

Business Model Innovation in Cultural Industries Driven by Digital Technology: Postprint

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Abstract

[Purpose] Business model innovation encompasses both innovation based on existing business models and the establishment of entirely new business models, exploring innovation in business models of the cultural industry within the context driven by digital technology.

[Method] This article defines the connotation and constituent elements of business models in the cultural industry, systematically reviews the evolution process of business models in the cultural industry, and seeks to explore the development trends of business models in the cultural industry.

[Results] Digital technology influences every aspect of the cultural industry, and business models in the cultural industry have consequently changed to adapt to the altered environment. The development of China's cultural industry has witnessed the emergence of five typical business models: industrial chain operation business model, pan-entertainment business model, large internet platform business model, brand leadership business model, and O2O business model.

[Conclusion] Optimization recommendations for business model innovation in the cultural industry driven by digital technology are as follows: building core product competitiveness and emphasizing intellectual property rights; relying on digital technology to accelerate enterprise transformation and upgrading; and grasping market demands to enhance customer satisfaction.

Full Text

Research on Business Model Innovation in Cultural Industry Driven by Digital Technology

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Abstract:

[Purpose] Business model innovation encompasses both innovating upon existing models and establishing entirely new ones. This paper explores business model innovation in the cultural industry within a digital technology-driven context. **[Method]** The article defines the connotation and components of cultural industry business models, traces their evolutionary trajectory, and identifies emerging development trends. **[Results]** Digital technology influences every facet of the cultural industry, compelling business models to adapt to this transformed environment. China's cultural industry development has witnessed the emergence of five typical business models: industry chain operation model, pan-entertainment model, internet platform model, brand leadership model, and O2O model. **[Conclusion]** Optimization recommendations for business model innovation driven by digital technology include: building core product competitiveness with emphasis on intellectual property rights; leveraging digital technology to accelerate enterprise transformation and upgrading; and grasping market demand to enhance customer satisfaction.

Keywords: digital technology; cultural industry; business model; cultural formats; industrial upgrading

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In recent years, China has significantly increased investment in new digital infrastructure such as internet and 5G technologies. Driven by digital technology, traditional cultural industries have begun transforming and upgrading toward digital cultural industries, while numerous emerging digital cultural formats have proliferated. Cultural enterprises exhibit characteristics of service immediacy, innovation, dissemination, and policy guidance, enabling them to satisfy contemporary customers' multifaceted and comprehensive spiritual and cultural needs while promoting national spiritual civilization construction and enhancing comprehensive national power. Against this backdrop, an increasing number of cultural enterprises have emerged and rapidly grown, even disrupting traditional business models and leading the entire cultural industry's development. In the face of rapidly changing economic circumstances, maintaining continuous transformation and innovation capabilities through new business models is crucial for enterprise survival and development. For contemporary cultural enterprises, business models represent key elements for healthy development and sustained value creation, holding significant importance for fostering new cultural formats and promoting cultural industry transformation and upgrading [1].

1. Connotation and Components of Cultural Industry Business Models

A business model represents the integration of operational and profit models—the means and pathways through which enterprises create, deliver, and capture value. Different business model choices directly determine different enterprise fates. A cultural industry business model refers to the organic combination of how cultural enterprises, under clear internal and external environmental conditions, create value, deliver value, and achieve profitability through cultural products or services that satisfy consumer needs.

Synthesizing relevant research from domestic and international scholars, cultural industry business models generally include elements such as customer segments, value proposition, channels and customer relationships, revenue streams and cost structure, core resources, and institutional guarantees.

1.1 Customer Segments

Customer segments refer to cultural enterprises' expectations regarding the populations and institutions they serve, encompassing mass markets, niche markets, segmented customer groups, diversified user bases, and multi-sided platforms. The fundamental task is identifying the key customers who are the objects of value creation. When constructing business models, cultural enterprises must first clarify their target customer segments and identify their specific needs.

1.2 Value Proposition

Value proposition involves providing different products and services according to different customer requirements, based on product uniqueness and differentiated services that reflect the economic value proposition of the cultural industry [2]. Additionally, due to the cultural industry's unique attributes distinct from other industries, it bears the function of transmitting spiritual culture, which reflects its social value proposition. The value proposition constitutes the core of the business model. Realizing the value proposition in the cultural industry also requires key activities and important partnerships [3]. Key activities primarily describe the forms, types, and sources of a firm's core operations, which bring changes to its profit model—for instance, how tourism enterprises design premium travel routes and cultural attractions. Important partnerships depict the network of suppliers, partners, and other relationships required for sustainable development, commonly categorized by theme into strategic cooperation based on competitive relationships, new partnerships for business expansion, and relationships ensuring solid supplier-buyer connections.

1.3 Channels and Customer Relationships

To successfully and rapidly deliver value propositions to target customer groups, cultural enterprises must construct connecting channels by establishing channel

pathways and customer relationships. Channel pathways refer to the marketing paths through which cultural enterprises promote themselves and deliver services. Customer relationships involve the connections enterprises establish with these customer groups. Traditional maintenance relies on company personnel, while modern approaches utilize smart devices. Customer relationship considerations include customers' own demands and expectations, how to establish effective connections with businesses, and the costs of maintaining these connections. With continuously improving digital technology, cultural enterprises should scientifically organize and analyze customer consumption information and preferences to strengthen these relationships.

1.4 Revenue Streams and Cost Structure

Revenue streams address how enterprises maximize profits and generate shareholder returns. Revenue considerations include why customers pay, how they make payments, and each revenue source's contribution rate. Business models depend partly on cultural enterprises' revenue conditions, involving income composition, growth and quality, and gross margins. Cultural enterprises must understand ratios between regular and incidental income, online versus offline revenue, and profit origins. During value proposition delivery, corresponding costs inevitably occur in value creation, provision, and relationship maintenance, including R&D innovation, content creation, and professional talent expenses. Creativity guarantees core competitiveness, making these costs essential. The price enterprises pay may involve capital, human resources, knowledge, technology, and other dimensions. Specific cost structures, their relative importance, and how cost items are arranged to achieve maximum value output and profit are crucial considerations. Cost levels and structure serve as important indicators for measuring business model effectiveness.

1.5 Core Resources

Core resources involve the competencies essential for sustainable development, helping enterprises gain customer trust and stimulate purchasing demand. Core resource considerations include what resources are needed to maintain customer relationships and distribute products. Different business models require different core resources, primarily involving physical resources, intellectual property, human resources, and financial assets.

1.6 Institutional Guarantees

As a knowledge-intensive industry, the cultural industry particularly requires intellectual property protection. Chen Shaofeng and Chen Xiaoyan (2013) argue that cultural industry business model construction should consider culture, technology, and management—where culture enhances technology, culture drives management, and management improves culture. Institutional guarantees constitute essential management content [4]. Digital technology security and stability remain controversial, with frequent piracy hindering cultural industry digital-

ization and obstructing application scenario expansion. Institutional guarantees run through the entire business model process, requiring not only intellectual property protection but also enhanced security and stability in digitalization, plus improved economic and non-economic benefits.

Changes in any component lead to business model transformation and affect innovation. Digital technology application promotes effective integration of internal and external environments, forming the cultural industry's core competitiveness.

2. Evolution and Innovation of Cultural Industry Business Models Driven by Digital Technology

Digital technology exerts strong impact on traditional cultural industries by affecting target customers, value propositions, and profit realization, providing conditions and platforms for transformation and upgrading. Currently, cultural industry innovation faces challenges including insufficient digital technology application, limited industrial integration, and over-reliance on traditional business models. Optimizing existing business models using digital technology is key to promoting healthy, sustainable development [10].

2.1 Evolution of Cultural Industry Business Models

In 2000, China officially adopted the concept of “cultural industry” and introduced relevant policies. In 2003, the Ministry of Culture issued the “Several Opinions on Supporting and Promoting the Development of the Cultural Industry,” defining it as “operational industries engaged in cultural product production and cultural service provision.” At this time, China's cultural communication channels were relatively singular, primarily through radio and television operating as public institutions. During this period, radio and television underwent conglomeration reforms, beginning upstream and downstream resource integration to connect various industry chain links, enabling scaled management trends [5]. After 2009, relevant cultural units underwent enterprise restructuring, introducing more social capital and adapting to market mechanisms to gradually establish market positions. However, due to limitations in economic, social, and internet technology development, business models remained relatively singular, with marketing mostly involving one-way communication. Target customers had limited choices, and enterprise resources could hardly improve production efficiency.

With internet technology development and the information age's arrival, the cultural industry established itself not merely as a single industry. In 2012, the central government first proposed establishing the cultural industry as a pillar industry for national economic development, emphasizing enhanced overall strength and competitiveness. In 2014, the state released five major policy incentives, promoting integrated development between cultural creativity, design services, and related industries. In 2015, the government explicitly proposed an

“Internet Plus” action plan. Internet-cultural industry integration disrupted traditional development, achieving diversified integration across cultural resources, products, and finance. Business models evolved toward internet platform-based approaches, utilizing digital technology for format and industry integration. Every link—from R&D and production, project operations, and advertising, to final delivery—operated through modern information technology’s open and shared characteristics. After 2015, China’s cultural industry entered a golden development period, demonstrating greater vitality and providing greater possibilities for business model improvement. Changes manifested in two aspects. First, industry chains became more extensive. Networked digital space broke traditional upstream limitations, granting the market more cultural products. The midstream chain, composed of cultural communication and service design enterprises, could better focus on customer needs and improve satisfaction. Downstream channels became more diversified, enabling audiences to access cultural works through multiple media. Second, marketing became more community-oriented. Marketing was no longer limited to single information channels; massive information products could reach broader audiences through network platforms. Consumers could even participate in cultural product design through company-customer interactions, transforming from passive recipients to active disseminators and experiencers [6].

Technology provides content, means, and momentum for the cultural industry, with digital technology becoming an important component of cultural productivity and a supporting force for transformation. As E. Schuurman stated: “Technology occupies an important position in modern, dynamic cultural reality. To a large extent, the future of our culture will be controlled and determined by technology” [7]. Technological change creates business opportunities through technological leadership. Digital technology has entered the entire process of cultural product and service creation, production, dissemination, and sales, creating new products, services, production processes, communication channels, and sales networks, and fostering new cultural formats. Simultaneously, information technology development increasingly transforms lifestyles and cultural consumption patterns, generating strong technology demand and consequently producing higher technical requirements for cultural products and services. Government promotion of technological innovation will provide more solid technical foundations for cultural industry technology penetration and cross-boundary integration, establishing an integrated innovation system where technology empowers the cultural industry, and reshaping business models.

Business models must adapt to dynamic market environments through timely improvement. Even successful models change due to technological progress and market shifts. Creativity and innovation constitute the value proposition of cultural industry business models, which should emphasize “content is king” and “innovation is king,” strengthening customer experiences. Due to rich cultural industry sub-sectors, diverse business models have emerged. Based on current development status, we summarize five typical models.

2.2 Five Typical Business Models

2.2.1 Industry Chain Operation Model The industry chain operation model is a common approach that efficiently covers the entire cultural industry value chain, integrating the complete chain from developing cultural creativity and producing cultural products to consuming products and realizing cultural value, thereby capturing market blue oceans and forming core competitive advantages. This model reduces transaction costs as enterprises master the entire process from creativity to products or services. Additionally, when crises occur in certain links, enterprises can rely on complete industrial chains to resist external threats and significantly reduce risks.

2.2.2 Pan-Entertainment Model The pan-entertainment model, also known as the IP-industry integration model, leverages integration within cultural fields and between culture and other fields, particularly relying on internet and mobile internet multi-domain symbiosis to establish new formats centered on star IP fan economy [8]. In recent years, with continuous internet technology upgrading, cultural product integration has become increasingly evident. Film, animation, music, and games no longer develop independently but can coordinate with each other, enabling IP-industry integration. Under this model, enterprises' core profit source is super IP, around which various entertainment activities are deployed to achieve multi-angle IP development and build more active, healthy new entertainment ecosystems.

2.2.3 Internet Platform Model The internet platform model is currently favored in the internet economy, subverting traditional cultural industry development models and significantly changing marketing channels and value realization [9]. The cultural industry's inherent characteristics of shareability and disseminability also increase its demand for internet platforms. Currently, more cultural enterprises adopt platform models, leading the industry toward a "platform economy" era. Internet platforms based on digital technology can help enterprises rapidly establish information networks, facilitating transactions between merchants and consumer groups. Simultaneously, through big data analysis, enterprises can understand various customer demands for cultural products, attract excellent resources and talent through platforms, and develop cultural products with higher customer satisfaction.

2.2.4 Brand Leadership Model Brands constitute important components of cultural industry development. Distinct from other products, a brand is a design, image, mark, and their combination, playing crucial roles in today's fierce market competition. Under the brand leadership model, the key is customer-centricity, understanding customer psychology, helping them recognize differences between brands, and generating brand resonance. This model can utilize corporate brands to develop projects and obtain policy financial support during fundraising, and authorize brands during operations to achieve industrial scaling through chain operations. Particularly through digital technology and internet

platform applications, operational costs can be reduced, brand empowerment can be leveraged, and high value-added product and service consumption can be designed and developed for multi-level, multi-domain market participation.

2.2.5 O2O Model In September 2015, the State Council issued the “Opinions on Promoting Online-Offline Interaction to Accelerate Innovation and Transformation in Commercial Circulation,” advocating that cultural tourism enterprises accelerate online implementation and promote integration between online consumption and offline operations. The cultural industry O2O model subsequently began rapid development. O2O refers to business models that drive offline operations and consumption through online marketing and purchasing. Online platforms primarily provide cultural service guides and product information, enabling consumers to complete purchases directly online. For example, an increasing number of tourist attractions use LED technology and intelligent wearable devices to provide consumers with immersive online experiences.

3. Optimization Suggestions for Business Model Innovation Driven by Digital Technology

3.1 Build Core Product Competitiveness, Emphasize Intellectual Property

Core competitiveness is the fundamental driving force for maintaining competitive advantages, and the fundamental purpose of business model innovation is enhancing core competitiveness. The cultural industry centers on knowledge and creativity. Without core brand or product advantages, cultural enterprises cannot achieve value appreciation. Today, IP resources are direct drivers of management innovation, transformable into consumer goods through effective commercial operation and industrial integration [11]. Cultural enterprises can build their intended corporate image into well-known IP based on internet platforms, continuously improve it, and connect multiple cultural industry fields such as film, drama, and literature to form new entertainment ecosystems, thereby optimizing business models. Specifically, enterprises can fully utilize internet big data for online product promotion and marketing, while offline promotion of core IP and brands through well-known exhibitions can deepen consumer impressions.

3.2 Leverage Digital Technology to Accelerate Enterprise Transformation and Upgrading

Digital technology development can promote cultural content representation and deconstruction, while culture itself can enhance the humanistic design concepts of digital technology. Internet and other digital technologies have fundamentally changed China’s internal industrial structure and promoted new combinations in the cultural industry. With powerful information technology, the cultural industry’s dependence on new technology has intensified. Enterprises can use

new media to integrate resources and expand industrial chains. New media, primarily based on digital technology, establishes cultural resource information networks, develops derivative cultural products around novel cultural creativity, creates diversified cultural forms using mobile internet and network technologies, and targets groups through big data analysis and cloud computing to promote cultural industry structure optimization and upgrading through science and technology.

3.3 Grasp Market Demand and Improve Customer Satisfaction

Customers and consumers, as the terminal link in the entire industrial chain, occupy crucial positions in corporate operations, profitability, and value realization, especially for cultural enterprises with high shareability and disseminability. Enterprises must adhere to the principle of “optimizing to maintain and expand target consumer groups,” promote innovation in digital product content, and satisfy people’s demands for cultural consumption upgrading [12]. This can be approached from two aspects: first, creating value according to target groups’ demands for cultural products and services; second, providing new value to consumers by extending the value chain to maximize advantageous value activities. Cultural creativity determines the extension direction of cultural products, requiring cultural enterprises to develop more novel cultural creativity beyond competitors. When consumers receive this value, they gradually develop loyalty and trust toward brands or products, enhancing corporate brand image while better equipping enterprises to address potential risks.

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Note: Figure translations are in progress. See original paper for figures.

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