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# **Esports business ecosystem and its lifecycle: a case study of Zhongxian Esports Town in China**

## **Abstract**

**Purpose:** This article aims to understand the evolution process (lifecycle) of an esports business ecosystem, with Zhongxian Esports Town in China as a case study.

**Design/methodology/approach:** A mix of primary and secondary qualitative data was collected. Primary data were gathered through 15 semi-structured interviews with respondents involved in the strategic development of Zhongxian Esports Town. Secondary data consisted of public policies and internal publications. Thematic analysis was applied, with four themes identified that align with four lifecycle phases.

**Findings:** In the birth phase (2017-2018), there was a gap between the early planning and the actual business ecosystem due to a lack of capabilities and knowledge about customers, leading to an eventual strategic focus on education. In the expansion phase (2018-2020), more stakeholders were attracted. However, conflicts and tension started to emerge among stakeholders due to limited supply capacity. In the authority phase (2020-2021), there was some evidence of authority being achieved, while new entrants forced their way into the ecosystem. In the last phase (2021-2023), the esports town encountered adverse policy changes. However, it was able to insert new ideas into the old order and therefore renew itself.

**Originality:** To the best of our knowledge, this research is the first to help understand the lifecycle of a Chinese esports town.

**Research limitations/implications:** The study analyses in-depth an evolving esports business ecosystem, providing valuable insights into its development trajectory and adaptability.

**Practical implications:** The manuscript helps inform decision-making and resource management for policymakers, business managers and other esports stakeholders.

**Keywords:** characteristic town, esports education, digital economy, Zhongxian.

**Article classification:** Research Paper

## 1. Introduction

On July 1, 2016, the Chinese government proposed to cultivate 1,000 unique “characteristic towns” across the country by 2020 (Chinese Government, 2016). These towns, situated in local characteristics, are different from other administrative districts in China such as designated towns, industrial parks, economic development zones and tourism areas, as their industry structure is based on both the secondary and tertiary industries being closely integrated, and their function includes production, life and ecology all at the same time (Wu *et al.*, 2018). Characteristic towns feature themes such as sport, traditional culture, leisure, education, technology, and esports. Esports towns are, therefore, towns that focus on the esports industry, aiming to attract and support the development of esports-related businesses in a clustered manner. They echo information and technology clusters outside China such as the Pangyo Techno Valley in South Korea (Hlee and Lee, 2023). Saudi Arabia has also recently proposed to build an esports city in the capital Riyadh as part of its “Saudi Vision 2030”, which is a comprehensive national strategy aimed at diversifying its economy (Tuting, 2023). The Saudi case presents some similarities with Chinese esports towns in terms of the involvement of their governments. Nevertheless, the Saudi case is only in its early stages, making Chinese esports towns a unique case to study to understand the roles of the government and other stakeholders and their co-evolution.

Since 2017, China has successively established seven esports towns. By investing billions of yuan in building esports towns, the Chinese government aims to further advance its ambition of leveraging esports for its economic, social, and political gains (Zhongxian People’s Government, 2023b). Nonetheless, government ambitions and investment do not always succeed in reaching desirable outcomes, as illustrated by some of these esports towns currently facing a financial crisis or being delisted and becoming ‘ghost towns’ (Daily Economic News, 2019). These mixed outcomes have raised critical questions about the effectiveness of esports towns as a policy-driven urban development approach initiated by local governments and their capacity to contribute meaningfully to China's broader economic and social objectives. Furthermore, the mixed outcomes suggest a need to better understand the trajectory of esports towns and the factors and actors (e.g., local government) impacting their evolution as a business ecosystem. While there has been an increasing scholarly interest in the field of esports, including from a business ecosystem perspective (Scholz, 2020), this perspective lacks a longitudinal approach, empirically informing how and why the ecosystem has evolved and reaches its current stage; and it does not focus on esports towns and the

interrelationships among stakeholders, hence suggesting two important gaps in current knowledge. Moreover, government-led business ecosystems such as the one covered in the present study have been understudied in the literature (Senyo *et al.*, 2024), indicating a third significant gap. Addressing these gaps has both theoretical and practical significance, as it can enlighten our understanding of key stakeholder relationships and their evolution over time in a government-led business ecosystem, as well as the interplay between co-creation and potential tensions and conflicts that impacts the overall esports business ecosystem.

We argue that it is important to examine esports towns from a longitudinal business ecosystem perspective for three reasons. First, a business ecosystem provides a comprehensive perspective for understanding an entire industry including its residing business networks (Priyono and Hidayat, 2024). It serves as a useful theoretical lens to enhance our understanding of esports towns in a systematic way. In other words, the perspective of the business ecosystem offers a new way to gain a panoramic view of the business structure in esports towns and the inter-organisational interactions. Second, analysing business ecosystems is critical to understanding problems faced by businesses (Pidun *et al.*, 2021). Exploring the dynamics of business ecosystems in esports towns may provide strategic insights into addressing the challenges and issues faced by a range of stakeholders, including local governments as initiators and the enterprises embedded within these ecosystems. Third, the evolution of business ecosystems that can be captured through a longitudinal approach will inform the future direction and strategic formulation of Chinese esports towns. By unpicking the lifecycle of an esports town as well as the dynamics of the key stakeholder relationships, we will be able to identify what works well and the challenges and opportunities faced by the stakeholders within the ecosystem at each stage. This approach aligns with the aim of this study, which is to understand the lifecycle of a Chinese esports town, with Zhongxian Esports Town in Chongqing as a case study. To this end, four research questions were developed to guide the study:

RQ1: How did Zhongxian Esports Town evolve as a business ecosystem?

RQ2: What factors and stakeholders influenced its evolution?

RQ3: How did key stakeholder relationships evolve?

RQ4: How did the interplay between co-creation and potential tensions and conflicts evolve?

We adopted the concept of business ecosystem and the four phases of its lifecycle proposed by Moore (1993, 1996) to support our research and generate insights about the evolution of an esports town. While this pioneering work has been criticised in the literature, it remains highly relevant to study a business ecosystem as it evolves (Hou and Shi, 2021).

## **2. Literature review**

### *2.1 Definition of business ecosystem*

Moore (1996, p. 19) defined a business ecosystem as ‘an economic community supported by a foundation of interacting organisations and individuals’ producing goods and services that are of value to customers. Stakeholders of a business ecosystem include suppliers and competitors, among others (Priyono and Hidayat, 2024). Over time, stakeholders jointly develop their capabilities and roles to align with the direction set by one or more central organisations, which need to be realistic and assess risks from the start (Adner, 2006), while allowing for diversification within the ecosystem (Carvalho *et al.*, 2012). Moreover, stakeholders are affected by both their internal capabilities and complex interactions with others, therefore, essentially relying on the overall health and performance of the business ecosystem (Geurts and Cepa, 2023).

Business ecosystems are composed of interdependent organisations at different levels (Priyono and Hidayat, 2024). In the ecosystem, different organisations interact with partners through internal effects and external influences while pursuing the common development of the business environment (Adner and Feiler, 2019). This is particularly true in emerging industries, where stakeholders interact with other players and the environment to perform complex behaviours (Geurts and Cepa, 2023). By observing the changes in business ecosystems, we can effectively analyse how stakeholders co-create and co-evolve.

### *2.2 Literature of business ecosystem in esports and related industries*

In the field of esports, recent literature has covered a business ecosystem perspective with the identification of relevant stakeholders. Scholz (2020) provided a useful categorization of the esports ecosystem with players at the centre and the identification of a range of stakeholders, namely game developers, professional players and teams, and tournament organisers as endemic actors; and non-endemic actors such as media, sponsors, investors, suppliers, providers, and shareholders. Peng *et al.* (2020) suggested that international and national

esports associations should be added to the stakeholder list identified by Scholz (2020) and highlight the involvement of governments in some countries.

Zhao *et al.* (2023) assessed the health and efficiency of esports as a business ecosystem in China based on productivity, robustness, and niche creation. They focused on specific stakeholders and their role in the business ecosystem, namely tournaments as the core actors, municipal governments as the keystones, esports clubs as the value dominators, Tencent (a media conglomerate) as the physical dominator, and real estate developers as the niche players. In their esports diplomacy model applied to China, Wong and Meng-Lewis (2023b) also underlined the relevance of relying on different stakeholders as esports (diplomacy) resources, while they identified cultural identity as one of their outcomes along with nation branding, country reputation, and attraction. Wong and Meng-Lewis (2023a) provided a comprehensive overview of the esports landscape before establishing that the full range of activities involved in creating esports can be divided into four main sectors constitutive of the esports industry value chain, namely upstream (production), midstream (distribution), downstream and derivatives industry (both about consumption). The latter includes esports education, which is of particular relevance to the present research.

While the recent literature on esports ecosystem helps identify key stakeholders and inform value co-creation, our study can benefit from insights gained in the literature on business ecosystem in esports-related industries such as sport, media and entertainment. For example, Kostovska *et al.* (2021) identified three levels of the media ecosystem: “ecosystem orchestrators” (direct suppliers and distributors), immediate environment of the firm, and actors at a distance from the firm. In their case study of the Mediapro crash in football media rights in France, Feuillet *et al.* (2024) highlighted the tension and conflicts between the key stakeholders (government and media companies), suggested that Mediapro failed to satisfy stakeholders at the first level of the media ecosystem proposed by Kostovska *et al.* (2021) and therefore did not reach the level of cooperation needed in its ecosystem. The authors emphasised the relevance of the concept of coopetition (that is, cooperation with competitors) and refer to a lack of coopetition and value co-creation in the case of Mediapro. These insights can inform success or failure in our case study.

### *2.3 Stakeholder relationships and co-creation in ecosystems*

The nature of a business ecosystem is shaped by the interaction of a multiplicity of stakeholders, each holding specific and individual identities. Through the action or input of

the network of stakeholders, the value of an ecosystem can be co-created (Sarasvuo *et al.*, 2022). Jones (2005) suggested a multi-stakeholder approach to discuss co-creation, acknowledging consumers, managers, employees, suppliers, distribution partners, media, competitors, non-government organisations, governments, and the public as key co-creating actors. The central premise was that value creation can be enhanced by addressing stakeholder interests and understanding what they find valuable (Freudenreich *et al.*, 2020). Despite the importance gained by the topic, it remains unclear to what extent stakeholders, at each stage of the lifecycle of an ecosystem, are willing to collaborate with each other for value co-creation and how value is created in stakeholder relationships (Tapaninaho and Heikkinen, 2022). Understanding this can contribute to explaining (the lack of) sustainability and stakeholder collaboration in an esports ecosystem.

#### *2.4 Theoretical background: the lifecycle of business ecosystem*

Moore (1993) analogised the lifecycle of business ecosystems through changes in biological ecosystems. Specifically, business ecosystems undergo the same kind of gradual change, which consists of four successive phases, that is, birth, expansion, authority, and renewal or death.

Birth is the phase of linking functionality to create a core product. For companies or organisations, it is necessary to establish a ‘proof of concept’, which means that they need to show through clear and unmistakable evidence that this will be a feasible alternative to the status quo (Wieninger *et al.*, 2020). Moreover, this stage involves establishing capabilities that create value more effectively, including a series of activities required to produce goods or services and bring them to the market (Pidun *et al.*, 2021).

Expansion is the stage with a core set of synergistic relationships and involves investing in increasing their size and scope. The business ecosystem must be able to recruit more stakeholders to reach a “critical mass”. The focus is on how to identify and gather the most ideal potential allies, perhaps the most powerful suppliers, and important distribution channels (Moore, 1993).

The authority stage focuses on embedding the contributions of participants into the ecological community. This entails a heightened process of cooperation and co-creation among stakeholders with a shared vision of the business ecosystem (Freudenreich *et al.*, 2020). Cooperation is particularly important at this stage because the sustainability of the business ecosystem depends on the operational logic, which is not necessarily permanent and there is

still a risk that it will be overthrown, possibly from regulatory changes, changes in the marketplace or customer interests, or even competition from more powerful business ecosystems (Moore, 1993).

The renewal or death stage is where the ecosystem must win the battle against gradual aging and prevent the existing business ecosystem from becoming obsolete. Business ecosystems should continually find ways to insert new ideas into the old order to remain competitive with alternatives (Wieninger *et al.*, 2020). Therefore, business ecosystems need to keep renewing themselves while observing updates or changes in the surrounding environmental scope conditions.

### **3. Research method**

#### *3.1 Research context: Zhongxian Esports Town*

In order to better understand the social phenomenon (in this case, the business ecosystem of the esports town), we selected a single case study to look at the business ecosystem of the Zhongxian Esports Town as an independent whole entity to be comprehensively analysed. Zhongxian Esports Town was identified as well suited for two reasons. First, Zhongxian was the first county in China to propose the concept of "esports town" and has gone through substantial changes over time (Zhongxian People's Government, 2021), which makes it an ideal case for an in-depth study of the evolution of a business ecosystem. Second, Zhongxian is in the remote Western part of China and one of the poorest regions in the country with limited public transportation access. It is interesting to find out how an economically deprived county has been able to establish and sustain an esports ecosystem. Figure 1 provides a visualisation of the esports town.





Figure 1 Visualisation of Zhongxian esports town

Source: Provided by an official from Zhongxian Esports Town (internal document, 2023).

### 3.2 Data collection

A mix of primary and secondary qualitative data was collected, contributing to data triangulation to ensure credibility and robustness (Patton, 2002). Primary data were collected between May 2021 and June 2022. A purposive sampling strategy was used to identify and select participants based on their ability to provide in-depth information related to the phenomenon of interest (Gentles *et al.*, 2015). Specifically, participants needed to meet the following criteria: a) working or located in the esports town and b) involved in its development via roles such as investors, business owners and policymakers. Fifteen semi-structured interviews were conducted with six business owners, six policymakers and three core executives, see Table 1. We terminated data collection when data saturation was reached, that is, similar information and comments were repeated by respondents.

Table 1 List of Interviewees

Interviewee	Role	Age	Gender
1	Esports policymaker	55	Male
2	Esports town core executive	39	Female
3	Esports business owner	42	Male
4	Esports town core executive	37	Male

<b>5</b>	Esports business owner	43	Female
<b>6</b>	Esports business owner	36	Male
<b>7</b>	Esports policymaker	45	Male
<b>8</b>	Esports business owner	36	Male
<b>9</b>	Esports business owner	33	Male
<b>10</b>	Esports policymaker	41	Male
<b>11</b>	Esports policymaker	46	Male
<b>12</b>	Esports policymaker	39	Male
<b>13</b>	Esports business owner	36	Male
<b>14</b>	Esports policymaker	38	Male
<b>15</b>	Esports town core executive	35	Male

The interview questions were guided by the four research questions provided in the introduction. All interviews were conducted face-to-face and ranged in duration from 90 to 120 minutes. Interviews were digitally recorded (with participant consent) and subsequently transcribed. All transcripts have been translated into English by the primary author (a native Chinese speaker), and the second author (another native Chinese speaker) carefully checked for linguistic accuracy. A total of 454 pages of data records were produced. Secondary data are mainly composed of public policies and internal publications. Overall, 136 documents were sampled and analysed. They covered government policies and documents retrieved from the central and local (Zhongxian) government websites (e.g., the State Council, Zhongxian People's Government), as well as media reports from the national and local news agencies (e.g., National Press and Publication Administration, Zhongxian Media Centre).

### *3.3 Data Analysis*

A thematic analysis was conducted to derive the findings. Following Braun and Clarke's (2006) six-step process, we analysed both primary and secondary data collectively. This process involved familiarizing ourselves with the data, generating initial codes, identifying initial themes, reviewing and refining themes, defining and naming themes—culminating in four final themes: "birth", "expansion", "authority", and "renewal", and synthesizing and presenting the results according to these lifecycle stages.

The coding process adopted a hybrid approach, combining deductive and inductive coding methods to ensure a comprehensive analysis (Braun and Clarke, 2006). This dual strategy was employed due to the complementarity of methods, with deductive coding providing a solid theoretical foundation, ensuring alignment with established frameworks, while inductive coding uncovered novel, context-specific insights. Accordingly, codes deductively generated directly reflected the lifecycle framework. Inductive coding identified emerging themes from the data, capturing the unique aspects of Zhongxian's esports ecosystem. Examples include "talent development", reflecting the need for talent reserves and supply capabilities, and "esports education", which highlighted the transition towards combining esports player training with academic development. These codes addressed elements that were not predefined by the theoretical framework. After completing both deductive and inductive coding, the results were integrated. For example, both "talent development" and "esports education" were categorised under the "birth stage", representing a shift of value proposition towards education provision and talent development in the initial development of the esports town. The two sets of codes were then compared, validated, and refined to ensure consistency with the theoretical framework or to address gaps in existing theories. This hybrid coding strategy balanced theoretical validation with data-driven discovery, providing a nuanced understanding of the business ecosystem lifecycle in Zhongxian Esports Town.

Table 2 summarises the phases, events, factors, outcomes and stakeholders relevant to our case study. Each phase is further illustrated with empirical data in the findings section.

	Phase one: Birth (2017-2018)	Phase two: Expansion (2018-2020)	Phase three: Authority (2020-2021)	Phase four: Renewal, not death (2021-2023)
Events	April 2017: announcement of investment of about RMB 4.5 billion in Zhongxian Esports Town 2017-2018: initial implementation	2018: <i>Several Policies and Opinions on Promoting the Development of the Esports Industry in Zhongxian</i> and investment of 1.5 billion yuan in the construction of an esports university 2019-2020: cooperation with 51 “shebao” (online platforms providing social insurance services)	2020: announcement that the esports town had realised an output value of 6.875 billion yuan and a tax revenue of 309 million yuan as of October 2020 (Zhang, 2020) 2021: esports university put into use (Zhongxian People’s Government, 2023b)	2021: <i>Circular on Further Strictly Managing and Effectively Preventing Minors from Becoming Addicted to Online Games</i>
Factors	Strategic importance to central government (Zhongzhou People’s Government, 2021) Policy agenda of ecological civilization and connecting Zhongxian with the outside world (Zhongxian People’s Government, 2021) Proof of concept vs. lack of internal capabilities (finance, attractiveness) and policymakers’ knowledge about customers (age difference, lack of familiarity with esports)	Expanding potential opportunities in relation to the esports education agenda Attempt to bundle key components (e.g., player training and esports university) Improving infrastructure Organising esports events Limited supply capacity	Evidencing and continuing to build reputation and authority New entrants forcing their way	Minors addicted to online games Chinese esports leagues increasing the minimum age for players Esports industry alone not enough to support the town
Outcomes	Centres initially planned disregarded Cooperation with esports businesses	New stakeholders attracted (e.g., webcasters)	Nationally recognised awards	14 years old cannot be trained as professional

	not reached Esports education as core of the ecosystem	Difficulties to meet demand (transportation, extended businesses, talent reserves)	Esports users online attracted Increasing popularity and influence External competitiveness improved	players anymore; focus on academic education instead Focus expanded to the pan-gaming circle
Stakeholders	Central and local governments Local businesses Esports customers	Local government Esports players and trainers Hope Education Group Esports businesses Esports spectators	Local government Esports players and trainers Esports university Esports businesses Esports spectators Award providers	Central and local governments Esports players and trainers Esports university Esports and other businesses (e.g., pan-gaming) Esports customers

Table 2 Overview of phases, events, factors, outcomes and stakeholders related to the lifecycle of Zhongxian esports town

## 4. Findings

### 4.1 Phase one: Birth (2017-2018)

#### 4.1.1 Proof of concept: esports as an effective means of developing the local economy

In line with the strategic policy initiated by the Chinese government regarding characteristic towns, in April 2017, the local government of Zhongxian announced an investment of RMB 4.5 billion in the construction of China’s first characteristic town centred on the esports industry. In Zhongxian, transportation is not convenient enough to widely support industries such as agriculture and manufacturing to connect with the outside world; therefore, it is in Zhongxian’s interest to look for opportunities in new industries (Zhongxian People's Government, 2021).

Esports serves as a new economy and a new form of business that has emerged in the digital era, which provides a great opportunity for Zhongxian to connect to its adjacent regions. This opportunity was confirmed by a respondent:

As a new industry that can radiate and drive a wide range of new industries, esports is both a new kinetic energy and windfall that will create more opportunities for our local economy (R14).

In line with the aforementioned reasons, Zhongxian has been vigorously developing the esports industry to explore new opportunities for local businesses (Zhongxian People's Government, 2021). Zhongxian began to build a characteristic esports town in the county, based on an ecological chain of the upper, middle, and lower reaches of the esports industry. As underlined by R7, "Focusing on the esports industry chain, Zhongxian has developed esports businesses in event holding, industry incubation, entertainment experience, talent training, etc. in the esports town." In November 2017, the Chongqing Zhongxian Esports Public Service Platform was officially launched, marking the birth of a business ecosystem characterised by both innovation and platform-based attributes, with the Zhongxian government being its initiator.

#### *4.1.2 Implementation difficulties: the lack of resource integration capabilities and knowledge about customers*

As the implementation stage started, tension started to build among stakeholders, primarily stemming from constraints in resource integration capabilities and a limited understanding of the esports industry. It soon occurred to the esports town leadership that some of the planning blueprints were unrealistic due to resource constraints, which led to many predesigned industrial value chains being disregarded. For example, R1 noted that:

The core reason the equipment park could not be launched lies in the lack of industrial support. In any business, enterprises are likely to choose locations with well-developed manufacturing ecosystems. Zhongxian has virtually no such support system for esports equipment manufacturing. Fully implementing the plan would incur extremely high costs, making it nearly impossible to achieve.

The underlying issue that has disrupted the implementation of Zhongxian's original plan was the low level of attractiveness of the city to esports businesses, investors, and spectators due to its poor economic status and infrastructure. Zhongxian has encountered the problem of not being able to reach resource integration through cooperation between esports head enterprises

and its esports town investment team, as raised by R1: “We got in touch with a potential investor, but the town was not developed enough to attract such a big investor, therefore, we failed to build a partnership.” As a result, a low level of value co-creation was achieved by the key stakeholders, as R3 summarised:

Unfortunately, the local government has underestimated the complexity of establishing an esports peripheral manufacturing base. The town lacked expertise in this area and external investors were hesitant to invest due to its economic status and inadequate esports infrastructure.

In addition to the lack of resource integration capabilities, there was a gap between what policymakers had in mind and what customers wanted. R6 shared their concern: “The people who are making this esports town, they're not the same generation as the young consumer group, and they are not interested in hearing and understanding what young people think.” This knowledge gap has not only caused tension between policymakers and practitioners but has also reduced the ability to co-create value between key stakeholders (policymakers and customers), hence constraining the esports town from optimising the value co-creation process.

#### *4.1.3 An eventual focus on esports education*

As a result of the stakeholder renegotiation, Zhongxian Esports Town turned to esports education as its core value proposition. R2 emphasised that “after a certain period of learning, we realised that Zhongxian cannot be the leader of the esports industry, so we changed the strategic focus to esports education, which is more in line with the town’s strengths.” This strategic pivot allowed Zhongxian to leverage its comparative advantages by redirecting efforts towards developing short-term education and training programs tailored to the esports industry. Esports education became the central component, connecting key stakeholders such as local training institutions, industry partners and government entities, and fostering a collaborative innovation system.

The practical experience of Zhongxian Esports Town during the birth phase highlights the dual role of government as both a facilitator and a potential source of constraint in the business ecosystem.

### *4.2 Phase two: Expansion (2018-2020)*

#### *4.2.1 More stakeholders’ involvement enabling co-creation in esports education*



At the start of phase two, the Zhongxian government issued the policy document *Several Policies and Opinions on Promoting the Development of the Esports Industry in Zhongxian* (Zhongxian People's Government, 2021). This policy document explicitly encouraged enterprises, talents and entrepreneurs to engage in esports, further expanding the stakeholder network in the esports town, hence favouring value co-creation between key stakeholders. The government continued to lead the expansion of this network and strengthen the value proposition of the esports town through esports education provision. For instance, in 2019, a major stakeholder (investor), the Hope Education Group, was introduced to invest 1.5 billion yuan in the construction of Chongqing Digital Industry Vocational and Technical College (see Figure 2).



Figure 2 Visualisation of Chongqing Digital Industry Vocational and Technical College  
Source: Zhongxian People's Government (2023a)

As mentioned by R1, this investment aimed to address the industrial shortage of esports talents by providing training courses to esports players and coaches. Two types of training were provided, including the esports college offering esports academic education and certification and the training centre focusing on market-oriented and skill-based practices, as underlined by R12:

The existence of the training centres helps the esports college to recruit students, and the esports college gives the academic accreditation and qualification for the players from the training centres.

This quote indicates that value co-creation between key stakeholders was achieved, hence favouring the expansion of the esports town. However, this expansion did not mean that tensions did not exist between these stakeholders. For instance, R3 noted: "The academic orientation of the esports college sometimes clashes with the market-driven needs of the training centre, leading to disagreements over course design and resource allocation."

#### *4.2.2 Integrating esports portfolios with enhanced infrastructure*

In addition to the establishment of the esports education facilities, the Zhongxian government has also built an esports venue aiming to expand its esports portfolio and enhance the town's infrastructure, as R1 noted:

The esports venue not only became an essential platform for hosting esports events, which expanded the town's esports portfolio, but also further attracted esports investment and enhanced the esports brand of the town.

During this stage, it was evident that further value co-creation had been achieved with more stakeholders and investors being introduced to the esports town. Indeed, over two years, the town had successfully introduced more than 20 upstream, midstream and downstream enterprises in the esports industry, such as "Yoozoo"<sup>1</sup>, "WuFeng Tech"<sup>2</sup> and "Datang Network"<sup>3</sup> (Zhongxian People's Government, 2020). Notably, among these cooperations, the one between Zhongxian Esports Town and Tencent aimed to organise esports events and enhance the influence of IP events such as the Yangtze River Three Gorges Esports Competition in the esports town (Zhongxian People's Government, 2019). Esports events hosted by Zhongxian included three consecutive National Mobile Esports Competition (CMEL) Finals, Global Esports Leaders (Yangtze River Three Gorges) Summit, CKEC China-Korea Esports Carnival, and 2020 CrossFire Championship Cup Finals, with the success in hosting the latter identified as boosting spectators (Zhao *et al.*, 2023).

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<sup>1</sup> A game development and publishing company.

<sup>2</sup> Digital marketing service provider.

<sup>3</sup> A company that develops mobile innovation platforms and incubates startup projects.



The esports events not only enhanced the brand influence of the esports town but also infused vitality into the diversity and development of its ecosystem.

#### *4.2.3 The difficulties to balance the surge in demand with limited supply capacity*

Despite a certain degree of "critical mass" being achieved, the expansion did not occur without difficulties, as there had been conflicts between the stakeholders, reflected by rapidly growing demand and supply capacity.

First, there had been difficulties in meeting transportation demands. For example, as raised by R6, the absence of high-speed rails and airports was a direct contributor to the low number of out-of-town students in the esports training segment. Such tension also directly contributed to the inaccessibility for non-local industrial talents to the Zhongxian Esports Town. As mentioned by R2, this indirectly affected the development of the diversity of the business ecological structure of Zhongxian Esports Town. Furthermore, the lack of diversified transportation choices led to high transportation costs for the talents needed by the enterprises in the town and hence, their unwillingness to choose the town to take up their jobs. This unwillingness explained the recruitment difficulties for the enterprises residing in the town, as suggested by R5:

Although Zhongxian is not very far from the city, if you don't have a car, it's not very convenient to get to places. Moreover, jobs in the esports industry can be very demanding. Sometimes we have to work till midnight. By then, the public transportation services would have terminated. This constraint has imposed restrictions on our recruitment plans.

Second, the lack of extended business support has also led to some stakeholders choosing to move out, as mentioned by R1:

Some businesses chose to move out of the town due to the lack of extended businesses in our esports town, for example, some of our staff may want to order a takeaway, or go for shopping and leisure activities, and there is simply no place for them to go.

Other stakeholders have echoed the concern that most employees in the esports industry are relatively young, and Zhongxian lacks the living conditions and services aligned with their lifestyle preferences. This mismatch has contributed to a significant talent drain. In other words,

there was a clear tension between the stakeholders' demands and the town's capacity to meet them.

Third, there were conflicts between stakeholders, such as enterprises seeking talent and the town's limited talent pool. This shortage made it challenging for companies already established in the town to recruit, and the inability to find suitable candidates became a significant factor contributing to some companies leaving the esports town. For instance, one company decided to exit after just one year, with R3 highlighting the primary reason being 'its inability to recruit relevant staff.' Other interviewees, such as R1 and R5, noted that businesses struggled not only to attract talent but also to retain them.

#### *4.3 Phase three: Authority (2020-2021)*

##### *4.3.1 Evidence of authority being achieved*

Despite the aforementioned struggles, over a few years of development, both venues and infrastructure construction of the esports town had been much improved, and the digital economy led by the esports industry became a new engine to promote the economic development of the county. As of October 2020, Zhongxian Esports Town had realised an output value of 6.875 billion yuan and a tax revenue of 309 million yuan (Zhang, 2020). In addition, Zhongxian Esports Town had become famous not only for its Three Gorges Harbor Esports Arena but also the Chongqing Digital Industry Vocational and Technical College, which features esports as a taught course and was put into use in 2021 (Chongqing Municipal People's Government, 2023).

The esports town project has also been widely recognised at different levels in China, for example, the Three Gorges Harbor Esports Arena was awarded the Luban Prize; Zhongxian Esports Town was awarded the title of "Chongqing Digital Economy (Esports) Industry Demonstration Park" (Zhongxian People's Government, 2021). Additionally, thanks to the successful digital transformation of Zhongxian Esports Town, the Chongqing Municipality decided to include the Esports Town as one of its digital content industry clusters. The Zhongxian Esports Town project was also selected as one of the National Preferred Sports Industry Projects (Zhangzhou People's Government, 2021). With its reputation and authority continuing to be built, Zhongxian also attracted hundreds of millions of esports users online by organising consecutive esports events at the Three Gorges Harbor Esports Arena. The popularity and influence of Zhongxian's esports IP had been increasing, as R7 mentioned:

The digital economy of Zhongxian centred on the esports industry has shown a good trend of influence, potential, output value and tax revenue, and is becoming an icon for esports town development in the country.

#### *4.3.2 New entrants forcing their way into the business ecosystem*

Although Zhongxian Esports Town gained some authority, it still faced the challenge of the alternation of participants in the business ecosystem. For example, in 2021, YiLai Esports<sup>4</sup> acquired DuoKui<sup>5</sup>, an early entrant into the esports town, and became the largest stakeholder in the player training division of Zhongxian Esports Town. R8 stated the reason behind such acquisition:

Compared with DuoKui, YiLai Esports was more efficient in tailoring its services to younger, tech-savvy audiences, adapting its offerings to align with evolving market demands therefore being able to gain dominance in the ecosystem.

DuoKui's inadaptability to the new market made it less prominent in the esports town ecosystem, especially in facing the new entrant, YiLai Esports, which soon became the technological flagship in China. As YiLai Esports took the leadership of the esports training provision, the Zhongxian Esports Town business ecosystem became the largest esports academy in Asia (Sina News, 2022), further consolidating its authority in esports education sector.

At this point, Zhongxian further positioned esports education as its core resource, leveraging a dual synergy mechanism between events and education to enhance the irreplaceability of these resources.

#### *4.4 Phase four: Renewal, not death (2021-2023)*

##### *4.4.1 Adverse external changes*

For Zhongxian Esports Town, a sudden change in policy led to an almost devastating blow. A series of social problems arose alongside the rapid development of China's esports industry, including minors becoming addicted to online games. As a result, China's State Press and

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<sup>4</sup> YiLai Holdings Group is a cultural and entertainment enterprise with a strong focus on esports and digital media industries.

<sup>5</sup> DuoKui Esports is a brand under Chongqing DuoKui Cultural Media Co., Ltd., specialising in esports education, event management, and digital content development. Its core businesses include esports training, competition organisation, venue management, and game development.

Publication Administration issued the circular on *Preventing Minors from Becoming Addicted to Online Games* in 2019, which stipulates that the length of time that online game companies can provide gaming services to minors should not exceed a cumulative total of three hours per day on legal holidays, and a cumulative total of 1.5 hours per day at other times (National Press and Publication Administration, 2019). Two years later (2021), China's State Press and Publication Administration issued another circular on *Further Strictly Managing and Effectively Preventing Minors from Becoming Addicted to Online Games* (Chinese Government, 2021), which further tightened the restrictions on the age and the amount of time that youth esports players are allowed to play videogames.

As a response to these policy changes, Chinese esports leagues increased the minimum age for players. This modification directly brought tension to the Zhongxian Esports Town business ecosystem, which is centred on the training of professional players, as confirmed by R6:

Clubs only need players who are 18 years old or older, but we have 14-year-old students who want to compete. The reality is that clubs cannot recruit them, which has a significant impact on both the clubs and the players.

As the primary stakeholder in the ecosystem, the government has reshaped, if not entirely disrupted, the value co-creation chain of the esports town.

#### *4.4.2 Inserting new ideas into the old order or “new order”*

In response to the adverse external changes, Zhongxian Esports Town had no choice but to adjust the structure of its business ecosystem, no longer focusing on the cultivation of professional esports players. Instead, it turned to academic education for local and neighbouring counties. Interviewees such as R3 emphasised that:

The demand for training centres for professional players is no longer as strong as it used to be. For 14-year-olds who are not yet eligible to work or join clubs, obtaining a degree becomes essential. As a result, we are gradually integrating these training programs into secondary and higher education levels.

In response to the national policies, stakeholders within the esports town have realigned their strategic goals to adapt to the new circumstances. By shifting their focus towards esports academic education, they are now exploring new opportunities for value co-creation. Consequently, the esports town has begun to develop talents for the game industry chain through academic education. Interviewees expressed that the Chinese government's decision

to lift restrictions on game license numbers would directly result in “an increase in the volume of game development” (R3). Given that game development requires a significant number of artistic talents, “the next phase of game art training will take place in Zhongxian, with the initial focus on modelling, original artwork, and scene design” (R8).

Moreover, the stakeholder network of the town recognised that the esports industry alone could not sustain the town and believed that the ecosystem could benefit from broadening its business range to the wider gaming industry, as R2 pointed out:

The content of esports was insufficient to support such a large volume of consumers in the town, so we decided to shift our focus back to the broader gaming ecosystem.

As a result, Zhongxian Esports Town, together with its stakeholder network, continued to evolve towards a more sustainable business ecosystem responding to the ever-changing external and internal environment. As Carvalho *et al.* (2012) noted, diversification strategies exhibit a significant ‘buffering effect’ when addressing external shocks. This strategic renewal by Zhongxian not only demonstrates the town’s adaptability but also highlights the importance of diversification in enhancing the resilience of its business ecosystem.

## **5. Discussion and Conclusion**

### *5.1 Answers to the research questions and link to the literature*

This article aimed to understand the lifecycle of a Chinese esports town (that is, how and why it evolved as it did), with Zhongxian Esports Town as a case study. This case is typical of a government-led business ecosystem, which has been understudied in the literature (Senyo *et al.*, 2024). The findings highlight the distinct characteristics and limitations of a government-led business ecosystem. Driven by government policies, we observed an acceleration in the initiation of the esports ecosystem, that is, an ambitious plan centred around the government has been put forward. However, limitations with a government-led ecosystem were soon revealed. Specifically, problems of ‘overestimated goals’ emerged in the strategic planning, which led to a shift in the town’s value proposition at the birth stage. This relates to the initial evolution of the esports town, therefore addressing RQ1. Adner (2006) noted a managerial pitfall in the initial stage of building an ecosystem, which includes the tendency to set unrealistic goals and overlook critical nuances in the stakeholder relationships. This misstep was evident in Zhongxian Esports Town, with evident discrepancies being identified between government-led strategic priorities and commercial stakeholders' (e.g., investors) market-

driven expectations. This relates to the initial influential factors and stakeholders, which addresses RQ2. These gaps ultimately exacerbated tensions among stakeholders and highlighted the inherent complexities of ecosystem coordination. This relates to the initial evolution of key stakeholder relationships and the interplay between co-creation and tensions, therefore addresses RQ3 and RQ4, consistent with Feuillet et al. (2024). Consequently, this phenomenon necessitates resource re-evaluation and strategic adjustment to ensure alignment between strategic goals and actual resource capabilities (Priyono and Hidayat, 2024).

Moreover, it was evident from the findings that the stakeholder relationships have gone through various stages of change, from dissatisfaction, conflicts and tension to collaboration and value co-creation. This relates to the later evolution of key stakeholder relationships and the interplay between co-creation and tensions, therefore addresses RQ3 and RQ4, in line with Sarasvuo et al. (2022). Specifically, within the government-led model, mismatches in transportation infrastructure, supporting facilities, and talent mobility triggered conflicts and dissatisfaction among stakeholders. This relates to the later influential factors and stakeholders, therefore addresses RQ2. Consequently, overcommitment by the leaders eroded trust among ecosystem stakeholders, thereby hindering the implementation of the initial plan. However, the government quickly revised strategic goals and adapted resource allocation by focusing on esports education, which provided opportunities for stakeholders to align their capabilities with the town's strengths and redefine their roles in the ecosystem. This relates to the later evolution of the esports town, therefore addresses RQ1. The synergistic interactions between the esports university and the training centre exemplify the process of value co-creation and coopetition relationships, therefore addresses RQ1 to RQ4. This insight demonstrates the importance of aligning the strategic goals of stakeholders in the ecosystem to ensure ecosystem sustainability (Freudenreich et al., 2020).

## *5.2 Theoretical implications*

Our paper has both theoretical and practical implications. From a theoretical perspective, it first addresses the knowledge gap in understanding esports towns from a business ecosystem perspective. While this perspective has already been applied to the esports industry, including in China (Zhao et al., 2023), to the best of our knowledge, our research is the first to provide an in-depth account of the different stakeholders and their relationships in an esports town through a business ecosystem lens. Specifically, using this lens helps identify the conflicts and tensions but also the collaborations and value co-creation among stakeholders, as well as the

importance of strategic alliances among different stakeholders, therefore bringing an original theoretical approach to the study of esports.

Second, our article empirically addresses the challenge of studying a dynamically changing business ecosystem through a longitudinal approach. Hou and Shi (2021) stressed that the literature missed the opportunity to apply Moore's (1996) ecosystem as coevolution. Our research covers this gap in knowledge by applying the four phases of Moore's (1993, 1996) business ecosystem lifecycle to Zhongxian Esports Town, hence providing a longitudinal account of how and why the esports town evolved the way it did. By investigating the dynamics of stakeholder relationships, we added business ecosystem-as-coevolution perspective to current esports literature and demonstrated that the ecosystem has been constantly evolving and therefore addressing the significance of diversification of and resilience capability by stakeholders.

Third, our study advances our understanding of industrial clusters such as esports towns in a non-Western context. While the development of characteristic towns in China has already been covered in the literature (Wu et al., 2018), our research provides further insights about the difficulties of developing industrial clusters in geographical areas that are remote and with limited economic development and public transportation. It suggests the need to align the focus of the business ecosystem with the local strengths, which in the case studied are related to education.

Finally, the renewal stage in this study challenges traditional lifecycle theories that perceive this stage merely as one of maintenance (Moore, 1996). Zhongxian's practices illustrate how the renewal stage can become a launchpad for new growth through diversification and resource redistribution. Zhongxian Esports Town highlights the dynamic interplay between different stages of the lifecycle. This evolution underscores the importance of iterative learning and adaptation across the ecosystem lifecycle (Priyono and Hidayat, 2004).

### *5.3 Practical implications*

Our manuscript also provides practical implications for policymakers, business managers and other esports stakeholders pertaining to their decision-making and resource management at critical junctions of esports development. For example, our study demonstrated the importance of a systemic and diversified approach towards building an esports business ecosystem. This approach includes introducing a wider range of stakeholders who can provide various products and services for the development of the esports town. For instance, the primary stakeholder

networks such as investors and policymakers play a crucial role in strategically defining the identity of the town and providing transportation services and living amenities that are essential in affecting people's choices of moving into the town.

Additionally, by diversifying the esports portfolio through providing both esports events and education, Zhongxian was able to sustain its ecosystem resilience, especially when facing the external policy shock at the renewal stage. More generally, Zhongxian's approach to resolving ecosystem sustainability issues involves re-examining the strengths and weaknesses of the town, timely readjusting their strategy, and creating platforms for stakeholders to collaborate. This approach provides a practical example for other government-led ecosystems to navigate similar growth setbacks.

For existing businesses within the esports town, fostering collaboration with educational institutions and event organisers can create long-term synergies, enhance brand influence, and solidify their role in the business ecosystem. Meanwhile, for external enterprises considering entry, aligning their business models with the town's evolving esports and digital economy focus can help them tap into a growing market and establish a competitive foothold.

Furthermore, policymakers should carefully assess the impact of their decisions on industrial clusters such as esports towns and, if required, provide some flexibility in the policies implemented. To illustrate the need for flexibility, in relation to the strict restrictions on playing video games decided in China, some exceptions could have been considered for talented young esports players with the potential to pursue a professional career. Implementing exceptions could have limited the negative impact of the adverse policy changes on esports towns, as the Chinese esports leagues would not have had to increase the minimum age for players, and therefore esports towns such as Zhongxian Esports Town and their business managers would not have been constrained in their training of professional players.

#### *5.4 Limitations and future directions*

The present study has some limitations, opening the door to directions for future research. First, the results found may be influenced by the specific period covered (2017-2023), which was impacted by the Covid-19 pandemic. While interviewees and the documents consulted did not explicitly refer to the impact of the pandemic, it may have had an adverse effect on the financial resources available, the ability to build the public transportation needed, as well as the possibility to travel to Zhongxian. A follow-up study on Zhongxian Esports Town would be



useful to observe the later evolution of its business ecosystem and assess retrospectively whether Covid-19 may have had an impact on its earlier lifecycle.

Second, our findings may be specific to Zhongxian Esports Town and its focus on education. Further research could cover other esports towns in China or esports ecosystems in different countries to better understand the similarities and differences across esports ecosystems and countries. Extending to other cases could help inform decisions by policymakers and business managers not only during the different stages of an esports ecosystem lifecycle but also regarding the suitability of a specific location for creating a new esports ecosystem.

Third, esports towns may be a very specific case of characteristic towns due to the recency of the esports industry. Therefore, the replicability of the findings to other industries could be limited. Future studies about other industrial towns or clusters may also adopt the concept of business ecosystem and the four phases of its lifecycle proposed by Moore (1993, 1996) to generate new insights into the evolution of business ecosystems. We consider that the approach taken in the present paper has allowed us to derive original and valuable findings. Its application to other industrial clusters, for example, clusters relying on the internet, may similarly lead to innovative and informative results.

In conclusion, while we acknowledge the limitations of the current article, we believe it represents an important contribution to knowledge by applying a longitudinal approach to the esports ecosystem perspective and covering esports towns, two dimensions neglected by the literature so far. The implications derived from our findings are key to esports stakeholders such as policymakers and business managers. Future research will be able to build from our study to uncover new insights and further advance knowledge on how esports towns or ecosystems and other business ecosystems can effectively sustain their existence.

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