is shared across farmers, firms and communities.
- Objectives: Develop sustainably certified product lines from professional coffee farming areas, strengthen customer knowledge of sustainability, and inspire broader changes in the coffee industry.
- Core values: Environmental friendliness, social responsibility through collaboration, and high product quality, consistent with stakeholder and resource-based perspectives (Barney, 1991; Freeman et al., 2021).

Amazing Coffee's core offerings are:

- Sustainable Coffee Powders: Blended and roasted in diverse profiles using certified or verifiable sustainable beans, and packaged in eco-friendly materials.
- Roasted Coffee Beans: High-quality beans for consumers and cafés that prefer to grind

fresh, supporting premium and specialty segments.

- Ready-to-Drink Coffee Beverages: Convenient, sustainably sourced beverages for on-the-go consumption.

The company also provides educational resources and workshops to build awareness of sustainability in coffee, reinforcing behavior change and supporting SDG-linked competences (Klaniecki et al., 2018; Lambrechts et al., 2017).

Figure 9

Amazing Coffee's Powders and Beans Products, and Ready-to-Drink Products

4.2 Marketing and Branding Strategies

Amazing Coffee positions itself as a premium local brand that bridges traditional Vietnamese flavors with modern sustainability practices, targeting consumers who value both taste and ethics (Fuller & Grebitus, 2023; Van Loo et al., 2015). The pricing strategy sets 250-gram packages at about 150,000 VND—above the market average—to reflect higher input quality, certification and brand value, while remaining accessible to the emerging green middle class (CBI, 2022; Mark S., 2023). The tagline "Farm to Table: Savor the Journey" communicates traceability, enjoyment of flavor and appreciation of positive environmental and social impacts embedded in each cup. Brand messaging emphasizes ethical sourcing, resource efficiency and community benefit, aligning with broader SDG narratives (Martínez et al., 2023; UNDP, 2018). Amazing Coffee targets two primary segments. First, environmentally conscious individual consumers who seek to reduce their ecological footprint and prefer transparently sourced, certified products (Mark S., 2023; Van Loo et al., 2015). Second, business customers in cafés and coffee-derived product sectors who want sustainable, low-carbon options to align with corporate ESG commitments and respond to stakeholder expectations (Danker, 2013; Pirzada et al., 2023).

For individuals, detailed information and storytelling help convert concern into purchasing behavior. For businesses, Amazing Coffee offers a way to signal responsibility to customers and investors while improving the sustainability profile of their supply chains (Edward & Sergiy, 2017; Rodrigues & Franco, 2019). Amazing Coffee uses eco-friendly boxes, seasonal designs and small package formats to attract attention and reduce material

use. Quarterly packaging updates respond to seasonal demand and special occasions such as Christmas, New Year and Valentine's Day, reinforcing the brand's dynamic and customer-centric image (CBI, 2022; Wolniak et al., 2023).

Educational workshops explain sustainable farming, certifications and brewing methods, helping customers understand the value embedded in certified products and the role of their choices in supporting farmers and ecosystems (Klaniecki et al., 2018; Lambrechts et al., 2017). Digital marketing and social media share stories about farmers, environmental projects and community initiatives, enhancing transparency and engagement (Danker, 2013; Pu et al., 2022).

4.3 Competitive Advantages

Amazing Coffee's key competitive advantages arise from transparency, circular economy practices and education. The firm maintains a "Farm to Table" traceability system using mobile and QR-code technology to provide information on farm origin, practices, certifications and harvest dates; processing steps and associated carbon footprints; and customer purchase history and contributions to sustainability projects (Hofstetter et al., 2021; Pu et al., 2022). This goes beyond basic certification and aims to set new standards for ethical sourcing and corporate social responsibility in the Vietnamese context (Danker, 2013; Navarro Hundzinski et al., 2013).

Figure 10

Amazing Coffee's Traceability System

Through workshops and app-based updates, customers learn about fair wages, fair-trade advocacy and environmental initiatives, strengthening loyalty and aligning with stakeholder theory's focus on mutual value creation (Edward & Sergiy, 2017; Freeman et al., 2021). The circular economy model recycles husks into bio-fertilizers, uses by-products for energy, and partners with recycling firms to convert spent grounds into household items, supporting a zero-waste, net-zero trajectory (Allnoch et al., 2022; Angelopoulos et al., 2019; La Scalia et al., 2021).

Key risks include fluctuating consumer demand for sustainability, supply-chain disruptions, regulatory changes and intensifying competition. To mitigate demand risk, Amazing Coffee must monitor trends, adapt communication, and maintain high transparency to preserve trust (Mark S., 2023; Van Loo et al., 2015). Supply-chain risk from climate and

resource constraints can be reduced by diversifying sourcing, supporting farmer adaptation and investing in more resilient practices (Baker, 2012; IPCC, 2018; Krishnan, 2017). Regulatory risk around evolving standards and labeling can be managed by participating in industry associations, engaging policymakers and keeping internal systems flexible (Navarro Hundzinski et al., 2013; Rodrigues & Franco, 2019). Competitive risk requires continuous innovation in traceability, circular practices and education, so that Amazing Coffee's sustainability offer remains differentiated even as more firms adopt certifications (Ensign, 2022; Pirzada et al., 2023).

4.4 Financial Projections and Funding Requirements

Amazing Coffee's initial investment is 1 billion VND, including 400 million VND in equity, 500 million VND bank loans and 100 million VND in working capital from internal funds. This capital finances base construction, equipment, fit-out, legal and design costs, project management and initial working capital needs. Given the modest scale, the owner's resources and business cash flows are expected to be sufficient for early franchise expansion without additional external equity (Jatu et al., 2012; Kilian et al., 2006).

Assumptions include 120 coffee packages sold per day initially, 5% annual growth in volume for four years (then 3%), a selling price of 150,000 VND per package with 1% annual increases, and cost ratios for rent, raw materials, marketing, labor, and overheads. Franchise revenues grow as stores expand from 5 to 25, with franchise fees and management fees based on franchise turnover. Financial parameters include a 20% corporate income tax rate, 12% loan interest and a 15% investor discount rate.

Table 1

Sales Forecasts of Amazing Coffee

A	Information	Value	Unit
	Scale of operations		
	Amazing Coffee		
	Number of coffee packages	120	packages per day
	Growth rate in the first 4 years	3%	
	Growth rate in the rest	5%	
	Average selling price/customer	150,000	VND per coffee package
B	COST ASSUMPTIONS	Value	Unit
B1	OPERATING COSTS		
1	Rental costs		
	Amazing Coffee	360	millions VND per year
2	Sales and marketing costs	2%	revenue
3	Cost of raw materials	40%	revenue
4	Other costs	1%	revenue

Table 1

Sales Forecasts of Amazing Coffee (Continue)

B	COST ASSUMPTIONS	Value	Unit
B1	OPERATING COSTS		
5	Unallocated operating expenses	2%	revenue
6	Repair and maintenance costs (2%) and insurance costs (0.02%)	2.02%	revenue
7	Labor costs		
	Salespersons	30	People
	Managers	2	People
	Office staff	10	People
	Project	2	People
	Operating staff	3	People
	Salespersons salary	84	millions VND per year
	Manager's salary	120	millions VND per year
	Payroll, Accounting	96	millions VND per year
	Security Salary	9	millions VND per year
	Salary of administrative staff	96	millions VND per year
	Labor cost growth rate	3%	
8	Fixed costs (administrative costs of electricity, water, sanitation, internet...)	200	millions VND per year
	From the second year, it increased by 2% compared to the first year and remained stable	1%	
9	Tooling costs and tooling allocation		
	First year	10	millions VND
	Cost growth rate	1%	
B2	FRANCHISE COSTS		
1	Franchise fee	10%	franchise revenue
2	General management costs allocated	8%	franchise revenue
C	BUSINESS PLAN ASSUMPTIONS	VALUE	UNIT
C1	COFFEE ACTIVITIES REVENUE		
1	Sales price increase speed	1%	/year
2	Selling others	3%	Coffee revenue
C2	FRANCHISE REVENUE		
1	Number of stores per year 1	5	shop
	Number of stores per year 2	10	shop
	Number of stores per year 3	15	shop

Table 1
Sales Forecasts of Amazing Coffee (Continue)

B	COST ASSUMPTIONS	Value	Unit
B2	FRANCHISE COSTS		
1	Franchise fee	10%	franchise revenue
2	General management costs allocated	8%	franchise revenue
C	BUSINESS PLAN ASSUMPTIONS	VALUE	UNIT
C1	COFFEE ACTIVITIES REVENUE		
1	Sales price increase speed	1%	/year
2	Selling others	3%	Coffee revenue
C2	FRANCHISE REVENUE		
1	Number of stores per year 1	5	shop
	Number of stores per year 2	10	shop
	Number of stores per year 3	15	shop
	Number of stores per year 4	20	shop
	Number of stores per year 5	20	shop
	Number of stores since year 6	25	shop
2	Franchise revenue store per year	60	millions VND/store per year
3	Franchise revenue growth rate	1%	
D	FINANCIAL ASSUMPTIONS	Value	Unit
1	Corporate income tax (t)	20%	% of profit before tax
2	Bank loan interest (kD)	12%	per year
3	Investor discount rate (Ke)	15%	per year
4	Expected discount rate (Asset)	15%	per year
5	Expected growth rate (Evaluation)	1%	per year
E	TOTAL INVESTMENT	Value	Unit
1	Base construction costs	300	millions VND
2	Cost of equipment, tables, chairs, and machinery	360	millions VND
3	Cost of building sales and display areas	100	millions VND
4	Project legal costs	50	millions VND
5	Design costs	50	millions VND
6	Project management costs	40	millions VND
7	Net working capital	100	millions VND
	TOTAL INVESTMENT	1,000	millions VND

Table 2
Pro Forma financial statements of Amazing Coffee

Project start time	0	1	2	3	4	5	6
A) Business project	2024	2025	2026	2027	2028	2029	2030
Coffee revenue	6.570.000.000	6.967.485.000	7.389.017.843	7.836.053.422	8.310.134.654	8.645.033.081	8.993.427.914
Number of days	*365*	*365*	*365*	*365*	*365*	*365*	*365*
Number of packages per day	*120*	*126*	*132*	*139*	*146*	*150*	*155*
Growth rate	*5%*	*5%*	*5%*	*5%*	*5%*	*3%*	*3%*
Avg. selling price/customer	*150.000,00*	*151.500,00*	*153.015,00*	*154.545,15*	*156.090,60*	*157.651,51*	*159.228,02*
Growth rate		*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
F&B revenue	197.100.000	209.024.550	221.670.535	235.081.603	249.304.040	259.350.992	269.802.837
Franchise revenue	300.000.000	606.000.000	918.090.000	1.236.361.200	1.248.724.812	1.576.515.075	1.592.280.226
Price	*60.000.000*	*60.600.000*	*61.206.000*	*61.818.060*	*62.436.241*	*63.060.603*	*63.691.209*
Store number	*5*	*10*	*15*	*20*	*20*	*25*	*25*
Total revenue	7.067.100.000	7.782.509.550	8.528.778.378	9.307.496.225	9.808.163.506	10.480.899.148	10.855.510.977
Revenue excluding VAT	*6.424.636.364*	*7.075.008.682*	*7.753.434.889*	*8.461.360.204*	*8.916.512.278*	*9.528.090.135*	*9.868.646.343*
Iutput VAT	*642.463.636*	*707.500.868*	*775.343.489*	*846.136.020*	*891.651.228*	*952.809.013*	*986.864.634*
Operating costs	8.057.214.000	8.395.971.447	8.749.094.990	9.117.325.917	9.445.255.377	9.766.605.451	10.040.268.031
Rental costs	360.000.000	363.600.000	367.236.000	370.908.360	374.617.444	378.363.618	382.147.254
Sales and marketing costs	131.400.000	139.349.700	147.780.357	156.721.068	166.202.693	172.900.662	179.868.558
Cost of raw materials	2.628.000.000	2.786.994.000	2.955.607.137	3.134.421.369	3.324.053.862	3.458.013.232	3.597.371.165

Table 2
Pro Forma financial statements of Amazing Coffee (Cont.)

Other costs	65.700.000	69.674.850	73.890.178	78.360.534	83.101.347	86.450.331	89.934.279
Unallocated operating expenses	131.400.000	139.349.700	147.780.357	156.721.068	166.202.693	172.900.662	179.868.558
Repair and maintenance costs (2%) and insurance costs (0.02%)	132.714.000	140.743.197	149.258.160	158.288.279	167.864.720	174.629.668	181.667.244
Labor costs	4.344.000.000	4.430.880.000	4.519.497.600	4.609.887.552	4.702.085.303	4.796.127.009	4.892.049.549
Fixed costs (administrative costs of electricity, water, sanitation, internet...)	200.000.000	206.000.000	212.180.000	218.545.400	225.101.762	231.854.815	238.810.459
Tooling costs and tooling Allocation	10.000.000	10.300.000	10.609.000	10.927.270	11.255.088	11.592.741	11.940.523
FRANCHISEE COSTS	54.000.000	109.080.000	165.256.200	222.545.016	224.770.466	283.772.714	286.610.441
Costs excluding VAT	*7.324.740.000*	*7.632.701.315*	*7.953.722.718*	*8.288.478.106*	*8.586.595.797*	*8.878.732.228*	*9.127.516.392*
Input VAT	*732.474.000*	*763.270.132*	*795.372.272*	*828.847.811*	*858.659.580*	*887.873.223*	*912.751.639*

Under these assumptions, total revenue rises from about 7.07 billion VND in 2024 to 10.86 billion VND in 2030, driven by coffee and franchise sales, while operating costs grow more slowly due to scale effects and disciplined cost management. The project yields an NPV of 712.4 million VND, an IRR of 19.6% and an average ROE of 22.8%, with an average annual profit around 230 million VND over ten years, confirming financial feasibility. Amazing Coffee anticipates an annual growth trajectory of 5–15% from 2024 to 2030 and prioritizes consolidating its sustainable model and domestic market presence, especially in major cities. Future diversification into clean agricultural products and natural cosmetics could leverage its sustainability brand while creating green jobs in mountain communities such as Gia Lai and the Central Highlands (Pirzada et al., 2023; Ullah et al., 2021).

5. Implications and Conclusions

Analysis of Amazing Coffee's strategy and Vietnam's coffee sector suggests that sustainable coffee will expand and diffuse across the industry, with multiple standards and actors shaping a competitive yet sustainability-oriented landscape (GCP, 2021; ICO, 2022; Vietnamnet, 2023). Amazing Coffee's launch introduces new competition that can stimulate broader adoption of sustainable practices and raise expectations among consumers and firms (Cohen & Winn, 2007; Ensign, 2022). As more brands adopt sustainability, legitimacy becomes as important as differentiation: NGOs and stakeholders can more effectively pressure firms that fail to meet emerging norms (Danker, 2013; Goranova & Ryan, 2012). In Vietnam, sustainability has shifted from an optional value-add to a question of basic legitimacy, with firms like Amazing Coffee helping to interpret and operationalize regulations in ways that maintain market growth and social acceptance (Rodrigues & Franco, 2019; Pirzada et al., 2023). The financial, business and marketing plans show that a sustainable coffee brand can be viable, with NPV 712.4 million VND, IRR 19.6% and ROE 22.8% on a 1 billion VND investment, illustrating that integrating sustainability into a start-up from inception can generate both impact and returns (Adams et al., 2016; Massa et al., 2017).

For policymakers, Vietnam's sustainable coffee market demonstrates how market mechanisms and standards can be harnessed for sustainability, provided that labels are credible and visible (Martínez et al., 2023; UNDP, 2018). The share of labeled products may be less critical than ensuring they are profitable and recognizable, so that consumers can support such options when they choose (Basu & Hicks, 2008; Van Loo et al., 2015). Allowing multiple standard systems and facilitating alliances between standards and brands can create robust, flexible sustainable value chains from farm to cup (Hofstetter et al., 2021; Navarro Hundzinski et al., 2013).

For business managers, Amazing Coffee underscores that proactive sustainability strategies can address environmental and social problems while opening markets, but they also invite competition that may shift norms and raise the bar for performance (Bocken et al., 2013; Ensign, 2022). Early movers must continue innovating in business models, governance and stakeholder engagement to stay ahead as sustainability becomes mainstream (Freeman et al., 2021; Rodrigues and Franco, 2019).

This case focuses on a single country—Vietnam—and one commodity—coffee—using Amazing Coffee as an illustrative firm, so generalizability is limited (Carlos, 2022; Krishnan, 2017). Future research could examine similar models in sectors such as wood, apparel or beef, or in other regions, to better understand how markets can drive sustainable development across different contexts (Philpott et al., 2008; Valkila, 2009).

A growing "sustainable standards industry" of standard-setting organizations, certifiers and NGOs is reshaping global value chains; studying its evolution, industrial strategies and governance could clarify how these actors collectively influence sustainability outcomes (Hofstetter et al., 2021; Navarro Hundzinski et al., 2013). Overall, the case of Amazing Coffee suggests that well-designed, sustainability-oriented business models can support SDGs and climate goals while offering viable opportunities for entrepreneurs and communities (Adams et al., 2016; Martínez et al., 2023; Ullah et al., 2021).

References

Adams, R., Jeanrenaud, S., Bessant, J., Denyer, D., & Overy, P. (2016). Sustainability-oriented innovation: A systematic review. *International Journal of Management Reviews, 18*(2), 180-205. 10.1111/ijmr.12068

Allnoch, D., Manimaran, R., Etheridge, N., Hannen, M., & Lal, K. (2022). Circular economy strategies in the food industry: A review of implementation and impacts. *Sustainability, 14*(11), 6577. https://doi.org/10.3390/su14116577

Amores-Monge, V., Goyanes, S., Ribba, L., Lopretti, M., Sandoval-Barrantes, M., Camacho, M., Corrales-Ureña, Y., & Vega-Baudrit, J. R. (2022). Pineapple agro-industrial biomass to produce biomedical applications in a circular economy context in Costa Rica. *Polymers, 14*(22), 4864. https://doi.org/10.3390/polym14224864

Angelopoulos, M., Avraam, F., Petropoulou, E., & Koutiva, I. (2019). Adopting circular economy in the coffee industry: Opportunities and challenges. In *Proceedings of the 3rd International Conference on Sustainable Solid Waste Management*.

Bacon, C. (2005). Confronting the coffee crisis: Can fair trade, organic, and specialty coffees reduce small-scale farmer vulnerability in northern Nicaragua? *World Development, 33*(3), 497-511. https://doi.org/10.1016/j.worlddev.2004.10.002

Baker, P. (2012). *The changing climate for sustainable coffee*. Coffee and Climate Report Series. https://www.researchgate.net/publication/260596801_The_Changing_Climate_for_Sustainable_Coffee

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120. https://doi.org/10.1177/014920639101700108

Basu, A. K., & Hicks, R. L. (2008). Label performance and the willingness to pay for Fair Trade coffee: A cross-national perspective. Bonn: Center for Development Research (ZEF), University of Bonn, 2008. In: ZEF-Discussion Papers on Development Policy, 125. Online-Ausgabe in bonndoc: https://hdl.handle.net/20.500.11811/12284

Bocken, N., Short, S., Rana, P., & Evans, S. (2013). A value mapping tool for sustainable business modelling. *Corporate Governance, 13*(5), 482-497. 10.1108/CG-06-2013-0078

Bolwig, S., Gibbon, P., & Jones, S. (2009). The economics of smallholder organic contract farming in tropical Africa. *World Development, 37*(6), 1094-1104. https://doi.org/10.1016/j.worlddev.2008.09.012

Carlos, R. (2022). *Reducing the bitterness of coffee from Vietnam's Central Highlands*. EU REDD Facility Report. https://euredd.efi.int/reducing-bitterness-coffee-vietnams-central-highlands/

Castro-Tanzi, S., Dietsch, T., Urena, N., Vindas, L., & Chandler, M. (2012). Analysis of management and site factors to improve the sustainability of smallholder coffee production in Tarrazú, Costa Rica. *Agriculture, Ecosystems & Environment, 155*, 172-181. https://doi.org/10.1016/j.agee.2012.04.013

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable

entrepreneurship. *Journal of Business Venturing, 22*(1), 29-49. https://doi.org/10.1016/j.jbusvent.2004.12.001

Chiputwa, B., Spielman, D. J., & Qaim, M. (2015). Food standards, certification, and poverty among coffee farmers in Uganda. *World Development, 66*, 400-412. https://doi.org/10.1016/j.worlddev.2014.09.006

Danker, M. (2013). Understanding stakeholder activism, managing transparency risk. *Developments in Corporate Governance and Responsibility, 5*, 33-72. 10.1108/S2043-0523(2013)0000005006

Edward, P., & Sergiy, I. (2017). Corporate social responsibility and stakeholder theory: Learning from each other. *Symphonya. Emerging Issues in Management*, (1), 7-15. https://doi.org/10.4468/2017.1.02freeman.dmytriyev

Ensign, P. (2022). Business models and sustainable development goals. *Sustainability, 14*, 2558. https://doi.org/10.3390/su14052558

Fonseca, L., & Souza, P. (2016). The importance of meso-institutions in Brazilian coffee production. https://www.researchgate.net/publication/306427293_The_importance_of_meso-institutions_in_Brazilian_coffee_production

Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of Management, 47*(7), 1757-1770. https://doi.org/10.1177/0149206321993576

Fuller, K., & Grebitus, C. (2023). Consumers' preferences and willingness to pay for coffee sustainability labels. *Agribusiness, 39*, 1-10. https://doi.org/10.1002/agr.21810

Goranova, M., & Ryan, L. (2012). Shareholder activism: Driver of corporate change or much ado about nothing? *Academy of Management Proceedings, 2012*(1), 10200. 10.5465/AMBPP.2012.10200abstract

Ho, T., Hoang, V., Wilson, C., & Nguyen, T. (2018). Eco-efficiency analysis of sustainability-certified coffee production in Vietnam. *Journal of Cleaner Production, 183*, 251-260. https://doi.org/10.1016/j.jclepro.2018.02.147

Hofstetter, S., De Marchi, V., Sarkis, J., Govindan, K., Klassen, R., Ometto, A. R., Spraul, K., Bocken, N., Ashton, W. S., Sharma, S., Jaeger-Erben, M., Jensen, C., Dewick, P., Schröder, P., Sinkovics, N., Ibrahim, S. E., Fiske, L., Goerzen, A., & Vazquez-Brust, D. (2021). From sustainable global value chains to circular economy—Different silos, different perspectives, but many opportunities to build bridges. *Circular Economy and Sustainability.* 1, 21-47. https://doi.org/10.1007/s43615-021-00015-2

Ibanez, M., & Blackman, A. (2016). Is eco-certification a win–win for developing country agriculture? Organic coffee certification in Colombia. *World Development, 82*, 14-27. https://doi.org/10.1016/j.worlddev.2016.01.004

IPCC. (2018). *Summary for policy-makers. Intergovernmental Panel on Climate Change (IPCC)*. https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/

Konietzko, J., Bocken, N., & Hultink, E. (2018). Business model experimentation for the circular economy in a service network context. In *Proceedings of the 25th IPDMC: Innovation & Product Development Management Conference, Porto*.

Kilian, B., Jones, C., Pratt, L., & Villalobos, A. (2006). Is sustainable agriculture a viable strategy to improve farm income in Central America? A case study on coffee. *Journal of Business Research, 59*(3), 322-330. https://doi.org/10.1016/j.jbusres.2005.09.015

Krishnan, S. (2017). Sustainable coffee production. In *Oxford research encyclopedia*. https://doi.org/10.1093/acrefore/9780199389414.013.224

Klaniecki, K., Wuropulos, K., & Hager, C. (2018). Behaviour change for sustainable development. In: Leal Filho, W. (eds) Encyclopedia of Sustainability in Higher Education. Springer, Cham. https://doi.org/10.1007/978-3-319-63951-2_161-1

Lambrechts, W., Verhulst, E., & Rymenams, S. (2017). Professional development of sustainability competences in higher education: The role of empowerment. *International Journal of Sustainability in Higher Education, 18*(5), 697-714. 10.1108/IJSHE-02-2016-0028

La Scalia, G., Saeli, M., Miglietta, P. P., & Micale, R. (2021). Coffee biowaste valorization within a circular economy: An evaluation method of spent coffee grounds potentials for mortar production. *The International Journal of Life Cycle Assessment*, 26. 10.1007/s11367-021-01968-0.

Lingnau, V., Fuchs, F., & Beham, F. (2019). The impact of sustainability in coffee production on consumers' willingness to pay: New evidence from the field of ethical consumption. *Journal of Management Control,* 30, 65-93. https://doi.org/10.1007/s00187-019-00276-x.

Mark, S. (2023). *Consumers willing to pay 12% premium for sustainable products: Bain survey*. ESG Today. https://esgtoday.com /consumers-willing-to-pay-12 -premium-for-sustainable-products-bain-survey

Martínez, F., Marco, L., Sánchez, G., & Millán, T. (2023). Sustainable development goals in the business sphere: A bibliometric review. *Sustainability, 15*(6), 5075. 10.3390/su15065075

Massa, L., Tucci, C. L., & Afuah, A. (2017). A critical assessment of business model research. *Academy of Management Annals, 11*(1), 73-104. 10.5465/annals.2014.0072

Moda, L., Spers, E., de Almeida, L., & Schiavi, S. (2022). Brazilian coffee sustainability, production, and certification. In *IntechOpen book chapter*. 10.5772/intechopen.105135

Navarro Hundzinski, L., Pinheiro de Lima, E., Gouvea da Costa, S., Gonçalves Machado, C., Kluska, R., & Cestari, J. (2013). Sustainability standards and guidelines requirements for integrated management. In *Proceedings of the 22nd International Conference on Production Research (ICPR 2013)*.

Philpott, S. M., Arendt, W. J., Armbrecht, I., Bichier, P., Diestch, T. V., Gordon, C., & Zolotoff, J. M. (2008). Biodiversity loss in Latin American coffee landscapes: Review of the evidence on ants, birds, and trees. *Conservation Biology, 22*(5), 1093-1105. doi: 10.1111/j.1523-1739.2008.01029.x.

Pirzada, K., Ahmed, K., & Moens, G. (2023). Corporate strategies for sustainable development and adoption of new technologies. *Foresight and STI Governance, 17*(4), 1-4. https://doi.org/10.17323/2500-2597.2023.4.1.4

Rodrigues, M., & Franco, M. (2019). The corporate sustainability strategy in organizations: A systematic review and future directions. *Sustainability, 11*, 6214. https://doi.org/10.3390/su11226214

Ullah, R., Ahmad, H., Rehman, F., & Fawad, A. (2023). Green innovation and sustainable development goals in SMEs: The moderating role of government incentives. *Journal of Economic and Administrative Sciences, 39*(4), 830-846. https://doi.org/10.1108/JEAS-07-2021-0122

United Nations Development Programme (UNDP) (2018). *Sustainable development goals*. https://www.undp.org/content/undp/en/home/sustainable-development-goals.html

U.S. Department of Agriculture (USDA) (2022). *Coffee Annual*. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual_Hanoi_Vietnam_VM2022-0032.pdf

Uttha, V., Lee, P.-P., & Chung, R. (2021). Willingness to pay for sustainable coffee: A case of Thai

consumers. *Sage Open, 11*(4). https://doi.org/10.1177/21582440211052956

Valkila, J. (2009). Fair trade organic coffee production in Nicaragua—Sustainable development or a poverty trap? *Ecological Economics, 68*(12), 3018-3025. 10.1016/j.ecolecon.2009.07.002

Van Loo, V. C., Rodolfo, N., Seo, H.-S., Zhang, B., & Verbeke, W. (2015). Sustainability labels on coffee: Consumer preferences, willingness-to-pay and visual attention to attributes. *Ecological Economics, 118*, 215-225. https://doi.org/10.1016/j.ecolecon.2015.07.011

Vietnamnet. (2023). *Coffee industry needs sustainable development to target $6b in exports by 2030*. Vietnamnet News. https://vietnamnet.vn/en/coffee-industry-needs- sustainable- development-to-target-6b-in-exports-by-2030-2117407.html

Wolniak, R., Gajdzik, B., & Grebski, W. (2023). Environmental sustainability in business. *Scientific Papers of Silesian University of Technology Organization and Management Series, 175*(39), 112-125. https://doi.org/10.29119/1641-3466.2023.175.39

Zwiech, P. (2023). Sustainable production. In *Organizing Sustainable Development* (pp. 120-132). 10.4324/9781003379409-12.

From Beliefs to Practice: Unravelling the Mediation of Innovative Teaching in the Professional Competence of Art Instructors Rationale

LuGeng Sun*
English as an International Language Program, Graduate School, Chulalongkorn University
*6688808920@student.chula.ac.th

Received: December 9, 2025
Revised: December 23, 2025
Accepted: December 26, 2025

Abstract

Situated within the transformative landscape of higher art education in China, the professional evolution of the instructor has emerged as the critical vehicle for pedagogical reform. Despite the acknowledged centrality of the educator, a conspicuous lacuna remains regarding the specific mechanisms by which latent Teaching Beliefs are operationalized into technical Instructional Design Competence within aesthetic disciplines. Grounded in the epistemological framework of Social Cognitive Theory, this study rigorously interrogates the structural interplay between internal cognition and external professional practice, positing Innovative Teaching as a pivotal mediating variable. Employing a robust quantitative methodology, data were accrued from a stratified sample of 350 art instructors across four disciplinary domains. Hierarchical regression analysis substantiated the proposed theoretical model, demonstrating that while teaching beliefs exert a significant direct influence on design competence, this relationship is partially mediated by the enactment of innovative teaching behaviours. Consequently, the findings illuminate a sophisticated trajectory wherein abstract pedagogical convictions propel the adoption of novel methodologies, the practice of which subsequently crystallizes tangible structural design proficiency. Theoretically, this research transcends binary distinctions of teacher-efficacy, validating a "doing-to-become" model of professional maturation where behavioural engagement acts as the catalyst for cognitive refinement. Practically, the study offers a scientific basis for re-engineering faculty development programs, advocating for strategic interventions that prioritize experiential innovation to bridge the prevailing dissonance between policy intent and classroom reality.

Keywords: Teaching Beliefs; Instructional Design Competence; Innovative Teaching; Art Education; Social Cognitive Theory

1. Introduction

1.1 Research Background and Motivation

Contemporary pedagogical discourse has witnessed a significant paradigm shift, moving resolutely away from the traditional, examination-oriented hegemony that prioritized rote memorization and elite selection. In the wake of comprehensive educational reforms, the focal point of the academic ecosystem has rightfully realigned toward the learner as the primary

subject, while the professional development of the educator has emerged as the critical vehicle for this transformation (Phommanee et al., 2023; Zhang, 2020). Consequently, the educator's role has transcended that of a passive executor of static curricula to become an active architect of the learning experience. Modern educators in colleges in China are now expected to inhabit multifaceted professional identities, functioning simultaneously as subject-matter experts, curriculum planners, researchers, and agents of reform (Luo, 2023; Melillán et al., 2023). This evolution necessitates that teachers rigorously engage in school-based curriculum construction, synthesizing regional characteristics and student competencies to orchestrate diverse pedagogical activities. Central to this professional metamorphosis is the construct of teaching beliefs. These cognitive structures are not merely abstract philosophies but are the determinants of instructional efficacy, serving as the antecedent variables that drive innovative teaching behaviours (Chang et al., 2024; Jia et al., 2023). While the mandate for innovation is clear, the specific instructional design competencies required to manifest these beliefs remain insufficiently explored. Thus, unravelling the intricate relationship between an instructor's latent teaching beliefs, their capacity for innovative delivery, and their technical instructional design competence is essential for establishing a scientific basis for professional development in the modern era (Bolden et al., 2019; Lyu et al., 2020).

The disciplines of art and humanities constitute a unique pedagogical domain, tasked not merely with knowledge transfer but with the cultivation of aesthetic literacy, personality development, and the internalization of cultural values (Hou & Moyao, 2023; Li, 2024). As culture is intrinsically predicated on creativity, art education serves as the conduit for fostering the critical thinking and creative problem-solving abilities necessary for cultural vitality. To effectively nurture these attributes, art instructors must adopt innovative teaching modalities as their fundamental structural framework, thereby guiding learners toward autonomous inquiry (Deng et al., 2021; Le, 2023). However, the translation of pedagogical objectives into classroom reality is heavily contingent upon the instructor's teaching beliefs. Research indicates that teaching behaviour is an explicit manifestation of implicit beliefs regarding the curriculum, the student, and the teacher's own professional identity (Li, 2021; Luo, 2023). While an instructor may theoretically endorse creativity, their actual classroom management and instructional design choices are governed by their deeply held convictions. A significant dissonance often exists between intended outcomes and practice. Therefore, it is imperative to investigate how teaching beliefs specifically influence the tangible skills of instructional design (Chang et al., 2024; Phommanee et al., 2023). Understanding this nexus is particularly critical in art education, where the "life force" of the subject matter, creativity, can only be sustained if the instructor possesses both the conviction to innovate and the design competence to structure that innovation effectively (Bolden et al., 2019; Luo, 2023).

Within the higher-education landscape of China, art instructors occupy a pivotal position as custodians of cultural heritage and facilitators of social development (Li, 2024; Lyu et al., 2020). They are charged with the dual mandate of preserving traditional artistic canons while simultaneously fostering the avant-garde thinking requisite for cultural evolution (Hou & Moyao, 2023; Lindsay, 2021). Despite this significant responsibility, a review of extant literature reveals a conspicuous lacuna regarding the professional competence of art teachers.

While substantial research has interrogated the instructional design capabilities of educators in English for Academic Purposes (EAP), STEM fields, and physical education, the specific competency profile of art instructors remains largely unexamined (Melillán et al., 2023; Phommanee et al., 2023). Furthermore, prior scholarship has predominantly focused on creativity as an isolated outcome, neglecting the foundational role of teaching beliefs as the genesis of such behaviours (Jia et al., 2023; Zhang, 2020). There is a paucity of empirical evidence elucidating the mechanism by which teaching beliefs translate into structural design competence, and whether innovative teaching behaviour acts as a mediating variable in this process (Chang et al., 2024; Luo, 2023). Consequently, this study is motivated by the urgent need to bridge these theoretical gaps (Le, 2023; Lyu et al., 2020). By rigorously examining the interplay between teaching beliefs, innovative teaching, and instructional design competence among art instructors in Chinese colleges, this research aims to validate a theoretical model that explains how internal beliefs are operationalized into professional practice (Li, 2021; Melillán et al., 2023). This investigation would specifically analyse demographic variances, direct correlations, and the mediating effects of innovation, thereby providing a robust, evidence-based framework for enhancing the quality of art education (Bolden et al., 2019; Phommanee et al., 2023).

1.2 Significance of the Study

The theoretical significance of this inquiry lies in its potential to address a conspicuous lacuna within the existing scholarship regarding the pedagogical architecture of art education (Andrews et al., 2019; Su & Yang, 2020). While the nexus between teaching beliefs and classroom behaviour is well-documented in general education, STEM, and EAP contexts, the specific domain of art instruction—which necessitates a delicate balance between aesthetic internalization and technical skill acquisition—remains theoretically under-theorized (Luo, 2023; Shi & Rao, 2022). By delineating the structural relationships between teaching beliefs, innovative teaching, and instructional design competence, this study contributes a nuanced theoretical framework that transcends the simplistic dichotomy of "teacher-centered" versus "student-centered" paradigms (Ganeeva & Anisimova, 2020; Liu et al., 2023). Specifically, it rigorously examines the premise that teaching beliefs act as the antecedent cognitive structures that necessitate innovative behavioural manifestations, which in turn crystallize into tangible instructional design competencies (Luo, 2023; Schulze et al., 2021). This investigation is pivotal for validating the mediating mechanism of innovative teaching, thereby offering a more sophisticated, evidence-based understanding of how abstract pedagogical convictions are operationalized into concrete professional skills (Boroughani et al., 2023; Yao & Shen, 2025). Furthermore, by situating this research within the context of colleges in China, the study enriches the global discourse on comparative education, offering insights into how cultural and systemic variables influence the translation of beliefs into practice in non-Western higher-education settings (Frake et al., 2023; Su & Yang, 2020).

From a practical perspective, the findings of this research hold substantial implications for the strategic development of the higher-education workforce, particularly within the arts and humanities (Ganeeva & Anisimova, 2020; Luo, 2023). As colleges in China undergo profound systemic reforms aimed at fostering student autonomy and creativity, the professional competence of the art instructor becomes the critical variable in ensuring educational quality

(Shi & Rao, 2022; Yao & Shen, 2025). By empirically verifying the pathways through which beliefs influence instructional design via innovation, this study provides a scientific basis for re-engineering faculty-development programs (Andrews et al., 2019; Liu et al., 2023). Educational administrators and policymakers can utilize these findings to move beyond generic training modules, instead implementing targeted interventions that cultivate specific innovative behaviours known to enhance design competence (Boroughani et al., 2023; Schulze et al., 2021). Moreover, understanding the demographic variables that moderate these relationships allows for the customization of professional-development trajectories, ensuring that interventions are commensurate with the specific career stages and backgrounds of diverse faculty members (Frake et al., 2023; Su & Yang, 2020). Ultimately, this research empowers educational stakeholders to foster a teaching corps that is not only ideologically aligned with modern reform mandates but possesses the requisite technical competence to execute them, thereby bridging the prevalent gap between policy intent and classroom reality (Luo, 2023; Yao & Shen, 2025).

1.3 Research Objectives

Predicated upon the aforementioned research motivation and the identified gaps in extant literature, this study aims to rigorously examine the structural interplay between internal cognition and external professional practice among art instructors. Specifically, the study seeks to achieve the following objectives: 1) to empirically ascertain the direct predictive relationship of art instructors' teaching beliefs on their instructional design competence, thereby establishing the extent to which latent convictions dictate technical planning skills; 2) to evaluate the influence of teaching beliefs on the adoption and execution of innovative teaching modalities, determining how pedagogical philosophy drives the diversification of instructional delivery; 3) to investigate the correlation between innovative teaching behaviours and instructional design competence, elucidating how the practice of innovation necessitates and refines structural design capabilities, and 4) to rigorously test and validate the mediating role of innovative teaching in the relationship between teaching beliefs and instructional design competence, thereby confirming the theoretical model that posits innovation as the catalytic mechanism translating abstract beliefs into concrete professional competence.

2. Literature Review

2.1 Theoretical Framework: SCT

Social Cognitive Theory, a seminal framework originally delineated by Bandura, serves as the primary epistemological lens for dissecting the complex interplay between internal cognitive states and professional pedagogical behaviours (Cansız & Cansız, 2019; Chung, 2022). Central to this theoretical perspective is the premise of reciprocal determinism, which posits that human functioning is the product of a dynamic interplay between personal factors, behavioural patterns, and environmental influences (Han & Lei, 2025; Li et al., 2023). Within the specific context of art instruction, teaching beliefs are conceptualized not merely as static attitudes but as a sophisticated internal cognitive system comprising an educator’s pedagogical objectives, methodological preferences, and expectations regarding student acquisition (Reynolds et al., 2021; Qiu et al., 2021). These beliefs function as the cognitive nucleus

regulating how instructors perceive, process, and react to their educational environment (Jia et al., 2025; Küçükaydın et al., 2024). They are sculpted through a continuous process of interaction with the socio-cultural milieu, including personal educational histories and professional development experiences (Badri et al., 2017). Consequently, these deeply ingrained cognitive structures serve as critical antecedents to decision-making, dictating whether educators adhere to traditionalist, teacher-centric modalities or embrace autonomous, co-operative learning strategies (Naz & Murad, 2017; Tang et al., 2020). By framing teaching beliefs within this paradigm, it becomes evident that an instructor's internal value system is the paramount driver of their external behavioural choices, establishing the initial trajectory for their professional practice (Han & Lei, 2025; Zhang et al., 2020).

2.2 The Mediating Mechanism of Innovative Teaching in Instructional Design Competence

Extending the theoretical trajectory of Social Cognitive Theory, the relationship between teaching beliefs and instructional design capability is elucidated through the mediating role of innovative teaching (Liu et al., 2023; Naz & Murad, 2017). In this framework, innovative teaching is operationalized through the mechanisms of observational learning and cognitive modelling (Cansız & Cansız, 2019; Chung, 2022). Educators, functioning as active agents, assimilate novel methodologies by observing peer practices and adapting these strategies to their unique curricular architectures—a process that mirrors the imitative and adaptive learning phases described in social cognition (Li et al., 2023). Concurrently, instructional design capability represents the manifestation of high-level cognitive processing, necessitating the intricate synthesis of information, analysis of educational needs, and problem-solving protocols (Badri et al., 2017; Jia et al., 2025). The interaction among these variables is not linear but synergistic; innovative teaching acts as the pivotal conduit that translates abstract pedagogical beliefs into concrete instructional design competence (Tang et al., 2020; Zhang et al., 2020). As educators actively implement innovative strategies, they engage in a reflective cycle that validates and reshapes their core beliefs, thereby enhancing their cognitive capacity for sophisticated course design (Küçükaydın et al., 2024; Reynolds et al., 2021). Thus, innovation serves as the practical manifestation of belief, bridging the chasm between internal cognition and the tangible execution of instructional design, ultimately driving professional growth through a continuous loop of cognitive adjustment and behavioural refinement (Liu et al., 2023; Naz & Murad, 2017).

2.3 The Epistemic Determinants of Instructional Design Architecture

Contemporary scholarship within the higher education landscape increasingly acknowledges that an instructor's instructional design competence is not an isolated technical proficiency, but rather a manifestation of their deep-seated pedagogical beliefs (Li, 2025; Reynolds et al., 2021). This relationship is particularly salient in the arts and humanities, where disciplinary values and curricular flexibility necessitate a sophisticated alignment between abstract educational philosophy and concrete course architecture (Bingölbali et al., 2025; Haaker & Morgan-Brett, 2017). Empirical inquiries into blended and hybrid learning environments elucidate that instructors who prioritize constructivist tenets, specifically active learner engagement, social presence, and dialogic interaction, demonstrate superior capability in structuring complex learning tasks and feedback mechanisms (Dunn et al., 2024; Han & Na, 2025). Furthermore, research on project-based and flipped classroom models suggests that adherence to systematic design frameworks, such as ADDIE, is intrinsically linked to an epistemic orientation valuing experiential and practice-oriented learning (Chang et al., 2024; Naz & Murad, 2017). Institutional and disciplinary contexts further mediate this dynamic; where faculty operate within cultures that incentivize research-led teaching and professional

role expansion, there is a marked tendency for those with strong student-centered beliefs to invest more heavily in developing advanced design competencies (Ergün & Şeşen, 2021; Peng & Gao, 2019). Conversely, beliefs centered on didactic transmission often correlate with disparate or rudimentary design choices, limiting the efficacy of the learning environment. Consequently, drawing upon these theoretical convergences regarding the belief-competence nexus, the current research proposes the following hypothesis:

H1: The teaching beliefs of university arts instructors are positively associated with their instructional design competence.

2.4 Beliefs as Antecedents to Pedagogical Innovation

The enactment of innovative teaching practices is fundamentally rooted in the instructor's cognitive framework regarding the nature of knowledge and the role of the educator (Hu, 2025; Reynolds et al., 2021). Extensive literature characterizes teacher beliefs as "amplifiers and filters" that determine the extent to which professional knowledge and policy imperatives are translated into experimental classroom practice (Li, 2025; Sanz et al., 2023). In the specific context of arts education, where the curriculum privileges creativity and interpretive autonomy, beliefs that emphasize knowledge co-construction and critical thinking are strong predictors of a readiness to adopt novel methodologies (Intyaswati et al., 2021; Naz & Murad, 2017). Evidence indicates that instructors who conceptualize teaching as the facilitation of original meaning-making—rather than the passive transmission of established canons—are significantly more inclined to deploy inquiry-based methods, visual thinking strategies, and technology-enhanced collaborations (Chang et al., 2024; Sanz et al., 2023). Furthermore, scholarship on museum-based pedagogies and creative disciplines argues that inventive teaching is cultivated when instructors hold a worldview that supports heterogeneous student needs and participatory learning (Bingölbali et al., 2025; Han & Na, 2025). In contrast, rigid adherence to traditionalist paradigms tends to constrain the scope of pedagogical experimentation, even when external resources are abundant. Grounded in the evidentiary consensus that cognitive orientations dictate the boundaries of pedagogical experimentation, this study postulates the following hypothesis:

H2: The teaching beliefs of university arts instructors are positively associated with the enactment of innovative teaching practices.

2.5 Innovative Praxis as a Catalyst for Technical Proficiency

The relationship between innovative teaching and instructional design competence is frequently characterized in the literature as reciprocal and symbiotic, where innovation serves as a primary driver of professional competence (Bingölbali et al., 2025; Naz & Murad, 2017). Systematic reviews of advanced pedagogies, such as authentic assessment, problem-based learning, and technology-mediated instruction, reveal that the successful operationalization of these innovations mandates a sophisticated level of instructional planning and alignment (Chang et al., 2024; Dunn et al., 2024). The exigencies of implementing novel teaching strategies—such as orchestrating hybrid modalities or integrating complex digital tools for collaborative cases—compel instructors to refine their ability to analyze learner needs, sequence activities logically, and align assessment protocols with learning objectives (Han & Na, 2025; Li, 2025). Engagement in the praxis of innovation effectively functions as a mechanism for professional maturation, honing the instructor's technical capacity to design effective, evidence-based learning environments (Ergün & Şeşen, 2021; Hu, 2025). The literature suggests that the iterative process of experimenting with and refining innovative methods directly contributes to an elevation in overall design capabilities, transforming sporadic experimentation into systematic competence (Peng & Gao, 2019; Reynolds et al.,

2021). In accordance with the scholarly discourse identifying the implementation of novel pedagogies as a catalyst for structural proficiency, the present research proposes the following hypothesis:

H3: The use of innovative teaching by university arts instructors is positively associated with instructional design competence.

2.6 The Mediating Mechanism of Innovative Teaching

Synthesizing the aforementioned constructs, the literature points toward a mediated model wherein innovative teaching acts as the intervening mechanism linking abstract beliefs to concrete design competence (Li, 2025; Naz & Murad, 2017). While pedagogical beliefs provide the necessary motivational impetus for change, beliefs alone do not spontaneously translate into advanced design capabilities; rather, they propel instructors to engage in innovative teaching behaviors (Hu, 2025; Reynolds et al., 2021). It is through this experiential engagement—the "doing" of innovation—that instructional design competence is crystallized and refined (Bingölbali et al., 2025; Chang et al., 2024). Theoretical accounts of professional learning portray competence as a mosaic formed through reflective practice, implying that beliefs shape innovation behavior, and repeated engagement in innovative teaching consolidates instructional design competence over time (Dunn et al., 2024; Li, 2025). Empirical models in related educational psychology domains support this indirect pathway, suggesting that dispositional antecedents influence behavioral outputs, which in turn refine professional competencies (Ergün & Şeşen, 2021; Han & Na, 2025). This trajectory posits that innovation functions as the crucible wherein beliefs are tested and operationalized into durable skills. Premised on the theoretical framework wherein practice serves as the conduit between conviction and capability, the research advances the following hypothesis:

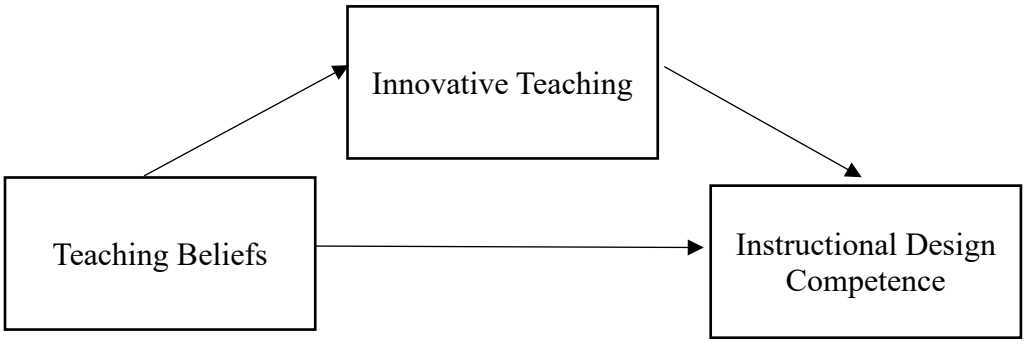
H4: Innovative teaching functions as a mediator linking instructors' teaching beliefs to their instructional design competence.

3. Methodology

3.1 Research Framework

The proposed conceptual architecture, visually delineated in the accompanying Figure 1 below, constructs a sophisticated logic of inquiry designed to interrogate the causal pathways linking internal cognition to professional technicality among art instructors. Predicated on the reciprocal determinism inherent in Social Cognitive Theory, the model positions Teaching Beliefs as the exogenous independent variable, functioning as the fundamental epistemic driver that governs professional orientation. It is hypothesized that these deep-seated pedagogical convictions exert a direct influence on the endogenous dependent variable, Instructional Design Competence, reflecting the immediate translation of abstract philosophy into concrete planning. However, the framework's pivotal theoretical contribution lies in the inclusion of Innovative Teaching as a mediating behavioral mechanism. This triangular configuration proposes that beliefs do not solely impact competence through a linear progression; rather, they propel instructors to engage in the active praxis of pedagogical innovation. It is within this experiential crucible of innovation—characterized by the adoption of novel methodologies and adaptive strategies—that the static potential of beliefs is operationalized and refined into dynamic instructional design capabilities. Consequently, the framework is designed to empirically validate the proposition that innovative teaching acts as the vital conduit, or transmission mechanism, through which latent educational values are converted into tangible, high-level professional competencies within the higher arts education sector.

Figure 1 *Conceptual Research Framework*

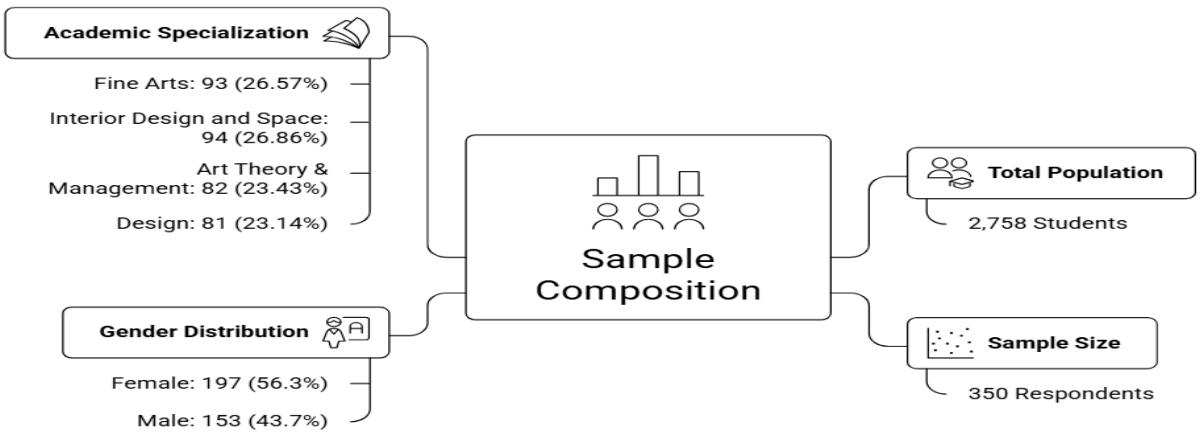


Note:

3.2 Population and Sample Size

The current empirical investigation was situated within the institutional context of a private university in China, specifically targeting the diverse ecosystem of its arts-based curriculum. The total population comprised 2,758 teachers enrolled across four distinct disciplinary domains: Fine Arts, Design, Art Theory & Management, and Interior Design and Space. To ascertain a statistically robust sample size capable of yielding valid inferences, a priori power analysis was conducted utilizing the G*Power statistical software (George & Mallery, 2024). Consequently, a final sample of 350 respondents was established, ensuring adequate representation of the broader cohort. In terms of demographic stratification, the gender distribution exhibited a slight female predominance, with 197 female participants (N=197; 56.3%) and 153 male participants (N=153; 43.7%). Furthermore, the sample was meticulously stratified by academic specialization to mirror the institutional composition: The Fine Arts program contributed 93 participants (N=93, 26.57%), followed closely by Interior Design and Space with 94 participants (N=94, 26.86%). Meanwhile, the Art Theory & Management and Design streams were represented by 82 (N=82, 23.43%) and 81 (N=81, 23.14%) participants, respectively. This balanced cross-section of the student body ensures that the subsequent analysis of innovative teaching mediation reflects a comprehensive spectrum of learner perspectives within the art education landscape.

Figure 2 *Sample Composition and Demographic Stratification*



3.3 Research Measurement Tools

To operationalize the theoretical constructs underpinning this study, a robust instrumentation protocol was established, employing adapted scales with demonstrated psychometric fidelity. The measurement of Teaching Beliefs was derived from the instrument originally developed by He and Liao (2005), refined through expert consultation to ensure ecological validity for the specific cohort of art instructors. This eighteen-item inventory is stratified into three distinct dimensions: Pedagogy and Teaching Materials, encompassing curriculum planning and assessment; Teacher-Student Relationships, focusing on inclusivity and interaction; and Teacher Role, addressing self-efficacy and responsibility. Respondents utilize a five-point Likert scale, where elevated aggregate scores signify a transition from traditionalist perspectives toward a more progressive, student-centered pedagogical orientation. The scale demonstrates exceptional internal consistency, with a reported Cronbach's alpha of 0.930. Concomitantly, the assessment of Innovative Teaching draws upon the theoretical framework established by Lu et al. (2012), conceptualizing innovation as the adoption of novel instructional paradigms. This fifteen-item instrument is segmented into three factorial components: Teaching Style and Student Interaction, Respect and Personality Development, and Inspiration and Thinking Ability Cultivation. Validated with a Cronbach's alpha of 0.924, the scale effectively measures the propensity for instructional novelty, scrutinizing the extent to which instructors leverage open-ended inquiry, contextualized learning, and metaphorical reasoning to foster cognitive agility in students. Finally, Instructional Design Ability is quantified using a uni-dimensional, nine-item scale adapted from Zhang (2016). This measure evaluates the instructor's competence in synthesizing learning objectives with resource allocation and structural organization. To ensure rigorous psychometric soundness, Exploratory Factor Analysis (EFA) was conducted for all variables. As evidenced by the Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy, Teaching Beliefs (.928), Innovative Teaching (.924), and Instructional Design Ability (.857), and significant Bartlett's Tests of Sphericity ($p < .001$), the instruments possess robust construct validity, confirming their suitability for multivariate analysis. Table 1 synthesizes the relevant information concerning the measurement instruments utilised in the current study.

Table 1

Summary of Research Scales, Reliability, and Validity Indices

Title of the Scales	Authors (Year)	Dimensions	Items Number	Reliability (Cronbach's α)	Validity (KMO / Sig.)
Teaching Beliefs	He and Liao (2005)	1) Pedagogy & Materials 2) Teacher-Student Relation 3) Teacher Role	18	.930	.928 / .000

Note 1: Significance level for Bartlett's Test of Sphericity is $p<.001$ for all variables.
Note 2: The table was compiled and organized by the researcher

Table 1
Summary of Research Scales, Reliability, and Validity Indices (Continue)

Title of the Scales	Authors (Year)	Dimensions	Items Number	Reliability (Cronbach's α)	Validity (KMO / Sig.)
Innovative Teaching	Lu et al. (2012)	1) Style & Interaction 2) Respect & Development 3) Inspiration & Thinking	15	.924	.924 / .000
Instructional Design Competence	Zhang (2016)	Uni-dimensional	9	.901	.857 / .000

Note 1: Significance level for Bartlett's Test of Sphericity is $p<.001$ for all variables.
Note 2: The table was compiled and organized by the researcher

3.4 Research Process and Data Collection

The empirical phase of this investigation was meticulously operationalized through a rigorous data collection protocol designed to ensure both the reliability and validity of the resultant dataset, strictly adhering to established methodological standards in educational psychology. Utilizing Wenjuanxing, a premier digital survey administration platform, the research team facilitated a seamless and accessible interface for respondents, thereby maximizing engagement within the targeted demographic while ensuring data security. The sampling frame was strategically delimitated to encompass instructors and relevant stakeholders within four specific arts-related undergraduate programs; this purposeful selection criterion was predicated on the necessity to isolate the unique pedagogical variables and professional competencies pertinent to higher education in the creative arts. The temporal boundaries of the data acquisition were strictly defined to ensure a consistent cross-sectional analysis, with the survey instrument being disseminated on September 24, 2025. The collection window remained open for precisely one week, concluding on October 1, 2025, a timeframe deemed sufficient to solicit a robust number of responses while mitigating the potential for historical maturation effects to influence participant beliefs. Upon the cessation of this period, a total of 368 questionnaires were garnered. To maintain the highest standards of statistical rigor, the raw data underwent a comprehensive data hygiene procedure prior to analysis. This preliminary screening involved a systematic review to identify anomalies, such as incomplete submissions, logical inconsistencies, or discernible patterns of response bias (e.g., straight-lining), which could compromise the integrity of the mediation analysis. Consequently, 18 responses were deemed invalid and were subsequently excised from the dataset to prevent statistical distortion. This exclusion process was vital to preserving the internal consistency of the study, resulting in a refined, high-quality sample. The meticulous process, from digital distribution via Wenjuanxing to filtering out invalid entries, demonstrates a steadfast commitment to the methodological precision expected in high-impact social science research. This solid foundation supports the subsequent exploration of the relationship between instructor beliefs and innovative teaching practices.

4. Results: Stepwise Regression Analysis

To scrutinize the structural relationships posited in the research framework and rigorously test the mediating role of Innovative Teaching, a hierarchical regression analysis was conducted utilizing the four-step protocol established by Baron and Kenny (1986). The analysis controlled for demographic covariates to isolate the variance attributable to the primary theoretical constructs.

Step 1 examined the total effect of the independent variable, Teaching Beliefs, on the dependent variable, Instructional Design Competence. As evidenced in Model 1, the model demonstrated robust statistical significance ($F=27.957$, $p < .001$), explaining 31.4% of the variance (Adjusted $R^2 = .314$). The results substantiated that Teaching Beliefs exert a strong positive influence on Instructional Design Competence ($\beta=.410$, $p<.001$), thereby validating H1.

Step 2 assessed the relationship between the independent variable and the mediator. Model 2 designated Innovative Teaching as the dependent variable. The model proved significant ($F=25.103$, $p<.001$), accounting for 29.5% of the variance (Adjusted $R^2=.295$). The analysis revealed a significant positive trajectory from Teaching Beliefs to Innovative Teaching ($\beta=.334$, $p <.001$), providing empirical support for H2.

Steps 3 and 4 involved entering both the independent variable and the mediator into the regression equation predicting Instructional Design Competence (Model 3). This model achieved the highest explanatory power ($F=31.470$, $p<.001$; Adjusted $R^2=.420$). Crucially, Innovative Teaching demonstrated a significant positive impact on Instructional Design Competence ($\beta=.468$, $p< .001$), supporting H3. Upon the introduction of the mediator, the direct effect of Teaching Beliefs on Instructional Design Competence remained significant but was notably attenuated, decreasing from $\beta=.410$ in Model 2 to $\beta=.162$ ($p<.05$) in Model 3. This reduction in the beta coefficient, while maintaining statistical significance, indicates that Innovative Teaching functions as a partial mediator in the relationship between Teaching Beliefs and Instructional Design Competence. Consequently, H4 is supported, suggesting that while beliefs directly inform competence, they also operate indirectly by fostering an innovative pedagogical praxis. Table 2 presents the hierarchical regression findings on teaching beliefs, innovative teaching, and instructional design competence, whilst Table 3 summarizes the hypothesis testing alongside the structural path analysis.

Table 2

Hierarchical Regression Analysis of Teaching Beliefs, Innovative Teaching, and Instructional Design Competence

Variables	Model 1 (Step 1)	Model 2 (Step 2)	Model 3 (Steps 3 & 4)
Dependent Variable	Inst. Design Competence	Innovative Teaching	Inst. Design Competence
Independent Variable			
Teaching Beliefs	.410***	.334***	.162*
Mediator			
Innovative Teaching	---	---	.468***

Note 1: *$p<.05$; **$p<.01$; ***$p<.001$

Note 2: The table was compiled and organized by the researcher

Table 2

Hierarchical Regression Analysis of Teaching Beliefs, Innovative Teaching, and Instructional Design Competence (Continue)

Variables	Model 1 (Step 1)	Model 2 (Step 2)	Model 3 (Steps 3 & 4)
Model Summary			
R^2	.359	.327	.461
Adjusted R^2	.314	.295	.420
F	27.957***	25.103***	31.470***

Note 1: *p<.05; **p<.01; ***p<.001

Note 2: The table was compiled and organized by the researcher

Table 3

Summary of Hypothesis Testing and Structural Path Analysis

Hypothesis	Path Relationship	Coefficient (β)	t-value / Sig.	Result	Evidence
H1	Teaching Beliefs → Instructional Design Competence	.410	p<.001	Supported	Model 2 confirms a strong direct effect
H2	Teaching Beliefs → Innovative Teaching	.334	p<.001	Supported	Model 5 confirms beliefs predict the mediator
H3	Innovative Teaching → Instructional Design Competence	.468	p<.001	Supported	Model 3 confirms the mediator affects the outcome
H4	Teaching Beliefs → Innovative Teaching → Instructional Design Competence	△β	.410 → .162	Supported	Partial Mediation. The direct effect of Beliefs on Competence remains significant but weakens (p<.05) when Innovative Teaching is added

Note: The table was compiled and organized by the researcher.

5. Discussion and Conclusion

The empirical outcomes of this investigation provide a robust validation of the hypothesized structural model, elucidating the intricate cognitive-behavioural mechanisms that underpin professional competence within the specialized domain of higher art education. Foremost, the findings corroborate the premise that teaching beliefs act as the foundational epistemic architecture for instructional design competence (He & Liao, 2005; Luo, 2023). This aligns with the theoretical tenets of Social Cognitive Theory, suggesting that an instructor's internal value system regarding creativity and student autonomy is not a passive psychological state but an active determinant of their technical planning capabilities (Cansiz & Cansiz, 2019; Su & Yang, 2020). However, the most salient contribution of this study lies

in the identification of innovative teaching as a partial mediator. The statistical evidence reveals that while beliefs hold a direct predictive power, their influence is significantly amplified when operationalized through innovative pedagogical praxis (Naz & Murad, 2017; Zhang et al., 2020). This suggests a symbiotic relationship wherein the act of innovating—experimenting with novel delivery methods and aesthetic inquiries—serves as a "professional crucible." In this space, abstract convictions are tested and refined, thereby crystallizing into tangible design competencies (Liu et al., 2023; Lyu et al., 2020). The partial mediation indicates that possessing progressive beliefs is a necessary but insufficient condition for mastery; it is the behavioural manifestation of these beliefs through innovation that significantly augments an art instructor's ability to architect complex, learner-centered environments (Le, 2023; Li, 2021). Consequently, this study bridges the theoretical chasm between cognition and competence, positioning innovation not merely as an outcome but as a critical generative process in professional development (Chang et al., 2024; Phommanee et al., 2023).

In synthesizing the trajectory from latent cognition to manifest capability, this research definitively establishes that the professional competence of art instructors in Chinese higher education is a multi-dimensional construct governed by a specific causal logic. The study has successfully demystified the "black box" of instructional design, proving that technical proficiency is deeply rooted in the instructor's pedagogical worldview and catalyzed by their engagement with innovative practices (Li, 2025; Luo, 2023). We conclude that the modernization of art education cannot be achieved through the isolation of technical skills training; rather, it requires a holistic evolution of the educator's professional identity (Badri et al., 2017; Jia et al., 2025). The validated model confirms that when art instructors internalize beliefs centered on student agency and creative co-construction, and subsequently enact these beliefs through innovative methodologies, they achieve a superior level of instructional design competence (Le, 2023; Naz & Murad, 2017). This triad—Beliefs, Innovation, and Competence—forms the essential scaffold for a responsive and effective art curriculum (Deng et al., 2021; Hou & Moyao, 2023). Ultimately, this research underscores that the art educator is not merely a custodian of tradition but an active designer of learning experiences, whose professional efficacy is contingent upon the alignment of their inner philosophy with their outer pedagogical experimentation (Guo et al., 2025; Han & Kyun Na, 2025).

6. Implications, Limitations and Future Research Directions

6.1 Theoretical Implications

The research extends the boundaries of Social Cognitive Theory by situating it within the unique ecological niche of art instruction (Cansiz & Cansiz, 2019; Qiu et al., 2021). By empirically verifying the mediating role of innovative teaching, the study contributes a nuanced framework that transcends binary distinctions between teacher-centered and student-centered paradigms (Bolden et al., 2019; Tang et al., 2020). It posits a dynamic model of professional growth where "doing" (innovation) mediates the translation of "thinking" (beliefs) into "competence" (design), offering a sophisticated lens through which to view teacher efficacy in creative disciplines (Chang et al., 2024; Jia et al., 2025).

6.2 Practical Implications

For educational administrators and policymakers, the findings necessitate a paradigmatic shift in faculty development strategies (Badri et al., 2017; Han & Lei, 2025). Traditional training programs that focus exclusively on the mechanics of course design are likely to yield suboptimal results if they fail to address the underlying teaching beliefs (He & Liao, 2005;

Luo, 2023). Professional development initiatives must therefore be re-engineered to function as dual-layered interventions: first, fostering a belief system that values pedagogical agility and student autonomy, and second, providing safe, experimental spaces for the enactment of innovative teaching (Liu et al., 2023; Naz & Murad, 2017). Universities should incentivize "innovation labs" where art instructors can prototype new methodologies, as this behavioural engagement is now proven to be the driver of structural design competence (Hou & Moyao, 2023; Lyu et al., 2020).

6.3 Limitations and Future Research Directions

While this inquiry offers significant insights into the professional architecture of art instructors, several methodological constraints warrant acknowledgement and delineate avenues for future scholarly pursuit.

1) Geographical and Cultural Specificity: The study was inextricably bound to the context of colleges in China (Hou & Moyao, 2023; Li, 2024). Consequently, the cultural nuances of the Chinese educational reform landscape may limit the generalizability of the findings to Western contexts or other non-Western educational systems with differing pedagogical traditions (Han & Lei, 2025; Luo, 2023). Future comparative studies could illuminate how cultural variables moderate the belief-competence nexus (Le, 2023; Su & Yang, 2020).

2) Cross-Sectional Design: The reliance on cross-sectional data precludes the establishment of definitive causal inference regarding the evolution of competence over time (Badri et al., 2017; Li, 2025). A longitudinal research design would be instrumental in mapping how teaching beliefs and innovative behaviours interact reciprocally over the course of an academic career (Cansiz & Cansiz, 2019; Chang et al., 2024).

3) Self-Reported Metrics: The dependence on self-reported questionnaires introduces the potential for common method variance and social desirability bias, particularly regarding self-assessments of innovation and competence (Guo et al., 2025; Jia et al., 2025). Future investigations would benefit from a mixed-methods approach, triangulating quantitative data with observational rubrics, peer reviews, and qualitative interviews to provide a more granular and objective assessment of instructional practice (Bolden et al., 2019; Phommanee et al., 2023).

References

Andrews, T. C., Auerbach, A. J., & Grant, E. F. (2019). Exploring the relationship between teacher knowledge and active-learning implementation in large college biology courses. *CBE—Life Sciences Education, 18*(4), ar48. https://doi.org/10.1187/cbe.19-01-0010

Badri, M., Alnuaimi, A., Yang, G., Al Rashidi, A., & Al Sumaiti, R. (2017). A structural equation model of determinants of the perceived impact of teachers' professional development—The Abu Dhabi application. *Sage Open, 7*(2), 215824401770219. https://doi.org/10.1177/2158244017702198

Bingölbali, A., Aslan, A., Batdi, V., & Cinkara, E. (2025). Mixed-meta method concerning the effect of blended learning practices on students' academic achievement in higher education settings. *Sage Open, 15*(2). https://doi.org/10.1177/21582440251336646

Bolden, B., DeLuca, C., Kukkonen, T., Roy, S., & Wearing, J. (2019). Assessment of creativity in K-12 education: A scoping review. *Review of Education, 8*(2), 343-376. https://doi.org/10.1002/rev3.3188

Boroughani, T., Behshad, N., & Xodabande, I. (2023). Mobile-assisted academic vocabulary learning with digital flashcards: Exploring the impacts on university students' self-regulatory capacity. *Frontiers in Psychology, 14*, 1112429. https://doi.org/10.3389/fpsyg.2023.1112429

Cansiz, M., & Cansiz, N. (2019). How do sources of self-efficacy predict Preservice teachers' beliefs related to constructivist and traditional approaches to teaching and learning? *Sage Open, 9*(4), 215824401988512. https://doi.org/10.1177/2158244019885125

Chang, S., Lin, I., Lin, Y., & Wang, C. (2024). Can savoring effectively leverage instructional design imagination? The mediating roles of resilience and inspiration through action. *Sage Open, 14*(3). https://doi.org/10.1177/21582440241279119

Chung, E. (2022). Effecting change in teachers' epistemological and pedagogical beliefs about vocabulary learning and teaching: The role of dialogic reflection. *Sage Open, 12*(1), 1-15. https://doi.org/10.1177/21582440211071084

Deng, X., Lei, J., & Chen, M. (2021). Application of VR in the experimental teaching of animation art. *Mobile Information Systems, 2021*(1), 1-7. https://doi.org/10.1155/2021/4642850

Dunn, A., Harrison, H., Northam, H. L., & Birks, M. (2024). Engagement in online postgraduate nursing programs: An integrative review. *Sage Open, 14*(2). https://doi.org/10.1177/21582440241240817

Ergün, M., & Şeşen, H. (2021). A comprehensive study on University students' perceived employability: Comparative effects of personal and contextual factors. *Sage Open, 11*(3), 215024402110361. https://doi.org/10.1177/21582440211036105

Frake, E., Dean, M., Huynh, L. N., Iadarola, S., & Kasari, C. (2023). Earning your way into general education: Perceptions about autism influence classroom placement. *Education Sciences, 13*(10), 1050. https://doi.org/10.3390/educsci13101050

Ganeeva, A. R., & Anisimova, T. I. (2020). Continuing professional education for pre-service teachers of mental arithmetic. *Universal Journal of Educational Research, 8*(9), 3989-3996. https://doi.org/10.13189/ujer.2020.080924

George, D., & Mallery, P. (2024). A priori power analysis: What sample size do I need? IBM SPSS Statistics 29 Step by Step, 139-149. https://doi.org/10.4324/9781032622156-11

Guo, J., Wang, Z., & Liu, X. (2025). Effect of teacher academic support on learner social engagement in EFL classrooms: Chain mediation of perseverance of effort and willingness to communicate. *Sage Open, 15*(3). https://doi.org/10.1177/21582440251365037

Haaker, M., & Morgan-Brett, B. (2017). Developing research-led teaching: Two cases of practical data reuse in the classroom. *Sage Open, 7*(2). https://doi.org/10.1177/2158244017701800

Han, C., & Lei, J. (2025). The operation and development of inclusive education resource centres/Rooms in China: A scoping review. *Sage Open, 15*(2). https://doi.org/10.1177/21582440251340534

Han, S., & Kyun Na, T. (2025). Project-based flipped classroom method in a cooking practice Class: A case study. *Sage Open, 15*(1). https://doi.org/10.1177/21582440251321574

He, Y., & Liao, F. (2005). A qualitative and quantitative study on the relationship between teaching beliefs and teaching practices of college English teachers. *Foreign Language Teaching and Research, 37*(4), 271-275. https://doi.org/10.3969/j.issn.1000-0429.2005.04.005

Hou, T., & Moyao, W. G. (2023). The influence of western art style on oil painting education in Chinese contemporary art colleges and universities. *The Educational Review, 7*(10), 1610-1614. https://doi.org/10.26855/er.2023.10.029

Hu, Y., Zhou, R., Cai, L., & Wu, C. (2025). "Dogsbody in the system": A case study on the identity construction of Chinese local University teachers in the situation of performance management. *Sage Open, 15*(3). https://doi.org/10.1177/21582440251383023

Intyaswati, D., Maryani, E., Sugiana, D., & Venus, A. (2021). Social media as an information source of political learning in online education. *Sage Open, 11*(2). https://doi.org/10.1177/21582440211023181

Jia, Q., Wang, D., & Ding, J. (2025). Evolutionary review of teacher agency research over the past 22 years (2003–2024): A bibliometric analysis. *SAGE Open, 15*(2). https://doi.org/10.1177/21582440251342633

Jia, Z., Sun, C., Chen, J., & Cui, Y. (2023). Analysis of the relationship between the experimental teaching of psychology applying fsQCA method and the cultivation of innovative talents. *Applied Mathematics and Nonlinear Sciences, 9*(1). https://doi.org/10.2478/amns.2023.2.00708

Küçükaydın, M. A., Çopur, E., Altunkaynak, M., Yıldız, B., Türkmenoğlu, M., Ulum, H., & Ulum, Ö. G. (2024). An investigation of the effects of out-of-school learning environments-based teaching on pedagogical belief systems and practices. *Sage Open, 14*(1), 2024. https://doi.org/10.1177/21582440241229255

Le, S. (2023). Team-based learning in online education: The development of students' creative thinking skills in digital art. *Education and Information Technologies, 28*(11), 14967-14986. https://doi.org/10.1007/s10639-023-11808-3

Li, H. (2025). Reflective practice for pre-service teachers' professional development. *Sage Open, 15*(3). https://doi.org/10.1177/21582440251363136

Li, L., Zhang, J., He, X., Hu, F., Liu, X., Huang, L., & Liu, H. (2023). Regulatory emotional self-efficacy and prosocial behavior: A moderated mediation model. *Sage Open, 13*(1), 215024402311524. https://doi.org/10.1177/21582440231152407

Li, N. (2021). Enhancement strategies for classroom teaching effect of professional art education. *International Journal of Emerging Technologies in Learning (iJET), 16*(06), 137. https://doi.org/10.3991/ijet.v16i06.21091

Li, Q. (2024). A study on the extension of Chinese traditional culture in college art education combined with gray correlation analysis methods. *Applied Mathematics and Nonlinear Sciences, 9*(1). https://doi.org/10.2478/amns-2024-1278

Lindsay, S. M. (2021). Integrating microscopy, art, and humanities to power STEAM learning in biology. *Invertebrate Biology, 140*(2). https://doi.org/10.1111/ivb.12327

Liu, J., Sun, M., Liu, Z., & Xu, Y. (2023). Pre-service teachers' instructional innovation capabilities: A many-faceted Rasch model analysis. *Sage Open, 13*(4). https://doi.org/10.1177/21582440231218802

Lu, Y., Li, X., Ye, Z., Wang, M., Mei, R., & Xia, Q. (2012). Research on teaching methods featuring self-directed learning, self-directed experimentation, and independent innovation. *Experimental Technology and Management, 29*(6), 11-16. https://doi.org/10.3969/j.issn.1002-4956.2012.06.004

Luo, Y. (2023). The impact of college art teachers' teaching belief on teaching design ability: Based on the perspective of innovative teaching. *International Journal of Education Humanities and Social Science, 06*(04), 301-309. https://doi.org/10.54922/ijehss.2023.0567

Lyu, Y., Yang, X., & Yao, J. (2020). Comprehensive evaluation and analysis of teaching and research performance of art majors. *International Journal of Emerging Technologies in Learning (iJET), 15*(20), 241. https://doi.org/10.3991/ijet.v15i20.17425

Melillán, A., Cravero, A., & Sepúlveda, S. (2023). Software development and tool support for curriculum design: A systematic mapping study. *Applied Sciences, 13*(13), 7711. https://doi.org/10.3390/app13137711

Naz, F., & Murad, H. S. (2017). Innovative teaching has a positive impact on the performance of diverse students. *Sage Open, 7*(4), 2158244017734022. https://doi.org/10.1177/2158244017734022

Peng, J., & Gao, X. (. (2019). Understanding TEFL academics' research motivation and its relations with research productivity. *Sage Open, 9*(3),215824401986629. https://doi.org/10.1177/2158244019866295

Phommanee, W., Plangsorn, B., & Siripipattanakul, S. (2023). A systematic review of changing conceptual to practice in learning experience design: Text mining and bibliometric analysis. *Contemporary Educational Technology, 15*(4), ep453. https://doi.org/10.30935/cedtech/13480

Qiu, Q., Xie, Z., Xiong, Y., & Zhou, F. (2021). Belief change before and after the teaching practicum among Chinese pre-service ELT teachers. *Sage Open, 11*(1). https://doi.org/10.1177/21582440211004934

Reynolds, B. L., Liu, S., Milosavljevic, M., Ding, C., & McDonald, J. (2021). Exploring pre-service pre-primary EFL teacher beliefs about teaching English to very young learners: A Macau case study. *Sage Open, 11*(4), 21582440211052932. https://doi.org/10.1177/21582440211052932

Schulze, A., Hajduk, M. M., Hannon, M. C., & Hubbard, E. A. (2021). Invertebrate film festival: Science, creativity, and flexibility in a virtual teaching environment. *Invertebrate Biology, 140*(1). https://doi.org/10.1111/ivb.12328

Shi, Y., & Rao, L. (2022). Construction of STEAM graded teaching system using Backpropagation neural network model under ability orientation. *Scientific Programming*, 1-9. https://doi.org/10.1155/2022/7792943

Su, F., & Yang, L. (2020). Exploring the change of Chinese EFL teacher beliefs in listening teaching : A metaphor analysis. *The Journal of AsiaTEFL, 17*(3), 858-872. https://doi.org/10.18823/asiatefl.2020.17.3.7.858

Tang, H., Qiu, C., Meng, L., Li, Y., & Zhang, J. (2020). Factors predicting inquiry-based teaching in science across One Belt One Road countries and regions: A multilevel analysis. *Sage Open, 10*(2), 2158244020932511. https://doi.org/10.1177/2158244020932511

Yao, Y., & Shen, B. (2025). Taxonomy framework for multiple-attribute decision-making with neutrosophic sets: ESP courses teaching effectiveness case. *International Journal of Knowledge-Based and Intelligent Engineering Systems, 29*(1), 65-78. https://doi.org/10.3233/kes-230209

Zhang, A., Olelewe, C. J., Orji, C. T., Ibezim, N. E., Sunday, N. H., Obichukwu, P. U., & Okanazu, O. O. (2020). Effects of innovative and traditional teaching methods on technical college students' achievement in computer craft practices. *Sage Open, 10*(4), 215824402098298. https://doi.org/10.1177/2158244020982986

Zhang, J. (2020). The application of human comprehensive development theory and deep learning in innovation education in higher education. *Frontiers in Psychology, 11*, 1605. https://doi.org/10.3389/fpsyg.2020.01605

Zhang, Z. (2016). Exploration of digital media art teaching models in the new media era. *Art and Science and Technology, 29*(1), 353. https://doi.org/10.3969/j.issn.1004-9436.2016.01.294 (in Chinese)

The Interplay among Media Marketing Strategies, Consumer Behavior and Consumption Contexts: A Correlational Report

Received: December 4, 2025
Revised: December 23, 2025
Accepted: December 26, 2025

Li-Wei Wei*
General Education, Dhurakij Pundit University
*liwei.wei@dpu.ac.th

Abstract

In the contemporary epoch, the phenomenon of medialization has inextricably intertwined media logic with economic reality, necessitating a structural paradigm shift from physical transactions to algorithmically curated consumption contexts. This study empirically deconstructs the tripartite interplay among media marketing strategies, consumption contexts, and consumer behavior, focusing on the distinct psychometric stratifications between university students and corporate employees. Utilizing a rigorous quantitative correlational framework, the investigation addresses the critical empirical lacuna regarding how digital immersion differentially impacts cognitive processing across diverse life stages and economic autonomies. The results delineate a profound behavioral bifurcation: the workforce cohort exhibits rational stability, utilizing media stimuli primarily for utility verification, evidenced by statistical homogeneity. Conversely, the student demographic manifests impulsive volatility, where decision-making is heavily predetermined by immersive scenarios rather than intrinsic utility, confirming the hypothesis of age-related cognitive vulnerability. Correlation analysis further corroborates that while medialization universally drives consumption, the "consumption context" functions as a navigational tool for the economically autonomous, yet operates as a persuasive enclosure for transitional consumers. The study concludes that post-pandemic consumerism is structurally heterogeneous, dictated largely by digital maturity. Consequently, the research advocates for a dual-pronged strategic response: the adoption of precision-segmented, ethical marketing frameworks by commercial stakeholders, and the integration of algorithmic awareness modules into higher education curricula to mitigate the systemic risks of impulsive digital acquisition.

Keywords: Medialization, Consumption Contexts, Consumer Behavior, Digital Marketing Strategy

1. Introduction

1.1 Research Background and Motivation

In the contemporary epoch characterized by advanced economic globalization and digital maturation, the interface between media systems and socioeconomic structures has become inextricably intertwined, a phenomenon frequently conceptualized in academic discourse as "medialization" (Keller, 2009). This paradigm shift has transcended mere communication, embedding media logic into the very fabric of cultural innovation, mental health paradigms, and, most notably, consumer transactional behaviours. Consequently, the media industry no

longer functions solely as a conduit for information dissemination but acts as a primary architect of economic reality and lifestyle definition (Miah et al., 2022; Sandunima & Jayasuriya, 2024). While the trajectory toward digitization was evident prior to the recent global health crisis, the pandemic acted as a potent catalyst, accelerating the migration from physical, brick-and-mortar engagements to virtualized consumption environments (Hamid et al., 2023; Polearus & Timuș, 2021). Imposed social alienation and embargoes necessitated a radical reconfiguration of consumer habits, entrenching e-commerce not merely as an alternative, but as the dominant mode of acquisition. This transition has fundamentally altered the "consumption context"—shifting from tactile, interpersonal exchanges to algorithmically curated digital interactions where value is negotiated through screens rather than physical proximity (Wu & Li, 2018; Zhou et al., 2021). Post-pandemic consumerism is thus characterized by a heavy reliance on virtual validation and digital convenience, fundamentally restructuring the physiological and psychological mechanics of shopping (Gao et al., 2018; Song et al., 2021). Understanding this metamorphosis is critical, yet current literature often treats these shifts as temporary anomalies rather than structural transformations (Fu et al., 2018; Safeer, 2024). Therefore, the primary motivation of this study is to quantitatively deconstruct the interplay between pervasive media marketing strategies and these solidified digital consumption habits, providing a granular analysis of how medialization continues to redefine value perception and purchasing logic in the post-pandemic era.

The operational mechanics of commerce have evolved in tandem with technological ubiquity, necessitating a departure from monolithic traditional marketing toward dynamic, data-driven strategies. As elucidated by Angelica and Tj (2025) and Alfina et al. (2021), contemporary commercial actors must navigate a landscape where consumer attention is fragmented and highly contested. The motivation for this research stems from the observation that media-based marketing—leveraging social platforms, interactive advertising, and precision targeting—has become the linchpin of brand equity and consumer loyalty (Areiza-Padilla & Cervera, 2023; Li et al., 2020). Unlike traditional offline modalities, where purchasing decisions were predicated on tangible assessment (touch, trial, and immediate inspection), the digital domain relies heavily on "mediated trust"—trust built through high-fidelity visual assets, influencer endorsements, and aggregated user reviews (Hamid et al., 2023; Mishra, 2019;). While the digital sphere offers unparalleled efficiencies regarding temporal and physical labor, it introduces a complex variable: the separation of the consumer from the physical product (Widagdo & Roz, 2021; Shah et al., 2020). This separation necessitates a reliance on marketing communications to bridge the sensory gap. However, this shift is not uniform; a tension remains between the convenience of digital procurement and the sensory assurance of offline shopping (Lee & Cotte, 2009; Rook & Fisher, 1995). By focusing the investigation on a specific urban demographic within Shandong Province, this study seeks to isolate geographical and cultural variables that may influence how this tension is resolved (Areiza-Padilla & Cervera, 2023; Cadavid-Gómez et al., 2025). This localized focus allows for a nuanced examination of how global marketing trends permeate specific regional markets, offering empirical insights into the efficacy of targeted media strategies in driving sales versus the enduring psychological barriers to online adoption.

1.2 Problem Statement

Despite the operational efficiencies of digital commerce, a profound systemic problem persists regarding the ethical and psychological ramifications of hyper-persuasive media marketing (Harnish et al., 2017; Shams et al., 2021). The core problem this study addresses is the widening asymmetry between sophisticated marketing machinations and consumer cognitive defense mechanisms (Jacoby, 2002; Woodworth, 1929). Marketing strategies have evolved beyond simple information dissemination to become immersive, psychologically targeted campaigns designed to trigger immediate behavioural responses, often bypassing rational utility assessment (Mehrabian & Russell, 1974; Sherman et al., 1997). This environment creates a fertile ground for "impulse consumption," where the meticulously curated allure of the advertisement obscures the material reality of the product (Merdin Uygur, 2018; Rook & Fisher, 1995). When the tangible product fails to meet the expectations established by the mediated representation, the result is a significant psychological deficit, manifesting as post-purchase dissonance and regret (Lee & Cotte, 2009; Sun & Zhang, 2015). This issue is exacerbated by the diverse susceptibility of different demographic cohorts (Berg & Liljedal, 2022; Cotten et al., 2022). For instance, younger demographics, such as university students, exhibit high digital literacy yet possess lower impulse control and financial resilience, making them disproportionately vulnerable to emotive advertising and trend-driven consumption (Dumford et al., 2023; Ziwa & Dizon, 2020). Conversely, older demographics may face challenges regarding digital navigation and information verification, making them susceptible to deceptive practices in different ways (Guido et al., 2022; Wolf et al., 2014). The problem is not merely that deception occurs, but that the structure of current media marketing strategies—prioritizing engagement and conversion over accurate representation—systematically encourages suboptimal consumer decision-making (Parajuli & Budhathoki, 2022; Safeer, 2024). Existing research has adequately mapped the rise of e-commerce, yet there remains a paucity of quantitative models that rigorously correlate specific media marketing variables (such as interactivity and visual fidelity) with the incidence of adverse behavioural outcomes like regret and irrational spending across stratified demographics (Song et al., 2021; Wu & Li, 2018). This study aims to remediate this gap by isolating the mechanisms through which media strategies manipulate consumption contexts, thereby identifying the specific determinants that transform marketing influence into consumer vulnerability.

1.3 Research Objectives

The primary objective of this investigation is to empirically delineate the complex interplay between media-based marketing strategies, consumption contexts, and subsequent consumer behaviour within the specific socio-economic ecosystem of Guangdong Province (Choi & Lee, 2017; Matos & Krielow, 2019). Deviating from monolithic market analyses, this study seeks to disaggregate consumer data across three distinct demographic cohorts—university students and corporate employees—to isolate the variables of life-stage and economic autonomy (Guido et al., 2022; Świda & Kubejko-Polańska, 2017). Specifically, the research aims to: (1) Quantitatively assess the prevailing status of media merchandising exposure and consumption scenarios among these stratified groups, and (2) Establish the magnitude and direction of the correlation between immersive media marketing stimuli and consumer decision-making processes (Jacoby, 2002; Wu & Li, 2018). By employing a comparative quantitative framework,

this study intends to reveal how "medialization" differentially impacts the cognitive processing of transitional consumers (students), economically stable agents (office workers), and digitally adapting seniors (Berg & Liljedal, 2022; Cotten et al., 2022). Ultimately, the goal is to construct a predictive model that elucidates the extent to which algorithmic curation and virtual consumption scenarios dictate purchasing logic, thereby mapping the structural transformation of commerce in a post-pandemic, digital-first society (Safeer, 2024; Zhou et al., 2021).

1.4 Significance of the Study

The theoretical significance of this inquiry lies in its potential to bridge a critical empirical lacuna regarding the demographic heterogeneity of digital consumerism (Miah et al., 2022; Shrestha et al., 2023). Contemporary discourse frequently treats the "online consumer" as a homogenized entity; however, this reductionist view obscures the nuanced psychological and behavioural divergences resulting from generational and occupational stratification (Gao et al., 2018; Wu & Li, 2018). By juxtaposing the impulsive, trend-susceptible nature of university students—who exist in a state of economic transition—against the stable purchasing power of office workers, this study enriches the taxonomy of Consumer Psychology (Guido et al., 2022; Wolf et al., 2014). It challenges existing paradigms by positing that the "consumption context" is not merely a technological environment but a psychological construct modulated by age-related physiological constraints and lifestyle imperatives (Berg & Liljedal, 2022; Cotten et al., 2022). Furthermore, as the elderly population confronts mobility limitations necessitating a reliance on e-commerce, and younger generations face the psychological pressures of algorithmic persuasion, this research provides a necessary expansion of Social Cognitive Theory within the digital domain (Jacoby, 2002; Song et al., 2021). It offers a granular understanding of how media stimuli are decoded differently across the lifespan, thus moving the academic conversation beyond simple adoption rates to a more profound understanding of media-induced behavioural modification and the ethics of digital persuasion (Harnish et al., 2017; Safeer, 2024).

From a pragmatic perspective, the elucidation of these dynamics offers critical intelligence for commercial stakeholders, policymakers, and consumer advocacy groups (Helmi et al., 2022; Alfina et al., 2021). In an era characterized by data-driven hyper-competition, the findings of this study will empower marketing practitioners to transcend generic advertising in favor of precision-engineered strategies that respect the distinct needs and vulnerabilities of specific demographic segments (Angelica & Tj, 2025). For instance, understanding the friction points for employees—such as interface complexity or trust deficits—can drive the innovation of more inclusive, accessible digital platforms, while insights into the impulse-control mechanisms of students can inform more ethical marketing standards (Guido et al., 2022; Widagdo & Roz, 2021). Furthermore, this research holds substantial value for regulatory bodies tasked with maintaining market integrity (Parajuli & Budhathoki, 2022; Shrestha et al., 2023). By identifying the specific mechanics through which media strategies may exploit cognitive vulnerabilities—leading to irrational spending or post-purchase dissonance—this study provides the evidentiary basis for robust consumer protection frameworks (Harnish et al., 2017; Merdin Uygur, 2018). Consequently, the research serves a dual function: optimizing commercial efficacy for ethical enterprises while simultaneously fortifying the psychological

and economic well-being of the consumer populace against the potential depredations of unchecked algorithmic marketing (Jacoby, 2002; Safeer, 2024).

2. Literature Review

The theoretical framework of this study relies on three core concepts: the "midstream" (flow) experience, social alienation, and the Stimulus-Organism-Response (S-O-R) model. The midstream experience suggests that when individuals—whether college students seeking fashion or employees seeking care—feel immersed and pleased during an activity, their engagement and purchase intentions increase (Koufaris, 2002). Conversely, the theory of alienation highlights the negative psychological states, such as powerlessness or social isolation, that can arise in digital consumption scenarios due to the lack of physical interaction or technical unfamiliarity (Cotten et al., 2022; Hancock et al., 2022). Finally, the S-O-R model serves as a behavioural mechanism to explain how environmental stimuli, such as live-streaming interactions, trigger internal emotional and cognitive states (the organism), which subsequently dictate the final consumer response, ranging from purchase intention to return behaviour (Jacoby, 2002; Safeer, 2024).

Media-based commercial marketing is defined as the use of material carriers, particularly internet-based tools and social platforms, to transfer information and promote goods (Wijaya & Sisca, 2020; Li, 2018). This approach has evolved from traditional, slower methods to dynamic Online-to-Offline (O2O) and self-media models that facilitate real-time interaction, data sharing, and global connectivity (Angelica & Tj, 2025; Shrestha et al., 2023). Successful media marketing relies on four key dimensions: advertising, promotion, interactive marketing, and word-of-mouth communication. While this model offers scale and speed, it faces challenges regarding the lack of physical quality assurance and a shortage of professional talent (Hamid et al., 2023; Polearus & Timuș, 2021). Empirical studies suggest that innovations in this field, such as short-video marketing and narrative communication, significantly enhance brand identification and leverage social-cognitive processes to influence consumer trust and behaviour (Alfina et al., 2021; Sandunima & Jayasuriya, 2024).

Consumer behaviour is analysed through the lens of consuming scenarios—the environmental factors surrounding a purchase—and established decision-making models (Cao, 2015; Fu et al., 2018). The consuming scenario, whether online or offline, heavily influences behaviour through variables like time pressure, social environment, and sensory experience (Sherman et al., 1997; Wu & Li, 2018). The consumer decision process is framed by the EKB (Engel, Kollatt, & Blackwell) model, which outlines five stages: problem identification, information search, options evaluation, buying behaviour, and post-purchase outcomes (Davis, 1989; Mishra, 2019). In modern digital contexts, this process is increasingly influenced by big data and live e-commerce, which can shorten decision times and trigger impulsive buying through external stimuli like limited-time offers and influencer recommendations (Zhou et al., 2021) shifting consumption from rational planning to emotional gratification (Rook & Fisher, 1995; Shams et al., 2021).

Empirical research indicates distinct consumption habits across different demographic groups (Parajuli & Budhathoki, 2022). College students, who are highly sensitive to fashion and trends, are the primary adopters of new media; they are easily influenced by "Net-Celebrity" culture and live-stream atmospheres, leading to high rates of impulsive consumption (Dumford et al., 2023; Mastrodicasa & Metellus, 2013). Office workers (full-timers) are divided by life stage: younger workers often exhibit impulsive, trend-chasing behaviours similar to students, while middle-aged workers with families prioritise efficiency, quality, and practical needs,

exhibiting more rational and planned purchasing behaviour (Guido et al., 2022; Wolf et al., 2014). Part-timer workers, conversely, are generally more conservative; they prioritise safety and trust, often preferring offline shopping for its tangible benefits and social interaction, though they are gradually adopting online methods when personalised care and ease of use are provided (Berg & Liljedal, 2022; Świda & Kubejko-Polańska, 2017).

The study proposes two main hypotheses regarding the relationships between marketing, scenarios, and consumer demographics (Helmi et al., 2022; Raji et al., 2017). First, (H1) is hypothesized that distinct behaviours exist for each group: college students rely on social media and shop impulsively online; office workers seek utility and show a mix of impulsive and stable behaviours (Safeer, 2024), and the study hypothesizes (H2) a positive correlation where effective media-based commercial marketing enhances the consuming-scenario experience and positively influences consumer purchasing behaviour, suggesting that positive external stimuli can reduce anticipated regret and increase satisfaction (Lee & Cotte, 2009; Li et al., 2020).

3. Methodology

3.1 Research Participant

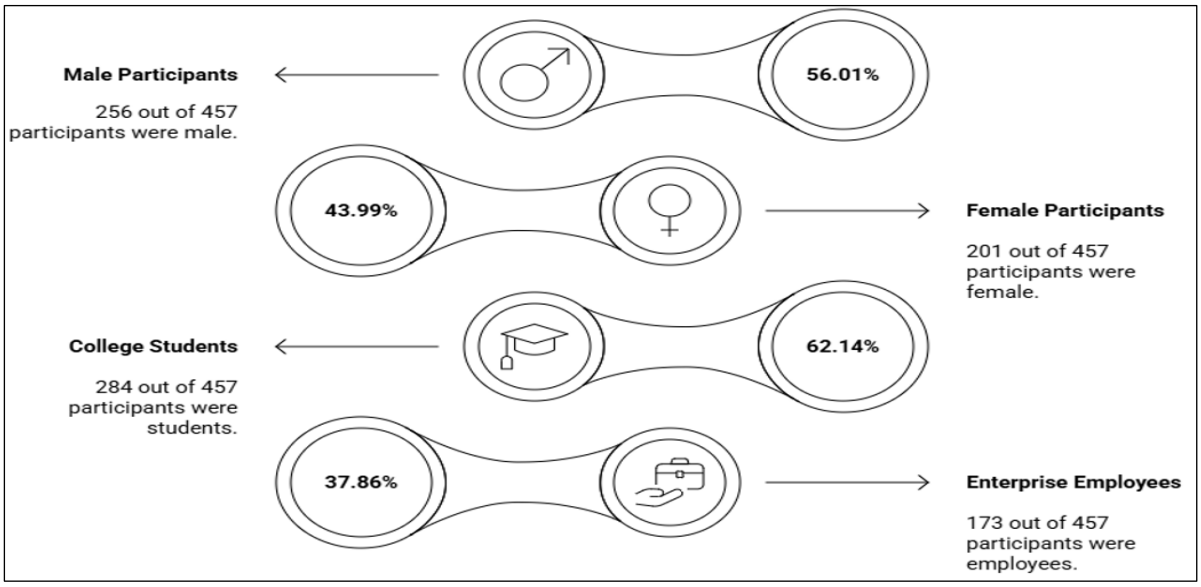
The current study utilizes a stratified sampling methodology, geographically anchored within Guangdong Province—a region selected for its status as a paragon of commercial innovation and socio-economic dynamism. This locale offers a heightened degree of representativeness regarding contemporary consumption patterns in coastal metropolitan environments, distinct from the original parameters of comparable studies (Clifford et al., 2023; Verma & Verma, 2020). To ensure the statistical robustness necessary for correlational validity, the sample size was determined via an a priori power analysis using G*Power software. Inputting standard parameters for a medium effect size, an alpha error probability of .05, and a power of .95, the calculation mandated a minimum sample threshold which was subsequently exceeded to account for potential attrition (Bhimanand Pandurang Gajbhare et al., 2025; Verma & Verma, 2020). Consequently, the study successfully recruited a total of 457 valid participants (N = 457). The research design intentionally excised the retired demographic to facilitate a more granular examination of the dichotomy between "emerging" and "established" economic actors. By isolating these active cohorts, the investigation purports to scrutinize the evolutionary trajectory of consumption behaviours as individuals transition from the resource-constrained, yet digitally native environment of tertiary education, to the time-constrained, resource-stable environment of the professional workforce. This exclusion ensures that the data derived possesses high external validity, allowing for generalizations concerning the interplay between modern media marketing strategies and the purchasing decisions of the active labor and pre-labor forces (Clifford et al., 2023; Meng-meng et al., 2024).

The resultant sample (N= 457), as shown in Figure 1, reveals a demographic composition characterised by a slight preponderance of male participants (N=256; 56.01%) relative to their female counterparts (N= 201; 43.99%). In terms of occupational stratification, the cohort is bifurcated into college students (N=284; 62.14%) and enterprise employees (N=173; 37.86%). This division highlights distinct psychographic divergences regarding susceptibility to mediatized stimuli (Lim & Kim, 2022; Newman, 2015). The collegiate demographic, representative of the youth in the new era, exhibits a pronounced propensity for novelty-seeking behaviour and curiosity-driven consumption. Despite prevalent fiscal constraints, a substantial proportion of this group's expenditure is allocated to digital commerce, wherein they frequently display a susceptibility to emotional appeals and impulse purchasing (Lim & Kim, 2022; Meng-meng et al., 2024). In contradistinction, the employee cohort operates under

a markedly different set of constraints characterised by temporal scarcity and greater financial stability. Their engagement with consumption contexts is predicated on utility, brand equity, and efficiency rather than price elasticity. This group demonstrates a willingness to absorb premium pricing structures in exchange for high-quality products and the convenience facilitated by digital media, contrasting sharply with the impulsive, price-sensitive behaviour of the student population (Newman, 2015; Bhimanand Pandurang Gajbhare et al., 2025).

Figure 1

Sample Group Demographics (n=457)



3.2 Research Instruments

The quantitative instrumentation employed in this study was meticulously adapted from established psychometric scales to ensure construct validity and reliability. The survey instrument is tripartite, measuring Media-Based Commercial Marketing, Consuming Scenarios, and Consumer Behavior as illustrated in Table 3.1. For the assessment of Media-Based Commercial Marketing, the study utilized the scale developed by Raji et al. (2018). While the original instrument encompasses multiple facets of social media communication, this study specifically extracted the social media advertising dimension to evaluate consumers' perceptions regarding the informational utility, creativity, and persuasiveness of digital advertisements. This section initially comprised 10 items, utilizing a 5-point Likert scale to gauge responses ranging from "strongly disagree" to "strongly agree." Concurrently, the Consuming Scenarios construct was operationalized using the framework proposed by Dong et al. (2020). This 12-item scale measures the consumer's offline experience within an online shopping context, segmented into four distinct dimensions: sensory experience, cognitive experience, trial experience, and emotional experience. The scale demonstrates robust internal consistency, effectively capturing the multidimensionality of experiential marketing. The Consumer Behavior construct was measured using a composite scale synthesized from Yu and Luo (2022), Merdin (2018), and Lee and Cotte (2009), encompassing dimensions of Hedonism, Cognition, and Regretful Behavior. The pilot study, conducted with a sample of college students (N=94) and office workers/employees (N=94), necessitated a critical refinement of this instrument. An analysis of the Corrected Item-Total Correlation (CITC) revealed that Item

1 (Product Promotion) and Item 20 (Rational Behavior) failed to meet the statistical threshold for discrimination and meaningfulness. Consequently, these two items were excised to enhance the scale's psychometric properties, resulting in a finalized 18-item measure for Consumer Behavior. The psychometric robustness of the finalized instrument was confirmed via Cronbach's alpha coefficients, which exceeded the .70 threshold across both demographic cohorts (Students: alpha=.980; Office Workers/employees: alpha=.978), alongside satisfactory KMO values (> .85) and Bartlett's Test of Sphericity (p<.001), confirming the instrument's suitability for the subsequent multivariate analysis.

Table 3.1

Summary of Measurement Scales and Psychometric Properties

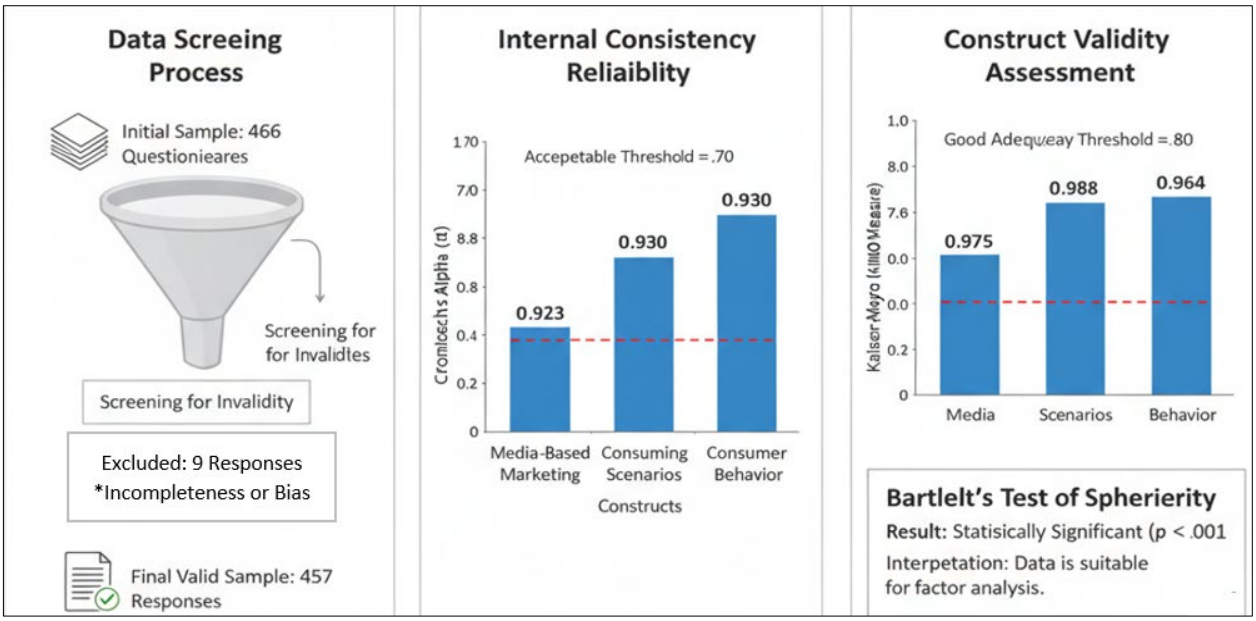
Construct	Scale Name / Source	Dimensions	Initial Items	Final Items	Reliability (Pilot α)
Media Marketing	Social Media Marketing Communication Scale *(Adapted from Raji et al., 2017; 2018)*	Social Media Commercial (Perception, Utility, Creativity, Persuasion)	10	10	Students: .980 employees: .978 KMO=.964 Sig=.000
Consumption Context	Consumer Offline Experience in Online Shopping Scale *(Dong et al., 2020)*	Sensory Experience Cognitive Experience Experiencing (Trial) Emotional Experience	12	12	α >.90 KMO=.968 Sig=.000
Consumer Behavior	Composite Consumer Behavior Inventory *(Synthesized from Yu & Luo, 2022; Merdin, 2018; Lee & Cotte, 2009; Rook & Fisher, 1995)*	Product Promotion Hedonism Cognition Regretful Behavior Rationality	20	18	α >.90 KMO=.946 Sig.=.000

3.3 Process, Data Collection

The empirical data acquisition phase, executed on October 21, 2025, employed a stratified random sampling methodology within Guangdong Province to capture a representative cross-section of the target demographic. The survey instrument was disseminated digitally via distinct QR codes, facilitating immediate access for a dual cohort comprising undergraduate respondents within a collegiate setting and employees situated in off-campus urban locales. As Figure 2 delineates, from an initial distribution of 466 questionnaires, a rigorous data screening protocol yielded 457 valid responses, effectively excluding 9 instances of invalidity due to incompleteness or response bias. Subsequent psychometric validation substantiated the instrument's robustness and homogeneity. Specifically, reliability analysis demonstrated exemplary internal consistency, with Cronbach's alpha coefficients significantly surpassing the conventional .70 threshold across all constructs: Media-Based Commercial Marketing (α=.923), Consuming Scenarios (α=.930), and Consumer Behavior (α=.915). Furthermore, construct validity was unequivocally established through the Kaiser-Meyer-Olkin (KMO) measure; indices for all variables demonstrated superior sampling adequacy (Media: .975; Scenarios: .988; Behavior: .964), accompanied by statistically significant Bartlett's tests of sphericity (p<.001). These metrics collectively attest to the high fidelity of the dataset, thereby justifying the subsequent inferential analyses.

Figure 2

Psychometric Validation and Data Fidelity Summary



4. Results and Hypothesis Verification

4.1 Descriptive Analysis and Test of Hypothesis

The descriptive analysis in Table 4.1 highlights distinct psychometric profiles between College Students and Office Workers, providing empirical support for Hypothesis 1 (H1). Office Workers show higher means in Media-based commercial marketing (M=4.674) and Consuming Scenarios (M=4.129) than students, with low standard deviations (SDs .752–.919) indicating homogeneity and stable, calculated consumption patterns, as posited in H1. In contrast, College Students exhibit strong engagement in Media-based commercial marketing (M=4.516) and high Consumer Behavior scores (M=4.108), but with higher standard deviations (SD=1.084 and 1.046), reflecting greater behavioral heterogeneity and volatility consistent with impulsive, emotionally driven purchases influenced by social media. This contrast—uniform, utility-driven responses in Office Workers versus erratic, high-variance behaviors in College Students—validates the research assumptions, confirming distinct mechanisms of pragmatic stability versus impulsive variability, fully supporting H1.

Table 4.1

Descriptive Analysis of Marketing Strategies and Consumer Behavior by Group

Group/Variables	Mean (M)	Std. Deviation (SD)
College Students		
Media-based commercial marketing	4.516	1.084
Consuming Scenarios	3.975	1.055

Note： The data herein was sourced from a compilation independently conducted by the researcher

Table 4.1

Descriptive Analysis of Marketing Strategies and Consumer Behavior by Group (Continue)

Group/Variables	Mean (M)	Std. Deviation (SD)
Consumer Behavior	4.108	1.046
Office Workers (Employees)		
Media-based commercial marketing	4.674	.889
Consuming Scenarios	4.129	.919
Consumer Behavior	4.016	.752

Note： The data herein was sourced from a compilation independently conducted by the researcher

4.2 Correlation Analysis

The following analysis examines the bivariate relationships to test Hypothesis 2, which proposes that effective media-based commercial marketing enhances the consumption experience, leading to positive consumer behavior. As shown in the summary data and Table 4.2, Pearson correlation coefficients (r) indicate statistically significant positive associations (p<.001) for all variable pairs in both college students and employees, fully supporting the hypothesis. Specifically, media-based commercial marketing strongly correlates with consuming scenarios, more so for employees (r=.715) than college students (r=.612), indicating stronger linkage in the workforce. Consumer behavior also varies by group: college students show a strong correlation with consuming scenarios (r=.701), suggesting that immersive environments critically reduce regret and boost satisfaction; employees exhibit moderate but significant correlations with both marketing (r=.451) and scenarios (r=.477). Overall, these results confirm Hypothesis 2, demonstrating that positive stimuli from strategic marketing and well-designed consumption scenarios significantly correlate with greater purchasing propensity and consumer satisfaction.

Table 4.2

Summary of Bivariate Correlations for Hypothesis 2 Testing

Demographic Group	Variable Pair (Independent ↔ Dependent)	Pearson Correlation (r)	Sig. (2-tailed)	Strength of Association
	Media Marketing ↔ Consuming Scenarios	.612**	< .001	Moderate-Strong
College Students	Media Marketing ↔ Consumer Behavior	.508**	< .001	Moderate
	Consuming Scenarios ↔ Consumer Behavior	.701**	< .001	Strong
	Media Marketing ↔ Consuming Scenarios	.715**	< .001	Strong
Employees	Media Marketing ↔ Consumer Behavior	.451**	< .001	Moderate
	Consuming Scenarios ↔ Consumer Behavior	.477**	< .001	Moderate

Note 1： The data herein was sourced from a compilation independently conducted by the researcher

Note 2: *p<.05; **p<.01; ***p<.001

5. Conclusion and Discussions, Recommendations

5.1 Synthesis of Findings and Conclusion

The empirical corroboration of the formulated hypotheses elucidates a profound behavioral bifurcation within the digital consumption ecosystem, challenging the notion of a homogenized online consumer populace. The confirmation of Hypothesis 1 through descriptive analysis reveals a distinct dichotomy in psychometric profiles: the Office Worker cohort exhibits a pattern of "rational stability," characterized by high mean scores in media receptivity (M=4.674) yet remarkably low standard deviations, indicative of calculated, utility-driven decision-making (Van Zeeland & Henseler, 2018; Wolf et al., 2014). Conversely, the College Student demographic manifests "impulsive volatility," evidenced by significant data dispersion (SD > 1.0), suggesting that while they are avid digital natives, their consumption logic is stochastic and highly susceptible to external stimuli (Safeer, 2024; Widagdo & Roz, 2021). Furthermore, the validation of Hypothesis 2 (p<.001) underscores the systemic efficacy of medialization, yet reveals nuanced structural differences in how this influence is processed. The robust correlation between Consuming Scenarios and Consumer Behavior among students (r=.701) posits that for this transitional demographic, the "context"—the immersive, algorithmically curated digital environment—is the primary determinant of action, effectively overriding cognitive restraint. In contrast, the workforce demographic demonstrates a stronger linkage between Media Marketing and the construction of the Scenario (r=.715), implying that they actively interpret marketing signals to define the context before engaging in transactional behavior. Consequently, this study concludes that post-pandemic consumerism is not merely a shift in platform but a fundamental restructuring of psychological agency, where digital maturity (age and economic status) dictates whether media acts as a tool for information (employees) or a mechanism of behavioral control (students).

5.2 Discussion of Theoretical Implications

This investigation offers a substantive contribution to the taxonomy of Consumer Psychology and Social Cognitive Theory by redefining the "consumption context" from a static physical location to a dynamic, psychologically mediated construct (Jacoby, 2002; Wu & Li, 2018). The findings dismantle reductionist perspectives that treat digital adoption as a uniform trajectory, instead highlighting the salience of demographic heterogeneity in the decoding of media logic. The strong correlation between immersive scenarios and consumption behavior, particularly among the student cohort, validates the theoretical framework of "medialization" as an architect of reality; the media does not simply reflect consumer desires but actively synthesizes the environments in which those desires are validated. Theoretically, this suggests that the high volatility observed in younger consumers is not merely a lack of financial discipline but a symptom of "mediated immersion," where the boundaries between digital representation and material reality are obfuscated by high-fidelity marketing strategies (Gao et al., 2018; Koufaris, 2002). For the economically autonomous office worker, the "consumption context" remains a space of negotiation and verification, aligning with traditional utility theories. However, for the younger demographic, the context has evolved into a "persuasive enclosure" designed to trigger immediate affect over cognition. This distinction creates an imperative to expand existing academic models of e-commerce to account for cognitive vulnerability as a mediating variable, thereby enriching the discourse on how digital interfaces differentially exploit the psychological mechanisms of distinct life-stage cohorts.

5.3 Strategic and Policy Recommendations

In light of the demonstrated interplay among media strategies and demographic susceptibilities, a multi-faceted approach addressing both commercial efficacy and ethical governance is required. From a managerial perspective, marketing practitioners must abandon

generic, monolithic advertising in favor of precision-engineered segmentation. Strategies targeting the workforce should prioritize "informational utility" and "trust-building," leveraging the strong correlation between marketing stimuli and scenario construction to facilitate efficient decision-making (Angelica & Tj, 2025; Li, 2018). Conversely, engagement with the student demographic, while requiring immersive scenarios to be effective, necessitates an ethical recalibration. Marketers should integrate "friction points"—such as confirmation prompts or spending visualizers—within the interface to mitigate the impulse-driven volatility inherent to this group, thereby fostering sustainable brand loyalty rather than exploiting transient impulse. On a macro-regulatory level, these findings underscore an urgent exigency for educational policy reform. Higher education institutions must implement digital financial literacy curricula that transcend basic accounting to include algorithmic awareness. Students must be equipped with the cognitive tools to deconstruct the persuasive mechanics of media marketing, enabling them to reclaim agency within the consumption context (Mastrodicasa & Metellus, 2013; Ziwa & Dizon, 2020).

References

Alfina, A., Khoirina, M. M., & Ulya, M. (2021). The role of Omnichannel and experiential marketing to build brand association in ZAP clinic. *Binus Business Review, 12*(3), 255-261. https://doi.org/10.21512/bbr.v12i3.6991

Angelica, M., & Tj, H. W. (2025). The influence of social media marketing on purchase decisions mediated by brand equity and brand trust. *Journal of International Conference Proceedings, 7*(5), 1100-1113. https://doi.org/10.32535/jicp.v7i5.3671

Areiza-Padilla, J. A., & Cervera-Taulet, A. (2023). Consequences of xenocentrism and ethnocentrism on brand image of Starbucks: Moderating effects of national culture and perceived brand globalness between Colombia and Spain. *Cross Cultural & Strategic Management, 30*(2), 348-374. https://doi.org/10.1108/ccsm-03-2022-0050

Berg, H., & Liljedal, K. T. (2022). Elderly consumers in marketing research: A systematic literature review and directions for future research. *International Journal of Consumer Studies, 46*(5), 1640-1664. https://doi.org/10.1111/ijcs.12830

Bhimanand, P. G., Vetri, S., Senthil, K., & Suresh, K., (2025). *Probability and statistics.* RK Publication.

Cadavid-Gómez, H. D., Cano, J. A., & Sánchez-Torres, J. A. (2025). Corner stores as community hubs: A systematic review of public health, economic impact, and social dynamics in urban areas. *Frontiers in Nutrition, 12*, 1526594. https://doi.org/10.3389/fnut.2025.1526594

Cao, Y. (2015). Research on consumption psychology and consumption behaviors in the mobile internet era. *Proceedings of the 2015 3rd International Conference on Management Science, Education Technology, Arts, Social Science and Economics*. https://doi.org/10.2991/msetasse-15.2015.2

Choi, S., & Lee, J. Y. (2017). Development of a framework for the integration and management of sustainability for small- and medium-sized enterprises. *International Journal of Computer Integrated Manufacturing, 30*(11), 1190-1202. https://doi.org/10.1080/0951192x.2017.1305506

Clifford, N., Cope, M., & Gillespie, T. (2023). Key methods in geography. SAGE Publications.

Cotten, S. R., Schuster, A. M., & Seifert, A. (2022). Social media use and well-being among older adults. *Current Opinion in Psychology, 45*, 101293.

https://doi.org/10.1016/j.copsyc.2021.12.005

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340. https://doi.org/10.2307/249008

Dumford, A. D., Miller, A. L., Lee, C. K., & Caskie, A. (2023). Social media usage in relation to their peers: Comparing male and female college students' perceptions. *Computers and Education Open, 4*, 100121. https://doi.org/10.1016/j.caeo.2022.100121

Fu, S., Yan, Q., & Feng, G. C. (2018). Who will attract you? Similarity effect among users on online purchase intention of movie tickets in the social shopping context. *International Journal of Information Management, 40,* 88-102. https://doi.org/10.1016/j.ijinfomgt.2018.01.013

Gao, W., Liu, Y., Liu, Z., & Li, J. (2018). How does presence influence purchase intention in online shopping markets? An explanation based on self-determination theory. *Behaviour & Information Technology, 37*(8), 786-799. https://doi.org/10.1080/0144929x.2018.1484514

Guido, G., Ugolini, M. M., & Sestino, A. (2022). Active ageing of elderly consumers: Insights and opportunities for future business strategies. *SN Business & Economics, 2*(1), 8. https://doi.org/10.1007/s43546-021-00180-4

Hamid, M., Waheed, F., Basit, A., & Shahzad, S. (2023). Influencer marketing and consumer behavior during pandemic COVID-19: A scenario of textile industry of Pakistan. *Journal of Business and Social Review in Emerging Economies, 9*(4), 405-418. https://doi.org/10.26710/jbsee.v9i4.2806

Hancock, J., Liu, S. X., Luo, M., & Mieczkowski, H. (2022). Psychological well-being and social media use: A meta-analysis of associations between social media use and depression, anxiety, loneliness, Eudaimonic, hedonic and social well-being. *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.4053961

Harnish, R. J., Bridges, K. R., & Karelitz, J. L. (2017). Compulsive buying: Prevalence, irrational beliefs and purchasing. *International Journal of Mental Health and Addiction, 15*(5), 993-1007. https://doi.org/10.1007/s11469-016-9690-2

Jacoby, J. (2002). Stimulus‐organism‐Response reconsidered: An evolutionary step in modeling (Consumer) behavior. *Journal of Consumer Psychology, 12*(1), 51-57. https://doi.org/10.1207/s15327663jcp1201_05

Keller, K. L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications, 15*(2-3), 139-155. https://doi.org/10.1080/13527260902757530

Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research, 13*(2), 205-223. https://doi.org/10.1287/isre.13.2.205.83

Lee, S. H., & Cotte, J. (2009). Post-Purchase Consumer Regret: Conceptualization and Development of the PPCR Scale. ACR North American Advances. https://www.researchgate.net/publication/287625919_Post-purchase_consumer_regret_Conceptualization_and_development_of_the_PPCR_scale

Li, Y., Teng, W., Liao, T., & Lin, T. M. (2020). Exploration of patriotic brand image: Its antecedents and impacts on purchase intentions. *Asia Pacific Journal of Marketing and Logistics, 33*(6), 1455-1481. https://doi.org/10.1108/apjml-11-2019-0660

Lim, S. H., & Kim, D. J. (2022). Unmindfulness and impulse online shopping purchasing behaviours--model. *PsycTESTS Dataset.* https://doi.org/10.1037/t89751-000

Mastrodicasa, J., & Metellus, P. (2013). The impact of social media on college students.

Journal of College and Character, 14(1), 21-30. https://doi.org/10.1515/jcc-2013-0004

Matos, C. A., & Krielow, A. (2019). The effects of environmental factors on B2B E-sErvicEs purchase: Perceived risk and convenience as mediators. *Journal of Business & Industrial Marketing, 34*(4), 767-778. https://doi.org/10.1108/jbim-12-2017-0305

Meng-meng, C., Jing shuai, C., Cheng, Z., & Qing, H. (2024). E-Commerce to countryside, digital divide and consumption inequality. https://doi.org/10.2139/ssrn.4908095

Merdin-Uygur, E. (2018). Consumer impulsive buying tendency scale development using mixed methodology. *Beykoz Akademi Dergisi, 6*(2), 125-141. https://doi.org/10.14514/byk.m.26515393.2018.6/2.125-141

Miah, M. R., Hossain, A., Shikder, R., Saha, T., & Neger, M. (2022). Evaluating the impact of social media on online shopping behavior during COVID-19 pandemic: A Bangladeshi consumers' perspectives. *Heliyon, 8*(9), e10600. https://doi.org/10.1016/j.heliyon.2022.e10600

Mishra, A. S. (2019). Antecedents of consumers' engagement with brand-related content on social media. *Marketing Intelligence & Planning, 37*(4), 386-400. https://doi.org/10.1108/mip-04-2018-0130

Newman, A. (2015). Impulse purchasing. *Wiley Encyclopedia of Management*, 1-1. https://doi.org/10.1002/9781118785317.weom090472

Parajuli, S. K., & Budhathoki, D. K. (2022). Social media and purchase habits of consumers. *Management Dynamics, 25*(1), 75-94. https://doi.org/10.3126/md.v25i1.53291

Polearus, E., & Timuș, M. (2021). Digital marketing and online consumer behavior in Romania during the COVID-19 pandemic: A case study. *Acta Marisiensis. Seria Oeconomica, 15*(1), 29-40. https://doi.org/10.2478/amso-2021-0003

Rook, D. W., & Fisher, R. J. (1995). Normative influences on impulsive buying behavior. *Journal of Consumer Research, 22*(3), 305-313. https://doi.org/10.1086/209452

Russell, J. A., & Mehrabian, A. (1974). Distinguishing anger and anxiety in terms of emotional response factors. *Journal of Consulting and Clinical Psychology, 42*(1), 79-83. https://doi.org/10.1037/h0035915

Safeer, A. A. (2024). Harnessing the power of brand social media marketing on consumer online impulse buying intentions: A stimulus-organism-response framework. *Journal of Product & Brand Management, 33*(5), 533-544. https://doi.org/10.1108/jpbm-07-2023-4619

Sandunima, K. C., & Jayasuriya, N. (2024). Impact of firm-created and user-generated social media marketing on customers' purchase intention in the fashionwear industry: Evidence from Sri Lanka. S*outh Asian Journal of Marketing, 5*(1), 61-73. https://doi.org/10.1108/sajm-04-2023-0029

Shah, A. M., Yan, X., Shah, S. A., & Ali, M. (2020). Customers' perceived value and dining choice through mobile apps in Indonesia. *Asia Pacific Journal of Marketing and Logistics, 33*(1), 1-28. https://doi.org/10.1108/apjml-03-2019-0167

Sherman, E., Mathur, A., & Smith, R. B. (1997). Store environment and consumer purchase behavior: Mediating role of consumer emotions. *Psychology and Marketing, 14*(4), 361-378. https://doi.org/10.1002/(sici)1520-6793(199707)14:43.0.co;2-7

Shrestha, A., Karki, A., Bhushan, M., Joshi, S., & Gurung, S. (2023). Effects of social media marketing on consumer buying behavior. *New Perspective: Journal of Business and Economics, 6*(1), 74-82. https://doi.org/10.3126/npjbe.v6i1.58916

Song, S., Yao, X., & Wen, N. (2021). What motivates Chinese consumers to avoid information about the COVID-19 pandemic?: The perspective of the stimulus-organism-response

model. *Information Processing & Management, 58*(1), 102407. https://doi.org/10.1016/j.ipm.2020.102407

Świda, J., & Kubejko-Polańska, E. (2017). Opportunities for development of entrepreneurship in the range of product adjustment to the needs of the elderly. *Humanities and Social Sciences, 24*(3). https://doi.org/10.7862/rz.2017.hss.60

Van Zeeland, E., & Henseler, J. (2018). The behavioural response of the professional buyer on social cues from the vendor and how to measure it. *Journal of Business & Industrial Marketing, 33*(1), 72-83. https://doi.org/10.1108/jbim-06-2016-0135

Verma, J. P., & Verma, P. (2020). *Determining sample size and power in research studies: A manual for researchers.* Springer Nature.

Widagdo, B., & Roz, K. (2021). Hedonic Shopping Motivation and Impulse Buying: The Effect of Website Quality on Customer Satisfaction. *Journal of Asian Finance, Economics and Business, 8*(10), 395-405. https://doi.org/10.13106/jafeb.2021.vol8.no1.395

Wijaya, A., & Sisca, E. C. (2020). Effectiveness and challenges of social media marketing. *International Journal of Innovative Science and Research Technology, 79(79)*, 8. https://ijisrt.com/effectiveness-and-challenges-of-social-media-marketing

Wolf, F., Sandner, P., & Welpe, I. M. (2014). Why do responses to age-based marketing stimuli differ? The influence of retirees' group identification and changing consumption patterns. *Psychology & Marketing, 31*(10), 914-931. https://doi.org/10.1002/mar.20743

Woodworth, R. S. (1929). *Psychology* (2nd ed.). Oxford, Holt.

Wu, Y., & Li, E. Y. (2018). Marketing mix, customer value, and customer loyalty in social commerce. *Internet Research, 28*(1), 74-104. https://doi.org/10.1108/intr-08-2016-0250

Zhou, M., Huang, J., Wu, K., Huang, X., Kong, N., & Campy, K. S. (2021). Characterizing Chinese consumers' intention to use live e-Commerce shopping. *Technology in Society, 67*, 101767. https://doi.org/10.1016/j.techsoc.2021.101767

Ziwa, D. I., & Dizon, O. (2020). Social Media Marketing and Online Buying Behaviour of University Students in Kenya: A Case of Selected Universities in Karen Nairobi. *International Journal of Research in Engineering, IT and Social Sciences, 10*(9), 30-36. https://indusedu.org/pdfs/IJREISS/IJREISS_3722_58866.pdf

Curation Power Structures in the Age of AI: From Human Curation to AI Curation of the Redistribution of Discourse Power

Received: December 21, 2025
Revised: December 27, 2025
Accepted: December 29, 2025

Kuan-Lian Lee[1*] YiChing Hsieh[2]
[1*]Dhurakij Pundit University
[2]Shanghai Sanda University
[*]leekuan.lia@dpu.ac.th

Abstract

This study aims to explore the redistribution and structural shift of exhibition discourse power driven by technology after AI intervenes in curation. The research method combines theoretical analysis with analyzation of typical AI exhibition cases to observe how artificial intelligence reshapes exhibition narratives, exhibits visibility, and audience participation models in practical operations, and compares different levels of technological intervention to reveal its specific mechanism in curatorial decision-making. The research results show that the introduction of AI not only changes the curatorial process and exhibition logic, but also redefines the curatorial subject, shifting the power from a single curator to a multi-subject network composed of curators, algorithms, and audience data. This study further proposes a structural model of the power flow mechanism of curation in the AI era, presenting the power reconfiguration formed by the interaction between the three. The conclusion points out that AI is driving the dynamic, multicentric, and data-driven characteristics of exhibition discourse, representing a profound change in the curatorial system. However, this case is still limited by the scope of data acquisition and cannot cover all technical scenarios. As AI technology evolves rapidly, the proposed models need to be continuously adjusted and validated.

Keywords: Artificial Intelligence; Curatorial Power; Discourse Redistribution; Algorithmic Mediation; AI-driven Curation

1. Introduction

As artificial intelligence (AI) technologies increasingly intervene in the field of art and design curation, the power structures underpinning curatorial practice are undergoing significant transformation. In particular, exhibition discourse production, decision-making authority, and audience navigation are being reshaped through algorithmic mediation. This study focuses specifically on contemporary art and design exhibitions that explicitly integrate AI systems into curatorial processes, including exhibition planning, narrative structuring, content recommendation, and visitor interaction design. Temporary and permanent exhibitions staged in museums, galleries, and experimental art spaces between 2018 and 2024 constitute the empirical scope of this research, while exhibitions using digital tools solely for documentation or basic information display are excluded.

Although scholarly attention to AI in curatorial studies has grown in recent years, existing literature predominantly emphasizes technical and instrumental dimensions, such as the digital transformation of exhibition models, the application of generative AI in content production, and AI's role as an auxiliary curatorial tool. These studies provide valuable insights into practical implementation, yet they largely overlook the deeper structural implications of AI intervention. Specifically, three major gaps remain. First, the mechanisms through which AI systems intervene in exhibition narratives and shape audience pathways are often discussed descriptively through isolated case studies or technical reports, with limited engagement with theories of power and agency. Second, while emerging research has begun to address the notion of the "algorithmic curator," insufficient attention has been paid to how curatorial identity and authority are redefined through the hybrid configuration of human–algorithm collaboration. Third, there is a notable lack of theoretical analysis concerning how curatorial discourse power—affecting meaning production, cultural representation, and interpretive hierarchies are redistributed within AI-mediated exhibitions.

Existing studies thus tend to emphasize the instrumental benefits of AI in curation. For instance, AI-supported museum applications have been shown to broaden access to cultural heritage, enhance visitor engagement, and introduce new modes of interaction, while also influencing the digitization of cultural identity and museum education practices (Suiçmez et al., 2025). However, the broader consequences of AI intervention for curatorial power relations, discursive authority, and cultural governance remain underexplored.

To address these gaps, this study adopts a qualitative research design combining comparative case analysis of six AI-integrated exhibitions with process tracing of curatorial decision-making. The analytical procedure involves three stages: (1) mapping the points of AI intervention across the curatorial workflow; (2) identifying shifts in decision authority among curators, algorithms, and institutional actors; and (3) analyzing how these shifts affect exhibition narratives and audience interpretation paths. Within this framework, the typology of AI intervention in exhibitions proposed by Covas (2025) is employed as an analytical reference.

As summarized in Table 1, Covas's typology categorizes exhibition practices according to different levels of machine learning involvement, ranging from assistive systems to semi-autonomous curatorial agents. In this study, Table 1 serves not as a prescriptive classification, but as a conceptual tool for comparing degrees of AI intervention across cases. The Covas framework is consistently cited throughout the analysis to ensure terminological coherence and theoretical continuity. Building upon this typology, the study recontextualizes AI intervention as a catalyst for the redistribution of curatorial power, examining how authority, agency, and discourse production are negotiated among human curators, algorithmic systems, and audiences.

Furthermore, Figure 1 visualizes the dynamic feedback loops and decision nodes that emerge within AI-mediated curatorial systems. By illustrating how data input, algorithmic processing, curatorial judgment, and audience feedback recursively influence one another, the figure clarifies the non-linear power structure shaping contemporary exhibition practices.

Overall, this study aims to contribute to curatorial theory by theorizing the transformation of curatorial power structures in the AI era. By moving beyond an instrumental view of AI, it offers a power- and discourse-oriented framework that supplements existing research and provides a foundation for future critical inquiry into human–algorithm co-curation.

Table 1

Exhibition Statistics per Year

Year	Total Exhibitions	Exhibitions with Object IDs	Works of Art Found	Word Count
2000	55	6	168	5911
2001	59	11	403	6554
2002	54	11	254	6242
2003	56	9	371	5911
2004	57	6	342	6052
2005	49	4	239	5544
2006	49	5	308	6147
2007	51	16	847	6019
2008	57	19	1203	6947
2009	61	18	863	6905
2010	61	16	1307	6246
2011	68	24	1574	7246
2012	65	30	2661	7373
2013	79	39	2863	9301
2014	94	53	2827	9832
2015	90	53	2741	8663
2016	95	58	3646	9103
2017	95	2	111	9694
2018	78	2	129	8222
2019	74	2	129	7462
2020	56	5	276	5876
2021	58	26	2042	9727
2022	56	47	3711	12,796
2023	60	47	3483	14,078
2024	50	36	2986	10,434
2025	9	8	736	1590
Total	**1636**	**553**	**36,220**	**199,875**
Total after removal of multi-year exhibitions	**1009**	**338**	**20,172**	**123,349**
Total after removal of artworks not on Met Museum		**236**	**10,470**	**26,388**

Note: Typology of AI intervention in exhibition curation (Adapted from Covas, 2025. Curating art exhibitions using machine learning (arXiv Preprint, https://arxiv.org/abs/2506.19813).

2. Literature Review

Scholarly discussions of curatorial power and exhibition discourse are deeply rooted in

theories of power, knowledge, and visibility. A foundational reference is Michel Foucault (1995), whose analysis of power–knowledge relations conceptualizes power as operating through classification, surveillance, and normalization rather than overt coercion. In book of "*Discipline and punish: The birth of the prison"*, Foucault (1995) describes how hierarchical observation and normalizing judgment function as mechanisms through which institutions regulate subjects. This framework has been widely applied to cultural institutions, where exhibitions operate through selective visibility, legitimization of knowledge, and the regulation of meaning.

Within curatorial studies, this Foucault (1995) perspective has been extended to examine how exhibitions function as sites of cultural authority. Curatorial practices such as selecting artists, constructing narratives, and defining interpretive frameworks are understood as forms of discursive control that shape public knowledge and cultural values. Macdonald (1998), for instance, interrogates how decisions about what is displayed are made, how claims to objectivity and expertise legitimize particular representations, and who is authorized to speak on behalf of science, the public, or the nation. From this perspective, exhibitions are not neutral presentations but processes through which cultural power is continuously negotiated and reconfigured.

However, much of this literature assumes a human-centered model of curatorial authority, in which power is exercised primarily by curators and institutions. Although recent scholarship has begun to address the impact of digital technologies on exhibition practices, discussions often remain focused on mediation tools rather than on structural transformations of curatorial power. With the rapid development of artificial intelligence, this assumption is increasingly challenged. AI systems are no longer limited to supporting documentation or visualization tasks; they actively participate in selection, classification, and narrative construction. As Covas (2025) argues, existing exhibitions already contain sufficient structured information to train AI models capable of replicating curatorial patterns at a level significantly above random selection.

Despite these insights, a critical gap remains in the literature. While prior studies acknowledge that AI can replicate or assist curatorial decision-making, they rarely examine how the intervention of AI transforms the distribution of curatorial power itself. Specifically, three issues remain under-theorized. First, existing research lacks a systematic analysis of how AI-mediated decision-making alters traditional hierarchies between curators, institutions, and audiences. Second, although the notion of "algorithmic curation" has emerged, there is insufficient conceptual differentiation between human-led, algorithm-driven, and hybrid AI-assisted curatorial models. Third, little attention has been paid to the role of audience data as an active component in curatorial power structures, particularly in terms of how feedback mechanisms reshape exhibition narratives over time.

In response to these gaps, this study aims to theoretically and empirically examine the redistribution of curatorial power in AI-driven exhibition practices. Rather than treating AI as a neutral tool, the research conceptualizes AI as a mediating actor within a broader power configuration composed of human curators, algorithmic systems, and audience data. By integrating theories of power and discourse with comparative case analysis of AI-integrated exhibitions, this study seeks to clarify how curatorial authority is reconfigured, how exhibition discourse is reshaped, and how cultural power is redistributed in the era of artificial intelligence.

3. Methodology

To systematically examine how artificial intelligence reshapes curatorial power structures,

this study adopts a comparative qualitative research design that distinguishes among three curatorial modalities: human-led curation, algorithm-driven curation, and AI-assisted hybrid curation. Human-led curation refers to exhibitions in which curatorial decisions—such as narrative framing, artwork selection, and interpretive emphasis—are made primarily through human expertise and institutional authority. Algorithm-driven curation denotes exhibition systems in which decision-making processes are largely automated, relying on data-driven models to generate narratives, recommendations, or display logic with minimal human intervention. In contrast, AI-assisted hybrid curation, which constitutes the core focus of this study, describes exhibition practices where curatorial agency is distributed across human curators, algorithmic systems, and audience data through iterative feedback loops.

Based on this distinction, the study analyzes AI-integrated exhibitions across three analytical dimensions: (1) narrative agency, examining how exhibition narratives are generated, adjusted, or reconfigured through human–algorithm interaction; (2) selection and visibility, focusing on how AI systems influence the inclusion, ranking, and prominence of artworks or information; and (3) audience participation, analyzing how visitor data and behavioral feedback actively intervene in curatorial decision-making processes. Together, these dimensions provide an analytical framework for comparing how different curatorial modalities redistribute power from a centralized, curator-dominated model to a dynamic, multi-actor structure.

Empirically, the study conducts a comparative case analysis of six exhibitions representing varying degrees of AI intervention. These include two predominantly human-curated exhibitions employing digital tools only as supportive infrastructure, two exhibitions characterized by algorithm-driven recommendation or generative systems, and two hybrid AI-curated exhibitions in which curators, algorithms, and audiences co-produce exhibition narratives. Each case is analyzed through curatorial documents, exhibition interfaces, system descriptions, and observational data to trace decision points and shifts in agency.

Methodologically, the analysis proceeds in three steps. First, the degree and location of AI intervention within each exhibition's curatorial workflow are identified and mapped. Second, decision-making authority across human curators, algorithmic systems, and institutional constraints is compared across cases. Third, the effects of these configurations on narrative coherence, visibility hierarchies, and audience interpretive pathways are examined. By juxtaposing AI-assisted exhibitions with human-led and algorithm-driven models, the study reveals how AI curation does not simply replace human agency, but reconfigures curatorial power through negotiated, feedback-based mechanisms.

Through this combined theoretical and empirical approach, the methodology clarifies the specific ways in which AI-mediated curation differs from both traditional human curation and fully automated algorithmic systems, thereby providing a robust foundation for analyzing the transformation of curatorial power structures in contemporary exhibition practices.

4. Results

Following the analytical framework outlined in the methodology, the selected AI-integrated exhibition cases were examined through iterative comparison across narrative agency, selection and visibility, and audience participation. Rather than treating individual cases in isolation, the analysis focused on identifying recurring configurations of decision-making and mediation across different levels of AI intervention. Through this process, a series of observable patterns emerged, which form the basis of the results presented below.

The first pattern concerns exhibition narrative construction. Across multiple cases, the

analysis shows that AI systems intervene at distinct but recurring points in the curatorial workflow. While overarching themes and conceptual orientations are generally initiated by human curators, algorithmic systems increasingly participate in organizing narrative sequences by recommending relational links between exhibits, generating alternative interpretive pathways, or dynamically adjusting narrative emphasis in response to data inputs. These interventions were observed to alter narrative logic from a predefined, linear structure to one characterized by adaptability and recalibration. This pattern was consistently identified in cases where AI systems processed curatorial content alongside audience interaction data.

A second pattern emerges in relation to selection and visibility. Comparative analysis reveals that AI-mediated exhibitions display different visibility hierarchies from those observed in predominantly human-curated contexts. Algorithmic processes such as recommendation ranking, pattern recognition, and real-time engagement metrics influence which artworks, themes, or information nodes are emphasized within the exhibition space. Through repeated comparison, it becomes evident that curatorial selection is no longer exercised solely through human judgment, but is partially delegated to algorithmic systems. This does not result in the disappearance of curatorial authority; rather, it introduces an additional decision-making layer that reshapes traditional selection logics and redistributes influence over what becomes visible or marginalized.

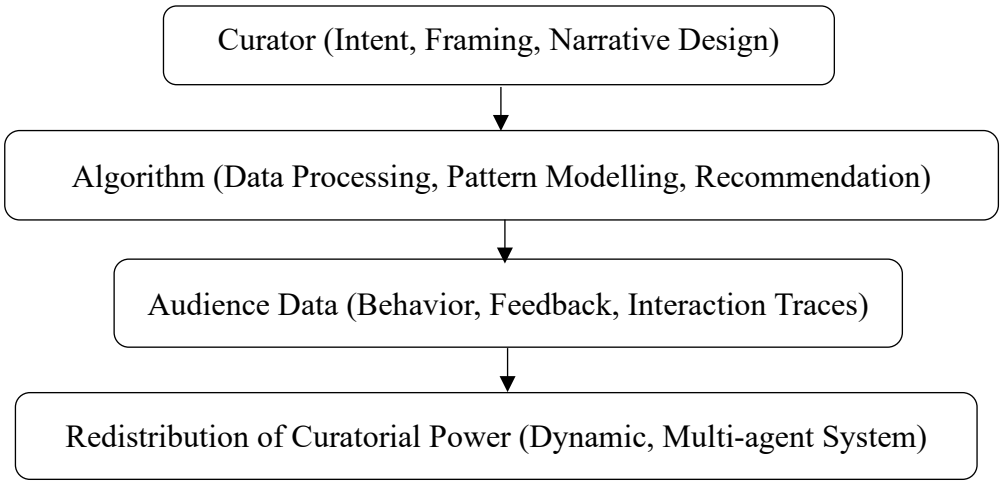
The third pattern relates to audience participation as a structural component of curation. Analysis of visitor interaction data across cases indicates that audiences contribute indirectly to curatorial outcomes through behavioral traces such as movement paths, interaction frequency, and engagement duration. These data streams are continuously fed back into AI systems, which then adjust content presentation and narrative sequencing. As a result, audiences are no longer positioned solely as end-users of exhibitions, but become data-generating participants whose aggregated behavior influences curatorial decisions over time. This pattern highlights a shift in the role of the audience from passive recipients to active, albeit indirect, contributors within the curatorial process.

Taken together, these three patterns point to a broader reconfiguration of curatorial power structures. Through cross-case synthesis, the analysis identifies a transition from a curator-centered model of authority toward a multi-subject configuration composed of human curators, algorithmic systems, and audience data. This configuration is characterized by iterative decision-making, distributed agency, and continuous feedback rather than unilateral control.

Based on this synthesis, Figure 1 is constructed to integrate the empirical patterns identified above into a conceptual model. The model visualizes how curatorial intent, algorithmic mediation, and audience data are linked through feedback loops and decision nodes, illustrating the process through which curatorial power is redistributed in AI-driven exhibition practices. Rather than representing a fixed hierarchy, the model reflects a dynamic structure derived from observed interactions across cases.

Figure 1

Conceptual Model of AI-Driven Curatorial Power Redistribution



Note: This conceptual model illustrates how curatorial intent, algorithmic mediation, and audience data interact to form a dynamic and multi-directional redistribution of curatorial power in AI-driven exhibition practices. Model created by the author.

5. Conclusion

Based on theoretical deduction and case analysis, this research points out that artificial intelligence is promoting the dynamic redistribution of exhibition discourse, so that curatorial power is no longer concentrated in a single subject, but a more fluid power allocation is formed between curators, data-driven algorithm systems, and audience behavior data. The intervention of artificial intelligence is therefore not only a technical adjustment but also represents a structural shift at the curatorial level. However, the cases used in this study are still limited, focusing on currently publicly available or available AI curation practices that may not fully reflect all types of technology application scenarios. In addition, with the rapid evolution of artificial technology, the power flow model proposed in this study needs to be continuously updated and revised with new curatorial techniques and institutional changes in the future.

6. Recommendations

Based on the analysis of the power structure of artificial intelligence intervention in curatorial affairs in this study, the future development of curatorial practice, institutional design and artificial intelligence systems needs to respond to the structural changes of curatorial power from a single subject to multi-subject collaboration. Firstly, at the level of curatorial practice, curators should not only view AI as a technological tool to improve efficiency but also incorporate it into a reflective framework for curatorial decision-making processes. Curators should clearly define which curatorial judgments can be assisted by algorithms, and which key narratives and value choices still need to be handled by human curators, so as to avoid curatorial discourse being misguided by technical logic in the process of insufficient data calculation. Secondly, at the institutional and organizational levels, it is necessary for cultural institutions and museums to establish a governance mechanism for "algorithmic curation", including the disclosure of curatorial data sources, the explanation of algorithmic recommendation logic, and the ethical norms for the scope of use of audience behavior data. Through institutionalized

normative design, artificial intelligence can no longer intervene in the curatorial process as a hidden technical operation but become a curatorial decision-making link that can be discussed and modified, thereby maintaining the responsibility of exhibition institutions in public knowledge production. Finally, at the AI system design level, future AI models for curation should not only focus on public interaction or dwell time but also take into account the visibility of cultural diversity and disadvantaged perspectives. By introducing curatorial value parameters into the algorithmic framework, AI has the potential to become a tool for promoting multicultural representation rather than simply promoting established preferences and mainstream aesthetics. I think only by simultaneously adjusting the three levels of curatorial practice, institutional management, and technical design, and the restructuring of power caused by artificial intelligence intervening in curation, can we have better reflection.

References

Covas, E. (2025). Curating art exhibitions using machine learning [Preprint]. arXiv. https://arxiv.org/abs/2506.19813v2

Foucault, M. (1995). Discipline and punish: The birth of the prison. Vintage Books.

Macdonald, S. (1998). Exhibitions of power and powers of exhibition. In S. Macdonald (Ed.), *The politics of display: Museums, science, culture.* Routledge.

Suiçmez, İ., Altinay, F., Dağlı, G., Zeng, H., Shadiev, R., İşlek, D., Danju, İ., & Altinay, Z. (2025). Artificial intelligence application for museum to experiential transformation of cultural heritage and learning. *Smart Learning Environments, 12*, 45. https://doi.org/10.1186/s40561-025-00404-2